ESHID-602259

Los Alamos
NATIONAL LABORATORY
EST. 1943

RECEIVED
MAR 28 2017
NMED
Hazardous Waste
Bureau

Associate Directorate for Environmental Management
P.O. Box 1663, MS M992
Los Alamos, New Mexico 87545
(505) 606-2337

Environmental Management
1900 Diamond Drive, MS M984
Los Alamos, New Mexico 87544
(505) 665-5658/FAX (505) 606-2132

Date: MAR 28 2017
Refer To: ADEM-17-0062
LAUR: 17-22383
Locates Action No.: n/a

John Kieling, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Monthly Notification of Groundwater Data Reviewed in March 2017

This letter is Los Alamos National Laboratory's (LANL's) written submission in accordance with Section XXVI of the 2016 Compliance Order on Consent (Consent Order). Members of LANL's Associate Directorate for Environmental Management met on March 15, 2017, to review groundwater data received in February 2017. This report was prepared by comparing the data against groundwater notification criteria as defined in Section IX of the 2016 Consent Order. These criteria consider New Mexico Water Quality Control Commission (NMWQCC) groundwater standards, U.S. Environmental Protection Agency (EPA) maximum contaminant levels (MCLs), New Mexico Environment Department (NMED) screening levels for tap water, EPA regional screening levels for tap water, and NMED-approved background values for hydrogeological zones as set forth in the "Groundwater Background Investigation Report, Revision 5." For comparison with EPA tap water standards, the standard's carcinogenic risk value was adjusted to 1×10^{-5}, as specified in the Consent Order. This report was prepared using the May 2016 EPA regional screening levels for tap water.

This report also includes analytical data from samples collected at locations within the Pueblo de San Ildefonso, which are subject to reporting at this time. These data have been reviewed by the Pueblo. This review is required under the Memorandum of Agreement dated May 28, 2014, between the U.S. Department of Energy; National Nuclear Security Administration, Los Alamos Field Office; and San Ildefonso Pueblo.

1-Day Notification

There were no instances of a contaminant detected at a concentration that exceeded the NMWQCC groundwater standard or federal maximum contaminant level at locations where contaminants have not been previously detected above the respective standard (based on samples collected since June 14, 2007).

One-day notification was not required because there were no cases of a contaminant detected in a well screen interval or spring at a concentration that exceeded a water quality standard for the first time.

15-Day Notification

The required information for the contaminants and other chemical parameters that meet the five reporting criteria requiring written notification within 15 days is given in the accompanying report and tables.

If you have questions, please contact Steve Paris at (505) 606-0915 (smparis@lanl.gov) or Hai Shen at (505) 665-5046 (hai.shen@em.doe.gov).

Sincerely,

Bruce Robinson, Program Director
Environmental Remediation Program
Los Alamos National Laboratory

Sincerely,

David S. Rhodes, Director
Office of Quality and Regulatory Compliance
Environmental Management
Los Alamos Field Office

BR/DR/SP:sm

Enclosure: Two hard copies with electronic files – Summary of Groundwater Data Reviewed in March 2017 That Meet Notification Requirements (EP2017-0051)

Cy: (Letter and CD and/or DVD)
Laurie King, EPA Region 6, Dallas, TX
Michelle Hunter, NMED-GWQB
Steve Yanicak, NMED-DOE-OB, MS M894
Raymond Martinez, San Ildefonso Pueblo, NM
Dino Chavarria, Santa Clara Pueblo, NM
emla.docs@em.doe.gov
Steve Paris, ADEM ER Program
Jake Meadows, ADESH-EPC-CP
Public Reading Room (EPRR)
ADESH Records
PRS Database

Cy: (w/o enc./date-stamped letter emailed)
Wayne Witten, Los Alamos County Utility Department, Los Alamos, NM
lasomailbox@nnsa.doe.gov
Peter Maggiore, DOE-NA-LA
Kimberly Davis Lebak, DOE-NA-LA
Karen Armijo, DOE-NA-LA
Hai Shen, DOE-EM-LA
Cheryl L. Rodriguez, DOE-EM-LA
David Rhodes, DOE-EM-LA
Mei Ding, EES-14
Bruce Robinson, ADEM ER Program
Randy Erickson, ADEM
Jocelyn Buckley, ADESH-EPC-CP
Leslie Dale, ADESH-EPC-CP
John Bretzke, ADESH-EPC-DO
Michael Brandt, ADESH
William Mairson, PADOPS
Craig Leasure, PADOPS

SUMMARY OF GROUNDWATER DATA REVIEWED IN MARCH 2017
THAT MEET NOTIFICATION REQUIREMENTS

INTRODUCTION

This report provides information to the New Mexico Environment Department (NMED) concerning recent groundwater monitoring data obtained by Los Alamos National Laboratory (the Laboratory) under its annual "Interim Facility-Wide Groundwater Monitoring Plan" for the 2017 Monitoring Year and contains results for chemical constituents that meet the five screening criteria described in Section XXVI of the 2016 Compliance Order on Consent modified February 2017 (2016 Consent Order). The report covers groundwater samples collected from wells or springs (listed in the accompanying tables) that provide surveillance of the hydrogeological zones indicated in the tables.

The report includes two tables. Table 1, NMED 02-17 Groundwater Report, presents results since June 14, 2007, that met the five reporting criteria as specified in the 2016 Consent Order. Table 2, NMED 02-17 Groundwater Report Addendum, presents results that are exceeding the 95th percentile or those results in the data set defined in the "Groundwater Background Investigation Report, Revision 5." Only constituents lacking a calculated groundwater background value (i.e., the frequency of detections was too low to calculate a background value at the 95% upper tolerance level) are listed in this table. Table 2 is a voluntary submission by Los Alamos National Laboratory to NMED to identify the potential risk resulting from constituents without defined background values.

These tables include the following:

- Comments on results that appear to be exceptional based on consideration of monitoring data acquired from previous analyses (using statistics described below)
- Supplemental information summarizing monitoring results obtained from previous analyses
- Sampling date, name of the well or spring, location of the well or spring, depth of the screened interval, groundwater zone sampled, analytical result, detection limit, values for regulatory standards or screening levels, and analytical and secondary validation qualifiers. Additional information describing the locations and analytical data is also included. All data have been through secondary validation.

This report was prepared by comparing the data against groundwater notification criteria as defined in Section IX of the 2016 Consent Order. These criteria consider New Mexico Water Quality Control Commission (NMWQCC) groundwater standards, U.S. Environmental Protection Agency (EPA) maximum contaminant levels (MCLs), NMED screening levels for tap water, EPA regional screening levels for tap water, and NMED-approved background values for hydrogeological zones as set forth in the "Groundwater Background Investigation Report, Revision 5." For comparison EPA tap water standards, the standard's carcinogenic risk value was adjusted to 1×10^{-5}, as specified in the Consent Order. This report was prepared using the May 2016 EPA regional screening levels for tap water.

Background values applied in Table 1 notification criteria C2 and C4 are the background values for hydrogeological zones as set forth in the NMED-approved "Groundwater Background Investigation Report, Revision 5."

Screening values applied in Table 2 criteria XC2scr and XC4scr are the 95th percentile of the data set used to establish background as defined in the "Groundwater Background Investigation Report, Revision 5."

DESCRIPTION OF TABLE

15-Day Notification Requirement

Table 1 is divided into separate categories that correspond to the five screening criteria in Section XXVI of the 2016 Consent Order. Some data met more than one of the notification criteria and appear in the table multiple times.

The criteria are as follows:

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 (1) exceeds the lower of 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, (2) exceeds one-half the tap water screening levels in Table A-1 of NMED' s “Risk Assessment Guidance for Site Investigations and Remediation” (2015 or updates, as appropriate), or, if there is no NMED tap water screening level available for a contaminant, (3) exceeds one-half the EPA regional 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 a contaminant that is a metal or other inorganic compound in a spring or screened interval of a well at a concentration that exceeds two times the background level for the third consecutive sampling of the spring or screened interval.

C5. 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, and which has increased for the third consecutive sampling of that spring or screened interval.

Table 2 is divided into two categories that correspond to two screening criteria. They mirror criteria C2 and C4 in Table 1, respectively.

The two criteria are as follows:

XC2scr. Detection of a contaminant that is a metal or other inorganic compound at a concentration above the 95th percentile in a spring or screened interval of a well if that contaminant has not previously exceeded the 95th percentile of the data set used to establish background in the spring or screened interval as defined in the “Groundwater Background Investigation Report, Revision 5.”

XC4scr. 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 for the third consecutive sampling exceeds 2 times the 95th percentile of the data set used to establish background as defined in the “Groundwater Background Investigation Report, Revision 5.”

Columns two through eight in both tables provide summary statistics for metals or inorganic compounds by field preparation code (e.g., filtered aluminum) for samples collected since January 1, 2000, including the currently reported data The statistics include the date of the first sampling event; the number 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—hydrogeological zone from which the groundwater sample was collected (e.g. alluvial spring)

Location—monitoring location name

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

Start Date—sample date

Fld QC Type Code—identifies regular samples (REG) or field duplicates (FD)

Fld Prep Code—identifies whether samples are filtered or unfiltered

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

Anyl Suite Code—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—analytical result in standard measurement units

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

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

Screen Level—value of the LVL Type/Risk Code

Exceedance Ratio—ratio of Std Result to LVL Type/Risk Code. In earlier versions of this report, the ratio was divided by the basis for comparison in the criterion, but that is no longer the case. For example, for a criterion (such as C3) that compares the value with one-half the standard, a value equal to a standard previously had an exceedance ratio of 2. The current report shows this ratio as 1.

Std Mdl—method detection limit in standard measurement units

Std Uom—standard units of measurement

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

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

Validation Flag—secondary validation qualifier

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

Anyl Meth Code—analytical method number

Lab Code—analytical laboratory name

Comment—comment on the analytical result

Table 1: NMED 02-17 Groundwater Report

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std MDl	Std Uom	Dilution Factor	Lab Qual Code	Validation Flag	Validation Reason Code	Anyl Meth Code	Lab Code	Comment
C1	17	17	8/4/2005	0.104	0.104	0.104	1	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S4	1184.6	42720	REG	UF	INIT	HEXP	Nitrotoluene[2-]	88-72-2	0.104	1	NMED A1 TAP SCRN LVL	3.13	0	0.0891	ug/L	2	J	J	J_LAB	SW-846:8321A_MOD	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
C1	29	35	11/30/2005	1.21	1.21	1.21	1	Sandia Canyon	Regional	R-10a	690	42696	REG	UF	INIT	VOC	Methylene Chloride	75-09-2	1.21	1	EPA MCL	5	0.2	1	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	38	44	3/31/2004	2.07	2.07	2.07	1	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Regional	R-21	888.8	42745	REG	UF	INIT	VOC	Methylene Chloride	75-09-2	2.07	1	EPA MCL	5	0.4	1	ug/L	1	BJ	J	J_LAB	SW-846:8260B	GELC	Compound was also detected in FTB, the result is likely a false positive.
C1	27	34	6/7/2005	1.11	1.11	1.11	1	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Regional	R-34	883.7	42695	REG	UF	INIT	VOC	Methylene Chloride	75-09-2	1.11	1	EPA MCL	5	0.2	1	ug/L	1	J	J	J_LAB	SW-846:8260B	GELC	
C1	26	46	2/6/2009	2.14	2.14	2.14	1	Mortandad Canyon (includes Ten Site Canyon and Canada del Buey)	Regional	R-38	821.2	42745	REG	UF	INIT	VOC	Methylene Chloride	75-09-2	2.14	1	EPA MCL	5	0.4	1	ug/L	1	BJ	J	J_LAB	SW-846:8260B	GELC	Compound was also detected in FTB, the result is likely a false positive.
C1	23	26	7/1/2010	2.04	2.04	2.04	1	Pajarito Canyon (includes Twomile and Threemile Canyons)	Regional	R-57 S1	910	42744	REG	UF	INIT	VOC	Methylene Chloride	75-09-2	2.04	1	EPA MCL	5	0.4	1	ug/L	1	BJ	J	J_LAB	SW-846:8260B	GELC	Compound was also detected in FTB, the result is likely a false positive.
C2	18	19	12/11/2000	0.549	3.62	0.99	8	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Regional	R-25 S7	1604.7	42719	REG	F	INIT	METALS	Nickel	Ni	3.62	3.7	LANL Reg BG LVL	2.9	1.2	0.5	ug/L	1		NQ	NQ	SW-846:6020	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
C2	4	4	2/26/2013	0.414	4.23	0.6795	4	White Rock Canyon and Rio Grande	Regional	SF-4A	260	42705	REG	F	INIT	GENINORG	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	4.23	6.2	LANL Reg BG LVL	0.769	5.5	0.085	mg/L	5		J	l4a	EPA:353.2	GELC	Piezometer well
C4	8	9	11/15/2000	8.81	36.9	12	9	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S2	882.6	42718	REG	F	INIT	GENINORG	Chloride	Cl(-1)	36.9	3.1	LANL Int BG LVL	3.11	11.9	0.335	mg/L	5		NQ	NQ	EPA:300.0	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
C4	8	8	11/15/2000	2	4770	263.815	8	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S2	882.6	42718	REG	F	INIT	METALS	Nickel	Ni	4520	17.1	LANL Int BG LVL	3.65	1238	50	ug/L	100		NQ	NQ	SW-846:6020	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
C4	17	17	12/4/2000	4.76	11.5	7.49	17	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S4	1184.6	42720	REG	F	INIT	GENINORG	Chloride	Cl(-1)	10.1	1.3	LANL Int BG LVL	3.11	3.2	0.134	mg/L	2		NQ	NQ	EPA:300.0	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
C4	17	17	12/4/2000	9.31	280	26.5	17	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S4	1184.6	42720	REG	F	INIT	GENINORG	Sulfate	SO4(-2)	18.5	0.7	LANL Int BG LVL	7.1	2.6	0.133	mg/L	1		NQ	NQ	EPA:300.0	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
C4	25	27	9/9/2004	53.9	82	69	27	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Bulldog Spring	0	42719	REG	F	INIT	METALS	Barium	Ba	63.2	0.9	LANL Int BG LVL	13.5	4.7	1	ug/L	1		NQ	NQ	SW-846:6010C	GELC	
C4	24	26	9/9/2004	12.1	27.5	17.8	26	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Bulldog Spring	0	42719	REG	F	INIT	GENINORG	Chloride	Cl(-1)	19.5	1.1	LANL Int BG LVL	3.11	6.3	0.335	mg/L	5		NQ	NQ	EPA:300.0	GELC	
C4	22	24	6/22/2005	0.537	0.947	0.7345	24	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Bulldog Spring	0	42719	REG	F	INIT	GENINORG	Perchlorate	ClO4	0.801	1.1	LANL Int BG LVL	0.27	3	0.05	ug/L	1		NQ	NQ	SW-846:6850	GELC	

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Validation Flag	Validation Reason Code	Anyl Meth Code	Lab Code	Comment
C4	64	72	1/10/2000	122	243	168	65	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	FD	F	INIT	METALS	Barium	Ba	151	0.9	LANL Int BG LVL	13.5	11.2	1	ug/L	1		NQ	NQ	SW-846:6010C	GELC	
C4	64	72	1/10/2000	122	243	168	65	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	REG	F	INIT	METALS	Barium	Ba	153	0.9	LANL Int BG LVL	13.5	11.3	1	ug/L	1		NQ	NQ	SW-846:6010C	GELC	
C4	64	72	1/10/2000	15.5	42.8	29.95	72	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	FD	F	INIT	GENINORG	Calcium	Ca	25.6	0.9	LANL Int BG LVL	10.7	2.4	0.05	mg/L	1		NQ	NQ	SW-846:6010C	GELC	
C4	64	72	1/10/2000	15.5	42.8	29.95	72	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	REG	F	INIT	GENINORG	Calcium	Ca	26.6	0.9	LANL Int BG LVL	10.7	2.5	0.05	mg/L	1		NQ	NQ	SW-846:6010C	GELC	
C4	20	26	1/30/2007	18	44.2	22.6	26	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	FD	F	INIT	GENINORG	Chloride	Cl(-1)	23.6	1	LANL Int BG LVL	3.11	7.6	0.335	mg/L	5		NQ	NQ	EPA:300.0	GELC	
C4	20	26	1/30/2007	18	44.2	22.6	26	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	REG	F	INIT	GENINORG	Chloride	Cl(-1)	23.6	1	LANL Int BG LVL	3.11	7.6	0.335	mg/L	5		NQ	NQ	EPA:300.0	GELC	
C4	28	35	8/25/2005	65.7	112	95.4	35	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	FD	F	INIT	GENINORG	Hardness	HARDNESS	87.3	0.9	LANL Int BG LVL	37.8	2.3	0.453	mg/L	1		NQ	NQ	SM:A2340B	GELC	
C4	28	35	8/25/2005	65.7	112	95.4	35	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	REG	F	INIT	GENINORG	Hardness	HARDNESS	90.7	1	LANL Int BG LVL	37.8	2.4	0.453	mg/L	1		NQ	NQ	SM:A2340B	GELC	
C4	20	26	1/30/2007	1.69	4.88	2.815	26	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	FD	F	INIT	GENINORG	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	2.88	1	LANL Int BG LVL	0.459	6.3	0.085	mg/L	5		NQ	NQ	EPA:353.2	GELC	
C4	20	26	1/30/2007	1.69	4.88	2.815	26	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	REG	F	INIT	GENINORG	Nitrate-Nitrite as Nitrogen	NO3+NO2-N	3.1	1.1	LANL Int BG LVL	0.459	6.8	0.085	mg/L	5		NQ	NQ	EPA:353.2	GELC	
C4	20	26	1/30/2007	13.1	20	16.9	26	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	FD	F	INIT	GENINORG	Sulfate	SO4(-2)	20	1.2	LANL Int BG LVL	7.1	2.8	0.133	mg/L	1		NQ	NQ	EPA:300.0	GELC	Compound was 26.4 mg/L in 3/21/2000.
C4	20	26	1/30/2007	13.1	20	16.9	26	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	REG	F	INIT	GENINORG	Sulfate	SO4(-2)	20	1.2	LANL Int BG LVL	7.1	2.8	0.133	mg/L	1		NQ	NQ	EPA:300.0	GELC	Compound was 26.4 mg/L in 3/21/2000.
C4	30	34	11/30/2005	5.62	6.66	6.01	34	Sandia Canyon	Regional	R-10a	690	42696	REG	F	INIT	GENINORG	Chloride	Cl(-1)	6.53	1.1	LANL Reg BG LVL	2.7	2.4	0.067	mg/L	1		NQ	NQ	EPA:300.0	GELC	
C4	30	34	11/30/2005	0.528	14.2	1.345	32	Sandia Canyon	Regional	R-10a	690	42696	REG	F	INIT	METALS	Nickel	Ni	13.6	10.1	LANL Reg BG LVL	2.9	4.7	0.5	ug/L	1		NQ	NQ	SW-846:6020	GELC	

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Validation Flag	Validation Reason Code	Anyl Meth Code	Lab Code	Comment
C4	30	34	11/30/2005	9.36	12.9	10.15	34	Sandia Canyon	Regional	R-10a	690	42696	REG	F	INIT	GENINORG	Sulfate	SO4(-2)	10.4	1	LANL Reg BG LVL	4.59	2.3	0.133	mg/L	1		NQ	NQ	EPA:300.0	GELC	
C4	11	12	12/7/2000	8.23	12.9	10.175	12	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Regional	R-25 S5	1294.7	42723	REG	F	INIT	GENINORG	Sulfate	SO4(-2)	11.6	1.1	LANL Reg BG LVL	4.59	2.5	0.133	mg/L	1		NQ	NQ	EPA:300.0	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.

Table 2: NMED 02-17 Groundwater Report Addendum

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Validation Flag	Validation Reason Code	Anyl Meth Code	Lab Code	Comment
XC2scr	7	7	39539	0.122	0.122	0.122	1	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Regional	R-25 S5	1294.7	42723	REG	F	INIT	GENINORG	Ammonia as Nitrogen	NH3-N	0.122	1	Reg-Scr_95	0.1	1.2	0.017	mg/L	1		NQ	NQ	EPA:350.1	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC2scr	14	14	39121	0.0234	0.122	0.0727	2	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Regional	R-25 S6	1404.7	42720	REG	F	INIT	GENINORG	Ammonia as Nitrogen	NH3-N	0.122	1.7	Reg-Scr_95	0.1	1.2	0.017	mg/L	1		NQ	NQ	EPA:350.1	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC2scr	15	15	36868	1.1	3.88	2.49	2	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Regional	R-25 S6	1404.7	42720	REG	F	INIT	METALS	Copper	Cu	3.88	1.6	Reg-Scr_95	3	1.3	3	ug/L	1	J	J	J_LAB	SW-846:6010C	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC4scr	4	4	38567	0.134	0.221	0.162	4	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S2	882.6	42718	REG	F	INIT	GENINORG	Ammonia as Nitrogen	NH3-N	0.173	1.1	Int-Scr_95	0.0606	2.9	0.017	mg/L	1		NQ	NQ	EPA:350.1	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC4scr	8	8	36845	167	640	267.5	8	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S2	882.6	42718	REG	F	INIT	METALS	Boron	B	173	0.6	Int-Scr_95	16.2	10.7	15	ug/L	1		NQ	NQ	SW-846:6010C	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC4scr	8	9	36845	0.095	0.228	0.194	4	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S2	882.6	42718	REG	F	INIT	GENINORG	Bromide	Br(-1)	0.228	1.2	Int-Scr_95	0.0716	3.2	0.067	mg/L	1		NQ	NQ	EPA:300.0	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC4scr	8	8	36845	0.71	19.1	1.715	8	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S2	882.6	42718	REG	F	INIT	METALS	Chromium	Cr	13.8	8	Int-Scr_95	2.72	5.1	3	ug/L	1		NQ	NQ	SW-846:6020	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC4scr	8	8	36845	7.2	55.1	44	4	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S2	882.6	42718	REG	F	INIT	METALS	Cobalt	Co	55.1	1.3	Int-Scr_95	1	55.1	1	ug/L	1		NQ	NQ	SW-846:6010C	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC4scr	8	8	36845	117	27400	2310	7	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S2	882.6	42718	REG	F	INIT	METALS	Iron	Fe	27400	11.9	Int-Scr_95	54.1	506.5	30	ug/L	1		NQ	NQ	SW-846:6010C	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.

Criteria Code	Visits	Samples	First Event	Min Detect	Max Detect	Median Detect	Num Detect	Hdr 1	Zone	Location	Screen Depth	Start Date	Fld QC Type Code	Fld Prep Code	Lab Sample Type Code	Anyl Suite Code	Analyte Desc	Analyte	Std Result	Result/Median	LVL Type/Risk Code	Screen Level	Exceedance Ratio	Std Mdl	Std Uom	Dilution Factor	Lab Qual Code	Validation Flag	Validation Reason Code	Anyl Meth Code	Lab Code	Comment
XC4scr	8	8	36845	9.1	874	84.7	8	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S2	882.6	42718	REG	F	INIT	METALS	Manganese	Mn	870	10.3	Int-Scr_95	8.39	103.7	2	ug/L	1		NQ	NQ	SW-846:6010C	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC4scr	5	5	37292	0.535	18.1	1.72	5	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate	R-25 S2	882.6	42718	REG	F	INIT	GENINORG	Total Phosphate as Phosphorus	PO4-P	0.535	0.3	Int-Scr_95	0.178	3	0.02	mg/L	1		NQ	NQ	EPA:365.4	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC4scr	25	27	38239	95	4500	560	26	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Bulldog Spring	0	42719	REG	F	INIT	METALS	Aluminum	Al	493	0.9	Int-Scr_95	68	7.3	68	ug/L	1		NQ	NQ	SW-846:6010C	GELC	
XC4scr	25	27	38239	77.2	2200	297.5	26	Pajarito Canyon (includes Twomile and Threemile Canyons)	Intermediate Spring	Bulldog Spring	0	42719	REG	F	INIT	METALS	Iron	Fe	246	0.8	Int-Scr_95	54.1	4.5	30	ug/L	1		NQ	NQ	SW-846:6010C	GELC	
XC4scr	60	68	36535	570	2840	1380	68	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	FD	F	INIT	METALS	Boron	B	1010	0.7	Int-Scr_95	16.2	62.3	15	ug/L	1		NQ	NQ	SW-846:6010C	GELC	
XC4scr	60	68	36535	570	2840	1380	68	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Intermediate Spring	Martin Spring	0	42719	REG	F	INIT	METALS	Boron	B	1020	0.7	Int-Scr_95	16.2	63	15	ug/L	1		NQ	NQ	SW-846:6010C	GELC	
XC4scr	15	15	36867	38.5	141	52.1	15	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Regional	R-25 S5	1294.7	42723	REG	F	INIT	METALS	Boron	B	38.9	0.7	Reg-Scr_95	18.7	2.1	15	ug/L	1	J	J	J_LAB	SW-846:6010C	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC4scr	8	8	37294	1.12	3.45	1.875	8	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Regional	R-25 S5	1294.7	42723	REG	F	INIT	GENINORG	Total Phosphate as Phosphorus	PO4-P	1.66	0.9	Reg-Scr_95	0.0822	20.2	0.02	mg/L	1		NQ	NQ	EPA:365.4	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.
XC4scr	15	15	37295	0.22	4.2	0.741	15	Water Canyon (includes Canon de Valle, Potrillo, and Fence Canyons)	Regional	R-25 S6	1404.7	42720	REG	F	INIT	GENINORG	Total Phosphate as Phosphorus	PO4-P	0.496	0.7	Reg-Scr_95	0.0822	6	0.02	mg/L	1		NQ	NQ	EPA:365.4	GELC	Future sampling activity will be discontinued, concurs with the decision of NMED.