Response to the Approval with Modifications for the Periodic Monitoring Report for Ancho Watershed, October 15–October 24, 2008, Los Alamos National Laboratory EPA ID No: NM0890010515, HWB-LANL-09-027, Dated July 13, 2009

INTRODUCTION

To facilitate review of this response, the New Mexico Environment Department's (NMED's) comments are included verbatim. Los Alamos National Laboratory's (LANL's or the Laboratory's) responses follow each NMED comment.

NMED Comment

1. *The Conceptual Model included in the Report (Appendix A) is not consistent with the Conceptual Models in Periodic Monitoring Reports or the Interim Facility-Wide Groundwater Monitoring Plan. For example, the Conceptual model in the 2007 Periodic Monitoring Report has the elements of the model broken into surface water, springs, alluvial groundwater, intermediate groundwater, regional aquifer, and contaminants and then gives their characteristics and descriptions in more detail. The Conceptual Model for the 2008 Report lists Ancho canyon with contaminant sources ("minor dry sources and past effluent sources") and groundwater contaminants broken into alluvial, intermediate, and regional categories (with "none" listed). The Permittees must provide to NMED replacement pages with the correct Conceptual Model for Ancho Canyon, or otherwise resolve the discrepancy.*

LANL Response

1. As NMED has noted, the conceptual model in the 2008 Ancho watershed periodic monitoring report (PMR) does not seem consistent with the conceptual model of the 2007 PMR. In fact, the conceptual model included in the 2008 Ancho watershed PMR (Appendix A) is consistent with the previous conceptual model, but the description is less detailed because over the last 3 yr of sampling, the Laboratory has determined that no groundwater contaminants are above regulatory limits in the Ancho watershed. Furthermore, experience has shown that the three surface water and spring locations have not had enough base flow to provide reliable samples. Attached is a more detailed version of the conceptual model for the Ancho watershed (replacement pages A-1 and A-2).

NMED Comment

2. *Appendix D does not contain all of the data for all of the ports in well R-31; data from port depths 532.2 and 670.3 are missing. The Permittees must ensure that all data are included in the Report. The Permittees must provide replacement pages for the missing data in Appendix D.*

LANL Response

2. The port depths at 532.2 and 670.3 ft (screens 2 and 3, respectively) of well R-31 are sampled only for radium-226 and radium-228, and these data were reported in their entirety in Tables D-1 and D-2 of the original report. In the event that the original report was missing pages D-3 and D-4, they are attached.

NMED Comment

3. The "<" used in the tables of Appendix D is not defined in the Acronyms and Abbreviations on page viii or the beginning of Appendix D in the guide to symbols, abbreviations and acronyms used throughout Appendix D (page D-1 through D-2). NMED notes that it is defined in the text (page 3, Section 4.1, Methods and Procedures), however it is not defined in the abbreviations section or in the table and Section 4.1 is not cited in Appendix D. The Permittees must ensure that all symbols, abbreviations, and acronyms are defined in relation to their use in future reports.

LANL Response

3. The symbol "<" is now defined at the beginning of Appendix D in the guide to symbols, abbreviations, and acronyms used in Appendix D. Replacement pages D-1 and D-2 are attached.

Conceptual Model Element	Characteristic	Description
Surface Water	Flow	Ancho Canyon heads on the Pajarito Plateau and for the most part the flow is ephemeral. The canyon has two main branches, of which the northern one is known as North Ancho Canyon. Gaging stations include Ancho above north fork Ancho, Ancho north fork below SR-4, and Ancho below SR-4 and have shown little flow. The average discharge for Ancho below SR-4 from 7 yr of records is 0.005 cfs or 3.6 acre-ft/yr. The only perennial section of the canyon is near the Rio Grande.
	Quality	No constituents exceed regulatory standards.
Springs	Name	Ancho Canyon begins less than 1 mi above the Rio Grande. Ancho Spring, a regional aquifer spring, creates a small surface flow that has a seasonally variable extent of a few hundred feet.
	Quality	Not applicable
Alluvial Groundwater	Extent	No persistent alluvial groundwater has been found; wells 39-DM-6 and 39-DM-3 have not provided samples in recent years. Ancho Canyon contains thick alluvium that could host perched groundwater, and three boreholes (ASC-15, ASC-16, and ASC-18) encountered 4 ft to 9 ft of saturation in alluvium below Material Disposal Area (MDA) Y. Several boreholes drilled downgradient of MDA Y encountered no alluvial groundwater.
	Depth/ Thickness	Not applicable
	Quality	Not applicable
Intermediate Groundwater	Extent/ Hydrology	No intermediate perched zones have been found beneath Ancho Canyon. Borehole DMB-1, drilled between building 69 and the administrative area at Technical Area 39 (TA-39), penetrated 119 ft of Bandelier Tuff and 5 ft of Cerros del Rio basalts. No intermediate-depth perched water was encountered in this hole, but clay-lined fractures and vesicles in the basalt suggest that periodically groundwater may pass through these rocks. A test hole (TH-7) drilled 10 ft into basalts in Ancho Canyon below SR-4 was dry. The hole has since been plugged. Well R-31 was drilled in TA-39 in the north fork of Ancho Canyon. A screen was placed from 439 to 454 ft at a possible perched zone, based on water observed in a borehole video. The zone has been dry since, and no water samples have been collected from it.
	Depth/ Thickness	Not applicable
	Quality	Not applicable
Regional Aquifer	Depth/ Hydrology	Groundwater in the regional aquifer beneath Ancho Canyon flows to the east and southeast, towards the Rio Grande. The regional aquifer lies at about 1000 to 1170 ft beneath the mesa at TA-49 and is within the Cerros del Rio basalt, the underlying Puye fanglomerate, Totavi gravels, and possibly the Santa Fe Group. Regional aquifer characterization well R-31 in TA-39 found the regional aquifer at about 530 ft within the Cerros del Rio basalt, the underlying Puye fanglomerate, and Totavi gravels.
	Quality	No constituents exceed regulatory standards. Three regional aquifer wells at TA-49 have been sampled since the 1960s to monitor for effects of testing at that site. In general, no effects have been found. High metal concentrations (lead, zinc, iron, manganese) in samples are related to metal well casing and fittings. Occasional detections of organic compounds are not supported by follow up sampling.

Conceptual Model Element	Characteristic	Description
Contaminants	Potential Sources	Firing sites and underground testing sites at TA-49 and TA-39
	Type	High explosives, radionuclides, metals
	Quality	No constituents exceed regulatory standards.

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

<	Based on qualifiers, the result was a nondetection.
—	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	minimum detectable activity
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

Table D-1 Previously Unreported Data

Location	Port	Depth (ft)	Date	Field Matrix	Field Prep	Lab Sample Type	Field QC Type	Suite	Method	Analyte	Sym	Result	1-sigma TPU	MDA	Units	Lab Qual	2nd Qual	Request	Sample	Lab
R-31	1552	532.2	4/17/2008	WG	UF	CS	—	Rad	LLEE	Tritium	<	0.47895	9.60E-02	2.90E-01	pCi/L	—	U	08-1036	CAAN-08-11746	UMTL
R-31	1552	532.2	5/17/2007	WG	UF	CS	—	Rad	LLEE	Tritium	<	0.57474	9.60E-02	2.90E-01	pCi/L	—	U	2345	UU07050G31R201	UMTL
R-31	1552	532.2	11/28/2006	WG	UF	CS	—	Rad	LLEE	Tritium	—	0.6386	9.60E-02	2.90E-01	pCi/L	—	J	2293	UU06110G31R201	UMTL
R-31	1552	532.2	8/17/2005	WG	UF	CS	—	Rad	EPA:906.0	Tritium	<	24	1.96E+01	200	pCi/L	U	U	143666	GU0508G31R201	GELC
R-31	1552	532.2	3/18/2004	WG	UF	CS	—	Rad	LLEE	Tritium	—	0.35123	9.60E-02	2.90E-01	pCi/L	—	J	1863	UU0403G31R201	UMTL
R-31	1612	670.3	4/16/2008	WG	UF	CS	—	Rad	LLEE	Tritium	<	0.06386	9.60E-02	2.90E-01	pCi/L	U	U	08-1034	CAAN-08-11749	UMTL
R-31	1612	670.3	11/6/2007	WG	UF	CS	—	Rad	LLEE	Tritium	<	-0.06386	9.60E-02	2.90E-01	pCi/L	—	U	2421	UU07100G31R301	UMTL
R-31	1612	670.3	5/21/2007	WG	UF	CS	—	Rad	LLEE	Tritium	<	0.15965	9.60E-02	2.90E-01	pCi/L	—	U	2347	UU07050G31R301	UMTL
R-31	1612	670.3	11/30/2006	WG	UF	CS	—	Rad	LLEE	Tritium	<	0.19158	9.60E-02	2.90E-01	pCi/L	—	U	2293	UU06110G31R301	UMTL
R-31	1612	670.3	8/19/2005	WG	UF	CS	—	Rad	EPA:906.0	Tritium	<	39.5	20.5	208	pCi/L	U	U	143804	GU0508G31R301	GELC
R-31	1612	670.3	12/16/2000	WG	UF	CS	—	Rad	EPA:906.0	Tritium	—	0.19	1.17E-01	0	pCi/L	*	—	8170R	GW31-00-0005	UMTL
Test Well DT-10	1811	1080	4/16/2008	WG	UF	CS	—	Rad	LLEE	Tritium	<	0.25544	9.60E-02	2.90E-01	pCi/L	U	U	08-1033	CAAN-08-11739	UMTL
Test Well DT-10	1811	1080	10/30/2007	WG	UF	CS	—	Rad	LLEE	Tritium	<	0.09579	9.60E-02	2.90E-01	pCi/L	—	U	2421	UU071000G01T01	UMTL
Test Well DT-10	1811	1080	5/16/2007	WG	UF	CS	—	Rad	LLEE	Tritium	<	0.06386	9.60E-02	2.90E-01	pCi/L	—	U	2345	UU070500G01T01	UMTL
Test Well DT-10	1811	1080	12/4/2006	WG	UF	CS	FD	Rad	LLEE	Tritium	<	0.22351	9.60E-02	2.90E-01	pCi/L	—	U	2293	UU061100G01T20	UMTL
Test Well DT-10	1811	1080	12/4/2006	WG	UF	CS	—	Rad	LLEE	Tritium	<	0	9.60E-02	2.90E-01	pCi/L	—	U	2293	UU061100G01T01	UMTL
Test Well DT-10	1811	1080	7/19/2005	WG	UF	CS	—	Rad	EPA:906.0	Tritium	<	-65.5	1.84E+01	194	pCi/L	U	U	141235	GU05070G01T01	GELC
Test Well DT-5A	1821	1172	4/18/2008	WG	UF	CS	—	Rad	LLEE	Tritium	<	-0.12772	9.60E-02	2.90E-01	pCi/L	U	U	08-1035	CAAN-08-11743	UMTL
Test Well DT-5A	1821	1172	5/17/2007	WG	UF	CS	FB	Rad	LLEE	Tritium	<	-0.03193	9.60E-02	2.90E-01	pCi/L	—	U	2345	UU070500GA5T01-FB	UMTL
Test Well DT-5A	1821	1172	5/17/2007	WG	UF	CS	—	Rad	LLEE	Tritium	<	0.03193	9.60E-02	2.90E-01	pCi/L	—	U	2345	UU070500GA5T01	UMTL
Test Well DT-5A	1821	1172	12/6/2006	WG	UF	CS	—	Rad	LLEE	Tritium	<	0	9.60E-02	2.90E-01	pCi/L	—	U	2298	UU061100GA5T01	UMTL
Test Well DT-5A	1821	1172	8/24/2005	WG	UF	CS	—	Rad	EPA:906.0	Tritium	<	80.5	21.2	211	pCi/L	U	U	144119	GU05070GA5T01	GELC
Test Well DT-5A	1821	1172	7/13/2004	WG	UF	CS	—	Rad	EPA:906.0	Tritium	<	-39	1.64E+01	166	pCi/L	U	U	116936	GU04060GA5T01	GELC

Table D-2 Analytical Results

Location	Port	Depth (ft)	Date	Field Matrix	Field Prep	Lab Sample Type	Field QC Type	Suite	Method	Analyte	Sym	Result	1-sigma TPU	MDA	MDL	Units	Lab Qual	2nd Qual	Request	Sample	Lab
R-31	1552	532.2	10/23/08	WG	UF	CS	—	Rad	EPA:903.1	Radium-226	—	1.08	8.67E-02	5.50E-01	—	pCi/L	—	—	09-172	CAAN-08-16128	GELC
R-31	1552	532.2	04/17/08	WG	UF	CS	—	Rad	EPA:903.1	Radium-226	—	0.93	7.67E-02	4.60E-01	—	pCi/L	—	—	08-1028	CAAN-08-11746	GELC
R-31	1552	532.2	03/18/04	WG	UF	CS	—	Rad	EPA:901.1	Radium-226	—	5.68	1.02E+00	5.02E+00	—	pCi/L	—	J	109391	GU0403G31R201	GELC
R-31	1552	532.2	10/23/08	WG	UF	CS	—	Rad	EPA:904	Radium-228	—	1.39	1.03E-01	5.70E-01	—	pCi/L	—	—	09-172	CAAN-08-16128	GELC
R-31	1552	532.2	04/17/08	WG	UF	CS	—	Rad	EPA:904	Radium-228	—	1.6	1.20E-01	6.80E-01	—	pCi/L	—	—	08-1028	CAAN-08-11746	GELC
R-31	1612	670.3	10/24/08	WG	UF	CS	—	Rad	EPA:903.1	Radium-226	<	0.422	6.67E-02	6.20E-01	—	pCi/L	U	U	09-175	CAAN-08-16133	GELC
R-31	1612	670.3	04/16/08	WG	UF	CS	—	Rad	EPA:903.1	Radium-226	—	0.816	8.33E-02	6.30E-01	—	pCi/L	—	—	08-1016	CAAN-08-11749	GELC
R-31	1612	670.3	12/16/00	WG	UF	CS	—	Rad	Gamma Spec	Radium-226	<	-8	1.12E+01	3.50E+01	—	pCi/L	U	U	8171R	GW31-00-0005	PARA
R-31	1612	670.3	10/24/08	WG	UF	CS	—	Rad	EPA:904	Radium-228	—	1.1	9.67E-02	6.50E-01	—	pCi/L	—	—	09-175	CAAN-08-16133	GELC
R-31	1612	670.3	04/16/08	WG	UF	CS	—	Rad	EPA:904	Radium-228	<	0.341	5.33E-02	4.70E-01	—	pCi/L	U	U	08-1016	CAAN-08-11749	GELC
R-31	1662	830.9	10/21/08	WG	F	CS	—	Geninorg	EPA:310.1	Alkalinity-CO3	—	2.11	—	—	7.30E-01	mg/L	—	—	09-147	CAAN-08-16120	GELC
R-31	1662	830.9	04/15/08	WG	F	CS	—	Geninorg	EPA:310.1	Alkalinity-CO3	<	1	—	—	7.30E-01	mg/L	U	U	08-1002	CAAN-08-11740	GELC
R-31	1662	830.9	11/02/07	WG	F	CS	—	Geninorg	EPA:310.1	Alkalinity-CO3	—	1.95	—	—	7.25E-01	mg/L	—	—	197215	GF07100G31R401	GELC
R-31	1662	830.9	10/21/08	WG	F	CS	—	Geninorg	EPA:310.1	Alkalinity-CO3+HCO3	—	52.9	—	—	7.30E-01	mg/L	—	—	09-147	CAAN-08-16120	GELC
R-31	1662	830.9	04/15/08	WG	F	CS	—	Geninorg	EPA:310.1	Alkalinity-CO3+HCO3	—	55.6	—	—	7.30E-01	mg/L	—	—	08-1002	CAAN-08-11740	GELC
R-31	1662	830.9	11/02/07	WG	F	CS	—	Geninorg	EPA:310.1	Alkalinity-CO3+HCO3	—	52.7	—	—	7.25E-01	mg/L	—	—	197215	GF07100G31R401	GELC
R-31	1662	830.9	05/22/07	WG	F	CS	—	Geninorg	EPA:310.1	Alkalinity-CO3+HCO3	—	53.5	—	—	7.25E-01	mg/L	H	J	186623	GF07050G31R401	GELC
R-31	1662	830.9	10/21/08	WG	UF	CS	EQB	Geninorg	EPA:310.1	Alkalinity-CO3+HCO3	—	2.11	—	—	7.30E-01	mg/L	—	—	09-147	CAAN-08-16123	GELC
R-31	1662	830.9	10/21/08	WG	F	CS	—	Geninorg	SW-846:6010B	Calcium	—	9.79	—	—	3.00E-02	mg/L	—	—	09-147	CAAN-08-16120	GELC
R-31	1662	830.9	04/15/08	WG	F	CS	—	Geninorg	SW-846:6010B	Calcium	—	8.56	—	—	3.00E-02	mg/L	EN	J+	08-1002	CAAN-08-11740	GELC
R-31	1662	830.9	11/02/07	WG	F	CS	—	Geninorg	SW-846:6010B	Calcium	—	10.3	—	—	3.00E-02	mg/L	—	—	197215	GF07100G31R401	GELC
R-31	1662	830.9	05/22/07	WG	F	CS	—	Geninorg	SW-846:6010B	Calcium	—	10.4	—	—	3.60E-02	mg/L	—	—	186623	GF07050G31R401	GELC
R-31	1662	830.9	12/06/06	WG	F	CS	—	Geninorg	SW-846:6010B	Calcium	—	10.8	—	—	3.60E-02	mg/L	—	—	177384	GF06110G31R401	GELC
R-31	1662	830.9	10/21/08	WG	UF	CS	—	Geninorg	SW-846:6010B	Calcium	—	9.99	—	—	3.00E-02	mg/L	—	—	09-147	CAAN-08-16122	GELC
R-31	1662	830.9	04/15/08	WG	UF	CS	—	Geninorg	SW-846:6010B	Calcium	—	9.66	—	—	3.00E-02	mg/L	EN	J+	08-1002	CAAN-08-11742	GELC
R-31	1662	830.9	11/02/07	WG	UF	CS	—	Geninorg	SW-846:6010B	Calcium	—	10.7	—	—	3.00E-02	mg/L	—	—	197215	GU07100G31R401	GELC
R-31	1662	830.9	05/22/07	WG	UF	CS	—	Geninorg	SW-846:6010B	Calcium	—	9.81	—	—	3.60E-02	mg/L	—	—	186623	GU07050G31R401	GELC
R-31	1662	830.9	12/06/06	WG	UF	CS	—	Geninorg	SW-846:6010B	Calcium	—	10.8	—	—	3.60E-02	mg/L	—	—	177384	GU06110G31R401	GELC
R-31	1662	830.9	10/21/08	WG	F	CS	—	Geninorg	EPA:300.0	Chloride	—	1.72	—	—	6.60E-02	mg/L	—	—	09-147	CAAN-08-16120	GELC
R-31	1662	830.9	04/15/08	WG	F	CS	—	Geninorg	EPA:300.0	Chloride	—	1.66	—	—	6.60E-02	mg/L	—	—	08-1002	CAAN-08-11740	GELC
R-31	1662	830.9	11/02/07	WG	F	CS	—	Geninorg	EPA:300.0	Chloride	—	1.58	—	—	6.60E-02	mg/L	—	—	197215	GF07100G31R401	GELC
R-31	1662	830.9	10/21/08	WG	F	CS	—	Geninorg	EPA:300.0	Fluoride	—	0.31	—	—	3.30E-02	mg/L	—	—	09-147	CAAN-08-16120	GELC
R-31	1662	830.9	04/15/08	WG	F	CS	—	Geninorg	EPA:300.0	Fluoride	—	0.233	—	—	3.30E-02	mg/L	—	—	08-1002	CAAN-08-11740	GELC
R-31	1662	830.9	11/02/07	WG	F	CS	—	Geninorg	EPA:300.0	Fluoride	—	0.216	—	—	3.30E-02	mg/L	—	—	197215	GF07100G31R401	GELC
R-31	1662	830.9	10/21/08	WG	F	CS	—	Geninorg	SM:A2340B	Hardness	—	33.5	—	—	3.50E-01	mg/L	—	—	09-147	CAAN-08-16120	GELC
R-31	1662	830.9	04/15/08	WG	F	CS	—	Geninorg	SM:A2340B	Hardness	—	29.8	—	—	4.30E-01	mg/L	—	—	08-1002	CAAN-08-11740	GELC
R-31	1662	830.9	11/02/07	WG	F	CS	—	Geninorg	SM:A2340B	Hardness	—	35.3	—	—	4.25E-01	mg/L	—	—	197215	GF07100G31R401	GELC
R-31	1662	830.9	05/22/07	WG	F	CS	—	Geninorg	SM:A2340B	Hardness	—	35.4	—	—	4.40E-01	mg/L	—	—	186623	GF07050G31R401	GELC
R-31	1662	830.9	12/06/06	WG	F	CS	—	Geninorg	SM:A2340B	Hardness	—	36.5	—	—	8.50E-02	mg/L	—	—	177384	GF06110G31R401	GELC
R-31	1662	830.9	10/21/08	WG	UF	CS	—	Geninorg	SM:A2340B	Hardness	—	33.8	—	—	3.50E-01	mg/L	—	—	09-147	CAAN-08-16122	GELC
R-31	1662	830.9	04/15/08	WG	UF	CS	—	Geninorg	SM:A2340B	Hardness	—	33.6	—	—	4.30E-01	mg/L	—	—	08-1002	CAAN-08-11742	GELC
R-31	1662	830.9	11/02/07	WG	UF	CS	—	Geninorg	SM:A2340B	Hardness	—	36.3	—	—	4.25E-01	mg/L	—	—	197215	GU07100G31R401	GELC
R-31	1662	830.9	05/22/07	WG	UF	CS	—	Geninorg	SM:A2340B	Hardness	—	33.9	—	—	4.40E-01	mg/L	—	—	186623	GU07050G31R401	GELC
R-31	1662	830.9	12/06/06	WG	UF	CS	—	Geninorg	SM:A2340B	Hardness	—	36.3	—	—	8.50E-02	mg/L	—	—	177384	GU06110G31R401	GELC
R-31	1662	830.9	10/21/08	WG	F	CS	—	Geninorg	SW-846:6010B	Magnesium	—	2.19	—	—	8.50E-02	mg/L	—	—	09-147	CAAN-08-16120	GELC
R-31	1662	830.9	04/15/08	WG	F	CS	—	Geninorg	SW-846:6010B	Magnesium	—	2.06	—	—	8.50E-02	mg/L	—	—	08-1002	CAAN-08-11740	GELC
R-31	1662	830.9	11/02/07	WG	F	CS	—	Geninorg	SW-846:6010B	Magnesium	—	2.33	—	—	8.50E-02	mg/L	—	—	197215	GF07100G31R401	GELC
R-31	1662	830.9	05/22/07	WG	F	CS	—	Geninorg	SW-846:6010B	Magnesium	—	2.3	—	—	8.50E-02	mg/L	—	—	186623	GF07050G31R401	GELC
R-31	1662	830.9	12/06/06	WG	F	CS	—	Geninorg	SW-846:6010B	Magnesium	—	2.31	—	—	8.50E-02	mg/L	—	—	177384	GF06110G31R401	GELC
R-31	1662	830.9	10/21/08	WG	UF	CS	—	Geninorg	SW-846:6010B	Magnesium	—	2.15	—	—	8.50E-02	mg/L	—	—	09-147	CAAN-08-16122	GELC
R-31	1662	830.9	04/15/08	WG	UF	CS	—	Geninorg	SW-846:6010B	Magnesium	—	2.3	—	—	8.50E-02	mg/L	—	—	08-1002	CAAN-08-11742	GELC
R-31	1662	830.9	11/02/07	WG	UF	CS	—	Geninorg	SW-846:6010B	Magnesium	—	2.34	—	—	8.50E-02	mg/L	—	—	197215	GU07100G31R401	GELC
R-31	1662	830.9	05/22/07	WG	UF	CS	—	Geninorg	SW-846:6010B	Magnesium	—	2.28	—	—	8.50E-02	mg/L	—	—	186623	GU07050G31R401	GELC