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**Groundwater Monitoring at Sandia National Laboratories/New Mexico Mixed Waste
Landfill Conducted by NMED DOE OB for FFY 2011 Q-3**

The New Mexico Environment Department (NMED) DOE Oversight Bureau (Bureau) has compiled and assessed groundwater data collected during June 2011. The Bureau collected groundwater samples from Mixed Waste Landfill (MWL) groundwater monitoring wells MWL-BW2, MWL-MW4, MWL-MW5, MWL-MW6, MWL-MW7, MWL-MW8 and MWL-MW9. Split samples were collected using standard Sandia National Laboratories/New Mexico sampling procedures and equipment. The samples were submitted for analysis to an independent analytical laboratory for Target Analyte List (TAL) metals plus uranium, anions, nitrate and nitrite, volatile organic compounds (VOCs), gamma emitting isotopes, gross alpha and beta, and isotopic uranium. No anomalies were detected at any MWL monitoring wells.

Data Assessment

Data results are compared to applicable Maximum Contaminant Levels (MCLs) established by the U.S. Environmental Protection Agency (EPA) National Primary Drinking Water Regulations (40 CFR 141), National Primary Drinking Water Standards, EPA, July 2002.

Results

Analytical results for total unfiltered Target Compound List (TAL) metals plus uranium and dissolved filtered TAL metals plus uranium are presented in Table-1 and Table-2, respectively. All metal concentrations were below established MCLs.

Analytical results for anions, nitrate and nitrite are presented in Table-3. No samples exceeded their associated MCL.

Analytical results for VOCs detected above the method detection limits (MDLs) are listed in Table 4. All compounds detected above their associated MDL were below established MCLs.

Analytical results for radionuclides are listed in Table-5. Samples were analyzed for gross alpha and beta, gamma emitting isotopes and isotopic uranium. No isotopes were detected above EPA MCLs.

Response

Questions or comments should be addressed to Chris Armijo by phone at (505) 383-2070, by e-mail at chris.armijo1@state.nm.us, or to the address in the letterhead.

Enclosure: (1) Table-1 Total TAL Metals plus Uranium
 (2) Table-2 Dissolved TAL Metals plus Uranium
 (3) Table-3 Anions, Nitrate & Nitrite Results
 (4) Table-4 Detected Volatile Organic Compounds Results
 (5) Table-5 Gross Alpha, Gross Beta, Gamma Spectroscopy, and Isotopic Uranium Results

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File: SGE42.Groundwater Monitoring. MWL. FFY 2011 Q-3

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Table-1 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-BW2 16-June-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.00095	0.01	0.01	0.00095	U	SW-846:6020
	Barium	0.098	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	60.1	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	21.9	NE	0.05	0.0052		SW-846:6020
	Manganese	0.0005	NE	0.002	0.00024	B	SW-846:6020
	Mercury	0.00005	0.002	0.0002	0.00005	U	SW-846:7470A
	Nickel	0.0004	NE	0.005	0.0004	U	SW-846:6020
	Potassium	3.9	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	B	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	54.8	NE	0.05	0.015		SW-846:6020
	Thallium	0.00073	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.0076	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0041	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

B = Estimated result. Result is less than RL.

J = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-1 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-BW2 16-June-11 DUP	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.00095	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.096	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	67.4	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	21.5	NE	0.05	0.0052		SW-846:6020
	Manganese	0.00046	NE	0.002	0.00024	B	SW-846:6020
	Mercury	0.00005	0.002	0.0002	0.00005	U	SW-846:7470A
	Nickel	0.00053	NE	0.005	0.0004	B	SW-846:6020
	Potassium	3.8	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	54.4	NE	0.05	0.015		SW-846:6020
	Thallium	0.00065	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.0074	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0042	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

B = Estimated result. Result is less than RL.

J = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

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Table-1 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW4 22-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.003	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.096	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	53.4	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00025	NE	0.002	0.00022	B	SW-846:6020
	Copper	0.0042	1.3	0.001	0.00045		SW-846:6020
	Iron	0.12	NE	0.05	0.02		SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	18.5	NE	0.05	0.0052		SW-846:6020
	Manganese	0.0076	NE	0.002	0.00024		SW-846:6020
	Mercury	0.00005	0.002	0.0002	0.00005	U	SW-846:7470A
	Nickel	0.14	NE	0.005	0.0004		SW-846:6020
	Potassium	5.1	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.000066	NE	0.002	0.00004	B	SW-846:6020
	Sodium	42.9	NE	0.05	0.015		SW-846:6020
	Thallium	0.0014	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.0056	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0087	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.063	NE	0.01	0.0083		SW-846:6020

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Table-1 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW5 14-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.0013	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.12	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	81.8	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.032	NE	0.05	0.02	B	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	27.5	NE	0.05	0.0052		SW-846:6020
	Manganese	0.023	NE	0.002	0.00024		SW-846:6020
	Mercury	0.00005	0.002	0.0002	0.00005	U	SW-846:7470A
	Nickel	0.00043	NE	0.005	0.0004	B	SW-846:6020
	Potassium	6	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	60.7	NE	0.05	0.015		SW-846:6020
	Thallium	0.0012	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.0093	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0047	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

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Table-1 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW6 15-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.0015	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.11	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	80.2	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	26.4	NE	0.05	0.0052		SW-846:6020
	Manganese	0.0011	NE	0.002	0.00024	B	SW-846:6020
	Mercury	0.00005	0.002	0.0002	0.00005	U	SW-846:7470A
	Nickel	0.0004	NE	0.005	0.0004	U	SW-846:6020
	Potassium	5.7	NE	0.1	0.042		SW-846:6020
	Selenium	0.0025	0.05	0.005	0.0016	B	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	56.7	NE	0.05	0.015		SW-846:6020
	Thallium	0.0014	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.0098	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0062	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

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Table-1 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW7 28-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.0022	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.1	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	52.8	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	17.9	NE	0.05	0.0052		SW-846:6020
	Manganese	0.00046	NE	0.002	0.00024	B	SW-846:6020
	Mercury	0.00006	0.002	0.0002	0.00006	U	SW-846:7470A
	Nickel	0.0004	NE	0.005	0.0004	U	SW-846:6020
	Potassium	5	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	42.2	NE	0.05	0.015		SW-846:6020
	Thallium	0.0016	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.008	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0071	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

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Table-1 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW8 20-Jun-11	Aluminum	0.053	NE	0.03	0.013		SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.0011	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.13	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	54.4	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.081	NE	0.05	0.02		SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	18.2	NE	0.05	0.0052		SW-846:6020
	Manganese	0.005	NE	0.002	0.00024		SW-846:6020
	Mercury	0.00005	0.002	0.0002	0.00005	U	SW-846:7470A
	Nickel	0.00058	NE	0.005	0.0004	B	SW-846:6020
	Potassium	5.3	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	44.7	NE	0.05	0.015		SW-846:6020
	Thallium	0.0015	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.0075	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0024	NE	0.01	0.0024	U	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

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Table-1 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Total TAL Metals plus Uranium

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW9 27-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.0037	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.1	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	53.9	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.0006	1.3	0.001	0.00045	B	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	18.6	NE	0.05	0.0052		SW-846:6020
	Manganese	0.0013	NE	0.002	0.00024	B	SW-846:6020
	Mercury	0.000081	0.002	0.0002	0.00006	B,J	SW-846:7470A
	Nickel	0.0004	NE	0.005	0.0004	U	SW-846:6020
	Potassium	5	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.000046	NE	0.002	0.00004	B	SW-846:6020
	Sodium	42.7	NE	0.05	0.015		SW-846:6020
	Thallium	0.0014	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.0095	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0089	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

B = Estimated result. Result is less than RL.

J = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

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U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals plu:

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-BW2 16-June-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.00095	0.01	0.01	0.00095	U	SW-846:6020
	Barium	0.098	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	67.4	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00019	0.015	0.003	0.00017	B	SW-846:6020
	Magnesium	21.5	NE	0.05	0.0052		SW-846:6020
	Manganese	0.00024	NE	0.002	0.00024	U	SW-846:6020
	Mercury	0.000016	0.002	0.0002	0.000016	U	SW-846:7471A
	Nickel	0.0004	NE	0.005	0.0004	U	SW-846:6020
	Potassium	3.8	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	54.5	NE	0.05	0.015		SW-846:6020
	Thallium	0.00055	0.002	0.002	0.00055	U	SW-846:6020
	Uranium	0.0074	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0043	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

B = Estimated result. Result is less than RL.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals plu:

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-BW2 16-June-11 DUP	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.00095	0.01	0.01	0.00095	U	SW-846:6020
	Barium	0.096	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	66.5	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	21.5	NE	0.05	0.0052		SW-846:6020
	Manganese	0.00024	NE	0.002	0.00024	U	SW-846:6020
	Mercury	0.000016	0.002	0.0002	0.000016	U	SW-846:7471A
	Nickel	0.0004	NE	0.005	0.0004	U	SW-846:6020
	Potassium	3.8	NE	0.1	0.042		SW-846:6020
	Selenium	0.0027	0.05	0.005	0.0016	B	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	54.1	NE	0.05	0.015		SW-846:6020
	Thallium	0.00055	0.002	0.002	0.00055	U	SW-846:6020
	Uranium	0.0074	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0041	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

B = Estimated result. Result is less than RL.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals plu:

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW4 22-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.0023	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.094	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	52	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.0013	1.3	0.001	0.00045		SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	18.7	NE	0.05	0.0052		SW-846:6020
	Manganese	0.0063	NE	0.002	0.00024		SW-846:6020
	Mercury	0.000016	0.002	0.0002	0.000016	U	SW-846:7471A
	Nickel	0.13	NE	0.005	0.0004		SW-846:6020
	Potassium	5.2	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	45	NE	0.05	0.015		SW-846:6020
	Thallium	0.00055	0.002	0.002	0.00055	U	SW-846:6020
	Uranium	0.0053	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0086	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.056	NE	0.01	0.0083		SW-846:6020

B = Estimated result. Result is less than RL.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals plu:

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW5 14-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.00097	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.12	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	80.4	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	26.8	NE	0.05	0.0052		SW-846:6020
	Manganese	0.0023	NE	0.002	0.00024		SW-846:6020
	Mercury	0.000016	0.002	0.0002	0.000016	U	SW-846:7471A
	Nickel	0.0004	NE	0.005	0.0004	U	SW-846:6020
	Potassium	5.8	NE	0.1	0.042		SW-846:6020
	Selenium	0.0023	0.05	0.005	0.0016	B	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	59.5	NE	0.05	0.015		SW-846:6020
	Thallium	0.00055	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.0092	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0045	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

B = Estimated result. Result is less than RL.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals plu:

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW6 15-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.0012	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.11	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	80.5	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	26.2	NE	0.05	0.0052		SW-846:6020
	Manganese	0.00024	NE	0.002	0.00024	U	SW-846:6020
	Mercury	0.000016	0.002	0.0002	0.000016	U	SW-846:7471A
	Nickel	0.0004	NE	0.005	0.0004	U	SW-846:6020
	Potassium	5.7	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	56.2	NE	0.05	0.015		SW-846:6020
	Thallium	0.00055	0.002	0.002	0.00055	U	SW-846:6020
	Uranium	0.0095	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0063	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

B = Estimated result. Result is less than RL.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals plu:

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW7 28-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.0019	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.1	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	51.2	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00045	1.3	0.001	0.00045	U	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	17.6	NE	0.05	0.0052		SW-846:6020
	Manganese	0.00024	NE	0.002	0.00024	U	SW-846:6020
	Mercury	0.00006	0.002	0.0002	0.00006	U	SW-846:7471A
	Nickel	0.0004	NE	0.005	0.0004	U	SW-846:6020
	Potassium	4.9	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	41.7	NE	0.05	0.015		SW-846:6020
	Thallium	0.00055	0.002	0.002	0.00055	U	SW-846:6020
	Uranium	0.0078	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0069	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

B = Estimated result. Result is less than RL.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals plu:

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW8 20-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.00095	0.01	0.01	0.00095	U	SW-846:6020
	Barium	0.13	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	51.6	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.0019	1.3	0.001	0.00045		SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	17	NE	0.05	0.0052		SW-846:6020
	Manganese	0.0012	NE	0.002	0.00024	B	SW-846:6020
	Mercury	0.000016	0.002	0.0002	0.000016	U	SW-846:7471A
	Nickel	0.00043	NE	0.005	0.0004	B	SW-846:6020
	Potassium	4.9	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	44.9	NE	0.05	0.015		SW-846:6020
	Thallium	0.00058	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.007	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0024	NE	0.01	0.0024	U	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

B = Estimated result. Result is less than RL.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-2 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Dissolved TAL Metals plu:

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW9 27-Jun-11	Aluminum	0.013	NE	0.03	0.013	U	SW-846:6020
	Antimony	0.0017	0.006	0.005	0.0017	U	SW-846:6020
	Arsenic	0.003	0.01	0.01	0.00095	B	SW-846:6020
	Barium	0.1	2	0.002	0.0002		SW-846:6020
	Beryllium	0.00035	0.004	0.0005	0.00035	U	SW-846:6020
	Cadmium	0.0001	0.005	0.0005	0.0001	U	SW-846:6020
	Calcium	53	NE	0.1	0.068		SW-846:6020
	Chromium	0.0033	0.1	0.01	0.0033	U	SW-846:6020
	Cobalt	0.00022	NE	0.002	0.00022	U	SW-846:6020
	Copper	0.00048	1.3	0.001	0.00045	B	SW-846:6020
	Iron	0.02	NE	0.05	0.02	U	SW-846:6020
	Lead	0.00017	0.015	0.003	0.00017	U	SW-846:6020
	Magnesium	18.2	NE	0.05	0.0052		SW-846:6020
	Manganese	0.00077	NE	0.002	0.00024	B	SW-846:6020
	Mercury	0.00011	0.002	0.0002	0.00006	B	SW-846:7471A
	Nickel	0.0004	NE	0.005	0.0004	U	SW-846:6020
	Potassium	5	NE	0.1	0.042		SW-846:6020
	Selenium	0.0016	0.05	0.005	0.0016	U	SW-846:6020
	Silver	0.00004	NE	0.002	0.00004	U	SW-846:6020
	Sodium	41.8	NE	0.05	0.015		SW-846:6020
	Thallium	0.00068	0.002	0.002	0.00055	B	SW-846:6020
	Uranium	0.0086	0.03	0.001	0.00023		SW-846:6020
	Vanadium	0.0075	NE	0.01	0.0024	B	SW-846:6020
	Zinc	0.0083	NE	0.01	0.0083	U	SW-846:6020

B = Estimated result. Result is less than RL.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-3 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Anions, Nitrate & Nitrite

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-BW2 16-June-11	Bromide	0.46	NE	0.25	0.025		EPA:300.0
	Chloride	60.8	NE	10	1		EPA:300.0
	Fluoride	0.66	4	0.1	0.01		EPA:300.0
	Nitrate	2.1	10	0.1	0.02		EPA:300.0
	Nitrite	0.015	1	0.1	0.015	U	EPA:300.0
	Sulfate	47.3	NE	2.5	0.25		EPA:300.0
MWL-BW2 16-June-11 DUP	Bromide	0.41	NE	0.25	0.025		EPA:300.0
	Chloride	61.6	NE	10	1		EPA:300.0
	Fluoride	0.66	4	0.1	0.01		EPA:300.0
	Nitrate	2	10	0.1	0.02		EPA:300.0
	Nitrite	0.015	1	0.1	0.015	U	EPA:300.0
	Sulfate	47.6	NE	2.5	0.25		EPA:300.0
MWL-MW4 22-Jun-11	Bromide	0.34	NE	0.25	0.025		EPA:300.0
	Chloride	50.5	NE	10	1		EPA:300.0
	Fluoride	0.9	4	0.1	0.01		EPA:300.0
	Nitrate	2	10	0.1	0.02		EPA:300.0
	Nitrite	0.015	1	0.1	0.015	U	EPA:300.0
	Sulfate	37.3	NE	2.5	0.25		EPA:300.0
MWL-MW5 14-Jun-11	Bromide	0.46	NE	0.25	0.025		EPA:300.0
	Chloride	80.2	NE	10	1		EPA:300.0
	Fluoride	0.7	4	0.1	0.01		EPA:300.0
	Nitrate	1.3	10	0.1	0.02		EPA:300.0
	Nitrite	0.015	1	0.1	0.015	U	EPA:300.0
	Sulfate	55.6	NE	2.5	0.25		EPA:300.0
MWL-MW6 15-Jun-11	Bromide	0.57	NE	0.25	0.025		EPA:300.0
	Chloride	77.8	NE	10	1		EPA:300.0
	Fluoride	0.68	4	0.1	0.01		EPA:300.0
	Nitrate	1.7	10	0.1	0.02		EPA:300.0
	Nitrite	0.015	1	0.1	0.015	U	EPA:300.0
	Sulfate	54.2	NE	2.5	0.25		EPA:300.0
MWL-MW7 28-Jun-11	Bromide	0.26	NE	0.25	0.025		EPA:300.0
	Chloride	40.5	NE	10	1	J	EPA:300.0
	Fluoride	1	4	0.1	0.01		EPA:300.0
	Nitrate	3.3	10	0.1	0.02		EPA:300.0
	Nitrite	0.003	1	0.02	0.003	U	EPA:300.0
	Sulfate	35	NE	2.5	0.25		EPA:300.0

J = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-3 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Anions, Nitrate & Nitrite

Monitoring Well/ Sample Date	Analyte	Result (mg/L)	EPA MCL (mg/L)	Quantitation Limit (mg/L)	MDL (mg/L)	Laboratory Qualifier	Analytical Method
MWL-MW8 20-Jun-11	Bromide	0.33	NE	0.25	0.025		EPA:300.0
	Chloride	45.1	NE	10	1		EPA:300.0
	Fluoride	1	4	0.1	0.01		EPA:300.0
	Nitrate	1.3	10	0.1	0.02		EPA:300.0
	Nitrite	0.015	1	0.1	0.015	U	EPA:300.0
	Sulfate	33.5	NE	2.5	0.25		EPA:300.0
MWL-MW9 27-Jun-11	Bromide	0.28	NE	0.25	0.025		EPA:300.0
	Chloride	40.2	NE	10	1	J	EPA:300.0
	Fluoride	0.96	4	0.1	0.01		EPA:300.0
	Nitrate	2.1	10	0.1	0.02		EPA:300.0
	Nitrite	0.003	1	0.02	0.003	U	EPA:300.0
	Sulfate	36.5	NE	2.5	0.25		EPA:300.0

J = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

NE = Not Established

U = Analyte not detected at or above the reporting limit or MDL

Table-4 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Detected Volatile Organic Compounds

Monitoring Well/ Sample Date	Analyte	Result (µg/L)	EPA MCL (µg/L)	Quantitation Limit (µg/L)	MDL (µg/L)	Laboratory Qualifier	Analytical Method
MWL-MW4 22-Jun-11	Acetone	14	NE	20	6.5	J	SW-846:8260B
	Methylene Chloride	1.1	NE	5	0.8	J	SW-846:8260B
MWL-MW5 14-Jun-11	Methylene Chloride	0.99	NE	5	0.8	J	SW-846:8260B
	Toluene	1	1000	5	0.3	J	SW-846:8260B
MWL-MW6 15-Jun-11	Methylene Chloride	1	NE	5	0.8	J	SW-846:8260B
	Toluene	0.89	1000	5	0.3	J	SW-846:8260B
MWL-MW7 28-Jun-11	Methylene Chloride	3.4	NE	5	1.7	J,B	SW-846:8260B
MWL-MW8 20-Jun-11	Acetone	11	NE	20	6.5	J	SW-846:8260B
	Methylene Chloride	1.1	NE	5	0.8	J	SW-846:8260B
	Toluene	0.35	1000	5	0.3	J	SW-846:8260B
MWL-MW9 27-Jun-11	Methylene Chloride	3.3	NE	5	1.7	J,B	SW-846:8260B

B = Method blank contamination. The associated method blank contains the target analyte at a reportable level.

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

U = Analyte not detected at or above the reporting limit or MDL

Table-5 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Isotopic Uranium

Monitoring Well/ Sample Date	Analyte	Activity (pCi/L)	MDA (pCi/L)	Laboratory Qualifier	Analytical Method
MWL-BW2 16-June-11	Actinium-228	-4 ± 12	11	U	EPA:901.1
	Americium-241	0.9 ± 3.1	5.2	U	EPA:901.1
	Bismuth-212	-7 ± 25	24	U	EPA:901.1
	Bismuth-214	11.3 ± 5.9	7.1		EPA:901.1
	Cesium-134	1.7 ± 1.2	2.9	U	EPA:901.1
	Cesium-137	0.9 ± 1.3	2.1	U	EPA:901.1
	Cobalt-60	0.9 ± 1.2	2.8	U	EPA:901.1
	Gross alpha	7.9 ± 3.5	4.1		EPA:900
	Gross beta	5.7 ± 1.7	2.1		EPA:900
	Lead-212	2 ± 2.7	5.1	U	EPA:901.1
	Lead-214	5.8 ± 3.1	5.4		EPA:901.1
	Potassium-40	-11 ± 29	41	U	EPA:901.1
	Protactinium-234M	-300 ± 21000	400	U	EPA:901.1
	Sodium-22	0.1 ± 1.7	3	U	EPA:901.1
	Thallium-208	0.8 ± 1.4	3.3	U	EPA:901.1
	Thorium-234	1 ± 11	48	U	EPA:901.1
	Uranium-234	6.84 ± 0.94	0.12		HASL-300:ISOU
	Uranium-235	10.6 ± 9.5	13	U	EPA:901.1
	Uranium-235/236	0.08 ± 0.1	0.15	U	HASL-300:ISOU
	Uranium-238	2.54 ± 0.5	0.12		HASL-300:ISOU
MWL-BW2 16-June-11 DUP	Actinium-228	6.6 ± 4.9	8.8	U	EPA:901.1
	Americium-241	0.5 ± 3.1	5.2	U	EPA:901.1
	Bismuth-212	11 ± 10	16	U	EPA:901.1
	Bismuth-214	16.3 ± 5	5.8		EPA:901.1
	Cesium-134	-1.6 ± 1.7	2.7	U	EPA:901.1
	Cesium-137	1 ± 1.5	2.4	U	EPA:901.1
	Cobalt-60	0.16 ± 0.28	2.5	U	EPA:901.1
	Gross alpha	9.4 ± 3.6	3.8		EPA:900
	Gross beta	13 ± 2.1	1.8		EPA:900
	Lead-212	-1.1 ± 2.8	5	U	EPA:901.1
	Lead-214	13 ± 4.2	5.5		EPA:901.1
	Potassium-40	22 ± 33	42	U	EPA:901.1
	Protactinium-234M	-200 ± 540	380	U	EPA:901.1
	Sodium-22	0 ± 1.2	2.3	U	EPA:901.1
	Thallium-208	1.8 ± 2.1	2.7	U	EPA:901.1
	Thorium-234	15 ± 23	56	U	EPA:901.1
	Uranium-234	7.23 ± 0.99	0.11		HASL-300:ISOU
	Uranium-235	-1.2 ± 8.7	12	U	EPA:901.1
	Uranium-235/236	0.1 ± 0.1	0.07		HASL-300:ISOU
	Uranium-238	2.39 ± 0.49	0.12		HASL-300:ISOU

U = Result is less than the sample detection limit.

Table-5 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Isotopic Uranium

Monitoring Well/ Sample Date	Analyte	Activity (pCi/L)		MDA (pCi/L)	Laboratory Qualifier	Analytical Method
MWL-MW4 22-Jun-11	Actinium-228	6.1	± 4.7	8.6	U	EPA:901.1
	Americium-241	0.9	± 3.2	5.3	U	EPA:901.1
	Bismuth-212	6	± 15	19	U	EPA:901.1
	Bismuth-214	7.1	± 4.2	5.8		EPA:901.1
	Cesium-134	1.4	± 1	2.9	U	EPA:901.1
	Cesium-137	-0.7	± 1.8	3	U	EPA:901.1
	Cobalt-60	-1.6	± 1.9	3.1	U	EPA:901.1
	Gross alpha	4.4	± 2	2.3		EPA:900
	Gross beta	1.73	± 0.71	0.87		EPA:900
	Lead-212	3	± 2.5	4.8	U	EPA:901.1
	Lead-214	5.1	± 4.8	6	U	EPA:901.1
	Potassium-40	20	± 29	39	U	EPA:901.1
	Protactinium-234M	500	± 280	270		EPA:901.1
	Sodium-22	0.8	± 1.4	2.3	U	EPA:901.1
	Thallium-208	0.4	± 2.4	3.2	U	EPA:901.1
	Thorium-234	-17	± 42	56	U	EPA:901.1
	Uranium-234	4.49	± 0.56	0.07		HASL-300:ISOU
	Uranium-235	-4	± 17	13	U	EPA:901.1
	Uranium-235/236	0.121	± 0.077	0.061		HASL-300:ISOU
	Uranium-238	1.99	± 0.32	0.05		HASL-300:ISOU
MWL-MW5 14-Jun-11	Actinium-228	-5	± 14	11	U	EPA:901.1
	Americium-241	1.5	± 2.9	4.9	U	EPA:901.1
	Bismuth-212	-3	± 13	20	U	EPA:901.1
	Bismuth-214	1	± 5.1	6.7	U	EPA:901.1
	Cesium-134	1.6	± 2.4	2.2	U	EPA:901.1
	Cesium-137	0.9	± 1.7	2.8	U	EPA:901.1
	Cobalt-60	-0.08	± 1.6	2.9	U	EPA:901.1
	Gross alpha	13.6	± 5.3	5.7		EPA:900
	Gross beta	9.8	± 2.6	2.9		EPA:900
	Lead-212	3.1	± 2.6	4.9	U	EPA:901.1
	Lead-214	0.6	± 4.4	6	U	EPA:901.1
	Potassium-40	36	± 27	36		EPA:901.1
	Protactinium-234M	-20	± 140	360	U	EPA:901.1
	Sodium-22	-0.1	± 1.6	2.8	U	EPA:901.1
	Thallium-208	-0.3	± 0.62	2.9	U	EPA:901.1
	Thorium-234	10	± 19	50	U	EPA:901.1
	Uranium-234	8.8	± 1.2	0.1		HASL-300:ISOU
	Uranium-235	2.8	± 8.7	12	U	EPA:901.1
	Uranium-235/236	0.15	± 0.14	0.14		HASL-300:ISOU
	Uranium-238	2.57	± 0.52	0.06		HASL-300:ISOU

U = Result is less than the sample detection limit.

Table-5 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Isotopic Uranium

Monitoring Well/ Sample Date	Analyte	Activity (pCi/L)		MDA (pCi/L)	Laboratory Qualifier	Analytical Method
MWL-MW6 15-Jun-11	Actinium-228	13.1	± 5	7.1		EPA:901.1
	Americium-241	-0.2	± 3.1	5.2	U	EPA:901.1
	Bismuth-212	10	± 12	20	U	EPA:901.1
	Bismuth-214	15	± 6	6.3		EPA:901.1
	Cesium-134	1	± 1.3	3.5	U	EPA:901.1
	Cesium-137	-0.4	± 1.7	2.8	U	EPA:901.1
	Cobalt-60	0.6	± 1.2	2.8	U	EPA:901.1
	Gross alpha	12.4	± 4.5	4.3		EPA:900
	Gross beta	9.4	± 2.1	2.2		EPA:900
	Lead-212	0.2	± 2.5	4.8	U	EPA:901.1
	Lead-214	6.2	± 4.2	5.8		EPA:901.1
	Potassium-40	-3	± 25	38	U	EPA:901.1
	Protactinium-234M	30	± 230	310	U	EPA:901.1
	Sodium-22	1.2	± 1.6	2.6	U	EPA:901.1
	Thallium-208	2.2	± 2.5	3	U	EPA:901.1
	Thorium-234	11	± 36	55	U	EPA:901.1
	Uranium-234	9.7	± 1.2	0.1		HASL-300:ISOU
	Uranium-235	8.1	± 9.1	13	U	EPA:901.1
	Uranium-235/236	0.26	± 0.17	0.13		HASL-300:ISOU
	Uranium-238	3.06	± 0.56	0.05		HASL-300:ISOU
MWL-MW7 28-Jun-11	Actinium-228	19.8	± 6.6	7.5		EPA:901.1
	Americium-241	-1.4	± 3.2	5.3	U	EPA:901.1
	Bismuth-212	-10	± 47	23	U	EPA:901.1
	Bismuth-214	6.1	± 3.4	6		EPA:901.1
	Cesium-134	-1.5	± 1.8	2.9	U	EPA:901.1
	Cesium-137	-0.5	± 1.8	3	U	EPA:901.1
	Cobalt-60	-0.037	± 0.056	2.9	U	EPA:901.1
	Gross alpha	13	± 3.9	3.2		EPA:900
	Gross beta	4	± 1.9	2.6		EPA:900
	Lead-212	2.6	± 2.5	4.8	U	EPA:901.1
	Lead-214	11.4	± 4.3	5.9		EPA:901.1
	Potassium-40	19	± 27	38	U	EPA:901.1
	Protactinium-234M	400	± 230	240		EPA:901.1
	Sodium-22	-0.6	± 1.7	2.9	U	EPA:901.1
	Thallium-208	-1.2	± 2.9	3	U	EPA:901.1
	Thorium-234	-29	± 41	53	U	EPA:901.1
	Uranium-234	4.68	± 0.55	0.04		HASL-300:ISOU
	Uranium-235	7	± 11	14	U	EPA:901.1
	Uranium-235/236	0.135	± 0.076	0.053		HASL-300:ISOU
	Uranium-238	2.37	± 0.34	0.04		HASL-300:ISOU

U = Result is less than the sample detection limit.

Table-5 NMED DOE OB FFY 2011 Q-3 Mixed Waste Landfill Groundwater Quality Results: Gross Alpha, Gross Beta, Gamma Spectroscopy, Isotopic Uranium

Monitoring Well/ Sample Date	Analyte	Activity (pCi/L)		MDA (pCi/L)	Laboratory Qualifier	Analytical Method
MWL-MW8 20-Jun-11	Actinium-228	-3.1	± 9.6	11	U	EPA:901.1
	Americium-241	0.4	± 3.1	5.2	U	EPA:901.1
	Bismuth-212	-8	± 28	21	U	EPA:901.1
	Bismuth-214	2	± 4.7	6.5	U	EPA:901.1
	Cesium-134	0.54	± 0.58	3.2	U	EPA:901.1
	Cesium-137	0.4	± 1.6	2.8	U	EPA:901.1
	Cobalt-60	0.6	± 1.2	2.7	U	EPA:901.1
	Gross alpha	2.3	± 1.4	1.9		EPA:900
	Gross beta	1.42	± 0.73	1		EPA:900
	Lead-212	1.6	± 3.3	5.1	U	EPA:901.1
	Lead-214	3.7	± 4.3	6.5	U	EPA:901.1
	Potassium-40	-12	± 28	40	U	EPA:901.1
	Protactinium-234M	-140	± 620	370	U	EPA:901.1
	Sodium-22	0.05	± 1.7	3	U	EPA:901.1
	Thallium-208	1.2	± 2.7	3.1	U	EPA:901.1
	Thorium-234	16	± 11	46	U	EPA:901.1
	Uranium-234	5.95	± 0.7	0.08		HASL-300:ISOU
	Uranium-235	-4	± 22	16	U	EPA:901.1
	Uranium-235/236	0.2	± 0.1	0.07		HASL-300:ISOU
	Uranium-238	1.99	± 0.33	0.05		HASL-300:ISOU
MWL-MW9 27-Jun-11	Actinium-228	-1.1	± 1.2	12	U	EPA:901.1
	Americium-241	1.1	± 3.2	5.3	U	EPA:901.1
	Bismuth-212	-15	± 74	26	U	EPA:901.1
	Bismuth-214	14	± 6.3	7		EPA:901.1
	Cesium-134	1	± 1.3	4.3	U	EPA:901.1
	Cesium-137	0.06	± 1.4	2.5	U	EPA:901.1
	Cobalt-60	1.5	± 1.7	2.8	U	EPA:901.1
	Gross alpha	13.9	± 3.9	2.9		EPA:900
	Gross beta	2	± 1.6	2.3	U	EPA:900
	Lead-212	2.5	± 2.5	4.8	U	EPA:901.1
	Lead-214	11.2	± 4.4	6		EPA:901.1
	Potassium-40	26	± 20	33	U	EPA:901.1
	Protactinium-234M	120	± 220	300	U	EPA:901.1
	Sodium-22	0.006	± 1.7	3	U	EPA:901.1
	Thallium-208	-0.6	± 1.9	3.1	U	EPA:901.1
	Thorium-234	7	± 11	53	U	EPA:901.1
	Uranium-234	5.72	± 0.64	0.07		HASL-300:ISOU
	Uranium-235	-1.2	± 5.9	16	U	EPA:901.1
	Uranium-235/236	0.16	± 0.082	0.052		HASL-300:ISOU
	Uranium-238	2.68	± 0.37	0.05		HASL-300:ISOU

U = Result is less than the sample detection limit.

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