

SUMMARY OF NEW LOS ALAMOS NATIONAL LABORATORY GROUNDWATER DATA LOADED IN OCTOBER 2008

INTRODUCTION

This report provides preliminary information to the New Mexico Environment Department (NMED) concerning recent groundwater monitoring data obtained by the Los Alamos National Laboratory (the Laboratory) under its interim monitoring plan. This report contains results for chemical constituents that meet the seven screening criteria laid out in the Compliance Order on Consent (Consent Order), modified May 13, 2008. The report covers groundwater samples taken from wells or springs (listed in the accompanying table) that provide surveillance of the groundwater zones indicated in the table.

The report includes one table, *Table 1: NMED 10-08 Groundwater Report*. This table contains numerous values, often because new data are reported when they are detected for the first time since June 14, 2007, or are greater than other data collected since that time (as specified in the Consent Order). These reported data are often similar to data gathered before June 14, 2007. Over time, the data that exceed the reference data are expected to be reduced substantially.

This table includes additional comments on the significance of the results for those that appear to be exceptional or are first-time occurrences of results based on considering monitoring data acquired before June 14, 2007 (using statistics described below).

The table contains supplemental information summarizing monitoring results obtained before June 14, 2007.

The table includes sampling date, the name of the well or spring, the location of the well or spring, the depth of the screened interval, the groundwater zone sampled, analytical result, detection limit, values for regulatory standards, and analytical and secondary validation qualifiers. Additional information describing the locations and analytical data is also included. All data have been through secondary validation. The definitions for abbreviations in the table may be found at <http://www.lanl.gov/environment/all/racer.shtml>.

In accordance with the Consent Order, the screening levels used include the U.S. Environmental Protection Agency (EPA) maximum contaminant levels (MCLs), the New Mexico groundwater standards, and the EPA Region 6 tap water screening levels (for compounds having no other regulatory standard). In the table, the EPA Region 6 tap water screening levels are identified as being for cancer (10^{-5} excess) or noncancer risk values. The data were screened using 10 times the EPA's 10^{-6} excess cancer risk values, as indicated in Section VIII.A.1 of the Consent Order.

Background levels applied in Criteria 2 and 5 are the most recent NMED-approved 95% upper tolerance limits for background for each groundwater zone as set forth in the "Groundwater Background Investigation Report," prepared under Section IV.A.3.d of the Consent Order.

Criteria 5 and 6 involve conclusions based on four consecutive samples. No results are included for these criteria in the table because few locations have been sampled a sufficient number of times since June 14, 2007, to meet the criteria.

DESCRIPTION OF TABLE

The table is divided into separate categories that correspond to the seven screening criteria in the Consent Order: these are labeled (in the first column) C1 through C6 for the numbered criteria and CA for

cases where the concentration of a constituent in a well screen or spring has not previously exceeded either the New Mexico Water Quality Control Commission (NMWQCC) standard or the federal MCLs. Some data meet more than one criterion and appear in the table multiple times. The criteria are as follows:

- CA. The Respondents shall notify the Department orally within one business day after review of the analytical data if such data show detection of a contaminant in a well screen interval or spring at a concentration that exceeds either the NMWQCC water quality standard or the federal MCL if that contaminant has not previously exceeded such water quality standard or maximum contaminant level in such well screen interval or spring.
- C1. Detection of a contaminant that is an organic compound in a spring or screened interval of a well if that contaminant has not previously been detected in the spring or screened interval.
- C2. Detection of a contaminant that is a metal or other inorganic compound at a concentration above the background level in a spring or screened interval of a well if that contaminant has not previously exceeded the background level in the spring or screened interval.
- C3. Detection of a contaminant in a spring or screened interval of a well at a concentration that exceeds either one-half the New Mexico water quality standard or one-half the federal maximum contaminant level, or if there is no such standard for the contaminant, one-half the EPA Region 6 human health medium-specific screening level for tap water, if that contaminant has not previously exceeded one-half such standard or screening level in the spring or screened interval.
- C4. Detection of perchlorate in a spring or screened interval of a well at a concentration of 2 µg/L or greater if perchlorate at such concentration has not previously been detected in the spring or screened interval.
- C5. Detection of a contaminant that is a metal or other inorganic compound in a spring or screened interval of a well at a concentration that exceeds 2 times the background level for the third consecutive sampling of the spring or screened interval.
- C6. Detection of a contaminant in a spring or screened interval of a well at a concentration that exceeds either one-half the New Mexico water quality standard or one-half the federal MCL, and that has increased for the third consecutive sampling of that spring or screened interval.

The next seven columns of the table give information on monitoring results obtained over a longer time frame than samples collected after June 14, 2007. The columns provide summary statistics on for the samples collected since January 1, 2000, for the same analyte and field preparation (for example, filtered samples). The information includes the date of first sampling event included in the statistics, the numbers of sampling events and samples analyzed, the number of detections, and the minimum, maximum, and median concentration for detections. This information indicates whether the new result is consistent with the range of earlier data.

The subsequent columns contain location and sampling information:

Hdr 1—canyon where monitoring location is found

Zone—groundwater zone sampled by monitoring location (such as alluvial spring)

Location—monitoring location name

Port Depth—depth of top of well screen in feet (0 for springs, -1 if unknown)

Start Date—sample date

Fld QC Type Code—identifies samples that are field duplicates (definitions for these and other abbreviations may be found <http://www.lanl.gov/environment/all/racer.shtml>)

Fld Prep—identifies whether samples are filtered or unfiltered

Lab Sample Type Code—indicates whether result is a primary (customer) sample or reanalysis

Anyl Suite—gives analytical suite (such as volatile organic compounds) for analyzed compound

Analyte Desc—name of analyte

Analyte—chemical symbol for analyte or CAS (Chemical Abstracts Service) number for organic compounds

Std Result—the analytical result in standard measurement units

Result/Median—the ratio of the Std Result to the median of all detections since 2000

LVL Type/Risk Code—the type of regulatory standard, screening level, or background value (indicating groundwater zone) used for comparison

Screen Level—the value of the LVL Type/Risk Code

Exceedance Ratio—the ratio of Std Result to LVL Type/Risk Code

Std Mdl—the method detection limit in standard measurement units

Std UOM—the standard units of measurement

Dilution Factor—amount by which the sample was diluted to measure the concentration

Lab Qual Code—the analytical laboratory qualifiers indicating analytical quality of the sample

Concat Flag Code—concatenated secondary validation qualifiers produced by an independent contractor who reviews data packages, verifying, for example, that holding times were met, that all documentation is present, and that analytical laboratory quality control measures were applied, documented, and kept within contract requirements

Concat Reason Code—concatenated secondary validation codes explaining assignment of qualifiers

Anyl Meth Code—analytical method number

Lab Code—analytical laboratory name

Comment—a comment on the analytical result

Table 1: NMED 10-08 Groundwater Report

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Fid QC Type Code	Fid Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C1	8	8	04/02/01	2.8	2.8	2.8	1	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAUZ-1	5.35	08/25/08		UF	CS	VOA	Acetone	67-64-1		2.8	1.00	EPA TAP SCRNLVL N	5475	0.0	1.3	ug/L	1	J	J	V7c	SW-846:8260B	GELC	
C1	9	11	08/24/05	4.76	5.15	4.955	2	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-6i	602	08/27/08	FD	UF	CS	VOA	Acetone	67-64-1		4.76	0.96	EPA TAP SCRNLVL N	5475	0.0	1.3	ug/L	1	J	J	V7c	SW-846:8260B	GELC	
C1	9	11	08/24/05	4.76	5.15	4.955	2	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-6i	602	08/27/08		UF	CS	VOA	Acetone	67-64-1		5.15	1.04	EPA TAP SCRNLVL N	5475	0.0	1.3	ug/L	1		J	V7c	SW-846:8260B	GELC	
C1	7	7	07/26/06	1.51	1.51	1.51	1	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	LAOI-3.2a	181.4	09/05/08		UF	CS	VOA	Carbon Disulfide	75-15-0		1.51	1.00	EPA TAP SCRNLVL N	1042.9	0.0	1.3	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	8	11	11/15/05	2.27	2.27	2.27	1	Lower Los Alamos Canyon (San Ildefonso Pueblo)	Regional	R-24	825	08/26/08		UF	CS	VOA	Acetone	67-64-1		2.27	1.00	EPA TAP SCRNLVL N	5475	0.0	1.3	ug/L	1	J	J	V7c	SW-846:8260B	GELC	
C1	5	7	08/29/07	0.051	0.051	0.051	1	Sandia Canyon	Regional	R-35b	825.4	08/12/08		UF	CS	PEST/PCB	Aroclor-1254	11097-69-1		0.051	1.00	EPA PRIM DW STD	0.5	0.1	0.035	ug/L	1	J	J	J_LAB	SW-846:8082	GELC	Only detection of 7 samples; not in field duplicate
C1	12	13	06/23/05	2.11	2.11	2.11	1	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Intermediate	MCOI-4	499	08/19/08		UF	CS	VOA	Methylene Chloride	75-09-2		2.11	1.00	EPA PRIM DW STD	5	0.4	2	ug/L	1	J	J	V7a	SW-846:8260B	GELC	
C1	12	12	02/09/04	2.5	4.02	3.26	2	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Regional	R-14	1204.5	08/20/08		UF	CS	VOA	Acetone	67-64-1		4.02	1.23	EPA TAP SCRNLVL N	5475	0.0	1.3	ug/L	1	J	J	V7c	SW-846:8260B	GELC	
C1	2	4	06/09/08	1.46	1.58	1.52	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-5	14.7	09/08/08		UF	CS	VOA	Toluene	108-88-3		1.46	0.96	NM GW STD	750	0.0	0.25	ug/L	1				SW-846:8260B	GELC	
C1	2	4	06/09/08	1.46	1.58	1.52	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-5	14.7	09/08/08	FD	UF	CS	VOA	Toluene	108-88-3		1.58	1.04	NM GW STD	750	0.0	0.25	ug/L	1				SW-846:8260B	GELC	
C1	2	4	06/09/08	6.38	7.46	6.92	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-5	14.7	09/08/08	FD	UF	CS	VOA	Butanone[2-]	78-93-3		6.38	0.92	EPA TAP SCRNLVL N	7064.5	0.0	1.3	ug/L	1		J	V7c	SW-846:8260B	GELC	
C1	2	4	06/09/08	6.38	7.46	6.92	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-5	14.7	09/08/08		UF	CS	VOA	Butanone[2-]	78-93-3		7.46	1.08	EPA TAP SCRNLVL N	7064.5	0.0	1.3	ug/L	1		J	V7c	SW-846:8260B	GELC	
C1	2	3	06/22/08	3.03	3.03	3.03	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7a	9.7	09/08/08	FD	UF	CS	SVOA	Bis(2-ethylhexyl)phthalate	117-81-7		3.03	1.00	EPA PRIM DW STD	6	0.5	2.2	ug/L	1	J	J-	SV3a	SW-846:8270C	GELC	Not found in primary sample
C1	1	1	04/03/08	7.47	7.47	7.47	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	CS	HEXP	RDX	121-82-4		7.47	1.00	EPA TAP SCRNLVL C-5	6.112	1.2	0.13	ug/L	2		J	HE7c	SW-846:8321A_MOD	GELC	
C1	1	1	04/03/08	33.3	33.3	33.3	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	DL	HEXP	HMX	2691-41-0		33.3	1.00	EPA TAP SCRNLVL N	1825	0.0	0.52	ug/L	10		J	HE7c	SW-846:8321A_MOD	GELC	
C1	2	3	02/16/06	6.09	193	99.545	2	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	DL	VOA	Tetrachloroethene	127-18-4		193	1.94	EPA PRIM DW STD	5	38.6	0.63	ug/L	3				SW-846:8260B	GELC	Second sample event, higher value, contaminant expected
C1	2	3	02/16/06	8.25	26.7	9.55	3	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	DL	VOA	Dichloroethene[cis-1,2-]	156-59-2		8.25	0.86	EPA PRIM DW STD	70	0.1	0.75	ug/L	3		J	V88	SW-846:8260B	GELC	
C1	2	3	02/16/06	8.25	26.7	9.55	3	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	CS	VOA	Dichloroethene[cis-1,2-]	156-59-2		9.55	1.00	EPA PRIM DW STD	70	0.1	0.3	ug/L	1				SW-846:8260B	GELC	

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C1	2	3	02/16/06	3.99	11.8	9.97	3	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	DL	VOA	Trichloroethene	79-01-6		9.97	1.00	EPA PRIM DW STD	5	2.0	0.63	ug/L	3		J	V88	SW-846:8260B	GELC	Second sample event, higher value, contaminant expected
C1	2	3	02/16/06	3.99	11.8	9.97	3	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	CS	VOA	Trichloroethene	79-01-6		11.8	1.18	EPA PRIM DW STD	5	2.4	0.25	ug/L	1				SW-846:8260B	GELC	Second sample event, higher value, contaminant expected
C1	2	2	10/24/07	0.146	0.146	0.146	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25279	2.7	04/10/08		UF	CS	HEXP	RDX	121-82-4		0.146	1.00	EPA TAP SCRNL LVL C-5	6.112	0.0	0.13	ug/L	2	J	J	HE7c	SW-846:8321A_MOD	GELC	
C1	2	2	10/22/07	0.256	0.256	0.256	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25278	1.6	04/10/08		UF	CS	HEXP	RDX	121-82-4		0.256	1.00	EPA TAP SCRNL LVL C-5	6.112	0.0	0.13	ug/L	2	J	J	HE7c	SW-846:8321A_MOD	GELC	
C2	12	13	06/17/00	1.7	12	3.55	8	Pueblo Canyon (includes Acid Canyon)	Alluvial	PAO-1	5.89	09/03/08		F	CS	METALS	Zinc	Zn		4.2	1.18	LANL Avl BG LVL	2	2.1	2	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	3	3	08/10/06	2.1	2.2	2.15	2	Pueblo Canyon (includes Acid Canyon)	Alluvial	PAO-2	6.06	09/03/08		F	CS	METALS	Chromium	Cr		2.2	1.02	LANL Avl BG LVL	1	2.2	1.5	ug/L	1	J	J	J_LAB	SW-846:6020	GELC	
C2	3	3	08/10/06	4	10	7	2	Pueblo Canyon (includes Acid Canyon)	Alluvial	PAO-2	6.06	09/03/08		F	CS	METALS	Manganese	Mn		4	0.57	LANL Avl BG LVL	2	2.0	2	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	3	3	08/10/06	13.9	13.9	13.9	1	Pueblo Canyon (includes Acid Canyon)	Alluvial	PAO-2	6.06	09/03/08		F	CS	METALS	Zinc	Zn		13.9	1.00	LANL Avl BG LVL	2	7.0	2	ug/L	1				SW-846:6010B	GELC	
C2	7	9	02/23/04	21.3	30.3	26	7	Pueblo Canyon (includes Acid Canyon)	Intermediate	R-5	383.9	08/26/08		F	CS	METALS	Boron	B		24.8	0.95	LANL Int BG LVL	15.12	1.6	10	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	9	13	04/27/05	2.26	2.89	2.6	13	Pueblo Canyon (includes Acid Canyon)	Regional	R-4	792.9	08/26/08	FD	F	CS	GENINORG	Potassium	K		2.65	1.02	LANL Reg BG LVL	2.63	1.0	0.05	mg/L	1				SW-846:6010B	GELC	
C2	5	6	05/03/05	185	198	190	6	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	718.6	08/27/08		F	CS	GENINORG	Total Dissolved Solids	TDS		195	1.03	LANL Reg BG LVL	191.68	1.0	2.4	mg/L	1				EPA:160.1	GELC	
C2	8	10	11/14/01	1.7	1.9	1.794999981	10	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	718.6	08/27/08		F	CS	METALS	Uranium	U		1.9	1.06	LANL Reg BG LVL	1.9	1.0	0.05	ug/L	1		J	I4a	SW-846:6020	GELC	
C2	5	8	11/14/01	25	45.8	25.9	8	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	GENINORG	Calcium	Ca		26	1.00	LANL Reg BG LVL	24.88	1.1	0.03	mg/L	1				SW-846:6010B	GELC	
C2	5	8	11/14/01	5.1	8.91	5.315	8	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	GENINORG	Chloride	Cl(-1)		5.1	0.96	LANL Reg BG LVL	3.57	1.4	0.066	mg/L	1				EPA:300.0	GELC	
C2	5	8	11/14/01	3.54	5.53	3.805	8	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	GENINORG	Potassium	K		3.54	0.93	LANL Reg BG LVL	2.63	1.4	0.05	mg/L	1				SW-846:6010B	GELC	
C2	5	8	11/14/01	4.12	5.27	4.31	8	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	GENINORG	Magnesium	Mg		5.17	1.20	LANL Reg BG LVL	4.15	1.3	0.085	mg/L	1				SW-846:6010B	GELC	
C2	5	8	11/14/01	40.4	53.7	50.30000077	8	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	METALS	Boron	B		40.4	0.80	LANL Reg BG LVL	38.77	1.0	10	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	5	8	11/14/01	119	545	177	8	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	METALS	Barium	Ba		119	0.67	LANL Reg BG LVL	56.83	2.1	1	ug/L	1				SW-846:6010B	GELC	
C2	5	8	11/14/01	55.2	4490	382.5	8	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	METALS	Iron	Fe		55.2	0.14	LANL Reg BG LVL	21	2.6	25	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	5	8	11/14/01	27.4	2570	446	8	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	METALS	Manganese	Mn		27.4	0.06	LANL Reg BG LVL	2.94	9.3	2	ug/L	1				SW-846:6010B	GELC	
C2	5	8	11/14/01	2.1	5	4.84	7	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	METALS	Molybdenum	Mo		2.1	0.43	LANL Reg BG LVL	2	1.1	0.1	ug/L	1		J	I4a	SW-846:6020	GELC	
C2	5	8	11/14/01	1.05	2.04	1.7	7	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	METALS	Uranium	U		1.9	1.12	LANL Reg BG LVL	1.9	1.0	0.05	ug/L	1				SW-846:6020	GELC	
C2	5	8	11/14/01	4.3	11.5	8.984999867	8	Pueblo Canyon (includes Acid Canyon)	Regional	R-5	860.9	08/26/08		F	CS	METALS	Zinc	Zn		4.3	0.48	LANL Reg BG LVL	3.89	1.1	2	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC	
C2	5	5	07/31/06	44	70.8	50.2	5	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-0.3	5.9	09/02/08		F	CS	GENINORG	Chloride	Cl(-1)		70.8	1.41	LANL Avl BG LVL	69.76	1.0	0.66	mg/L	10				EPA:300.0	GELC	
C2	3	3	07/31/06	0.13	0.13	0.13	1	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-0.3	5.9	09/02/08		UF	CS	METALS	Mercury	Hg		0.13	1.00	LANL Avl BG LVL	0.06	2.2	0.03	ug/L	1	JN	J+	I6b	EPA:245.2	GELC	Analytical laboratory problem; MDL too low

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C2	3	3	07/31/06	0.12	0.12	0.12	1	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-0.3	5.9	09/02/08	F	CS	METALS	Mercury	Hg		0.12	1.00	LANL Avl BG LVL	0.06	2.0	0.03	ug/L	1	JN	J+	I6b	EPA:245.2	GELC	Analytical laboratory problem; MDL too low	
C2	5	5	08/03/06	65.4	116	72.4	5	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-0.6	8	08/29/08	F	CS	GENINORG	Alkalinity-CO3+HCO3	ALK-CO3+HCO3		79.5	1.10	LANL Avl BG LVL	76	1.1	0.73	mg/L	1				EPA:310.1	GELC		
C2	3	3	08/03/06	5.6	17.6	11.6	2	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-0.6	8	08/29/08	F	CS	METALS	Zinc	Zn		17.6	1.52	LANL Avl BG LVL	2	8.8	2	ug/L	1		J	I4a	SW-846:6010B	GELC		
C2	6	6	04/05/01	1	1	1	1	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-1	8	09/02/08	F	CS	METALS	Mercury	Hg		1	1.00	LANL Avl BG LVL	0.06	16.7	0.03	ug/L	1	N	J+	I6b	EPA:245.2	GELC	Analytical laboratory problem; MDL too low	
C2	9	9	04/05/01	0.12	0.12	0.12	1	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-1	8	09/02/08	UF	CS	METALS	Mercury	Hg		0.12	1.00	LANL Avl BG LVL	0.06	2.0	0.03	ug/L	1	JN	J+	I6b	EPA:245.2	GELC	Analytical laboratory problem; MDL too low	
C2	12	15	06/23/00	0.78	4.1	0.86	9	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-1.6g	10.47	08/27/08	F	CS	METALS	Nickel	Ni		4.1	4.77	LANL Avl BG LVL	1	4.1	0.5	ug/L	1				SW-846:6020	GELC		
C2	5	5	11/13/01	28.7	73.1	50.6	5	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAUZ-1	5.35	08/25/08	F	CS	METALS	Boron	B		53.9	1.07	LANL Avl BG LVL	51.89	1.0	10	ug/L	1				SW-846:6010B	GELC		
C2	10	13	06/26/00	1.19	20.99999972	2.9	7	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-2	7	08/28/08	F	CS	METALS	Zinc	Zn		5.4	1.86	LANL Avl BG LVL	2	2.7	2	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	8	12	06/26/00	0.66	0.66	0.66	1	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-3a	4.7	09/02/08	FD	UF	CS	METALS	Mercury	Hg		0.66	1.00	LANL Avl BG LVL	0.06	11.0	0.03	ug/L	1	N	J+	I6b	EPA:245.2	GELC	Analytical laboratory problem; MDL too low
C2	5	7	03/28/01	0.4	0.4	0.4	1	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-3a	4.7	09/02/08	FD	F	CS	METALS	Mercury	Hg		0.4	1.00	LANL Avl BG LVL	0.06	6.7	0.03	ug/L	1	N	J+	I6b	EPA:245.2	GELC	Analytical laboratory problem; MDL too low
C2	8	11	06/26/00	0.74	1.5	0.9	4	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-3a	4.7	09/02/08	F	CS	METALS	Nickel	Ni		1.5	1.67	LANL Avl BG LVL	1	1.5	0.5	ug/L	1	J	J	J_LAB	SW-846:6020	GELC		
C2	8	11	06/26/00	0.74	1.5	0.9	4	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-3a	4.7	09/02/08	FD	F	CS	METALS	Nickel	Ni		1	1.11	LANL Avl BG LVL	1	1.0	0.5	ug/L	1	J	J	J_LAB	SW-846:6020	GELC	
C2	6	6	01/20/00	3.2	6.6	4	4	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	LAOI(a)-1.1	295.2	09/03/08	F	CS	METALS	Manganese	Mn		6.6	1.65	LANL Int BG LVL	2	3.3	2	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	8	8	11/15/05	0.069	0.098	0.0835	2	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	LAOI-3.2	153.3	08/28/08	F	CS	GENINORG	Bromide	Br(-1)		0.069	0.83	LANL Int BG LVL	0.03	2.3	0.067	mg/L	1	J	J	J_LAB	EPA:300.0	GELC		
C2	8	8	11/15/05	1.2	2.6	1.9	2	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	LAOI-3.2	153.3	08/28/08	F	CS	METALS	Chromium	Cr		2.6	1.37	LANL Int BG LVL	1	2.6	1.5	ug/L	1	J	J	J_LAB	SW-846:6020	GELC		
C2	7	7	07/26/06	10.5	20	12.7	4	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	LAOI-3.2a	181.4	09/05/08	F	CS	METALS	Boron	B		20	1.57	LANL Int BG LVL	15.12	1.3	10	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	7	7	07/26/06	3.1	3.1	3.1	1	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	LAOI-3.2a	181.4	09/05/08	F	CS	METALS	Manganese	Mn		3.1	1.00	LANL Int BG LVL	2	1.6	2	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	7	7	07/26/06	0.57	3.2	0.84	6	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	LAOI-3.2a	181.4	09/05/08	F	CS	METALS	Nickel	Ni		3.2	3.81	LANL Int BG LVL	1	3.2	0.5	ug/L	1				SW-846:6020	GELC		
C2	7	7	07/26/06	2.5	2.8	2.65	2	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	LAOI-3.2a	181.4	09/05/08	F	CS	METALS	Zinc	Zn		2.5	0.94	LANL Int BG LVL	2	1.3	2	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	8	13	05/09/06	13.5	19	14.7	13	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	LAOI-7	240	08/27/08	F	CS	GENINORG	Calcium	Ca		19	1.29	LANL Int BG LVL	17.31	1.1	0.03	mg/L	1				SW-846:6010B	GELC		
C2	8	13	05/09/06	0.56	0.73	0.61	11	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	LAOI-7	240	08/27/08	F	CS	METALS	Uranium	U		0.73	1.20	LANL Int BG LVL	0.72	1.0	0.05	ug/L	1		J	I4a	SW-846:6020	GELC		

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C2	4	4	02/20/01	0.0715	82	70.55	4	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	GENINORG	Alkalinity-CO3+HCO3	ALK-CO3+HCO3		60.1	0.85	LANL Int BG LVL	52	1.2	0.73	mg/L	1				EPA:310.1	GELC		
C2	5	6	09/14/00	0.167	0.167	0.167	1	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	GENINORG	Bromide	Br(-1)		0.167	1.00	LANL Int BG LVL	0.03	5.6	0.067	mg/L	1	J	J	J_LAB	EPA:300.0	GELC		
C2	5	5	09/14/00	17	19.7	17	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	GENINORG	Calcium	Ca		19.1	1.12	LANL Int BG LVL	17.31	1.1	0.03	mg/L	1				SW-846:6010B	GELC		
C2	5	6	09/14/00	24	35.8	25.7	6	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	GENINORG	Chloride	Cl(-1)		35.8	1.39	LANL Int BG LVL	7.78	4.6	0.33	mg/L	5				EPA:300.0	GELC		
C2	1	1	08/29/08	0.204	0.204	0.204	1	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	GENINORG	Perchlorate	ClO4		0.204	1.00	LANL Int BG LVL	0.05	4.1	0.05	ug/L	1				SW-846:6850	GELC		
C2	5	6	09/14/00	0.344	0.64	0.479000015	6	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	GENINORG	Fluoride	F(-1)		0.344	0.72	LANL Int BG LVL	0.23	1.5	0.033	mg/L	1				EPA:300.0	GELC		
C2	5	5	09/14/00	5.6	6.53	5.8	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	GENINORG	Magnesium	Mg		6.53	1.13	LANL Int BG LVL	6.12	1.1	0.085	mg/L	1				SW-846:6010B	GELC		
C2	5	5	09/14/00	17	21.7	19	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	GENINORG	Sodium	Na		21.7	1.14	LANL Int BG LVL	12.19	1.8	0.045	mg/L	1				SW-846:6010B	GELC		
C2	5	6	07/26/02	159	191	170	6	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	GENINORG	Total Dissolved Solids	TDS		186	1.09	LANL Int BG LVL	127	1.5	2.4	mg/L	1		J	I4a	EPA:160.1	GELC		
C2	5	5	09/14/00	19.6	24	21.8	2	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	METALS	Boron	B		19.6	0.90	LANL Int BG LVL	15.12	1.3	10	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	5	5	09/14/00	1.39	5.199999809	2.449999905	4	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	METALS	Cobalt	Co		1.7	0.69	LANL Int BG LVL	0.5	3.4	1	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	5	5	09/14/00	1.38	7.7	4.5	3	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	METALS	Copper	Cu		7.7	1.71	LANL Int BG LVL	5.32	1.5	3	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	5	5	09/14/00	81.2	1000	880	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	METALS	Manganese	Mn		81.2	0.09	LANL Int BG LVL	2	40.6	2	ug/L	1				SW-846:6010B	GELC		
C2	5	5	09/14/00	14.3	21	16	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	METALS	Molybdenum	Mo		14.3	0.89	LANL Int BG LVL	2	7.2	0.1	ug/L	1				SW-846:6020	GELC		
C2	5	5	09/14/00	37.2	140	110	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	METALS	Nickel	Ni		139	1.26	LANL Int BG LVL	1	139.0	0.5	ug/L	1				SW-846:6020	GELC	Few data points; similar 2007 results measured by EES lab	
C2	5	7	09/14/00	0.086	1.1	0.308	7	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08	F	CS	METALS	Uranium	U		1.1	3.57	LANL Int BG LVL	0.72	1.5	0.05	ug/L	1				SW-846:6020	GELC		
C2	4	4	02/21/01	0.057	75	66.65	4	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	GENINORG	Alkalinity-CO3+HCO3	ALK-CO3+HCO3		62.3	0.93	LANL Int BG LVL	52	1.2	0.73	mg/L	1				EPA:310.1	GELC		
C2	5	5	09/15/00	13	18.7	14	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	GENINORG	Calcium	Ca		18.7	1.34	LANL Int BG LVL	17.31	1.1	0.03	mg/L	1				SW-846:6010B	GELC		
C2	5	8	09/15/00	12.3	22	16.7	8	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	GENINORG	Chloride	Cl(-1)		12.3	0.74	LANL Int BG LVL	7.78	1.6	0.066	mg/L	1				EPA:300.0	GELC		
C2	1	1	09/02/08	2.01	2.01	2.01	1	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	GENINORG	Perchlorate	ClO4		2.01	1.00	LANL Int BG LVL	0.05	40.2	0.2	ug/L	4		J	PE16a	SW-846:6850	GELC	First LC/MS measurement	

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C2	3	5	07/29/02	125	143	132	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	GENINORG	Total Dissolved Solids	TDS		143	1.08	LANL Int BG LVL	127	1.1	2.4	mg/L	1				EPA:160.1	GELC		
C2	5	5	09/15/00	0.11	0.11	0.11	1	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	METALS	Mercury	Hg		0.11	1.00	LANL Int BG LVL	0.06	1.8	0.03	ug/L	1	JN	J+	I6b	EPA:245.2	GELC	Analytical laboratory problem; MDL too low	
C2	5	5	09/15/00	19.6	580	520	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	METALS	Manganese	Mn		19.6	0.04	LANL Int BG LVL	2	9.8	2	ug/L	1				SW-846:6010B	GELC		
C2	5	5	09/15/00	3.1	20	10.7	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	METALS	Molybdenum	Mo		3.1	0.29	LANL Int BG LVL	2	1.6	0.1	ug/L	1		J	I4a	SW-846:6020	GELC		
C2	5	5	09/15/00	7.4	110	22.3	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	METALS	Nickel	Ni		7.4	0.33	LANL Int BG LVL	1	7.4	0.5	ug/L	1				SW-846:6020	GELC		
C2	5	6	09/15/00	0.02	1.5	0.06	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	METALS	Uranium	U		1.5	25.00	LANL Int BG LVL	0.72	2.1	0.05	ug/L	1				SW-846:6020	GELC	Results vary by an order of magnitude; similar to 2007 EES results	
C2	6	6	02/20/04	1.8	3.5	2.65	2	Upper Los Alamos Canyon (includes DP Canyon)	Regional	R-8	825	09/03/08	F	CS	METALS	Cobalt	Co		1.8	0.68	LANL Reg BG LVL	0.5	3.6	1	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	6	6	02/20/04	3.9	55.7	10.4	3	Upper Los Alamos Canyon (includes DP Canyon)	Regional	R-8	825	09/03/08	F	CS	METALS	Manganese	Mn		3.9	0.38	LANL Reg BG LVL	2.94	1.3	2	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	9	15	02/28/00	1.5	2	1.74	15	Upper Los Alamos Canyon (includes DP Canyon)	Regional	R-9	684	08/26/08	F	CS	METALS	Uranium	U		2	1.15	LANL Reg BG LVL	1.9	1.1	0.05	ug/L	1				SW-846:6020	GELC		
C2	2	2	05/12/08	0.549	0.574	0.5615	2	Sandia Canyon	Regional	R-36	766.9	08/12/08	F	CS	GENINORG	Fluoride	F(-1)		0.574	1.02	LANL Reg BG LVL	0.57	1.0	0.033	mg/L	1				EPA:300.0	GELC		
C2	8	8	09/19/05	0.0548	0.103	0.079	3	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Alluvial	MCO-0.6	1.05	08/12/08	F	CS	GENINORG	Perchlorate	ClO4		0.0548	0.69	LANL Avl BG LVL	0.05	1.1	0.05	ug/L	1	J	J	PE12e	SW-846:6850	GELC		
C2	8	8	09/19/05	4.14	26.4	11.3	8	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Alluvial	MCO-0.6	1.05	08/12/08	F	CS	GENINORG	Sulfate	SO4(-2)		26.4	2.34	LANL Avl BG LVL	24.83	1.1	0.1	mg/L	1		J-	I6a	EPA:300.0	GELC		
C2	9	9	04/26/05	1.2	2	1.6	2	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Alluvial	MCA-1	2.4	08/12/08	F	CS	METALS	Molybdenum	Mo		2	1.25	LANL Avl BG LVL	2	1.0	0.1	ug/L	1				SW-846:6020	GELC		
C2	12	15	06/30/03	0.019	0.122	0.068	6	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Alluvial	MCO-4B	8.9	08/18/08	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.075	1.10	LANL Avl BG LVL	0.05	1.5	0.024	mg/L	1				EPA:365.4	GELC		
C2	11	15	06/30/03	0.707	3.16	1.46	10	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Alluvial	MCO-4B	8.9	08/18/08	F	CS	METALS	Chromium	Cr		1.6	1.10	LANL Avl BG LVL	1	1.6	1.5	ug/L	1	J	J	J_LAB	SW-846:6020	GELC		
C2	11	15	06/30/03	1.99	4.1	2.73	4	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Alluvial	MCO-4B	8.9	08/18/08	F	CS	METALS	Copper	Cu		4.1	1.50	LANL Avl BG LVL	3	1.4	3	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	11	15	06/30/03	81.8	173	111	15	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Alluvial	MCO-4B	8.9	08/18/08	F	CS	METALS	Strontium	Sr		131	1.18	LANL Avl BG LVL	120	1.1	1	ug/L	1				SW-846:6010B	GELC		
C2	11	11	06/23/05	0.099	0.108	0.1035	2	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Intermediate	MCOI-4	499	08/19/08	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.099	0.96	LANL Int BG LVL	0.08	1.2	0.024	mg/L	1				EPA:365.4	GELC		

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Fid QC Type Code	Fid Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C2	6	8	03/19/04	0.344	0.946	0.8375	8	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Regional	R-16	1238	08/12/08	F	CS	GENINORG	Ammonia as Nitrogen	NH3-N		0.344	0.41	LANL Reg BG LVL	0.05	6.9	0.03	mg/L	1				EPA:350.1	GELC	Concentration lowest since samples began in 2004, likely result of drilling additives	
C2	2	3	06/09/08	0.23	0.23	0.23	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-5	14.7	09/08/08	FD	F	CS	GENINORG	Perchlorate	ClO4		0.23	1.00	LANL Avl BG LVL	0.05	4.6	0.05	ug/L	1				SW-846:6850	GELC	
C2	2	3	06/09/08	0.178	0.19	0.184	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-5	14.7	09/08/08	FD	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.19	1.03	LANL Avl BG LVL	0.05	3.8	0.024	mg/L	1				EPA:365.4	GELC	
C2	2	3	06/09/08	0.178	0.19	0.184	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-5	14.7	09/08/08	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.178	0.97	LANL Avl BG LVL	0.05	3.6	0.024	mg/L	1				EPA:365.4	GELC		
C2	2	2	06/22/08	114	133	123.5	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7a	9.7	09/08/08	F	CS	METALS	Strontium	Sr		133	1.08	LANL Avl BG LVL	120	1.1	1	ug/L	1				SW-846:6010B	GELC		
C2	2	2	06/23/08	0.174	0.174	0.174	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	3MAO-2	14.7	09/09/08	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.174	1.00	LANL Avl BG LVL	0.05	3.5	0.024	mg/L	1	J-	I6a		EPA:365.4	GELC		
C2	2	2	06/23/08	137	140	138.5	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	3MAO-2	14.7	09/09/08	F	CS	GENINORG	Total Dissolved Solids	TDS		140	1.01	LANL Avl BG LVL	139	1.0	2.4	mg/L	1				EPA:160.1	GELC		
C2	2	2	06/23/08	53.3	77.1	65.2	2	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	3MAO-2	14.7	09/09/08	F	CS	METALS	Barium	Ba		77.1	1.18	LANL Avl BG LVL	68.57	1.1	1	ug/L	1				SW-846:6010B	GELC		
C2	2	2	06/23/08	1	1	1	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	3MAO-2	14.7	09/09/08	F	CS	METALS	Vanadium	V		1	1.00	LANL Avl BG LVL	1	1.0	1	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	9	10	10/19/06	0.054	0.195	0.1325	4	Pajarito Canyon (includes Twomile and Threemile Canyons)	Regional	R-17	1057	09/09/08	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.195	1.47	LANL Reg BG LVL	0.16	1.2	0.024	mg/L	1	J-	I6a		EPA:365.4	GELC		
C2	9	10	10/17/06	0.043	0.19	0.089	4	Pajarito Canyon (includes Twomile and Threemile Canyons)	Regional	R-17	1124	09/09/08	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.19	2.13	LANL Reg BG LVL	0.16	1.2	0.024	mg/L	1	J-	I6a		EPA:365.4	GELC		
C2	14	22	12/17/03	1.6	1.6	1.6	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Regional	R-23	816	09/08/08	F	CS	METALS	Beryllium	Be		1.6	1.00	LANL Reg BG LVL	1	1.6	1	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	14	22	12/17/03	1.6	1.6	1.6	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Regional	R-23	816	09/08/08	F	CS	METALS	Cobalt	Co		1.6	1.00	LANL Reg BG LVL	0.5	3.2	1	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	14	22	12/17/03	1.13	30.5	12	9	Pajarito Canyon (includes Twomile and Threemile Canyons)	Regional	R-23	816	09/08/08	F	CS	METALS	Zinc	Zn		4.2	0.35	LANL Reg BG LVL	3.89	1.1	2	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	1	1	04/03/08	0.116	0.116	0.116	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.116	1.00	LANL Avl BG LVL	0.05	2.3	0.024	mg/L	1				EPA:365.4	GELC		
C2	1	1	04/03/08	194	194	194	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	GENINORG	Total Dissolved Solids	TDS		194	1.00	LANL Avl BG LVL	139	1.4	2.4	mg/L	1				EPA:160.1	GELC		
C2	1	1	04/03/08	462	462	462	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Barium	Ba		462	1.00	LANL Avl BG LVL	68.57	6.7	1	ug/L	1				SW-846:6010B	GELC	Contaminant expected at this location	
C2	1	1	04/03/08	5.7	5.7	5.7	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Cobalt	Co		5.7	1.00	LANL Avl BG LVL	0.5	11.4	1	ug/L	1				SW-846:6010B	GELC		
C2	1	1	04/03/08	10.2	10.2	10.2	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Chromium	Cr		10.2	1.00	LANL Avl BG LVL	1	10.2	2.5	ug/L	1				SW-846:6020	GELC		

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C2	1	1	04/03/08	73.1	73.1	73.1	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Manganese	Mn		73.1	1.00	LANL Avl BG LVL	2	36.6	2	ug/L	1				SW-846:6010B	GELC		
C2	1	1	04/03/08	6.2	6.2	6.2	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Nickel	Ni		6.2	1.00	LANL Avl BG LVL	1	6.2	0.5	ug/L	1				SW-846:6020	GELC		
C2	1	1	04/03/08	5.2	5.2	5.2	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Lead	Pb		5.2	1.00	LANL Avl BG LVL	0.5	10.4	0.5	ug/L	1				SW-846:6020	GELC		
C2	1	1	04/03/08	78.3	78.3	78.3	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Silicon Dioxide	SiO2		78.3	1.00	LANL Avl BG LVL	64.21	1.2	0.032	mg/L	1				SW-846:6010B	GELC		
C2	1	1	04/03/08	16.6	16.6	16.6	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Vanadium	V		16.6	1.00	LANL Avl BG LVL	1	16.6	1	ug/L	1				SW-846:6010B	GELC		
C2	1	1	04/03/08	30.5	30.5	30.5	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Zinc	Zn		30.5	1.00	LANL Avl BG LVL	2	15.3	2	ug/L	1	J	I4a	SW-846:6010B	GELC			
C2	2	2	10/24/07	0.103	0.103	0.103	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25279	2.7	04/10/08	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.103	1.00	LANL Avl BG LVL	0.05	2.1	0.024	mg/L	1				EPA:365.4	GELC		
C2	2	2	10/24/07	136	164	150	2	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25279	2.7	04/10/08	F	CS	GENINORG	Total Dissolved Solids	TDS		164	1.09	LANL Avl BG LVL	139	1.2	2.4	mg/L	1				EPA:160.1	GELC		
C2	1	1	04/10/08	67.4	67.4	67.4	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25279	2.7	04/10/08	F	CS	METALS	Silicon Dioxide	SiO2		67.4	1.00	LANL Avl BG LVL	64.21	1.1	0.032	mg/L	1				SW-846:6010B	GELC		
C2	2	2	10/24/07	12.5	12.5	12.5	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25279	2.7	04/10/08	F	CS	METALS	Vanadium	V		12.5	1.00	LANL Avl BG LVL	1	12.5	1	ug/L	1				SW-846:6010B	GELC		
C2	2	2	10/22/07	3.6	3.6	3.6	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25278	1.6	04/10/08	F	CS	METALS	Chromium	Cr		3.6	1.00	LANL Avl BG LVL	1	3.6	2.5	ug/L	1	J	J	J_LAB	SW-846:6020	GELC		
C2	2	2	10/22/07	4.3	4.3	4.3	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25278	1.6	04/10/08	F	CS	METALS	Copper	Cu		4.3	1.00	LANL Avl BG LVL	3	1.4	3	ug/L	1	J	J	J_LAB	SW-846:6010B	GELC		
C2	2	2	10/22/07	1.7	1.7	1.7	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25278	1.6	04/10/08	F	CS	METALS	Lead	Pb		1.7	1.00	LANL Avl BG LVL	0.5	3.4	0.5	ug/L	1	J	J	J_LAB	SW-846:6020	GELC		
C3	8	9	10/30/01	0.18	0.388	0.277	9	Pueblo Canyon (includes Acid Canyon)	Alluvial	PAO-1	5.89	09/03/08	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.388	1.40	EPA TAP SCRNLVL N	0.73	1.1	0.024	mg/L	1		J	I4a	EPA:365.4	GELC	Similar since start of samples in 2001	
C3	4	4	08/10/06	0.229	0.436	0.3165	4	Pueblo Canyon (includes Acid Canyon)	Alluvial	PAO-2	6.06	09/03/08	F	CS	GENINORG	Total Phosphate as Phosphorus	PO4-P		0.382	1.21	EPA TAP SCRNLVL N	0.73	1.1	0.024	mg/L	1		J	I4a	EPA:365.4	GELC	Similar since start of samples in 2006	
C3	9	11	04/03/01	0.507	1.03	0.838	11	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial Spring	DP Spring	0	09/03/08	F	CS	GENINORG	Fluoride	F(-1)		0.838	1.00	NM GW STD	1.6	1.1	0.033	mg/L	1				EPA:300.0	GELC		
C3	6	6	04/05/01	1	1	1	1	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAO-1	8	09/02/08	F	CS	METALS	Mercury	Hg		1	1.00	EPA PRIM DW STD	2	1.0	0.03	ug/L	1	N	J+	I6b	EPA:245.2	GELC	Analytical laboratory problem; MDL too low	

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C3	11	11	04/02/01	37.8	506	160	11	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAUZ-1	5.35	08/25/08		F	CS	GENINORG	Chloride	Cl(-1)		195	1.22	NM GW STD	250	1.6	1.3	mg/L	20			EPA:300.0	GELC		
C3	6	7	05/03/05	395	1160	501	7	Upper Los Alamos Canyon (includes DP Canyon)	Alluvial	LAUZ-1	5.35	08/25/08		F	CS	GENINORG	Total Dissolved Solids	TDS		624	1.25	NM GW STD	1000	1.3	2.4	mg/L	1			EPA:160.1	GELC		
C3	5	5	09/14/00	37.2	140	110	5	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	198.8	08/29/08		F	CS	METALS	Nickel	Ni		139	1.26	NM GW STD	200	1.4	0.5	ug/L	1			SW-846:6020	GELC	Few data points; similar 2007 results measured by EES lab	
C3	1	1	09/02/08	2.01	2.01	2.01	1	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08		F	CS	GENINORG	Perchlorate	ClO4		2.01	1.00	NMED GW CONS	4	1.0	0.2	ug/L	4		J	PE16a	SW-846:6850	GELC	First LC/MS measurement
C3	8	8	09/19/05	154	694	328	8	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Alluvial	MCO-0.6	1.05	08/12/08		F	CS	METALS	Barium	Ba		694	2.12	NM GW STD	1000	1.4	1	ug/L	1			SW-846:6010B	GELC	Previous results of 676 mg/L and 472 mg/L, etc.	
C3	6	8	03/19/04	0.344	0.946	0.8375	8	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Regional	R-16	1238	08/12/08		F	CS	GENINORG	Ammonia as Nitrogen	NH3-N		0.344	0.41	EPA TAP SCRNLVL	0.20857	3.3	0.03	mg/L	1			EPA:350.1	GELC	Concentration lowest since samples began in 2004, likely result of drilling additives	
C3	2	3	06/22/08	3.03	3.03	3.03	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Alluvial	PCAO-7a	9.7	09/08/08	FD	UF	CS	SVOA	Bis(2-ethylhexyl)phthalate	117-81-7		3.03	1.00	EPA PRIM DW STD	6	1.0	2.2	ug/L	1	J	J-	SV3a	SW-846:8270C	GELC	Not found in primary sample
C3	1	1	04/03/08	7.47	7.47	7.47	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	CS	HEXP	RDX	121-82-4		7.47	1.00	EPA TAP SCRNLVL C-5	6.112	2.4	0.13	ug/L	2		J	HE7c	SW-846:8321A_MOD	GELC	RDX expected here
C3	1	1	04/03/08	14000	14000	14000	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		F	CS	METALS	Aluminum	Al		14000	1.00	NM GW STD	5000	5.6	68	ug/L	1			SW-846:6010B	GELC		
C3	1	1	04/03/08	7900	7900	7900	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		F	CS	METALS	Iron	Fe		7900	1.00	NM GW STD	1000	15.8	25	ug/L	1			SW-846:6010B	GELC		
C3	1	1	04/03/08	11.4	11.4	11.4	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	CS	METALS	Lead	Pb		11.4	1.00	EPA PRIM DW STD	15	1.5	0.5	ug/L	1			SW-846:6020	GELC		
C3	2	3	02/16/06	6.09	193	99.545	2	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	DL	VOA	Tetrachloroethene	127-18-4		193	1.94	EPA PRIM DW STD	5	77.2	0.63	ug/L	3			SW-846:8260B	GELC	Second sample event, higher value, contaminant expected	
C3	2	3	02/16/06	3.99	11.8	9.97	3	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	DL	VOA	Trichloroethene	79-01-6		9.97	1.00	EPA PRIM DW STD	5	4.0	0.63	ug/L	3		J	V88	SW-846:8260B	GELC	Second sample event, higher value, contaminant expected
C3	2	3	02/16/06	3.99	11.8	9.97	3	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08		UF	CS	VOA	Trichloroethene	79-01-6		11.8	1.18	EPA PRIM DW STD	5	4.7	0.25	ug/L	1			SW-846:8260B	GELC	Second sample event, higher value, contaminant expected	
C3	2	2	10/22/07	94.2	8830	4462.1	2	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25278	1.6	04/10/08		F	CS	METALS	Aluminum	Al		8830	1.98	NM GW STD	5000	3.5	68	ug/L	1			SW-846:6010B	GELC		
C3	1	1	09/04/08	8.14	8.14	8.14	1			PAO-5s	8.05	09/04/08		F	CS	GENINORG	Nitrate-Nitrite as Nitrogen	NO3+NO2-N		8.14	1.00	EPA PRIM DW STD	10	1.6	0.1	mg/L	10			EPA:353.2	GELC	Source is LACWTP?	
C3	1	1	09/04/08	553	553	553	1			PAO-5s	8.05	09/04/08		F	CS	GENINORG	Total Dissolved Solids	TDS		553	1.00	NM GW STD	1000	1.1	2.4	mg/L	1			EPA:160.1	GELC	Source is LACWTP?	
C3	1	1	09/04/08	6.7	6.7	6.7	1			PAO-5s	8.05	09/04/08		F	CS	METALS	Arsenic	As		6.7	1.00	EPA PRIM DW STD	10	1.3	1.5	ug/L	1			SW-846:6020	GELC	Source is LACWTP?	
C3	1	1	09/04/08	5.4	5.4	5.4	1			PAO-5s	8.05	09/04/08		UF	CS	METALS	Arsenic	As		5.4	1.00	EPA PRIM DW STD	10	1.1	1.5	ug/L	1			SW-846:6020	GELC	Source is LACWTP?	

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Port Depth	Start Date	Fid QC Type Code	Fid Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Symbol	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Concat Flag Code	Concat Reason Code	Anyl Meth Code	Lab Code	Comment
C3	1	1	09/04/08	638	638	638	1			PAO-5s	8.05	09/04/08	F	CS	METALS	Boron	B		638	1.00	NM GW STD	750	1.7	10	ug/L	1				SW-846:6010B	GELC	Source is LACWTP?	
C4	1	1	09/02/08	2.01	2.01	2.01	1	Upper Los Alamos Canyon (includes DP Canyon)	Intermediate	R-9i	278.8	09/02/08	F	CS	GENINORG	Perchlorate	ClO4		2.01	1.00	NMED GW CONS	4	1.0	0.2	ug/L	4		J	PE16a	SW-846:6850	GELC	First LC/MS measurement	
CA	6	8	03/19/04	0.344	0.946	0.8375	8	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Regional	R-16	1238	08/12/08	F	CS	GENINORG	Ammonia as Nitrogen	NH3-N		0.344	0.41	EPA TAP SCRNLVL	0.20857	1.7	0.03	mg/L	1				EPA:350.1	GELC	Concentration lowest since samples began in 2004, likely result of drilling additives	
CA	1	1	04/03/08	7.47	7.47	7.47	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	UF	CS	HEXP	RDX	121-82-4		7.47	1.00	EPA TAP SCRNLVL C-5	6.112	1.2	0.13	ug/L	2		J	HE7c	SW-846:8321A_MOD	GELC	First sample, contaminant expected	
CA	1	1	04/03/08	14000	14000	14000	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Aluminum	Al		14000	1.00	NM GW STD	5000	2.8	68	ug/L	1				SW-846:6010B	GELC		
CA	1	1	04/03/08	7900	7900	7900	1	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	F	CS	METALS	Iron	Fe		7900	1.00	NM GW STD	1000	7.9	25	ug/L	1				SW-846:6010B	GELC		
CA	2	3	02/16/06	6.09	193	99.545	2	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	UF	DL	VOA	Tetrachloroethene	127-18-4		193	1.94	EPA PRIM DW STD	5	38.6	0.63	ug/L	3				SW-846:8260B	GELC	Highest result measured in any LANL groundwater sample by factor of 10; second sample event, higher value, contaminant expected	
CA	2	3	02/16/06	3.99	11.8	9.97	3	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	UF	CS	VOA	Trichloroethene	79-01-6		11.8	1.18	EPA PRIM DW STD	5	2.4	0.25	ug/L	1				SW-846:8260B	GELC	3rd highest result measured in any LANL groundwater sample; second sample event, higher value, contaminant expected	
CA	2	3	02/16/06	3.99	11.8	9.97	3	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25280	2.6	04/03/08	UF	DL	VOA	Trichloroethene	79-01-6		9.97	1.00	EPA PRIM DW STD	5	2.0	0.63	ug/L	3		J	V88	SW-846:8260B	GELC	6th highest result measured in any LANL groundwater sample; second sample event, higher value, contaminant expected	
CA	2	2	10/22/07	94.2	8830	4462.1	2	Water Canyon (includes Canyon del Valle, Potrillo, and Fence Canyons)	Alluvial	FLC-16-25278	1.6	04/10/08	F	CS	METALS	Aluminum	Al		8830	1.98	NM GW STD	5000	1.8	68	ug/L	1				SW-846:6010B	GELC		

