

Data Validation Package

August 2012
Groundwater and Surface
Water Sampling at the
Tuba City, Arizona, Disposal Site

November 2012



U.S. DEPARTMENT OF
ENERGY

Legacy
Management

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Sampling Event Summary

Site: Tuba City, Arizona, Disposal Site

Sampling Period: August 20–23, 2012

The groundwater compliance strategy for the Tuba City Disposal Site is defined in the 1999 *Phase I Ground Water Compliance Action Plan for the Tuba City, Arizona, UMTRA Site*. Samples are collected and analyzed on a semiannual basis to evaluate the performance of the Phase I remediation system.

Sampling and analysis were conducted as specified in *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites (LMS/PLN/S04351, continually updated)*.

U.S. Environmental Protection Agency (EPA) groundwater standards were exceeded in samples collected from monitoring wells as listed in Table 1.

The data from this sampling event are generally consistent with previously obtained values and are acceptable for general use as qualified. Data anomalies are not significant with respect to the known nature and extent of contamination and progress of remedial action at the site. The data from this sampling event will be incorporated into the annual performance evaluation report that will present a comprehensive hydrologic summary and evaluation of groundwater remedial action performance at the Tuba City site through March 2013.


Table 1. Tuba City Monitoring Wells with Analyte Concentrations that Exceed EPA Standards


Analyte	Standard (mg/L)	Location	Concentration (mg/L)
Molybdenum	0.1	0262	0.61
		0287	0.13
Nitrate + Nitrite as Nitrogen	10	0262	230
		0263	240
		0264	12
		0265	170
		0267	340
		0268	25
		0273	44
		0275	260
		0281	30
		0282	48
		0286	320
		0287	290
		0288	57
		0289	42
		0290	80
0691	75		
Nitrate + Nitrite as Nitrogen	10	0903	17

Table 1 (continued). Tuba City Monitoring Wells with Analyte Concentrations that Exceed EPA Standards

Analyte	Standard (mg/L)	Location	Concentration (mg/L)
		0906	530
		0908	200
		0912	72
		0914	230
		0929	15
		0930	23
		0934	390
		0940	420
		0941	280
		1003	69
Selenium	0.01	0262	0.066
		0263	0.039
		0267	0.046
		0273	0.016
		0275	0.032
		0286	0.045
		0287	0.091
		0290	0.011
		0904	0.013
		0906	0.032
		0908	0.020
		0934	0.010
		0940	0.070
		0941	0.098
Uranium	0.044	0262	0.66
		0263	0.18
		0265	0.054
		0267	0.057
		0275	0.39
		0286	0.35
		0287	0.24
		0290	0.050
		0691	0.056
		0906	0.43
		0908	0.072
		0934	0.13
		0940	0.49
		0941	0.21

mg/L = milligrams per liter


 Tim Bartlett
 Site Hydrologist, S.M. Stoller Corporation


 Date

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Data Assessment Summary

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Water Sampling Field Activities Verification Checklist

Project	Tuba City, Arizona	Date(s) of Water Sampling	August 20–23, 2012
Date(s) of Verification	October 17, 2012	Name of Verifier	Steve Donovan

	Response (Yes, No, NA)	Comments
1. Is the SAP the primary document directing field procedures? List other documents, SOPs, instructions.	Yes	Work Order letter dated July 30, 2012.
2. Were the sampling locations specified in the planning documents sampled?	No	Monitoring wells 0283 and 0909 did not have enough water to sample. The pumps at 13 extraction wells (0936, 0938, 0942, 1102, 1109, 1115, 1121, 1122, 1126, 1127, 1128, 1130, and 1131) were not functioning.
3. Was a pre-trip calibration conducted as specified in the above-named documents?	Yes	Pre-trip calibrations were performed on August 15–16, 2012.
4. Was an operational check of the field equipment conducted daily? Did the operational checks meet criteria?	Yes Yes	
5. Were the number and types (alkalinity, temperature, specific conductance, pH, turbidity, DO, ORP) of field measurements taken as specified?	Yes	
6. Was the category of the well documented?	Yes	
7. Were the following conditions met when purging a Category I well: Was one pump/tubing volume purged prior to sampling?	Yes	
Did the water level stabilize prior to sampling?	Yes	
Did pH, specific conductance, and turbidity measurements stabilize prior to sampling?	Yes	
Was the flow rate less than 500 mL/min?	Yes	
If a portable pump was used, was there a 4-hour delay between pump installation and sampling?	NA	

Water Sampling Field Activities Verification Checklist (continued)

	Response (Yes, No, NA)	Comments
8. Were the following conditions met when purging a Category II well: Was the flow rate less than 500 mL/min?	Yes	
Was one pump/tubing volume removed prior to sampling?	Yes	
9. Were duplicates taken at a frequency of one per 20 samples?	Yes	Duplicates were collected from locations 1103, 1119, 1120, 1124, 1571, and NMW-8S.
10. Were equipment blanks taken at a frequency of one per 20 samples that were collected with non-dedicated equipment?	Yes	One equipment blank was collected.
11. Were trip blanks prepared and included with each shipment of VOC samples?	NA	
12. Were QC samples assigned a fictitious site identification number? Was the true identity of the samples recorded on the Quality Assurance Sample Log or in the Field Data Collection System (FDCS) report?	Yes	
	Yes	QC sample identification is also in the trip report.
13. Were samples collected in the containers specified?	Yes	
14. Were samples filtered and preserved as specified?	No	Program Directive TUB-2012-01 requires that the surface water samples collected at pond locations 1569 and 1570 be filtered. These samples were inadvertently not filtered.
15. Were the number and types of samples collected as specified?	Yes	
16. Were chain of custody records completed and was sample custody maintained?	Yes	
17. Are field data sheets signed and dated by both team members (hardcopies) or are dates present for the "Date Signed" fields (FDCS)?	Yes	
18. Was all other pertinent information documented on the field data sheets?	Yes	
19. Was the presence or absence of ice in the cooler documented at every sample location?	Yes	
20. Were water levels measured at the locations specified in the planning documents?	Yes	Water levels were measured in all sampled wells, and in 8 additional wells.

Laboratory Performance Assessment

General Information

Requisition No.: 12084778
 Sample Event: August 20-23, 2012
 Site(s): Tuba City, Arizona
 Laboratory: ALS Laboratory Group, Fort Collins, Colorado
 Work Order Nos.: 1208388
 Analysis: Metals and Inorganics
 Validator: Stephen Donovan
 Review Date: October 15, 2012

This validation was performed according to the *Environmental Procedures Catalog*, (LMS/PRO/S04325, continually updated) “Standard Practice for Validation of Laboratory Data.” The procedure was applied at Level 3, Data Validation. See attached Data Validation Worksheets for supporting documentation on the data review and validation. All analyses were successfully completed. The samples were prepared and analyzed using accepted procedures based on methods specified by line item code, which are listed in Table 2.

Table 2. Analytes and Methods

Analyte	Line Item Code	Prep Method	Analytical Method
Ammonia as N	WCH-A-005	EPA 350.1	EPA 350.1
Arsenic, Molybdenum, Selenium, Uranium	LMM-02	SW-846 3005A	SW-846 6020A
Calcium, Iron, Magnesium, Manganese, Potassium, Silica, Sodium	LMM-01	SW-846 3005A	SW-846 6010B
Chloride, Sulfate	MIS-A-045	SW-846 9056	SW-846 9056
Nitrite + Nitrate as N	WCH-A-022	EPA 353.2	EPA 353.2
Total Dissolved Solids	WCH-A-033	EPA 160.1	EPA 160.1

Data Qualifier Summary

Analytical results were qualified as listed in Table 3. Refer to the attached validation worksheets and the sections below for an explanation of the data qualifiers applied.

Table 3. Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
1208388-1	0268	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-1	0268	Sodium	J	Serial dilution failure
1208388-2	0272	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-3	0273	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-3	0273	Iron	U	Less than 5 times the calibration blank
1208388-3	0273	Manganese	U	Less than 5 times the calibration blank
1208388-4	0274	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range

Table 3 (continued). Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
1208388-4	0274	Iron	U	Less than 5 times the calibration blank
1208388-4	0274	Manganese	U	Less than 5 times the calibration blank
1208388-5	0275	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-6	0276	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-6	0276	Manganese	U	Less than 5 times the calibration blank
1208388-7	0286	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-8	0287	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-9	0288	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-9	0288	Manganese	U	Less than 5 times the calibration blank
1208388-10	0289	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-11	0684	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-12	0685	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-13	0686	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-13	0686	Manganese	U	Less than 5 times the calibration blank
1208388-14	0687	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-14	0687	Iron	U	Less than 5 times the calibration blank
1208388-15	0688	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-15	0688	Iron	U	Less than 5 times the calibration blank
1208388-15	0688	Manganese	U	Less than 5 times the calibration blank
1208388-16	0940	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-17	0941	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-18	0943	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-18	0943	Iron	U	Less than 5 times the calibration blank
1208388-19	0945	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-20	0946	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-21	0251	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-21	0251	Manganese	U	Less than 5 times the calibration blank
1208388-22	0252	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-22	0252	Iron	U	Less than 5 times the calibration blank
1208388-23	0263	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-23	0263	Manganese	U	Less than 5 times the calibration blank
1208388-24	0264	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-25	0267	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-26	0908	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-27	0912	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-27	0912	Manganese	U	Less than 5 times the calibration blank
1208388-28	0913	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-29	0921	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-30	0929	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-31	0934	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-31	0934	Manganese	U	Less than 5 times the calibration blank
1208388-32	0947	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-33	0759	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-33	0759	Iron	J	Less than 10 times the equipment blank
1208388-34	0779	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-34	0778	Iron	J	Less than 10 times the equipment blank
1208388-35	0965	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range

Table 3 (continued). Data Qualifiers

Sample Number	Location	Analyte	Flag	Reason
1208388-35	0965	Iron	J	Less than 10 times the equipment blank
1208388-36	1571	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-36	1571	Iron	U	Less than 5 times the calibration blank
1208388-37	1573	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-37	1573	Iron	U	Less than 5 times the calibration blank
1208388-37	1573	Manganese	U	Less than 5 times the calibration blank
1208388-38	1571 Duplicate	NH3, NO2+3, SO4, TDS	J	Preservation temperature over range
1208388-38	1571 Duplicate	Manganese	U	Less than 5 times the calibration blank
1208388-38	1571 Duplicate	Selenium	U	Less than 5 times the calibration blank
1208388-39	0290	Iron	U	Less than 5 times the calibration blank
1208388-39	0290	Manganese	U	Less than 5 times the calibration blank
1208388-40	0683	Iron	U	Less than 5 times the calibration blank
1208388-41	0901	Ammonia as N	J	Matrix spike failure
1208388-41	0901	Iron	U	Less than 5 times the calibration blank
1208388-41	0901	Selenium	J	Serial dilution failure
1208388-43	0910	Iron	U	Less than 5 times the calibration blank
1208388-43	0910	Manganese	U	Less than 5 times the calibration blank
1208388-57	1114	Iron	U	Less than 5 times the calibration blank
1208388-57	1114	Manganese	U	Less than 5 times the calibration blank
1208388-62	1120	Selenium	J	Field duplicate failure
1208388-74	1120 Duplicate	Selenium	J	Field duplicate failure
1208388-75	NMW-1A	Manganese	U	Less than 5 times the calibration blank
1208388-76	NMW-6S	Manganese	U	Less than 5 times the calibration blank
1208388-77	NMW-7D	Manganese	U	Less than 5 times the calibration blank
1208388-78	NMW-8S	Iron	U	Less than 5 times the calibration blank
1208388-80	NMW-8S Duplicate	Iron	U	Less than 5 times the calibration blank
1208388-80	NMW-8S Duplicate	Manganese	U	Less than 5 times the calibration blank
1208388-82	0277	Iron	U	Less than 5 times the calibration blank
1208388-84	0279	Manganese	U	Less than 5 times the calibration blank
1208388-85	0280	Iron	U	Less than 5 times the calibration blank
1208388-85	0280	Manganese	U	Less than 5 times the calibration blank
1208388-87	0690	Iron	U	Less than 5 times the calibration blank
1208388-88	0691	Sodium	J	Serial dilution failure
1208388-91	0903	Manganese	U	Less than 5 times the calibration blank
1208388-98	1007	Manganese	U	Less than 5 times the calibration blank
1208388-99	Equipment Blank	Manganese	U	Less than 5 times the calibration blank
1208388-100	0261	Manganese	U	Less than 5 times the calibration blank
1208388-101	0262	Manganese	U	Less than 5 times the calibration blank
1208388-106	0282	Manganese	U	Less than 5 times the calibration blank

Sample Shipping/Receiving

ALS Laboratory Group in Fort Collins, Colorado, received 113 samples between August 22–25, 2012, accompanied by Chain of Custody forms. Copies of the air bills were

included in the receiving documentation. The Chain of Custody forms were checked to confirm that all of the samples were listed with sample collection dates and times, and that signatures and dates were present indicating sample relinquishment and receipt. The Chain of Custody forms had no errors or omissions.

Preservation and Holding Times

The sample shipment was received intact with the temperatures inside the iced coolers less than 6 °C with the following exception. The iced coolers that arrived on August 24, 2012, had temperatures above the acceptance range because of a late delivery by FedEx. Results for analytes requiring chilling for the associated samples are qualified with a “J” flag as estimated values. All samples were received in the correct container types and had been preserved correctly for the requested analyses. All samples were analyzed within the applicable holding times.

Detection and Quantitation Limits

The method detection limit (MDL) was reported for all analytes as required. The MDL, as defined in 40 CFR 136, is the minimum concentration of an analyte that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero. The practical quantitation limit (PQL) for these analytes is the lowest concentration that can be reliably measured, and is defined as 5 times the MDL. The reported MDLs for all analytes demonstrate compliance with contractual requirements.

Laboratory Instrument Calibration

Compliance requirements for satisfactory instrument calibration are established to ensure that the instrument is capable of producing acceptable qualitative and quantitative data for all analytes. Initial calibration demonstrates that the instrument is capable of acceptable performance in the beginning of the analytical run. Compliance requirements for continuing calibration checks are established to ensure that the instrument continues to be capable of producing acceptable qualitative and quantitative data. All laboratory instrument calibrations were performed correctly in accordance with the cited methods. All calibration and laboratory spike standards were prepared from independent sources.

Method EPA 160.1

There is no initial or continuing calibration requirement associated with the determination of total dissolved solids. The laboratory noted that some samples failed the weight check criterion of 0.0005 grams. These weights were within 4 percent, however, so no further qualification is necessary.

Method EPA 350.1

The initial calibrations for ammonia as N were performed on August 29 and September 4, 2012, using six calibration standards. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than 3 times the MDL. Initial and continuing calibration verification checks were made at the required frequency resulting in 20 verification checks. All calibration verification checks met the acceptance criteria.

Method EPA 353.2

The initial calibrations for nitrate + nitrite as N were performed on September 6, 7, and 12, 2012, using seven calibration standards. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than 3 times the MDL. Initial and continuing calibration verification checks were made at the required frequency resulting in 24 verification checks. All calibration verification checks met the acceptance criteria.

Method SW-846 6010B

Calibrations for calcium, iron, magnesium, manganese, potassium, silica, and sodium were performed September 6–7, 2012, using three calibration standards. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than 3 times the MDL. Initial and continuing calibration verification checks were made at the required frequency resulting in 21 verification checks. All calibration checks met the acceptance criteria. Reporting limit verification checks were made at the required frequency to verify the linearity of the calibration curve near the PQL and all results associated with the samples were within the acceptance range.

Method SW-846 6020A

Calibrations for arsenic, molybdenum, selenium, and uranium were performed September 10–11, 2012, using two calibration standards. Initial and continuing calibration verification checks were made at the required frequency resulting in 21 verification checks. All calibration checks met the acceptance criteria. Reporting limit verification checks were made at the required frequency to verify the linearity of the calibration curve near the PQL and all results were within the acceptance range. Mass calibration and resolution verifications were performed at the beginning of each analytical run in accordance with the analytical procedure. Internal standard recoveries associated with requested analytes were stable and within acceptable ranges.

Method SW-846 9056

Calibrations for chloride and sulfate were performed on September 5, 2012, using five calibration standards. The calibration curve correlation coefficient values were greater than 0.995 and the absolute values of the intercepts were less than 3 times the MDL. Initial and continuing calibration verification checks were made at the required frequency resulting in 31 verification checks. All calibration checks met the acceptance criteria.

Method and Calibration Blanks

Method blanks are analyzed to assess any contamination that may have occurred during sample preparation. Calibration blanks are analyzed to assess instrument contamination prior to and during sample analysis. All method blank and calibration blank results associated with the samples were below the PQL for all analytes. In cases where a blank concentration exceeds the MDL, the associated sample results are qualified with a “U” flag (not detected) when the sample result is greater than the MDL but less than 5 times the blank concentration.

Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Analysis

ICP interference check samples ICSA and ICSAB were analyzed at the required frequency to verify the instrumental interelement and background correction factors. All check sample results met the acceptance criteria.

Matrix Spike Analysis

Matrix spike and matrix spike duplicate (MS/MSD) samples are used to measure method performance in the sample matrix. The MS/MSD data are not evaluated when the concentration of the unspiked sample is greater than 4 times the spike concentration. The spike recoveries met the recovery and precision criteria for all analytes evaluated. Some spike recoveries were outside the laboratory's acceptance range, but all spike recoveries were within the ± 25 percent requirement with the following exception. The ammonia as N spike recoveries from sample 0901 did not meet requirements. The associated ammonia as N sample result is qualified with a "J" flag as an estimated value.

Laboratory Replicate Analysis

Laboratory replicate analyses are used to determine laboratory precision for each sample matrix. The relative percent difference for replicate results that are greater than 5 times PQL should be less than 20 percent. For results that are less than 5 times the PQL, the range should be no greater than the PQL. The replicate results met these criteria, demonstrating acceptable laboratory precision.

Laboratory Control Sample

Laboratory control samples were analyzed at the correct frequency to provide information on the accuracy of the analytical method and the overall laboratory performance, including sample preparation. The results were acceptable for all analytes.

Metals Serial Dilution

Serial dilutions were prepared and analyzed for the metals analyses to monitor chemical or physical interferences in the sample matrix. Serial dilution data are evaluated when the concentration of the undiluted sample is greater than 50 times the MDL. All evaluated serial dilution data were acceptable with the following exception. Percent differences for one selenium dilution and one sodium dilution were above the acceptance range of 10 percent. The associated results are qualified with a "J" flag (estimated).

Completeness

Results were reported in the correct units for all analytes requested using contract-required laboratory qualifiers.

Chromatography Peak Integration

The integration of analyte peaks was reviewed for all ion chromatography data. There were no manual integrations performed and all peak integrations were satisfactory.

Electronic Data Deliverable (EDD) File

A revised EDD file arrived on October 24, 2012, in response to Request for Information #12-3589. Problems with switched sample identifiers were resolved with the revision. The Sample Management System EDD validation module was used to verify that the EDD file was complete and in compliance with requirements. The module compares the contents of the file to the requested analyses to ensure all and only the requested data are delivered. The contents of the EDD were manually examined to verify that the sample results accurately reflect the data contained in the sample data package.

Anion/Cation Balance

The anion/cation balance is used to determine if major ion concentrations have been quantified correctly. The total anions should balance with (be equal to) the total cations when expressed in milliequivalents per liter. Table 4 shows the total anion and cation results from this event and the charge balance, which is a relative percent difference calculation. Typically, a charge balance difference of 10 percent is considered acceptable.

Table 4. Comparison of Major Anions and Cations

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
0251	2.16	1.95	5.08
0252	1.82	1.66	4.55
0258	2.82	2.90	1.35
0261	2.76	2.73	0.55
0262	69.26	74.49	3.64
0263	84.77	87.54	1.60
0264	5.12	4.87	2.55
0265	44.87	47.55	2.91
0266	2.26	2.15	2.43
0267	104.75	109.01	1.99
0268	9.42	9.82	2.11
0271	2.65	2.53	2.32
0272	2.44	2.27	3.61
0273	10.19	10.92	3.42
0274	2.68	1.51	28.03
0275	75.16	80.60	3.49
0276	2.70	2.34	7.13
0277	2.59	2.98	7.03
0278	2.28	2.65	7.66
0279	3.79	4.45	8.02
0280	2.97	3.06	1.51
0281	7.13	6.98	1.07

Table 4 (continued). Comparison of Major Anions and Cations

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
0282	9.17	9.20	0.16
0286	112.28	117.51	2.28
0287	71.72	76.43	3.18
0288	14.14	15.09	3.23
0289	11.62	11.51	0.48
0290	21.92	23.19	2.80
0683	2.76	2.95	3.43
0684	2.75	2.30	8.86
0685	2.81	2.71	1.79
0686	6.65	6.74	0.70
0687	3.59	3.62	0.44
0688	6.54	6.66	0.94
0689	2.55	2.66	2.09
0690	2.42	2.51	1.91
0691	22.60	22.81	0.45
0692	2.47	2.59	2.23
0695	3.37	5.33	22.60
0759	18.02	19.51	3.95
0778	17.44	18.39	2.65
0901	3.30	3.42	1.73
0903	5.27	5.80	4.80
0904	8.37	9.48	6.20
0906	95.74	100.44	2.39
0908	84.79	85.23	0.26
0910	2.56	2.82	4.78
0911	2.06	2.06	0.17
0912	23.23	22.48	1.64
0913	1.91	1.88	0.79
0914	1.20	1.44	9.15
0915	1.58	1.70	3.70
0916	5.24	5.26	0.16
0920	2.57	2.80	4.21
0921	1.97	1.94	0.69
0929	3.60	3.56	0.48
0930	6.31	6.81	3.85
0932	3.39	3.14	3.86
0934	99.40	99.83	0.21
0935	75.27	80.18	3.16
0940	184.49	196.64	3.19
0941	68.65	71.45	2.00
0943	1.27	1.55	9.97
0945	3.72	3.55	2.30
0946	2.19	2.22	0.61
0947	2.77	3.48	11.37
0965	7.35	9.05	10.39
1003	20.25	21.85	3.79
1004	3.63	4.29	8.34

Table 4 (continued). Comparison of Major Anions and Cations

Location	Cations (meq/L)	Anions (meq/L)	Charge Balance (%)
1006	2.30	2.50	4.02
1007	2.34	2.69	6.89
1101	43.87	45.06	1.33
1103	67.44	81.32	9.34
1104	74.57	80.17	3.62
1105	48.01	50.08	2.10
1106	42.77	41.38	1.66
1107	51.46	52.87	1.35
1108	52.71	55.69	2.75
1110	26.72	33.56	11.35
1111	45.14	40.15	5.85
1112	15.97	16.50	1.64
1113	41.09	39.37	2.15
1114	24.92	25.89	1.92
1116	2.68	3.33	10.80
1117	31.50	34.87	5.08
1118	47.23	49.22	2.07
1119	40.14	43.35	3.85
1120	52.32	55.08	2.57
1123	50.64	53.65	2.89
1124	62.04	64.85	2.22
1125	5.41	5.80	3.53
1129	33.49	33.06	0.65
1132	56.67	57.67	0.88
1133	12.56	12.72	0.62
1569	1458.49	1791.25	10.24
1570	1445.68	1788.27	10.59
1571	5.17	8.68	25.33
1573	4.29	5.02	7.82
NMW-1A	2.47	2.76	5.41
NMW-6S	2.61	2.66	1.04
NMW-7D	1.96	2.05	2.15
NMW-8S	2.44	2.61	3.41
NMW-9D	3.02	3.14	2.01

meq/L = milliequivalents per liter

Three locations (0274, 0695, and 1571) had a charge balance significantly greater than 10 percent. These locations had alkalinity values that were outside the historical range, contributing to the charge balance difference. There were no analytical errors identified during the review of the laboratory data from these locations

SAMPLE MANAGEMENT SYSTEM

General Data Validation Report

RIN: 12084778 Lab Code: PAR Validator: _____ Validation Date: 10/15/2012
Project: Tuba City Analysis Type: Metals General Chem Rad Organics
of Samples: 113 Matrix: WATER Requested Analysis Completed: Yes

Chain of Custody

Present: OK Signed: OK Dated: OK

Sample

Integrity: OK Preservation: OK Temperature: NO

Select Quality Parameters

- Holding Times
- Detection Limits
- Field/Trip Blanks
- Field Duplicates

There are 0 holding time failures.

The reported detection limits are equal to or below contract requirements.

There was 1 trip/equipment blank evaluated.

There were 6 duplicates evaluated.

SAMPLE MANAGEMENT SYSTEM
Metals Data Validation Worksheet

RIN: 12084778 Lab Code: PAR Date Due: 9/22/2012
 Matrix: Water Site Code: TUB Date Completed: 9/26/2012

Analyte	Method Type	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Arsenic	ICP/MS	09/10/2012			OK	OK	OK	OK	95.0	98.0	94.0	3.0		3.0	121.0	
Arsenic	ICP/MS	09/10/2012						OK	95.0	96.0	95.0	1.0		2.0	102.0	
Arsenic	ICP/MS	09/10/2012						OK	96.0	94.0	95.0	1.0		2.0	102.0	
Arsenic	ICP/MS	09/10/2012						OK	95.0	106.0	100.0	5.0		3.0		
Arsenic	ICP/MS	09/10/2012						OK	94.0	97.0	97.0	1.0				
Arsenic	ICP/MS	09/10/2012						OK	94.0	100.0	98.0	2.0				
Arsenic	ICP/MS	09/11/2012														
Calcium	ICP/ES	09/06/2012	0.0000	1.0000	OK	OK	OK	OK	98.0	96.0	99.0	2.0	102.0	1.0	110.0	
Calcium	ICP/ES	09/06/2012						OK	99.0	92.0	91.0	1.0	101.0	2.0	108.0	
Calcium	ICP/ES	09/06/2012						OK	97.0			1.0	103.0	1.0	109.0	
Calcium	ICP/ES	09/06/2012						OK	98.0	97.0	105.0	2.0	102.0	2.0	107.0	
Calcium	ICP/ES	09/06/2012						OK	99.0	97.0	97.0	0.0		3.0		
Calcium	ICP/ES	09/06/2012							98.0	92.0	114.0	2.0		1.0		
Iron	ICP/ES	09/06/2012	0.0000	1.0000	OK	OK	OK	OK	99.0	99.0	100.0	1.0	104.0		108.0	
Iron	ICP/ES	09/06/2012						OK	98.0	97.0	96.0	1.0	103.0		106.0	
Iron	ICP/ES	09/06/2012						OK	97.0	92.0	91.0	1.0	104.0		107.0	
Iron	ICP/ES	09/06/2012						OK	97.0	99.0	101.0	1.0				
Iron	ICP/ES	09/06/2012						OK	98.0	103.0	103.0	0.0				

SAMPLE MANAGEMENT SYSTEM
Metals Data Validation Worksheet

RIN: 12084778 Lab Code: PAR Date Due: 9/22/2012
 Matrix: Water Site Code: TUB Date Completed: 9/26/2012

Analyte	Method Type	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Iron	ICP/ES	09/06/2012							99.0	94.0	96.0	2.0				
Magnesium	ICP/ES	09/06/2012	0.0000	1.0000	OK	OK	OK	OK	97.0	96.0	98.0	1.0	103.0	3.0	109.0	
Magnesium	ICP/ES	09/06/2012						OK	97.0	94.0	93.0	1.0	102.0	6.0	108.0	
Magnesium	ICP/ES	09/06/2012						OK	96.0	107.0	102.0	1.0	104.0	8.0	108.0	
Magnesium	ICP/ES	09/06/2012						OK	96.0	96.0	99.0	2.0		7.0		
Magnesium	ICP/ES	09/06/2012						OK	97.0	97.0	96.0	0.0		5.0		
Magnesium	ICP/ES	09/06/2012							97.0	92.0	104.0	2.0		4.0		
Manganese	ICP/ES	09/06/2012	0.0000	1.0000	OK	OK	OK	OK	92.0	94.0	95.0	1.0	94.0	5.0		
Manganese	ICP/ES	09/06/2012						OK	92.0	92.0	91.0	1.0	96.0		107.0	
Manganese	ICP/ES	09/06/2012						OK	91.0	92.0	91.0	1.0	96.0		109.0	
Manganese	ICP/ES	09/06/2012						OK	91.0	95.0	96.0	1.0			107.0	
Manganese	ICP/ES	09/06/2012						OK	92.0	94.0	93.0	1.0				
Manganese	ICP/ES	09/06/2012						OK	95.0	90.0	111.0	2.0				
Molybdenum	ICP/MS	09/10/2012			OK	OK	OK	OK	93.0	96.0	96.0	0.0		2.0	79.0	
Molybdenum	ICP/MS	09/10/2012						OK	97.0	95.0	95.0	0.0			95.0	
Molybdenum	ICP/MS	09/10/2012						OK	95.0	116.0	116.0	0.0			94.0	
Molybdenum	ICP/MS	09/10/2012						OK	96.0	103.0	99.0	4.0				
Molybdenum	ICP/MS	09/10/2012						OK	97.0	96.0	98.0	1.0				

SAMPLE MANAGEMENT SYSTEM
Metals Data Validation Worksheet

RIN: 12084778 Lab Code: PAR Date Due: 9/22/2012
 Matrix: Water Site Code: TUB Date Completed: 9/26/2012

Analyte	Method Type	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB	CCB								
Molybdenum	ICP/MS	09/10/2012						OK	94.0	100.0	99.0	1.0				
Molybdenum	ICP/MS	09/11/2012										0.0				
Potassium	ICP/ES	09/06/2012	0.0000	1.0000	OK	OK	OK	OK	93.0	96.0	96.0	0.0			79.0	
Potassium	ICP/ES	09/06/2012						OK	92.0	96.0	95.0	0.0			78.0	
Potassium	ICP/ES	09/06/2012						OK	91.0	105.0	103.0	1.0			77.0	
Potassium	ICP/ES	09/06/2012						OK	91.0	99.0	101.0	2.0				
Potassium	ICP/ES	09/06/2012						OK	93.0	98.0	96.0	2.0				
Potassium	ICP/ES	09/06/2012							93.0	98.0	101.0	2.0				
Selenium	ICP/MS	09/10/2012			OK	OK	OK	OK	100.0	100.0	100.0	0.0			118.0	
Selenium	ICP/MS	09/10/2012						OK	99.0	98.0	99.0	2.0		2.0	104.0	
Selenium	ICP/MS	09/10/2012						OK	95.0	92.0	103.0	7.0		0.0	102.0	
Selenium	ICP/MS	09/10/2012						OK	99.0	105.0	103.0	2.0		20.0		
Selenium	ICP/MS	09/10/2012						OK	97.0	98.0	100.0	2.0		2.0		
Selenium	ICP/MS	09/10/2012						OK	99.0	101.0	105.0	3.0		4.0		
Selenium	ICP/MS	09/11/2012										1.0				
Silicon	ICP/ES	09/06/2012	0.0000	1.0000	OK	OK	OK	OK	92.0	89.0	92.0	1.0	93.0	1.0	93.0	
Silicon	ICP/ES	09/06/2012						OK	91.0	79.0	77.0	0.0	93.0	2.0	101.0	
Silicon	ICP/ES	09/06/2012						OK	90.0	97.0	93.0	1.0	92.0	1.0	87.0	

SAMPLE MANAGEMENT SYSTEM
Metals Data Validation Worksheet

RIN: 12084778 Lab Code: PAR Date Due: 9/22/2012
 Matrix: Water Site Code: TUB Date Completed: 9/26/2012

Analyte	Method Type	Date Analyzed	CALIBRATION					Method Blank	LCS %R	MS %R	MSD %R	Dup. RPD	ICSAB %R	Serial Dil. %R	CRI %R
			Int.	R^2	ICV	CCV	ICB								
Silicon	ICP/ES	09/06/2012						OK	90.0	89.0	93.0	1.0		1.0	
Silicon	ICP/ES	09/06/2012						OK	91.0	109.0	106.0	1.0		2.0	
Silicon	ICP/ES	09/06/2012							93.0	86.0	96.0	2.0		3.0	
Sodium	ICP/ES	09/06/2012	0.0000	1.0000	OK	OK	OK	OK	90.0	95.0	95.0	0.0		14.0	82.0
Sodium	ICP/ES	09/06/2012						OK	89.0	95.0	94.0	1.0		9.0	84.0
Sodium	ICP/ES	09/06/2012						OK	88.0	109.0	100.0	1.0		9.0	85.0
Sodium	ICP/ES	09/06/2012						OK	88.0	99.0	99.0	0.0		10.0	
Sodium	ICP/ES	09/06/2012						OK	90.0	98.0	95.0	2.0		10.0	
Sodium	ICP/ES	09/06/2012							92.0	90.0	103.0	2.0		10.0	
Uranium	ICP/MS	09/10/2012			OK	OK	OK	OK	93.0	95.0	96.0	1.0		0.0	95.0
Uranium	ICP/MS	09/10/2012						OK	93.0	94.0	95.0	1.0		0.0	99.0
Uranium	ICP/MS	09/10/2012						OK	94.0			0.0		1.0	96.0
Uranium	ICP/MS	09/10/2012						OK	93.0	121.0	112.0	2.0		0.0	
Uranium	ICP/MS	09/10/2012						OK	93.0	97.0	94.0	3.0		3.0	
Uranium	ICP/MS	09/10/2012						OK	94.0	103.0	115.0	1.0		1.0	
Uranium	ICP/MS	09/11/2012										0.0			

SAMPLE MANAGEMENT SYSTEM
Wet Chemistry Data Validation Worksheet

RIN: 12084778 Lab Code: PAR Date Due: 9/22/2012
 Matrix: Water Site Code: TUB Date Completed: 9/26/2012

Analyte	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	ICV	CCV	ICB	CCB						
AMMONIA AS N	08/29/2012	0.000	0.9999	OK	OK	OK	OK	100.00	99.0	100.0	1.00		
AMMONIA AS N	09/04/2012	0.000	0.9999	OK	OK	OK	OK	98.00	97.0	99.0	2.00		
AMMONIA AS N	09/04/2012						OK	99.00	90.0	91.0	1.00		
AMMONIA AS N	09/04/2012						OK	99.00	91.0	89.0	2.00		
AMMONIA AS N	09/04/2012						OK	99.00	51.0	50.0	3.00		
AMMONIA AS N	09/04/2012						OK	96.00					
CHLORIDE	09/05/2012	0.000	1.0000	OK	OK	OK	OK	99.00	109.0	108.0	0		
CHLORIDE	09/05/2012						OK	96.00	112.0	110.0	1.00		
CHLORIDE	09/05/2012								111.0				
CHLORIDE	09/06/2012						OK	96.00	107.0	106.0	1.00		
CHLORIDE	09/06/2012						OK	94.00	105.0	104.0	2.00		
CHLORIDE	09/06/2012								107.0				
CHLORIDE	09/06/2012								106.0				
CHLORIDE	09/06/2012								107.0				
CHLORIDE	09/11/2012	0.000	1.0000	OK	OK	OK	OK	100.00	111.0	113.0	1.00		
CHLORIDE	09/11/2012						OK	99.00	113.0	109.0	1.00		

SAMPLE MANAGEMENT SYSTEM
Wet Chemistry Data Validation Worksheet

RIN: 12084778 Lab Code: PAR Date Due: 9/22/2012
 Matrix: Water Site Code: TUB Date Completed: 9/26/2012

Analyte	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	ICV	CCV	ICB	CCB						
CHLORIDE	09/11/2012								111.0				
Nitrate+Nitrite as N	09/06/2012	0.000	0.9998	OK	OK	OK	OK	OK	104.00	119.0	95.0	6.00	
Nitrate+Nitrite as N	09/06/2012							OK	104.00				
Nitrate+Nitrite as N	09/07/2012	0.000	0.9999	OK	OK	OK	OK	OK	96.00	97.0	83.0	4.00	
Nitrate+Nitrite as N	09/07/2012							OK	99.00				
Nitrate+Nitrite as N	09/12/2012	0.000	0.9999	OK	OK	OK	OK	OK	99.00	105.0	102.0	1.00	
Nitrate+Nitrite as N	09/12/2012							OK	105.00				
SULFATE	09/05/2012	0.000	1.0000	OK	OK	OK	OK	OK	99.00	107.0	107.0	0	
SULFATE	09/05/2012							OK	96.00	109.0	106.0	1.00	
SULFATE	09/05/2012									116.0			
SULFATE	09/06/2012							OK	96.00	106.0	102.0	1.00	
SULFATE	09/06/2012							OK	94.00	100.0	102.0	2.00	
SULFATE	09/06/2012									108.0			
SULFATE	09/06/2012									107.0			
SULFATE	09/06/2012									104.0			
SULFATE	09/11/2012	0.000	1.0000	OK	OK	OK	OK	OK	100.00	110.0	111.0	0	

SAMPLE MANAGEMENT SYSTEM
Wet Chemistry Data Validation Worksheet

RIN: 12084778 Lab Code: PAR Date Due: 9/22/2012
 Matrix: Water Site Code: TUB Date Completed: 9/26/2012

Analyte	Date Analyzed	CALIBRATION						Method Blank	LCS %R	MS %R	MSD %R	DUP RPD	Serial Dil. %R
		Int.	R^2	ICV	CCV	ICB	CCB						
SULFATE	09/11/2012							OK	98.00	111.0	107.0	1.00	
SULFATE	09/11/2012									109.0			
TOTAL DISSOLVED SOLIDS	09/04/2012							OK	101.00			1.00	
TOTAL DISSOLVED SOLIDS	09/04/2012							OK	101.00			0	
TOTAL DISSOLVED SOLIDS	09/04/2012											1.00	
TOTAL DISSOLVED SOLIDS	09/04/2012											0	
TOTAL DISSOLVED SOLIDS	09/05/2012							OK	103.00			1.00	
TOTAL DISSOLVED SOLIDS	09/05/2012							OK	103.00			1.00	
TOTAL DISSOLVED SOLIDS	09/05/2012							OK	102.00			1.00	
TOTAL DISSOLVED SOLIDS	09/05/2012											0	
TOTAL DISSOLVED SOLIDS	09/05/2012											1.00	
TOTAL DISSOLVED SOLIDS	09/06/2012							OK	102.00			2.00	
TOTAL DISSOLVED SOLIDS	09/06/2012							OK	100.00			5.00	
TOTAL DISSOLVED SOLIDS	09/06/2012											0	

Sampling Quality Control Assessment

The following information summarizes and assesses quality control for this sampling event.

Sampling Protocol

Sample results for all monitoring wells met the Category I or II low-flow sampling criteria and were qualified with an “F” flag in the database, indicating the wells were purged and sampled using the low-flow sampling method. All monitoring wells are equipped with either dedicated downhole and pump head tubing or a bladder pump.

Extraction wells (0935, 1101, 1103, 1104, 1105, 1106, 1107, 1108, 1110, 1111, 1112, 1113, 1114, 1116, 1117, 1118, 1119, 1120, 1123, 1124, 1125, 1129, 1132, and 1133) are spigot samples and are designated as Category IV.

These 39 wells were classified as Category II: 0251, 0258, 0262, 0263, 0264, 0266, 0272, 0273, 0274, 0277, 0280, 0281, 0282, 0286, 0287, 0288, 0289, 0290, 0683, 0684, 0690, 0692, 0906, 0908, 0911, 0912, 0913, 0914, 0915, 0916, 0929, 0934, 0940, 0941, 0945, 0947, NMW-6S, NMW-7D, and NMW-9D. The sample results for these wells were qualified with a “Q” flag, indicating the data are qualitative because of the sampling technique.

Equipment Blank Assessment

Equipment blanks are prepared and analyzed to document contamination attributable to the sample collection process. One equipment blank was submitted with these samples. Calcium, iron, magnesium, sodium, arsenic and uranium were detected in this blank at low concentrations. Associated sample results that are less than 10 times the blank concentration are qualified with a “J” flag as estimated values.

Field Duplicate Assessment

Field duplicate samples are collected and analyzed as an indication of overall precision of the measurement process. The precision observed includes both field and laboratory precision and has more variability than laboratory duplicates, which measure only laboratory performance. The relative percent difference for duplicate results that are greater than 5 times the PQL should be less than 20 percent. For results that are less than 5 times the PQL, the range should be no greater than the PQL. Duplicate samples were collected from locations 1103, 1119, 1120, 1124, 1571, and NMW-8S. The duplicate results met the criteria, with the exception of selenium at location 1120. There were no analytical errors identified during the review of the data. The associated sample and duplicate results are qualified with a “J” flag as estimated values.

SAMPLE MANAGEMENT SYSTEM

Validation Report: Equipment/Trip Blanks

RIN: 12084778 Lab Code: PAR Project: Tuba City Validation Date: 10/17/2012

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1208388-99	SW6010	Calcium	340	B	12	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1208388-33	KJW 689	0759	230000	1		
1208388-34	KJW 692	0778	220000	1		
1208388-35	KJW 690	0965	89000	1		

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1208388-99	SW6010	Iron	250		4.9	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1208388-33	KJW 689	0759	710	1		J
1208388-34	KJW 692	0778	170	1		J
1208388-35	KJW 690	0965	180	1		J

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1208388-99	SW6010	Magnesium	170	B	13	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1208388-33	KJW 689	0759	38000	1		
1208388-34	KJW 692	0778	37000	1		
1208388-35	KJW 690	0965	14000	1		

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1208388-99	SW6010	Sodium	20	B	6.6	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1208388-33	KJW 689	0759	73000	1		
1208388-34	KJW 692	0778	73000	1		
1208388-35	KJW 690	0965	36000	1		

SAMPLE MANAGEMENT SYSTEM

Validation Report: Equipment/Trip Blanks

RIN: 12084778 Lab Code: PAR Project: Tuba City Validation Date: 10/17/2012

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1208388-99	SW6020	Arsenic	0.079	B	0.015	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1208388-33	KJW 689	0759	0.72	1		
1208388-34	KJW 692	0778	0.59	1		
1208388-35	KJW 690	0965	0.55	1		

Blank Data

Blank Type	Lab Sample ID	Lab Method	Analyte Name	Result	Qualifier	MDL	Units
Equipment Blank	1208388-99	SW6020	Uranium	0.029		0.0029	UG/L

Sample ID	Sample Ticket	Location	Result	Dilution Factor	Lab Qualifier	Validation Qualifier
1208388-33	KJW 689	0759	3.7	1		
1208388-34	KJW 692	0778	3.5	1		
1208388-35	KJW 690	0965	1.5	1		

SAMPLE MANAGEMENT SYSTEM
Validation Report: Field Duplicates

RIN: 12084778 Lab Code: PAR Project: Tuba City Validation Date: 10/15/2012

Duplicate: 2186

Sample: 1124

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
AMMONIA AS N	0.1	U		1	0.1	U		1			MG/L
Arsenic	1.8			10	2.1			5	15.38		UG/L
Calcium	720000			5	720000			5	0		UG/L
CHLORIDE	150			50	150			50	0		MG/L
Iron	25	U		5	25	U		5			UG/L
Magnesium	120000			5	120000			5	0		UG/L
Manganese	0.57	U		5	0.57	U		5			UG/L
Molybdenum	0.32	U		10	0.98			5			UG/L
Nitrate+Nitrite as N	91			50	92			50	1.09		MG/L
Potassium	5500			5	5400			5	1.83		UG/L
Selenium	29			10	30			5	3.39		UG/L
Silica	16000			5	16000			5	0		UG/L
Silicon	7300			5	7300			5	0		UG/L
Sodium	370000			5	360000			5	2.74		UG/L
SULFATE	2200			50	2200			50	0		MG/L
TOTAL DISSOLVED SOLIDS	4400			1	4500			1	2.25		MG/L
Uranium	280			10	280			5	0		UG/L

Duplicate: 2386

Sample: NMW-8S

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
AMMONIA AS N	0.1	U		1	0.1	U		1			MG/L
Arsenic	2.3			1	2.4			2	4.26		UG/L
Calcium	32000			1	33000			1	3.08		UG/L
CHLORIDE	9.7			2	9.8			2	1.03		MG/L
Iron	5.9	B		1	20	B		1			UG/L
Magnesium	5300			1	5500			1	3.70		UG/L
Manganese	0.11	U		1	1.7	B		1			UG/L
Molybdenum	0.27			1	0.25			2			UG/L
Nitrate+Nitrite as N	3.4			2	3.5			2	2.90		MG/L
Potassium	1200			1	1200			1	0		UG/L
Selenium	1.2			1	1.2			2	0		UG/L
Silica	9700			1	10000			1	3.05		UG/L
Silicon	4500			1	4700			1	4.35		UG/L
Sodium	8400			1	8500			1	1.18		UG/L
SULFATE	13			2	13			2	0		MG/L
TOTAL DISSOLVED SOLIDS	150			1	160			1	6.45		MG/L

SAMPLE MANAGEMENT SYSTEM
Validation Report: Field Duplicates

RIN: 12084778 Lab Code: PAR Project: Tuba City Validation Date: 10/15/2012

Duplicate: 2386

Sample: NMW-8S

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Uranium	1.2			1	1.3			2	8.00		UG/L

Duplicate: 2532

Sample: 1571

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Arsenic	2			1	2			5	0		UG/L
Calcium	28000			1	28000			1	0		UG/L
CHLORIDE	42			5	42			5	0		MG/L
Iron	11	B		1	4.9	U		1			UG/L
Magnesium	9200			1	9100			1	1.09		UG/L
Manganese	5	B		1	2.6	B		1	63.16		UG/L
Molybdenum	3.3			1	3.2			5	3.08		UG/L
Nitrate+Nitrite as N	2.6			2	2.6			2	0		MG/L
Potassium	2400			1	2400			1	0		UG/L
Selenium	4.8			1	4.9			5	2.06		UG/L
Sodium	68000			1	68000			1	0		UG/L
SULFATE	88			5	87			5	1.14		MG/L
TOTAL DISSOLVED SOLIDS	340			1	360			1	5.71		MG/L
Uranium	3.2			1	3.1			5	3.17		UG/L

Duplicate: 2988

Sample: 1103

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
AMMONIA AS N	32			20	32			20	0		MG/L
Arsenic	1.5			10	1.8			1	18.18		UG/L
Calcium	590000			5	620000			5	4.96		UG/L
CHLORIDE	130			50	130			50	0		MG/L
Iron	25	U		5	25	U		5			UG/L
Magnesium	250000			5	260000			5	3.92		UG/L
Manganese	3800			5	4000			5	5.13		UG/L
Molybdenum	5.7			10	5.8			1	1.74		UG/L
Nitrate+Nitrite as N	180			100	180			100	0		MG/L
Potassium	14000			5	14000			5	0		UG/L
Selenium	32			10	36			1	11.76		UG/L
Silica	15000			5	16000			5	6.45		UG/L
Silicon	7200			5	7400			5	2.74		UG/L
Sodium	340000			5	350000			5	2.90		UG/L
SULFATE	2200			50	2100			50	4.65		MG/L

SAMPLE MANAGEMENT SYSTEM
Validation Report: Field Duplicates

RIN: 12084778 Lab Code: PAR Project: Tuba City Validation Date: 10/15/2012

Duplicate: 2988

Sample: 1103

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
TOTAL DISSOLVED SOLIDS	4800			1	4800			1	0		MG/L
Uranium	390			10	400			50	2.53		UG/L

Duplicate: 2989

Sample: 1119

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
AMMONIA AS N	15			10	15			10	0		MG/L
Arsenic	2.2			10	2.4			1	8.70		UG/L
Calcium	350000			5	360000			5	2.82		UG/L
CHLORIDE	78			50	78			50	0		MG/L
Iron	25	U		5	25	U		5			UG/L
Magnesium	160000			5	160000			5	0		UG/L
Manganese	4800			5	4900			5	2.06		UG/L
Molybdenum	4.7			10	4.8			1	2.11		UG/L
Nitrate+Nitrite as N	83			50	82			50	1.21		MG/L
Potassium	6900			5	7200			5	4.26		UG/L
Selenium	17			10	19			1	11.11		UG/L
Silica	15000			5	15000			5	0		UG/L
Silicon	7100			5	7100			5	0		UG/L
Sodium	190000			5	200000			5	5.13		UG/L
SULFATE	1400			50	1400			50	0		MG/L
TOTAL DISSOLVED SOLIDS	2900			1	2800			1	3.51		MG/L
Uranium	190			10	190			50	0		UG/L

Duplicate: 2990

Sample: 1120

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
AMMONIA AS N	32			20	32			20	0		MG/L
Arsenic	1.4			10	1.4			1	0		UG/L
Calcium	510000			5	500000			5	1.98		UG/L
CHLORIDE	44			50	43			50			MG/L
Iron	25	U		5	25	U		5			UG/L
Magnesium	190000			5	190000			5	0		UG/L
Manganese	50000			5	49000			5	2.02		UG/L
Molybdenum	37			10	37			1	0		UG/L
Nitrate+Nitrite as N	29			20	29			20	0		MG/L
Potassium	10000			5	10000			5	0		UG/L
Selenium	9.8			10	13			1	28.07		UG/L

SAMPLE MANAGEMENT SYSTEM
Validation Report: Field Duplicates

RIN: 12084778 Lab Code: PAR Project: Tuba City Validation Date: 10/15/2012

Duplicate: 2990

Sample: 1120

Analyte	Sample				Duplicate				RPD	RER	Units
	Result	Flag	Error	Dilution	Result	Flag	Error	Dilution			
Silica	21000			5	21000			5	0		UG/L
Silicon	10000			5	9800			5	2.02		UG/L
Sodium	200000			5	200000			5	0		UG/L
SULFATE	2300			50	2300			50	0		MG/L
TOTAL DISSOLVED SOLIDS	3700			1	3600			1	2.74		MG/L
Uranium	110			10	110			50	0		UG/L

Certification

All laboratory analytical quality control criteria were met except as qualified in this report. The data qualifiers listed on the SEEPro database reports are defined on the last page of each report. All data in this package are considered validated and available for use.

Laboratory Coordinator: Steph Donovan 11-15-2012
Stephen Donovan Date

Data Validation Lead: Steph Donovan 11-15-2012
Stephen Donovan Date

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Attachment 1
Assessment of Anomalous Data

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Potential Outliers Report

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Potential Outliers Report

Potential outliers are measurements that are extremely large or small relative to the rest of the data and, therefore, are suspected of misrepresenting the population from which they were collected. Potential outliers may result from transcription errors, data-coding errors, or measurement system problems. However, outliers may also represent true extreme values of a distribution and indicate more variability in the population than was expected.

Statistical outlier tests give probabilistic evidence that an extreme value does not "fit" with the distribution of the remainder of the data and is therefore a statistical outlier. These tests should only be used to identify data points that require further investigation. The tests alone cannot determine whether a statistical outlier should be discarded or corrected within a data set.

There are three steps involved in identifying extreme values or outliers:

1. Identify extreme values that may be potential outliers by generating the Outliers Report using the Sample Management System from data in the environmental database. The application compares the new data set (in standard environmental database units) with historical data and lists the new data that fall outside the historical data range. A determination is also made if the data are normally distributed using the Shapiro-Wilk Test.
2. Apply the appropriate statistical test. Dixon's Extreme Value test is used to test for statistical outliers when the sample size is less than or equal to 25. This test considers both extreme values that are much smaller than the rest of the data (case 1) and extreme values that are much larger than the rest of the data (case 2). This test is valid only if the data without the suspected outlier are normally distributed. Rosner's Test is a parametric test that is used to detect outliers for sample sizes of 25 or more. This test also assumes that the data without the suspected outliers are normally distributed.
3. Scientifically review statistical outliers and decide on their disposition.

Data were identified as potentially anomalous from 16 locations. These results were identified as potentially anomalous because of downward or upward trending in the data. Potential anomalies in the field parameters were also examined for patterns of repeated high or low bias, which suggest a systematic error due to instrument malfunction. No such patterns were found and all data from this event are acceptable as qualified.

Data Validation Outliers Report - Field Parameters Only

Comparison: All historical Data Beginning 6/1/2004

Laboratory: Field Measurements

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0251	N001	08/21/2012	Turbidity	0.48	FQ	9.85		FQ	0.49		F	16	0	No
TUB01	0261	N001	08/22/2012	Alkalinity, Total (as CaCO ₃)	86	F	144		F	90		F	8	0	No
TUB01	0262	N001	08/22/2012	Specific Conductance	5225	FQ	4975		FQ	2291		FQ	16	0	No
TUB01	0271	N001	08/22/2012	Turbidity	0.34	F	2.54		F	0.49		F	8	0	No
TUB01	0272	N001	08/21/2012	Alkalinity, Total (as CaCO ₃)	74	FQ	119		FQ	80		F	15	0	No
TUB01	0272	N001	08/21/2012	Oxidation Reduction Potential	65	FQ	216.2		F	102.7		F	14	0	No
TUB01	0273	N001	08/21/2012	Oxidation Reduction Potential	50	FQ	234.7		FQ	63.3		FQ	14	0	No
TUB01	0274	N001	08/21/2012	Alkalinity, Total (as CaCO ₃)	30	FQ	151		FQ	82		FQ	15	0	No
TUB01	0274	N001	08/21/2012	Oxidation Reduction Potential	55	FQ	247		FQ	75		FQ	14	0	No
TUB01	0274	N001	08/21/2012	Turbidity	9.58	FQ	8.51		FQ	0.38		FQ	15	0	No
TUB01	0275	N001	08/21/2012	Alkalinity, Total (as CaCO ₃)	482	F	670		F	495		F	15	0	No
TUB01	0275	N001	08/21/2012	Oxidation Reduction Potential	95	F	359.4		F	120.8		F	14	0	No
TUB01	0276	N001	08/21/2012	Alkalinity, Total (as CaCO ₃)	70	F	192		F	86		F	15	0	No
TUB01	0276	N001	08/21/2012	Oxidation Reduction Potential	50	F	370		F	78.3		F	14	0	No
TUB01	0279	N001	08/23/2012	Specific Conductance	380	F	495		F	383		F	8	0	No
TUB01	0280	N001	08/23/2012	Turbidity	5.59	FQ	5.03		FQ	0.59		FQ	8	0	No
TUB01	0286	N001	08/21/2012	Oxidation Reduction Potential	55	FQ	240		FQ	126			9	0	No
TUB01	0287	N001	08/21/2012	Oxidation Reduction Potential	55	FQ	235.1		FQ	125			9	0	No

Data Validation Outliers Report - Field Parameters Only

Comparison: All historical Data Beginning 6/1/2004

Laboratory: Field Measurements

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0288	N001	08/21/2012	Oxidation Reduction Potential	60	FQ	295		FQ	106		9	0	No	
TUB01	0288	N001	08/21/2012	Specific Conductance	1339	FQ	2530			1390	FQ	11	0	No	
TUB01	0289	N001	08/21/2012	Alkalinity, Total (as CaCO ₃)	185	FQ	268		FQ	202	FQ	10	0	No	
TUB01	0289	N001	08/21/2012	Oxidation Reduction Potential	2	FQ	264		F	89		9	0	No	
TUB01	0290	N001	08/22/2012	Alkalinity, Total (as CaCO ₃)	218	FQ	196		QF	71		10	0	No	
TUB01	0290	N001	08/22/2012	Specific Conductance	2095	FQ	1680		QF	273	FQ	11	0	No	
TUB01	0684	N001	08/21/2012	Alkalinity, Total (as CaCO ₃)	72	FQ	360		FQ	81	FQ	8	0	No	
TUB01	0684	N001	08/21/2012	Oxidation Reduction Potential	45	FQ	207		FQ	94	FQ	7	0	No	
TUB01	0686	N001	08/21/2012	Oxidation Reduction Potential	50	F	209		F	74.4	F	7	0	No	
TUB01	0686	N001	08/21/2012	Specific Conductance	688	F	536		F	133		8	0	No	
TUB01	0687	N001	08/21/2012	Specific Conductance	402	F	323		F	119	F	9	0	No	
TUB01	0692	N001	08/23/2012	Specific Conductance	254	FQ	352		F	258	FQ	9	0	No	
TUB01	0695	N001	08/22/2012	Alkalinity, Total (as CaCO ₃)	187	F	169		FJ	91	F	7	0	No	
TUB01	0695	N001	08/22/2012	Specific Conductance	346	F	417		F	355	F	7	0	No	
TUB01	0759	N001	08/21/2012	Oxidation Reduction Potential	158.1		131.1			102.3		5	0	No	
TUB01	0778	N001	08/21/2012	Oxidation Reduction Potential	243.6		184.7			47		5	0	No	
TUB01	0901	N001	08/22/2012	Oxidation Reduction Potential	90	F	260		F	96	F	9	0	No	
TUB01	0903	N001	08/22/2012	Specific Conductance	535	F	523		F	436	F	9	0	No	

Data Validation Outliers Report - Field Parameters Only

Comparison: All historical Data Beginning 6/1/2004

Laboratory: Field Measurements

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0903	N001	08/22/2012	Turbidity	3.81	F	1.92		F	0.46		FQ	9	0	Yes
TUB01	0906	N001	08/22/2012	Oxidation Reduction Potential	65	FQ	237		FQ	153.4		FQ	8	0	No
TUB01	0906	N001	08/22/2012	Specific Conductance	7459	FQ	7400		QF	5960		FQ	9	0	No
TUB01	0910	N001	08/22/2012	Oxidation Reduction Potential	65	F	250.2		F	139		F	8	0	No
TUB01	0912	N001	08/21/2012	Specific Conductance	1931	FQ	1865		FQ	1519		FQ	8	0	No
TUB01	0912	N001	08/21/2012	Turbidity	0.6	FQ	9.45			0.81		FQ	8	0	No
TUB01	0913	N001	08/21/2012	Turbidity	0.36	FQ	9.78		FQ	0.84		FQ	8	0	No
TUB01	0914	N001	08/22/2012	Alkalinity, Total (as CaCO ₃)	31	FQ	91		FQ	35		FQG	8	0	No
TUB01	0914	N001	08/22/2012	Specific Conductance	162	FQ	250		FQG	184		FQG	8	0	No
TUB01	0915	N001	08/23/2012	Temperature	16.3	FQ	21.15		FQG	16.9			7	0	No
TUB01	0916	N001	08/22/2012	Turbidity	0.47	FQ	2.28		FQ	0.9		FQ	7	0	No
TUB01	0921	N001	08/21/2012	Alkalinity, Total (as CaCO ₃)	69	F	232		F	72		F	8	0	No
TUB01	0921	N001	08/21/2012	Oxidation Reduction Potential	107.7	F	194.5		F	112			8	0	No
TUB01	0921	N001	08/21/2012	Turbidity	2.15	F	1.91			0.48		F	8	0	No
TUB01	0930	N001	08/23/2012	Specific Conductance	636	F	577		F	353		F	16	0	No
TUB01	0934	N001	08/21/2012	Alkalinity, Total (as CaCO ₃)	568	FQ	998		F	599		QF	16	0	No
TUB01	0945	N001	08/21/2012	Alkalinity, Total (as CaCO ₃)	62	FQ	129		FQ	86		QF	8	0	No
TUB01	0945	N001	08/21/2012	Oxidation Reduction Potential	55	FQ	390		FQ	67.8		F	7	0	No

Data Validation Outliers Report - Field Parameters Only

Comparison: All historical Data Beginning 6/1/2004

Laboratory: Field Measurements

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0947	N001	08/20/2012	Alkalinity, Total (as CaCO ₃)	127	FQ	105		FQ	82		QF	7	0	No
TUB01	0947	N001	08/20/2012	Turbidity	0.79	FQ	4.89			1.28		FQ	7	0	No
TUB01	0965	N001	08/20/2012	Specific Conductance	747		1469			1028			6	0	No
TUB01	1004	N001	08/22/2012	Specific Conductance	363	F	539		F	390		F	9	0	No
TUB01	1006	N001	08/22/2012	Specific Conductance	232	F	283		F	233		F	8	0	No
TUB01	1103	N001	08/22/2012	Alkalinity, Total (as CaCO ₃)	950		530			269			7	0	Yes
TUB01	1104	N001	08/22/2012	Oxidation Reduction Potential	60		284			79.9			7	0	No
TUB01	1105	N001	08/22/2012	Oxidation Reduction Potential	75		305			86.9			8	0	No
TUB01	1106	N001	08/22/2012	Oxidation Reduction Potential	55		286			71.9			8	0	No
TUB01	1106	N001	08/22/2012	Specific Conductance	3615		3450			1457			8	0	No
TUB01	1107	N001	08/22/2012	Oxidation Reduction Potential	70		268			75.6			8	0	No
TUB01	1108	N001	08/22/2012	Oxidation Reduction Potential	80		286			139		F	8	0	No
TUB01	1110	N001	08/22/2012	Oxidation Reduction Potential	75		305			90.2			7	0	No
TUB01	1110	N001	08/22/2012	Specific Conductance	3310		3236			1249			7	0	No
TUB01	1111	N001	08/22/2012	Alkalinity, Total (as CaCO ₃)	170		450			328			8	0	Yes
TUB01	1111	N001	08/22/2012	Oxidation Reduction Potential	50		306			106			8	0	No
TUB01	1112	N001	08/22/2012	Specific Conductance	1560		1117			881		F	8	0	Yes
TUB01	1113	N001	08/22/2012	Specific Conductance	1130		1013		F	393			8	0	No

Data Validation Outliers Report - Field Parameters Only

Comparison: All historical Data Beginning 6/1/2004

Laboratory: Field Measurements

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	1116	N001	08/22/2012	Oxidation Reduction Potential	25		252			67.1			8	0	No
TUB01	1119	N001	08/22/2012	Oxidation Reduction Potential	60		297			80.3	F		7	0	No
TUB01	1123	N001	08/22/2012	Oxidation Reduction Potential	50		197			51.2	F		6	0	No
TUB01	1129	N001	08/22/2012	Oxidation Reduction Potential	65		279.5			151			7	0	No
TUB01	1132	N001	08/22/2012	Oxidation Reduction Potential	60		306			140			9	0	No
TUB01	1133	N001	08/22/2012	Oxidation Reduction Potential	85		283			150			6	0	No
TUB01	1571	0001	08/21/2012	Alkalinity, Total (as CaCO ₃)	274		238			128			8	0	No
TUB01	1571	N001	08/21/2012	Oxidation Reduction Potential	174.8		172.2			-184.6			6	0	No
TUB01	1571	N001	08/21/2012	Turbidity	245		145			2.25			5	0	No
TUB01	1573	N001	08/21/2012	Oxidation Reduction Potential	177.5		176			9.8			6	0	No
TUB01	1573	N001	08/21/2012	Turbidity	0.52		4.21			0.68			5	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0251	N001	08/21/2012	Sodium	5.2	FQ	6.52	E	QFJ	5.5		FQ	17	0	No
TUB01	0252	N001	08/21/2012	Manganese	0.033	F	0.02		FQ	0.000054	U	F	17	7	No
TUB01	0252	N001	08/21/2012	Sodium	8.6	F	11		F	8.9		F	17	0	No
TUB01	0261	N001	08/22/2012	Sodium	10	F	16		F	11		F	8	0	No
TUB01	0262	N001	08/22/2012	Arsenic	0.0023	FQ	0.002		FQ	0.001		F	16	1	No
TUB01	0262	N001	08/22/2012	Magnesium	210	FQ	190		FQ	71		FQ	16	0	No
TUB01	0262	N001	08/22/2012	Nitrate + Nitrite as Nitrogen	230	FQ	220		FQ	1.7		FQ	16	0	No
TUB01	0262	N001	08/22/2012	Sodium	250	FQ	240		FQ	76		FQ	16	0	No
TUB01	0262	N001	08/22/2012	Sulfate	2200	FQ	2100		FQ	820		FQ	16	0	No
TUB01	0263	N001	08/21/2012	Calcium	610	FQ	890		FQ	660		FQ	16	0	No
TUB01	0263	N001	08/21/2012	Silicon	8.5	FQ	7.8		FQ	6		F	14	0	Yes
TUB01	0264	N001	08/21/2012	Calcium	68	FQ	65		FQ	54		FQ	16	0	No
TUB01	0264	N001	08/21/2012	Sulfate	81	FQJ	76		FQ	56		FQ	16	0	No
TUB01	0266	N001	08/22/2012	Molybdenum	0.00018	FQ	0.00082	B	UFQ	0.0002		FQ	16	9	No
TUB01	0266	N001	08/22/2012	Sodium	5.1	FQ	7	N	FJ	5.3		FQ	16	0	No
TUB01	0267	N001	08/21/2012	Uranium	0.057	F	0.095		F	0.061		F	18	0	No
TUB01	0268	N001	08/21/2012	Potassium	2.9	F	5.8		F	3.5		F	18	0	No
TUB01	0268	N001	08/21/2012	Silicon	5.7	F	5.2		F	4		F	16	0	No
TUB01	0271	N001	08/22/2012	Sodium	8.1	F	9.5		F	8.7		F	8	0	No
TUB01	0272	N001	08/21/2012	Sodium	5.5	FQ	7.24		F	5.6		F	19	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

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Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0273	N001	08/21/2012	Manganese	0.00016	B	UFQ	0.0066		FQ	0.0002	B	JFQ	15	6	No
TUB01	0274	N001	08/21/2012	Molybdenum	0.00037		FQ	0.0016		UFQ	0.00039		FQ	15	8	No
TUB01	0274	N001	08/21/2012	Sodium	9.2		FQ	11.7	E	FQ	9.6		FQ	15	0	No
TUB01	0276	N001	08/21/2012	Molybdenum	0.00039		F	0.00204	B	UF	0.00043		F	17	10	No
TUB01	0277	N001	08/22/2012	Manganese	0.1		FQ	0.072		F	0.00015	U	QFJ	8	2	No
TUB01	0277	N001	08/22/2012	Total Dissolved Solids	160		FQ	190			170		FQ	7	0	No
TUB01	0277	N001	08/22/2012	Uranium	0.0023		FQ	0.0033		F	0.0024		FQ	8	0	No
TUB01	0278	N001	08/23/2012	Calcium	27		F	30		FQ	28		FQ	8	0	No
TUB01	0278	N001	08/23/2012	Magnesium	6.7		F	7.4		QF	6.8		FQ	8	0	No
TUB01	0278	N001	08/23/2012	Potassium	1.6		F	2.9		FQ	1.7		FQ	8	0	No
TUB01	0278	N001	08/23/2012	Sodium	7.6		F	9.4		F	8		FQ	8	0	No
TUB01	0278	N001	08/23/2012	Total Dissolved Solids	140		F	170		FQ	150		F	8	0	No
TUB01	0279	N001	08/23/2012	Manganese	0.00073	B	UF	0.64		F	0.001	B	F	8	0	No
TUB01	0279	N001	08/23/2012	Total Dissolved Solids	240		F	320		F	280		FJ	7	0	No
TUB01	0280	N001	08/23/2012	Sodium	17		FQ	21		FQ	18		FQ	9	0	No
TUB01	0281	N001	08/22/2012	Silicon	6.2		FQ	7.2		FQ	6.3		F	14	0	No
TUB01	0281	N001	08/22/2012	Sodium	14		FQ	30		FQ	16.8	E	QF	16	0	No
TUB01	0282	N001	08/22/2012	Molybdenum	0.00031		FQ	0.0048		F	0.00041		F	15	5	No
TUB01	0282	N001	08/22/2012	Silica	13		FQ	17		FQ	13.8		QF	15	0	No
TUB01	0282	N001	08/22/2012	Silicon	6.1		FQ	7.7		FQ	6.3		FQ	13	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

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Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		N	N Below Detect	
TUB01	0286	N001	08/21/2012	Arsenic	0.002	FQ		0.0017	U	FQ	0.00041	F		9	2	No
TUB01	0286	N001	08/21/2012	Chloride	150	FQ		114	QF		13	FQ		10	0	No
TUB01	0286	N001	08/21/2012	Magnesium	840	FQ		627	QF		10	FQ		9	0	No
TUB01	0286	N001	08/21/2012	Manganese	6.7	FQ		4.57	QF		0.0036	B	FQ	9	0	No
TUB01	0286	N001	08/21/2012	Molybdenum	0.0013	FQ		0.00124	B	QF	0.00025	B	UFQ	9	3	No
TUB01	0286	N001	08/21/2012	Nitrate + Nitrite as Nitrogen	320	FQJ		267	QF		9.2	FQ		9	0	No
TUB01	0286	N001	08/21/2012	Selenium	0.045	FQ		0.0388	QF		0.0018	FQ		9	0	No
TUB01	0286	N001	08/21/2012	Sodium	280	FQ		279	FQ		9.7	FQ		9	0	No
TUB01	0286	N001	08/21/2012	Sulfate	3700	FQJ		2850	QF		34	FQ		10	0	No
TUB01	0286	N001	08/21/2012	Total Dissolved Solids	7900	FQJ		6310	QF		250	FQ		9	0	No
TUB01	0287	N001	08/21/2012	Chloride	240	FQ		220	FQ		121			10	0	No
TUB01	0287	N001	08/21/2012	Sodium	340	FQ		339	E	QF	170	FQ		9	0	No
TUB01	0287	N001	08/21/2012	Sulfate	1800	FQJ		1700	FQ		905			10	0	No
TUB01	0288	N001	08/21/2012	Iron	0.0049	U	FQ	0.12	FQ		0.0064	B	FQJ	9	4	No
TUB01	0288	N001	08/21/2012	Manganese	0.00073	B	UFQ	0.019	FQ		0.0015	B	FQ	9	3	No
TUB01	0288	N001	08/21/2012	Silicon	6.9	FQ		8.4	FQ		7.1	FQ		7	0	No
TUB01	0289	N001	08/21/2012	Manganese	0.007	FQ		0.0254	FQ		0.011	FQ		9	0	No
TUB01	0290	N001	08/22/2012	Calcium	310	FQ		240	QF		35	FQ		9	0	No
TUB01	0290	N001	08/22/2012	Chloride	59	FQ		36	FQ		13	FQ		10	0	Yes
TUB01	0290	N001	08/22/2012	Magnesium	47	FQ		39.3	QF		5.8	FQ		9	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

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Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Lab	Data	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0290	N001	08/22/2012	Manganese	0.00016	B	UFQ	0.0066	E	FQJ	0.00025	B	JFQ	9	3	No
TUB01	0290	N001	08/22/2012	Molybdenum	0.00011		FQ	0.0018		FQJ	0.00022		FQ	9	1	No
TUB01	0290	N001	08/22/2012	Nitrate + Nitrite as Nitrogen	80		FQ	57.4		QF	3.6		FQ	9	0	No
TUB01	0290	N001	08/22/2012	Potassium	4		FQ	3.77	B	QF	1.1		FQJ	9	0	No
TUB01	0290	N001	08/22/2012	Selenium	0.011		FQ	0.00795		QF	0.0014	E	FQ	9	0	No
TUB01	0290	N001	08/22/2012	Sodium	57		FQ	47.7		QF	13		FQ	9	0	No
TUB01	0290	N001	08/22/2012	Sulfate	550		FQ	284		QF	19		FQ	10	0	Yes
TUB01	0290	N001	08/22/2012	Total Dissolved Solids	1600		FQ	1100		QF	180		FQ	9	0	No
TUB01	0290	N001	08/22/2012	Uranium	0.05		FQ	0.041		QF	0.0014		FQ	10	0	No
TUB01	0683	N001	08/22/2012	Iron	0.056	B	UFQ	0.024	B	FQ	0.0032	B	FQ	8	5	Yes
TUB01	0683	N001	08/22/2012	Sodium	11		FQ	16		F	12		FQ	8	0	No
TUB01	0684	N001	08/21/2012	Sodium	11		FQ	16		FQ	12		FQ	8	0	No
TUB01	0685	N001	08/21/2012	Total Dissolved Solids	160		FJ	210		F	170		F	8	0	No
TUB01	0686	N001	08/21/2012	Calcium	84		F	74		F	7.5		F	11	0	No
TUB01	0686	N001	08/21/2012	Chloride	69		F	48		F	1.7			11	0	No
TUB01	0686	N001	08/21/2012	Selenium	0.0077		F	0.0051		F	0.00015			11	0	No
TUB01	0686	N001	08/21/2012	Sodium	34		F	25		F	13		F	11	0	Yes
TUB01	0686	N001	08/21/2012	Sulfate	130		FJ	120		F	24		F	11	0	No
TUB01	0686	N001	08/21/2012	Total Dissolved Solids	430		FJ	380		F	96			11	0	No
TUB01	0686	N001	08/21/2012	Uranium	0.0023		F	0.0014		F	0.000042	B	UF	11	5	No

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					Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		N	N Below Detect	
TUB01	0687	N001	08/21/2012	Arsenic	0.0046	F		0.029	F		0.0059	F		10	0	No
TUB01	0687	N001	08/21/2012	Calcium	37	F		25	F		5.4	F		10	0	Yes
TUB01	0687	N001	08/21/2012	Chloride	8.5	F		5.3	F		1.5	F		10	0	Yes
TUB01	0687	N001	08/21/2012	Magnesium	4.8	F		2.8	F		0.67	B F		10	0	Yes
TUB01	0687	N001	08/21/2012	Molybdenum	0.0081	F		0.0064	F		0.0015	FJ		10	0	Yes
TUB01	0687	N001	08/21/2012	Nitrate + Nitrite as Nitrogen	6.4	FJ		6	FJ		1.7	F		10	0	No
TUB01	0687	N001	08/21/2012	Selenium	0.0022	F		0.0013	F		0.00029	FG		10	0	Yes
TUB01	0687	N001	08/21/2012	Sodium	30	F		29	F		15	F		10	0	Yes
TUB01	0687	N001	08/21/2012	Total Dissolved Solids	250	FJ		190	FJ		84	F		10	0	Yes
TUB01	0687	N001	08/21/2012	Uranium	0.0028	F		0.00041			0.000039	B UF		10	3	Yes
TUB01	0688	N001	08/21/2012	Molybdenum	0.0011	F		0.0036	F		0.0016	FJ		9	1	No
TUB01	0689	N001	08/22/2012	Molybdenum	0.00031	F		0.00083	B F		0.00035	F		9	5	No
TUB01	0689	N001	08/22/2012	Silicon	5.4	F		6.2	F		5.5	F		9	0	No
TUB01	0689	N001	08/22/2012	Sodium	7.4	F		9.1	F		7.6	F		9	0	No
TUB01	0689	N001	08/22/2012	Total Dissolved Solids	160	F		180	FJ		170	F		9	0	No
TUB01	0690	N001	08/23/2012	Manganese	0.038	FQ		0.026	FQ		0.000095	U FQ		9	5	No
TUB01	0690	N001	08/23/2012	Potassium	1.9	FQ		3.3	FQ		2	FQ		9	0	No
TUB01	0690	N001	08/23/2012	Sodium	7.5	FQ		9.6	FQ		8	FQ		9	0	No
TUB01	0691	N001	08/22/2012	Calcium	330	F		320	F		81	F		18	0	No
TUB01	0691	N001	08/22/2012	Magnesium	51	F		50	F		13	F		18	0	No

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Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		N	N Below Detect	
TUB01	0691	N001	08/22/2012	Nitrate + Nitrite as Nitrogen	75	F		65	F		12	F		18	0	No
TUB01	0691	N001	08/22/2012	Selenium	0.0046	F		0.0041	F		0.0015	F		18	0	No
TUB01	0691	N001	08/22/2012	Sulfate	550	F		530	F		91	F		18	0	No
TUB01	0692	N001	08/23/2012	Sodium	10	FQ		14	F		11	FQ		9	0	No
TUB01	0692	N001	08/23/2012	Total Dissolved Solids	150	FQ		190	FQ		160	FQJ		9	0	No
TUB01	0695	N001	08/22/2012	Calcium	46	F		58	F		47	F		7	0	No
TUB01	0695	N001	08/22/2012	Magnesium	7.2	F		9.2	F		7.5	F		7	0	No
TUB01	0695	N001	08/22/2012	Molybdenum	0.00052	F		0.00078	B		0.00056	F		7	2	No
TUB01	0695	N001	08/22/2012	Sodium	10	F		12	F		11	F		7	0	No
TUB01	0695	N001	08/22/2012	Sulfate	39	F		59	F		40	F		7	0	No
TUB01	0759	0001	08/21/2012	Arsenic	0.00072			0.0007			0.00025			6	0	No
TUB01	0759	0001	08/21/2012	Chloride	7.3			14			8.9			6	0	No
TUB01	0759	0001	08/21/2012	Iron	0.71	J		0.076			0.0075	U		6	4	Yes
TUB01	0759	0001	08/21/2012	Molybdenum	0.0022			0.0056			0.0025	J		6	0	No
TUB01	0759	0001	08/21/2012	Nitrate + Nitrite as Nitrogen	2.2	J		1.6			0.01	U		6	1	No
TUB01	0759	0001	08/21/2012	Sodium	73			100			75			6	0	No
TUB01	0778	0001	08/21/2012	Chloride	7.4			13			8.1			6	0	No
TUB01	0778	0001	08/21/2012	Molybdenum	0.0021			0.0059			0.0023	J		6	0	No
TUB01	0778	0001	08/21/2012	Nitrate + Nitrite as Nitrogen	2.5	J		2			0.01	U		6	1	No
TUB01	0901	N001	08/22/2012	Calcium	40	F		49	F		42	F		10	0	No

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Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		N	N Below Detect	
TUB01	0901	N001	08/22/2012	Magnesium	7	F		8.3	F		7.1	F		10	0	No
TUB01	0901	N001	08/22/2012	Sodium	16	F		20	F		17	F		10	0	No
TUB01	0901	N001	08/22/2012	Uranium	0.002	F		0.00353	F		0.0023	F		10	0	No
TUB01	0903	N001	08/22/2012	Calcium	71	F		70	F		53	F		9	0	No
TUB01	0903	N001	08/22/2012	Molybdenum	0.00022	F		0.00055	B UF		0.00023	F		9	7	No
TUB01	0903	N001	08/22/2012	Selenium	0.0021	F		0.002	F		0.0013	F		9	0	No
TUB01	0903	N001	08/22/2012	Sulfate	85	F		79	FJ		51	F		9	0	No
TUB01	0903	N001	08/22/2012	Uranium	0.0023	F		0.0022	F		0.0014	F		9	0	No
TUB01	0904	N001	08/22/2012	Calcium	57	F		110	F		61	F		8	0	No
TUB01	0904	N001	08/22/2012	Magnesium	14	F		26	F		15	F		8	0	No
TUB01	0904	N001	08/22/2012	Molybdenum	0.0008	F		0.00067	F		0.00058	B UF		8	4	Yes
TUB01	0904	N001	08/22/2012	Nitrate + Nitrite as Nitrogen	1.7	F		1.5	F		0.94	F		8	0	No
TUB01	0904	N001	08/22/2012	Sulfate	79	F		140	F		92	F		8	0	No
TUB01	0906	N001	08/22/2012	Chloride	170	FQ		140	FQ		110	FQ		11	0	Yes
TUB01	0906	N001	08/22/2012	Nitrate + Nitrite as Nitrogen	530	FQ		515	QF		340	FQ		11	0	No
TUB01	0906	N001	08/22/2012	Total Dissolved Solids	7300	FQ		6700	FQ		5760	FQ		11	0	No
TUB01	0908	N001	08/21/2012	Uranium	0.072	FQ		0.12	F		0.0815	FQ		16	0	No
TUB01	0912	N001	08/21/2012	Nitrate + Nitrite as Nitrogen	72	FQJ		69	FQ		52			9	0	No
TUB01	0913	N001	08/21/2012	Sodium	6.1	FQ		7.4			6.7	FQ		9	0	No
TUB01	0915	N001	08/23/2012	Arsenic	0.000045	B FQ		0.00013	FQ		0.000047	B FQG		8	4	No

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Comparison: All historical Data Beginning 6/1/2004

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Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers		Result	Qualifiers		Result	Qualifiers		N	N Below Detect	
						Lab	Data		Lab	Data		Lab	Data			
TUB01	0915	N001	08/23/2012	Selenium	0.0018		FQ	0.0017		FQ	0.0012			8	0	No
TUB01	0915	N001	08/23/2012	Silica	7.1		FQ	6.9		FQG	5.2		FQ	8	0	No
TUB01	0915	N001	08/23/2012	Silicon	3.3		FQ	3.2		FQG	2.4		FQ	8	0	No
TUB01	0916	N001	08/22/2012	Arsenic	0.00021		FQ	0.00016		FQG	0.000062	B	U	7	3	No
TUB01	0916	N001	08/22/2012	Magnesium	0.064	B	FQ	0.013	U	FQG J	0.0045	U	QFJ	7	6	Yes
TUB01	0921	N001	08/21/2012	Arsenic	0.0003		F	0.00025		F	0.00013		F	8	2	No
TUB01	0921	N001	08/21/2012	Magnesium	3.7		F	3.5		F	2.9		F	8	0	No
TUB01	0921	N001	08/21/2012	Potassium	4.5		F	7.2			4.6		FJ	8	0	No
TUB01	0930	N001	08/23/2012	Calcium	85		F	80.4		F	49		F	17	0	No
TUB01	0930	N001	08/23/2012	Magnesium	18		F	17		F	10		F	17	0	No
TUB01	0930	N001	08/23/2012	Nitrate + Nitrite as Nitrogen	23		F	18	H	FJ	1.5		F	17	0	No
TUB01	0930	N001	08/23/2012	Sulfate	110		F	91.2		FJ	41		F	17	0	Yes
TUB01	0930	N001	08/23/2012	Total Dissolved Solids	450		F	350			230		F	17	0	Yes
TUB01	0934	N001	08/21/2012	Manganese	0.0049	B	UFQ	0.054		F	0.0059		FQ	19	6	No
TUB01	0934	N001	08/21/2012	Sodium	130		FQ	220		F	140		F	19	0	No
TUB01	0934	N001	08/21/2012	Uranium	0.13		FQ	0.32		F	0.166		FQ	19	0	No
TUB01	0935	N001	08/22/2012	Ammonia Total as N	2.3			98			60.4		F	14	0	Yes
TUB01	0935	N001	08/22/2012	Chloride	92			89.2		F	65			16	0	No
TUB01	0935	N001	08/22/2012	Molybdenum	0.0011			0.00037	B	U	0.000064	U		15	13	Yes
TUB01	0935	N001	08/22/2012	Selenium	0.0075			0.025			0.0131		F	15	0	Yes

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Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current		Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers	Result	Lab	Data	Result	Lab	Data	N	N Below Detect	
TUB01	0941	N001	08/21/2012	Calcium	960	FQ	930		FQ	470		FQ	14	0	No
TUB01	0941	N001	08/21/2012	Magnesium	150	FQ	148		FQ	80		FQ	14	0	No
TUB01	0941	N001	08/21/2012	Nitrate + Nitrite as Nitrogen	280	FQJ	260		FQ	130		FQ	14	0	No
TUB01	0941	N001	08/21/2012	Potassium	5.5	FQ	9.02		QF	5.59	E	FQ	14	0	No
TUB01	0941	N001	08/21/2012	Silicon	8	FQ	7.8		FQ	6.4		FQ	12	0	No
TUB01	0941	N001	08/21/2012	Sulfate	1600	FQJ	1400		FQ	710		FQ	14	0	No
TUB01	0943	N001	08/20/2012	Total Dissolved Solids	91	FJ	1600		F	100		FJ	11	0	No
TUB01	0943	N001	08/20/2012	Uranium	0.0053	F	0.2		F	0.0062		F	11	0	No
TUB01	0945	N001	08/21/2012	Silica	11	FQ	13		F	12		FQ	8	0	No
TUB01	0945	N001	08/21/2012	Silicon	5.3	FQ	6.1		FQ	5.5		FQ	8	0	No
TUB01	0946	N001	08/21/2012	Arsenic	0.01	F	0.037		F	0.012		F	10	0	No
TUB01	0947	N001	08/20/2012	Silica	11	FQ	13		FQ	12		FQ	7	0	No
TUB01	0947	N001	08/20/2012	Silicon	5.3	FQ	5.9		FQ	5.4		FQ	7	0	No
TUB01	0947	N001	08/20/2012	Sodium	9.2	FQ	11		FQ	9.6		FQ	7	0	No
TUB01	0965	0001	08/20/2012	Calcium	89		220			95			6	0	No
TUB01	0965	0001	08/20/2012	Chloride	4.5		13			5.9			6	0	No
TUB01	0965	0001	08/20/2012	Magnesium	14		49			20			6	0	No
TUB01	0965	0001	08/20/2012	Sodium	36		95			52			6	0	No
TUB01	0965	0001	08/20/2012	Sulfate	270	J	650			280			6	0	No
TUB01	0965	0001	08/20/2012	Total Dissolved Solids	500	J	1200		J	650			6	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		N	N Below Detect	
TUB01	0965	0001	08/20/2012	Uranium	0.0015			0.0052			0.0021			6	0	No
TUB01	1003	N001	08/22/2012	Chloride	59		F	56		F	14		F	8	0	No
TUB01	1003	N001	08/22/2012	Molybdenum	0.00013		F	0.00053	B	UF	0.00014		F	8	6	No
TUB01	1003	N001	08/22/2012	Nitrate + Nitrite as Nitrogen	69		F	61		F	8.3		F	8	0	No
TUB01	1003	N001	08/22/2012	Sulfate	530		F	520		F	46		F	8	0	No
TUB01	1004	N001	08/22/2012	Molybdenum	0.00034		F	0.00063	B	F	0.00035		F	10	6	No
TUB01	1006	N001	08/22/2012	Molybdenum	0.00028		F	0.00073	B	F	0.00029		F	8	2	No
TUB01	1101	N001	08/22/2012	Arsenic	0.0025			0.0016			0.00085			8	0	Yes
TUB01	1101	N001	08/22/2012	Manganese	4.3			1.1			0.019			8	0	Yes
TUB01	1101	N001	08/22/2012	Molybdenum	0.0024			0.00058	B	U	0.00032	B		8	2	Yes
TUB01	1101	N001	08/22/2012	Potassium	6.7			11		F	7.6		J	8	0	No
TUB01	1101	N001	08/22/2012	Selenium	0.0092			0.027			0.016			8	0	No
TUB01	1103	N002	08/22/2012	Molybdenum	0.0058			0.005			0.00098	B	U	8	2	No
TUB01	1103	N001	08/22/2012	Molybdenum	0.0057			0.005			0.00098	B	U	8	2	No
TUB01	1104	N001	08/22/2012	Manganese	1.5			1.3			0.55			7	0	No
TUB01	1104	N001	08/22/2012	Nitrate + Nitrite as Nitrogen	180			170		F	110			7	0	No
TUB01	1104	N001	08/22/2012	Silicon	7.6			7.5			6.4			7	0	No
TUB01	1104	N001	08/22/2012	Sulfate	2500			2400			950			8	0	No
TUB01	1106	N001	08/22/2012	Ammonia Total as N	37			35			1.5		F	9	0	No
TUB01	1106	N001	08/22/2012	Calcium	400			360			210			9	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers		Result	Qualifiers		Result	Qualifiers		N	N Below Detect	
						Lab	Data		Lab	Data		Lab	Data			
TUB01	1106	N001	08/22/2012	Chloride	100			90			31			10	0	Yes
TUB01	1106	N001	08/22/2012	Magnesium	110			95			40			9	0	No
TUB01	1106	N001	08/22/2012	Nitrate + Nitrite as Nitrogen	110			98			46			9	0	No
TUB01	1106	N001	08/22/2012	Silica	16			15			12	F		9	0	No
TUB01	1106	N001	08/22/2012	Silicon	7.4			7.2			5.6	F		9	0	No
TUB01	1106	N001	08/22/2012	Sodium	250			240			87			9	0	No
TUB01	1107	N001	08/22/2012	Ammonia Total as N	2.3			1.4			0.1	U	F	9	7	No
TUB01	1107	N001	08/22/2012	Uranium	0.36			0.26			0.037			10	0	No
TUB01	1108	N001	08/22/2012	Arsenic	0.0014			0.0013	F		0.00077			8	0	No
TUB01	1108	N001	08/22/2012	Manganese	3.1			7.1			3.3			8	0	No
TUB01	1108	N001	08/22/2012	Potassium	10			18	F		15		J	8	0	Yes
TUB01	1108	N001	08/22/2012	Silica	15			17			16	F		8	0	No
TUB01	1108	N001	08/22/2012	Silicon	7.1			7.9			7.3	F		8	0	No
TUB01	1108	N001	08/22/2012	Total Dissolved Solids	3600			4500	F		3700		J	8	0	No
TUB01	1110	N001	08/22/2012	Ammonia Total as N	7.8			4.7			0.1	U	J	9	4	No
TUB01	1111	N001	08/22/2012	Manganese	1.6			1.3			0.57			8	0	No
TUB01	1111	N001	08/22/2012	Potassium	8.3			15	J		8.4			8	0	No
TUB01	1112	N001	08/22/2012	Calcium	200			170			140	F		9	0	Yes
TUB01	1112	N001	08/22/2012	Chloride	28			26			17			10	0	Yes
TUB01	1112	N001	08/22/2012	Magnesium	55			43			35	F		9	0	Yes

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		N	N Below Detect	
TUB01	1112	N001	08/22/2012	Selenium	0.0071			0.0052			0.0036	F	9	0	Yes	
TUB01	1112	N001	08/22/2012	Sodium	32			26			19		9	0	Yes	
TUB01	1112	N001	08/22/2012	Sulfate	370			340	J		190		10	0	No	
TUB01	1112	N001	08/22/2012	Uranium	0.071			0.054			0.036		10	0	Yes	
TUB01	1113	N001	08/22/2012	Ammonia Total as N	9.6			0.1	U F		0.1	U F	9	9	No	
TUB01	1113	N001	08/22/2012	Calcium	420			99			64		9	0	Yes	
TUB01	1113	N001	08/22/2012	Chloride	56			19			11		10	0	Yes	
TUB01	1113	N001	08/22/2012	Magnesium	170			20			12		9	0	Yes	
TUB01	1113	N001	08/22/2012	Manganese	0.41			0.0051			0.0001	U J	9	8	No	
TUB01	1113	N001	08/22/2012	Molybdenum	0.0043			0.00044	B U		0.00014	B	9	5	Yes	
TUB01	1113	N001	08/22/2012	Nitrate + Nitrite as Nitrogen	130			33			11		9	0	Yes	
TUB01	1113	N001	08/22/2012	Potassium	9.7			3.6	F		2	J	9	0	Yes	
TUB01	1113	N001	08/22/2012	Selenium	0.015			0.0027			0.0011		9	0	Yes	
TUB01	1113	N001	08/22/2012	Silica	14			12	F		11	J	9	0	No	
TUB01	1113	N001	08/22/2012	Silicon	6.7			5.8			5.3		9	0	Yes	
TUB01	1113	N001	08/22/2012	Sodium	120			13	E F		7.7		9	0	Yes	
TUB01	1113	N001	08/22/2012	Sulfate	1200			110	F		37		10	0	Yes	
TUB01	1113	N001	08/22/2012	Total Dissolved Solids	2900			520			250		9	0	Yes	
TUB01	1113	N001	08/22/2012	Uranium	0.075			0.015			0.004		10	0	Yes	
TUB01	1114	N001	08/22/2012	Ammonia Total as N	0.17			0.1	U F		0.1	U F	6	6	No	

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers		Result	Qualifiers		Result	Qualifiers		N	N Below Detect	
TUB01	1114	N001	08/22/2012	Potassium	4.4			5.8			4.5			6	0	No
TUB01	1116	N001	08/22/2012	Silicon	5.1			6.6			5.3			9	0	No
TUB01	1117	N001	08/22/2012	Molybdenum	0.000095	B		0.00034	B	U	0.00013			9	4	No
TUB01	1119	N001	08/22/2012	Manganese	4.8			4.3			0.54			9	0	No
TUB01	1119	N002	08/22/2012	Manganese	4.9			4.3			0.54			9	0	No
TUB01	1120	N001	08/22/2012	Arsenic	0.0014			0.0023			0.0015			11	0	No
TUB01	1120	N002	08/22/2012	Arsenic	0.0014			0.0023			0.0015			11	0	No
TUB01	1120	N002	08/22/2012	Chloride	43			180		F	51			12	0	No
TUB01	1120	N001	08/22/2012	Chloride	44			180		F	51			12	0	No
TUB01	1120	N001	08/22/2012	Nitrate + Nitrite as Nitrogen	29			110		F	31			11	0	No
TUB01	1120	N002	08/22/2012	Nitrate + Nitrite as Nitrogen	29			110		F	31			11	0	No
TUB01	1120	N001	08/22/2012	Selenium	0.0098		J	0.039		F	0.013			11	0	No
TUB01	1120	N002	08/22/2012	Uranium	0.11			0.64		F	0.13			12	0	No
TUB01	1120	N001	08/22/2012	Uranium	0.11			0.64		F	0.13			12	0	No
TUB01	1123	N001	08/22/2012	Manganese	0.49			0.41			0.00025	B	U	7	3	No
TUB01	1124	N002	08/22/2012	Arsenic	0.0021			0.002			0.0013		F	6	0	No
TUB01	1124	N001	08/22/2012	Chloride	150			130			38		J	6	0	No
TUB01	1124	N002	08/22/2012	Chloride	150			130			38		J	6	0	No
TUB01	1124	N002	08/22/2012	Molybdenum	0.00098			0.00042	B	UF	0.00016	B	U	6	5	Yes
TUB01	1124	N002	08/22/2012	Sodium	360			340			46			6	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		Result	Qualifiers Lab Data		N	N Below Detect	
TUB01	1124	N001	08/22/2012	Sodium	370			340			46			6	0	No
TUB01	1124	N001	08/22/2012	Sulfate	2200			2100			320	J		6	0	No
TUB01	1124	N002	08/22/2012	Sulfate	2200			2100			320	J		6	0	No
TUB01	1125	N001	08/22/2012	Selenium	0.0024			0.0023			0.0019			8	0	No
TUB01	1129	N001	08/22/2012	Magnesium	86			120			87			7	0	No
TUB01	1129	N001	08/22/2012	Manganese	0.00011	U		0.0094	F		0.00018	B J		7	3	No
TUB01	1129	N001	08/22/2012	Selenium	0.05			0.082			0.057			7	0	No
TUB01	1129	N001	08/22/2012	Silica	14			17			15	F		7	0	No
TUB01	1129	N001	08/22/2012	Silicon	6.7			7.8			6.8			7	0	No
TUB01	1129	N001	08/22/2012	Uranium	0.5			1			0.61	F		8	0	No
TUB01	1132	N001	08/22/2012	Potassium	5.2			13			5.3			10	0	No
TUB01	1133	N001	08/22/2012	Selenium	0.018			0.016			0.013	F		7	0	No
TUB01	1133	N001	08/22/2012	Silica	12			14			13	F		6	0	No
TUB01	1133	N001	08/22/2012	Silicon	5.7			6.5			6.1			6	0	No
TUB01	1569	N001	08/23/2012	Arsenic	0.041			3.4			0.16			17	0	No
TUB01	1569	N001	08/23/2012	Chloride	49000			190000			58000			17	0	No
TUB01	1569	N001	08/23/2012	Magnesium	3700			27000			3800			17	0	No
TUB01	1569	N001	08/23/2012	Molybdenum	0.12			3.5			0.29			17	0	No
TUB01	1569	N001	08/23/2012	Nitrate + Nitrite as Nitrogen	2900			17000			3000			17	0	No
TUB01	1569	N001	08/23/2012	Potassium	270			3200			440			17	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers		Result	Qualifiers		Result	Qualifiers		N	N Below Detect	
TUB01	1569	N001	08/23/2012	Selenium	0.39			3.1			0.51			17	0	No
TUB01	1569	N001	08/23/2012	Sodium	25000			93000			39000			17	0	No
TUB01	1569	N001	08/23/2012	Sulfate	9700			53000			12000			17	0	No
TUB01	1569	N001	08/23/2012	Total Dissolved Solids	110000			610000			130000			17	0	No
TUB01	1570	N001	08/23/2012	Arsenic	0.039			3.6			0.18			19	0	No
TUB01	1570	N001	08/23/2012	Chloride	49000			190000			59000			19	0	No
TUB01	1570	N001	08/23/2012	Molybdenum	0.12			4.2			0.27			19	0	No
TUB01	1570	N001	08/23/2012	Nitrate + Nitrite as Nitrogen	2800			25000			3000			19	0	No
TUB01	1570	N001	08/23/2012	Potassium	310			2700			440			19	0	No
TUB01	1570	N001	08/23/2012	Selenium	0.38			3.9			0.53			19	0	No
TUB01	1570	N001	08/23/2012	Sodium	24000			110000			34000			19	0	No
TUB01	1570	N001	08/23/2012	Sulfate	9900			67000			13000			19	0	No
TUB01	1570	N001	08/23/2012	Total Dissolved Solids	110000			650000			140000			19	0	No
TUB01	1571	0002	08/21/2012	Calcium	28			43			33			8	0	No
TUB01	1571	0001	08/21/2012	Calcium	28			43			33			8	0	No
TUB01	1571	0002	08/21/2012	Magnesium	9.1			12			9.2			8	0	No
TUB01	1571	0002	08/21/2012	Selenium	0.0049		U	0.0045			0.0039	E		8	0	No
TUB01	1571	0001	08/21/2012	Selenium	0.0048			0.0045			0.0039	E		8	0	No
TUB01	1571	0002	08/21/2012	Total Dissolved Solids	360		J	420		J	370			8	0	No
TUB01	1571	0001	08/21/2012	Total Dissolved Solids	340		J	420		J	370			8	0	No

Data Validation Outliers Report - No Field Parameters

Comparison: All historical Data Beginning 6/1/2004

Laboratory: ALS Laboratory Group

RIN: 12084778

Report Date: 11/2/2012

Site Code	Location Code	Sample ID	Sample Date	Analyte	Current			Historical Maximum			Historical Minimum			Number of Data Points		Statistical Outlier
					Result	Qualifiers		Result	Qualifiers		Result	Qualifiers		N	N Below Detect	
						Lab	Data		Lab	Data		Lab	Data			
TUB01	1571	0002	08/21/2012	Uranium	0.0031			0.0042			0.0033			8	0	No
TUB01	1571	0001	08/21/2012	Uranium	0.0032			0.0042			0.0033			8	0	No
TUB01	1573	N001	08/21/2012	Calcium	17			16			13			8	0	No
TUB01	1573	N001	08/21/2012	Chloride	31			30			23			8	0	No
TUB01	1573	N001	08/21/2012	Molybdenum	0.0012			0.0018		U	0.0013			8	2	No
TUB01	1573	N001	08/21/2012	Potassium	3.3			3.1			0.35	B	J	8	0	No
TUB01	1573	N001	08/21/2012	Uranium	0.002			0.0058			0.0022	E		8	0	No

STATISTICAL TESTS:

The distribution of the data is tested for normality or lognormality using the Shapiro-Wilk Test

Outliers are identified using Dixon's Test when there are 25 or fewer data points.

Outliers are identified using Rosner's Test when there are 26 or more data points.

See Data Quality Assessment: Statistical Methods for Practitioners, EPA QC/G-9S, February 2006.

Attachment 2

Data Presentation

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Groundwater Quality Data

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Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0251 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	200	- 300	64		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	200	- 300	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	200	- 300	0.0021		FQ	#	0.000015	
Calcium	mg/L	08/21/2012	N001	200	- 300	28		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	200	- 300	6.6		FQ	#	0.2	
Iron	mg/L	08/21/2012	N001	200	- 300	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	200	- 300	5.9		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	200	- 300	0.0011	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	200	- 300	0.00022		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	200	- 300	3.6		FQJ	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	200	- 300	109.7		FQ	#		
pH	s.u.	08/21/2012	N001	200	- 300	7.62		FQ	#		
Potassium	mg/L	08/21/2012	N001	200	- 300	1.8		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	200	- 300	0.001		FQ	#	0.000032	
Silica	mg/L	08/21/2012	N001	200	- 300	10		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	200	- 300	4.7		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	200	- 300	5.2		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0251 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	200	- 300	224		FQ	#		
Sulfate	mg/L	08/21/2012	N001	200	- 300	11		FQJ	#	0.5	
Temperature	C	08/21/2012	N001	200	- 300	17.36		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	200	- 300	130		FQJ	#	20	
Turbidity	NTU	08/21/2012	N001	200	- 300	0.48		FQ	#		
Uranium	mg/L	08/21/2012	N001	200	- 300	0.0015		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0252 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	400 - 500	60		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	400 - 500	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	400 - 500	0.0018		F	#	0.000015	
Calcium	mg/L	08/21/2012	N001	400 - 500	21		F	#	0.012	
Chloride	mg/L	08/21/2012	N001	400 - 500	4.9		F	#	0.2	
Iron	mg/L	08/21/2012	N001	400 - 500	0.06	B	UF	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	400 - 500	4.2		F	#	0.013	
Manganese	mg/L	08/21/2012	N001	400 - 500	0.033		F	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	400 - 500	0.00014		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	400 - 500	2.6		FJ	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	400 - 500	126.9		F	#		
pH	s.u.	08/21/2012	N001	400 - 500	7.74		F	#		
Potassium	mg/L	08/21/2012	N001	400 - 500	1.7		F	#	0.11	
Selenium	mg/L	08/21/2012	N001	400 - 500	0.0008		F	#	0.000032	
Silica	mg/L	08/21/2012	N001	400 - 500	9.7		F	#	0.0095	
Silicon	mg/L	08/21/2012	N001	400 - 500	4.5		F	#	0.0044	
Sodium	mg/L	08/21/2012	N001	400 - 500	8.6		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0252 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	400 - 500	191		F	#		
Sulfate	mg/L	08/21/2012	N001	400 - 500	6.5		FJ	#	0.5	
Temperature	C	08/21/2012	N001	400 - 500	17.87		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	400 - 500	110		FJ	#	20	
Turbidity	NTU	08/21/2012	N001	400 - 500	0.72		F	#		
Uranium	mg/L	08/21/2012	N001	400 - 500	0.0018		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0258 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	159	- 199	95		FQ	#		
Ammonia Total as N	mg/L	08/23/2012	N001	159	- 199	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/23/2012	N001	159	- 199	0.0024		FQ	#	0.000015	
Calcium	mg/L	08/23/2012	N001	159	- 199	35		FQ	#	0.012	
Chloride	mg/L	08/23/2012	N001	159	- 199	13		FQ	#	0.4	
Iron	mg/L	08/23/2012	N001	159	- 199	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	159	- 199	7.3		FQ	#	0.013	
Manganese	mg/L	08/23/2012	N001	159	- 199	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	159	- 199	0.00043		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	159	- 199	3.6		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/23/2012	N001	159	- 199	172.4		FQ	#		
pH	s.u.	08/23/2012	N001	159	- 199	8.05		FQ	#		
Potassium	mg/L	08/23/2012	N001	159	- 199	1.3		FQ	#	0.11	
Selenium	mg/L	08/23/2012	N001	159	- 199	0.0017		FQ	#	0.000032	
Silica	mg/L	08/23/2012	N001	159	- 199	12		FQ	#	0.0095	
Silicon	mg/L	08/23/2012	N001	159	- 199	5.5	N	FQ	#	0.0044	
Sodium	mg/L	08/23/2012	N001	159	- 199	10		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0258 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	159	- 199	278		FQ	#		
Sulfate	mg/L	08/23/2012	N001	159	- 199	18		FQ	#	1	
Temperature	C	08/23/2012	N001	159	- 199	18.74		FQ	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	159	- 199	170		FQ	#	20	
Turbidity	NTU	08/23/2012	N001	159	- 199	0.92		FQ	#		
Uranium	mg/L	08/23/2012	N001	159	- 199	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0261 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	160	- 200	86		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	160	- 200	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	160	- 200	0.0021		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	160	- 200	33		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	160	- 200	13		F	#	0.4	
Iron	mg/L	08/22/2012	N001	160	- 200	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	160	- 200	7.8		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	160	- 200	0.0019	B	UF	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	160	- 200	0.00047		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	160	- 200	3.5		F	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	160	- 200	139.2		F	#		
pH	s.u.	08/22/2012	N001	160	- 200	7.61		F	#		
Potassium	mg/L	08/22/2012	N001	160	- 200	1.3		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	160	- 200	0.0017		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	160	- 200	12		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	160	- 200	5.6		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	160	- 200	10		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0261 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	160	- 200	292		F	#		
Sulfate	mg/L	08/22/2012	N001	160	- 200	19		F	#	1	
Temperature	C	08/22/2012	N001	160	- 200	17.65		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	160	- 200	180		F	#	20	
Turbidity	NTU	08/22/2012	N001	160	- 200	0.61		F	#		
Uranium	mg/L	08/22/2012	N001	160	- 200	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0262 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	60	- 100	444		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	60	- 100	0.28		FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	60	- 100	0.0023		FQ	#	0.000074	
Calcium	mg/L	08/22/2012	N001	60	- 100	820		FQ	#	0.06	
Chloride	mg/L	08/22/2012	N001	60	- 100	120		FQ	#	10	
Iron	mg/L	08/22/2012	N001	60	- 100	0.025	U	FQ	#	0.025	
Magnesium	mg/L	08/22/2012	N001	60	- 100	210		FQ	#	0.065	
Manganese	mg/L	08/22/2012	N001	60	- 100	0.015	B	UFQ	#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	60	- 100	0.61		FQ	#	0.0016	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	60	- 100	230		FQ	#	2	
Oxidation Reduction Potential	mV	08/22/2012	N001	60	- 100	165.1		FQ	#		
pH	s.u.	08/22/2012	N001	60	- 100	6.48		FQ	#		
Potassium	mg/L	08/22/2012	N001	60	- 100	7		FQ	#	0.54	
Selenium	mg/L	08/22/2012	N001	60	- 100	0.066		FQ	#	0.00016	
Silica	mg/L	08/22/2012	N001	60	- 100	18		FQ	#	0.047	
Silicon	mg/L	08/22/2012	N001	60	- 100	8.3		FQ	#	0.022	
Sodium	mg/L	08/22/2012	N001	60	- 100	250		FQ	#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0262 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	60	- 100	5225		FQ	#		
Sulfate	mg/L	08/22/2012	N001	60	- 100	2200		FQ	#	25	
Temperature	C	08/22/2012	N001	60	- 100	17.51		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	60	- 100	5100		FQ	#	200	
Turbidity	NTU	08/22/2012	N001	60	- 100	2.41		FQ	#		
Uranium	mg/L	08/22/2012	N001	60	- 100	0.66		FQ	#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0263 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	60	- 100	540		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	60	- 100	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	60	- 100	0.0023		FQ	#	0.00015	
Calcium	mg/L	08/21/2012	N001	60	- 100	610		FQ	#	0.06	
Chloride	mg/L	08/21/2012	N001	60	- 100	120		FQ	#	10	
Iron	mg/L	08/21/2012	N001	60	- 100	0.025	U	FQ	#	0.025	
Magnesium	mg/L	08/21/2012	N001	60	- 100	500		FQ	#	0.065	
Manganese	mg/L	08/21/2012	N001	60	- 100	0.0017	B	UFQ	#	0.00057	
Molybdenum	mg/L	08/21/2012	N001	60	- 100	0.034		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	60	- 100	240		FQJ	#	2	
Oxidation Reduction Potential	mV	08/21/2012	N001	60	- 100	162		FQ	#		
pH	s.u.	08/21/2012	N001	60	- 100	6.38		FQ	#		
Potassium	mg/L	08/21/2012	N001	60	- 100	6.3		FQ	#	0.54	
Selenium	mg/L	08/21/2012	N001	60	- 100	0.039		FQ	#	0.00032	
Silica	mg/L	08/21/2012	N001	60	- 100	18		FQ	#	0.047	
Silicon	mg/L	08/21/2012	N001	60	- 100	8.5		FQ	#	0.022	
Sodium	mg/L	08/21/2012	N001	60	- 100	300		FQ	#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0263 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	60	- 100	6115		FQ	#		
Sulfate	mg/L	08/21/2012	N001	60	- 100	2700		FQJ	#	25	
Temperature	C	08/21/2012	N001	60	- 100	18.05		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	60	- 100	5900		FQJ	#	200	
Turbidity	NTU	08/21/2012	N001	60	- 100	1.41		FQ	#		
Uranium	mg/L	08/21/2012	N001	60	- 100	0.18		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0264 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	160	- 200	95		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	160	- 200	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	160	- 200	0.0021		FQ	#	0.000015	
Calcium	mg/L	08/21/2012	N001	160	- 200	68		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	160	- 200	15		FQ	#	1	
Iron	mg/L	08/21/2012	N001	160	- 200	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	160	- 200	13		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	160	- 200	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	160	- 200	0.00033		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	160	- 200	12		FQJ	#	0.1	
Oxidation Reduction Potential	mV	08/21/2012	N001	160	- 200	129.4		FQ	#		
pH	s.u.	08/21/2012	N001	160	- 200	7.47		FQ	#		
Potassium	mg/L	08/21/2012	N001	160	- 200	1.7		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	160	- 200	0.0019		FQ	#	0.000032	
Silica	mg/L	08/21/2012	N001	160	- 200	13		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	160	- 200	5.9		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	160	- 200	14		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0264 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	160	- 200	523		FQ	#		
Sulfate	mg/L	08/21/2012	N001	160	- 200	81		FQJ	#	2.5	
Temperature	C	08/21/2012	N001	160	- 200	17.22		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	160	- 200	320		FQJ	#	20	
Turbidity	NTU	08/21/2012	N001	160	- 200	1.68		FQ	#		
Uranium	mg/L	08/21/2012	N001	160	- 200	0.0035		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0265 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	60	- 100	324		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	60	- 100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	60	- 100	0.0011		F	#	0.000074	
Calcium	mg/L	08/22/2012	N001	60	- 100	520		F	#	0.06	
Chloride	mg/L	08/22/2012	N001	60	- 100	140		F	#	10	
Iron	mg/L	08/22/2012	N001	60	- 100	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	60	- 100	170		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	60	- 100	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	60	- 100	0.00016	U	F	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	60	- 100	170		F	#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	60	- 100	144.4		F	#		
pH	s.u.	08/22/2012	N001	60	- 100	6.61		F	#		
Potassium	mg/L	08/22/2012	N001	60	- 100	5.7		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	60	- 100	0.0064		F	#	0.00016	
Silica	mg/L	08/22/2012	N001	60	- 100	15		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	60	- 100	7.1		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	60	- 100	110		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0265 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	60	- 100	3656		F	#		
Sulfate	mg/L	08/22/2012	N001	60	- 100	1200		F	#	25	
Temperature	C	08/22/2012	N001	60	- 100	18.85		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	60	- 100	3500		F	#	200	
Turbidity	NTU	08/22/2012	N001	60	- 100	1.28		F	#		
Uranium	mg/L	08/22/2012	N001	60	- 100	0.054		F	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0266 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	160	- 200	72		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	160	- 200	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	160	- 200	0.0018		FQ	#	0.000015	
Calcium	mg/L	08/22/2012	N001	160	- 200	28		FQ	#	0.012	
Chloride	mg/L	08/22/2012	N001	160	- 200	8		FQ	#	0.2	
Iron	mg/L	08/22/2012	N001	160	- 200	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	160	- 200	7.2		FQ	#	0.013	
Manganese	mg/L	08/22/2012	N001	160	- 200	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	160	- 200	0.00018		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	160	- 200	3.6		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	160	- 200	109.9		FQ	#		
pH	s.u.	08/22/2012	N001	160	- 200	7.82		FQ	#		
Potassium	mg/L	08/22/2012	N001	160	- 200	1.6		FQ	#	0.11	
Selenium	mg/L	08/22/2012	N001	160	- 200	0.0011		FQ	#	0.000032	
Silica	mg/L	08/22/2012	N001	160	- 200	11		FQ	#	0.0095	
Silicon	mg/L	08/22/2012	N001	160	- 200	5.1		FQ	#	0.0044	
Sodium	mg/L	08/22/2012	N001	160	- 200	5.1		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0266 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	160	- 200	237		FQ	#		
Sulfate	mg/L	08/22/2012	N001	160	- 200	11		FQ	#	0.5	
Temperature	C	08/22/2012	N001	160	- 200	17.52		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	160	- 200	140		FQ	#	20	
Turbidity	NTU	08/22/2012	N001	160	- 200	6.38		FQ	#		
Uranium	mg/L	08/22/2012	N001	160	- 200	0.0014		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0267 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	60	- 100	736		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	60	- 100	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	60	- 100	0.0035		F	#	0.00015	
Calcium	mg/L	08/21/2012	N001	60	- 100	610		F	#	0.06	
Chloride	mg/L	08/21/2012	N001	60	- 100	120		F	#	10	
Iron	mg/L	08/21/2012	N001	60	- 100	0.025	U	F	#	0.025	
Magnesium	mg/L	08/21/2012	N001	60	- 100	700		F	#	0.065	
Manganese	mg/L	08/21/2012	N001	60	- 100	0.03		F	#	0.00057	
Molybdenum	mg/L	08/21/2012	N001	60	- 100	0.00032	U	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	60	- 100	340		FJ	#	2	
Oxidation Reduction Potential	mV	08/21/2012	N001	60	- 100	170.1		F	#		
pH	s.u.	08/21/2012	N001	60	- 100	6.24		F	#		
Potassium	mg/L	08/21/2012	N001	60	- 100	8.3		F	#	0.54	
Selenium	mg/L	08/21/2012	N001	60	- 100	0.046		F	#	0.00032	
Silica	mg/L	08/21/2012	N001	60	- 100	23		F	#	0.047	
Silicon	mg/L	08/21/2012	N001	60	- 100	11		F	#	0.022	
Sodium	mg/L	08/21/2012	N001	60	- 100	380		F	#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0267 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	60	- 100	7227		F	#		
Sulfate	mg/L	08/21/2012	N001	60	- 100	3200		FJ	#	25	
Temperature	C	08/21/2012	N001	60	- 100	17.5		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	60	- 100	7000		FJ	#	200	
Turbidity	NTU	08/21/2012	N001	60	- 100	1.46		F	#		
Uranium	mg/L	08/21/2012	N001	60	- 100	0.057		F	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0268 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	200 - 300	164		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	200 - 300	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	200 - 300	0.001		F	#	0.000015	
Calcium	mg/L	08/21/2012	N001	200 - 300	130		F	#	0.012	
Chloride	mg/L	08/21/2012	N001	200 - 300	21		F	#	1	
Iron	mg/L	08/21/2012	N001	200 - 300	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	200 - 300	23		F	#	0.013	
Manganese	mg/L	08/21/2012	N001	200 - 300	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	200 - 300	0.00033		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	200 - 300	25		FJ	#	0.2	
Oxidation Reduction Potential	mV	08/21/2012	N001	200 - 300	80		F	#		
pH	s.u.	08/21/2012	N001	200 - 300	7.2		F	#		
Potassium	mg/L	08/21/2012	N001	200 - 300	2.9		F	#	0.11	
Selenium	mg/L	08/21/2012	N001	200 - 300	0.0024		F	#	0.000032	
Silica	mg/L	08/21/2012	N001	200 - 300	12		F	#	0.0095	
Silicon	mg/L	08/21/2012	N001	200 - 300	5.7		F	#	0.0044	
Sodium	mg/L	08/21/2012	N001	200 - 300	22	E	FJ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0268 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	200 - 300	884		F	#		
Sulfate	mg/L	08/21/2012	N001	200 - 300	200		FJ	#	2.5	
Temperature	C	08/21/2012	N001	200 - 300	19.35		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	200 - 300	600		FJ	#	20	
Turbidity	NTU	08/21/2012	N001	200 - 300	2.67		F	#		
Uranium	mg/L	08/21/2012	N001	200 - 300	0.035		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0271 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	60	- 100	80		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	60	- 100	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	60	- 100	0.0021		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	60	- 100	35		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	60	- 100	12		F	#	0.4	
Iron	mg/L	08/22/2012	N001	60	- 100	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	60	- 100	6.2		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	60	- 100	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	60	- 100	0.00031		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	60	- 100	3.9		F	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	60	- 100	109		F	#		
pH	s.u.	08/22/2012	N001	60	- 100	7.68		F	#		
Potassium	mg/L	08/22/2012	N001	60	- 100	1.3		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	60	- 100	0.0015		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	60	- 100	10		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	60	- 100	4.9		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	60	- 100	8.1		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0271 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	60	- 100	273		F	#		
Sulfate	mg/L	08/22/2012	N001	60	- 100	15		F	#	1	
Temperature	C	08/22/2012	N001	60	- 100	16.59		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	60	- 100	170		F	#	20	
Turbidity	NTU	08/22/2012	N001	60	- 100	0.34		F	#		
Uranium	mg/L	08/22/2012	N001	60	- 100	0.0013		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0272 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	159.1 - 179.1	74		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	159.1 - 179.1	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	159.1 - 179.1	0.0019		FQ	#	0.000015	
Calcium	mg/L	08/21/2012	N001	159.1 - 179.1	32		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	159.1 - 179.1	8.8		FQ	#	0.2	
Iron	mg/L	08/21/2012	N001	159.1 - 179.1	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	159.1 - 179.1	6.9		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	159.1 - 179.1	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	159.1 - 179.1	0.00023		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	159.1 - 179.1	4.1		FQJ	#	0.05	
Oxidation Reduction Potential	mV	08/21/2012	N001	159.1 - 179.1	65		FQ	#		
pH	s.u.	08/21/2012	N001	159.1 - 179.1	7.75		FQ	#		
Potassium	mg/L	08/21/2012	N001	159.1 - 179.1	1.2		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	159.1 - 179.1	0.0011		FQ	#	0.000032	
Silica	mg/L	08/21/2012	N001	159.1 - 179.1	11		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	159.1 - 179.1	5.1		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	159.1 - 179.1	5.5		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0272 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	159.1 - 179.1	260		FQ	#		
Sulfate	mg/L	08/21/2012	N001	159.1 - 179.1	12		FQJ	#	0.5	
Temperature	C	08/21/2012	N001	159.1 - 179.1	19.37		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	159.1 - 179.1	150		FQJ	#	20	
Turbidity	NTU	08/21/2012	N001	159.1 - 179.1	2.82		FQ	#		
Uranium	mg/L	08/21/2012	N001	159.1 - 179.1	0.0013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0273 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	153	- 173	126		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	153	- 173	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	153	- 173	0.0014		FQ	#	0.000074	
Calcium	mg/L	08/21/2012	N001	153	- 173	140		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	153	- 173	46		FQ	#	2	
Iron	mg/L	08/21/2012	N001	153	- 173	0.079	B	UFQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	153	- 173	25		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	153	- 173	0.00016	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	153	- 173	0.019		FQ	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	153	- 173	44		FQJ	#	0.5	
Oxidation Reduction Potential	mV	08/21/2012	N001	153	- 173	50		FQ	#		
pH	s.u.	08/21/2012	N001	153	- 173	7.36		FQ	#		
Potassium	mg/L	08/21/2012	N001	153	- 173	2.3		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	153	- 173	0.016		FQ	#	0.00016	
Silica	mg/L	08/21/2012	N001	153	- 173	13		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	153	- 173	5.9		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	153	- 173	25		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0273 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	153	- 173	1037		FQ	#		
Sulfate	mg/L	08/21/2012	N001	153	- 173	190		FQJ	#	5	
Temperature	C	08/21/2012	N001	153	- 173	19.8		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	153	- 173	760		FQJ	#	20	
Turbidity	NTU	08/21/2012	N001	153	- 173	5.99		FQ	#		
Uranium	mg/L	08/21/2012	N001	153	- 173	0.032		FQ	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0274 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	149	- 169	30		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	149	- 169	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	149	- 169	0.0021		FQ	#	0.000015	
Calcium	mg/L	08/21/2012	N001	149	- 169	34		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	149	- 169	11		FQ	#	0.2	
Iron	mg/L	08/21/2012	N001	149	- 169	0.019	B	UFQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	149	- 169	6.7		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	149	- 169	0.0021	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	149	- 169	0.00037		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	149	- 169	3.7		FQJ	#	0.05	
Oxidation Reduction Potential	mV	08/21/2012	N001	149	- 169	55		FQ	#		
pH	s.u.	08/21/2012	N001	149	- 169	7.74		FQ	#		
Potassium	mg/L	08/21/2012	N001	149	- 169	1		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	149	- 169	0.0015		FQ	#	0.000032	
Silica	mg/L	08/21/2012	N001	149	- 169	11		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	149	- 169	5		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	149	- 169	9.2		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0274 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	149	- 169	283		FQ	#		
Sulfate	mg/L	08/21/2012	N001	149	- 169	16		FQJ	#	0.5	
Temperature	C	08/21/2012	N001	149	- 169	17.74		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	149	- 169	160		FQJ	#	20	
Turbidity	NTU	08/21/2012	N001	149	- 169	9.58		FQ	#		
Uranium	mg/L	08/21/2012	N001	149	- 169	0.0015		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0275 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	158.2 - 178.2	482		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	158.2 - 178.2	31		FJ	#	2	
Arsenic	mg/L	08/21/2012	N001	158.2 - 178.2	0.0011		F	#	0.00003	
Calcium	mg/L	08/21/2012	N001	158.2 - 178.2	690		F	#	0.06	
Chloride	mg/L	08/21/2012	N001	158.2 - 178.2	160		F	#	10	
Iron	mg/L	08/21/2012	N001	158.2 - 178.2	0.025	U	F	#	0.025	
Magnesium	mg/L	08/21/2012	N001	158.2 - 178.2	310		F	#	0.065	
Manganese	mg/L	08/21/2012	N001	158.2 - 178.2	9.2		F	#	0.00057	
Molybdenum	mg/L	08/21/2012	N001	158.2 - 178.2	0.00032	U	F	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	158.2 - 178.2	260		FJ	#	2	
Oxidation Reduction Potential	mV	08/21/2012	N001	158.2 - 178.2	95		F	#		
pH	s.u.	08/21/2012	N001	158.2 - 178.2	6.49		F	#		
Potassium	mg/L	08/21/2012	N001	158.2 - 178.2	16		F	#	0.54	
Selenium	mg/L	08/21/2012	N001	158.2 - 178.2	0.032		F	#	0.00032	
Silica	mg/L	08/21/2012	N001	158.2 - 178.2	16		F	#	0.047	
Silicon	mg/L	08/21/2012	N001	158.2 - 178.2	7.7		F	#	0.022	
Sodium	mg/L	08/21/2012	N001	158.2 - 178.2	290		F	#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0275 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	158.2 - 178.2	5779		F	#		
Sulfate	mg/L	08/21/2012	N001	158.2 - 178.2	2300		FJ	#	25	
Temperature	C	08/21/2012	N001	158.2 - 178.2	18.22		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	158.2 - 178.2	5400		FJ	#	200	
Turbidity	NTU	08/21/2012	N001	158.2 - 178.2	1.49		F	#		
Uranium	mg/L	08/21/2012	N001	158.2 - 178.2	0.39		F	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0276 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	154.5 - 174.5	70		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	154.5 - 174.5	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	154.5 - 174.5	0.0026		F	#	0.000015	
Calcium	mg/L	08/21/2012	N001	154.5 - 174.5	33		F	#	0.012	
Chloride	mg/L	08/21/2012	N001	154.5 - 174.5	12		F	#	0.2	
Iron	mg/L	08/21/2012	N001	154.5 - 174.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	154.5 - 174.5	6.6		F	#	0.013	
Manganese	mg/L	08/21/2012	N001	154.5 - 174.5	0.00052	B	UF	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	154.5 - 174.5	0.00039		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	154.5 - 174.5	3.5		FJ	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	154.5 - 174.5	50		F	#		
pH	s.u.	08/21/2012	N001	154.5 - 174.5	7.78		F	#		
Potassium	mg/L	08/21/2012	N001	154.5 - 174.5	1.1		F	#	0.11	
Selenium	mg/L	08/21/2012	N001	154.5 - 174.5	0.0017		F	#	0.000032	
Silica	mg/L	08/21/2012	N001	154.5 - 174.5	11		F	#	0.0095	
Silicon	mg/L	08/21/2012	N001	154.5 - 174.5	5.1		F	#	0.0044	
Sodium	mg/L	08/21/2012	N001	154.5 - 174.5	11		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0276 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	154.5 - 174.5	288		F	#		
Sulfate	mg/L	08/21/2012	N001	154.5 - 174.5	17		FJ	#	0.5	
Temperature	C	08/21/2012	N001	154.5 - 174.5	18.03		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	154.5 - 174.5	160		FJ	#	20	
Turbidity	NTU	08/21/2012	N001	154.5 - 174.5	3.28		F	#		
Uranium	mg/L	08/21/2012	N001	154.5 - 174.5	0.0014		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0277 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	95.7	- 105.7	107		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	95.7	- 105.7	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	95.7	- 105.7	0.00042		FQ	#	0.000015	
Calcium	mg/L	08/22/2012	N001	95.7	- 105.7	27		FQ	#	0.012	
Chloride	mg/L	08/22/2012	N001	95.7	- 105.7	10		FQ	#	0.4	
Iron	mg/L	08/22/2012	N001	95.7	- 105.7	0.05	B	UFQ	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	95.7	- 105.7	8.6		FQ	#	0.013	
Manganese	mg/L	08/22/2012	N001	95.7	- 105.7	0.1		FQ	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	95.7	- 105.7	0.00043		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	95.7	- 105.7	3.1		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	95.7	- 105.7	156.1		FQ	#		
pH	s.u.	08/22/2012	N001	95.7	- 105.7	7.69		FQ	#		
Potassium	mg/L	08/22/2012	N001	95.7	- 105.7	1.8		FQ	#	0.11	
Selenium	mg/L	08/22/2012	N001	95.7	- 105.7	0.0012		FQ	#	0.000032	
Silica	mg/L	08/22/2012	N001	95.7	- 105.7	14		FQ	#	0.0095	
Silicon	mg/L	08/22/2012	N001	95.7	- 105.7	6.3		FQ	#	0.0044	
Sodium	mg/L	08/22/2012	N001	95.7	- 105.7	11		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0277 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	95.7	- 105.7	268		FQ	#		
Sulfate	mg/L	08/22/2012	N001	95.7	- 105.7	16		FQ	#	1	
Temperature	C	08/22/2012	N001	95.7	- 105.7	19.21		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	95.7	- 105.7	160		FQ	#	20	
Turbidity	NTU	08/22/2012	N001	95.7	- 105.7	5.86		FQ	#		
Uranium	mg/L	08/22/2012	N001	95.7	- 105.7	0.0023		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0278 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	90.5	- 100.5	94		F	#		
Ammonia Total as N	mg/L	08/23/2012	N001	90.5	- 100.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/23/2012	N001	90.5	- 100.5	0.0016		F	#	0.000015	
Calcium	mg/L	08/23/2012	N001	90.5	- 100.5	27		F	#	0.012	
Chloride	mg/L	08/23/2012	N001	90.5	- 100.5	9.5		F	#	0.2	
Iron	mg/L	08/23/2012	N001	90.5	- 100.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	90.5	- 100.5	6.7		F	#	0.013	
Manganese	mg/L	08/23/2012	N001	90.5	- 100.5	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	90.5	- 100.5	0.00033		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	90.5	- 100.5	3.3		F	#	0.02	
Oxidation Reduction Potential	mV	08/23/2012	N001	90.5	- 100.5	130.4		F	#		
pH	s.u.	08/23/2012	N001	90.5	- 100.5	8.03		F	#		
Potassium	mg/L	08/23/2012	N001	90.5	- 100.5	1.6		F	#	0.11	
Selenium	mg/L	08/23/2012	N001	90.5	- 100.5	0.0013		F	#	0.000032	
Silica	mg/L	08/23/2012	N001	90.5	- 100.5	11		F	#	0.0095	
Silicon	mg/L	08/23/2012	N001	90.5	- 100.5	5		F	#	0.0044	
Sodium	mg/L	08/23/2012	N001	90.5	- 100.5	7.6		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0278 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	90.5	- 100.5	237		F	#		
Sulfate	mg/L	08/23/2012	N001	90.5	- 100.5	13		F	#	0.5	
Temperature	C	08/23/2012	N001	90.5	- 100.5	16.96		F	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	90.5	- 100.5	140		F	#	20	
Turbidity	NTU	08/23/2012	N001	90.5	- 100.5	0.78		F	#		
Uranium	mg/L	08/23/2012	N001	90.5	- 100.5	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0279 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	26.5	- 36.5	110		F	#		
Ammonia Total as N	mg/L	08/23/2012	N001	26.5	- 36.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/23/2012	N001	26.5	- 36.5	0.0007		F	#	0.000015	
Calcium	mg/L	08/23/2012	N001	26.5	- 36.5	48		F	#	0.012	
Chloride	mg/L	08/23/2012	N001	26.5	- 36.5	24		F	#	0.4	
Iron	mg/L	08/23/2012	N001	26.5	- 36.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	26.5	- 36.5	10		F	#	0.013	
Manganese	mg/L	08/23/2012	N001	26.5	- 36.5	0.00073	B	UF	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	26.5	- 36.5	0.00075		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	26.5	- 36.5	8		F	#	0.05	
Oxidation Reduction Potential	mV	08/23/2012	N001	26.5	- 36.5	162.3		F	#		
pH	s.u.	08/23/2012	N001	26.5	- 36.5	7.86		F	#		
Potassium	mg/L	08/23/2012	N001	26.5	- 36.5	1.6		F	#	0.11	
Selenium	mg/L	08/23/2012	N001	26.5	- 36.5	0.0022		F	#	0.000032	
Silica	mg/L	08/23/2012	N001	26.5	- 36.5	12		F	#	0.0095	
Silicon	mg/L	08/23/2012	N001	26.5	- 36.5	5.5		F	#	0.0044	
Sodium	mg/L	08/23/2012	N001	26.5	- 36.5	12		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0279 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	26.5	- 36.5	380		F	#		
Sulfate	mg/L	08/23/2012	N001	26.5	- 36.5	48		F	#	1	
Temperature	C	08/23/2012	N001	26.5	- 36.5	17.08		F	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	26.5	- 36.5	240		F	#	20	
Turbidity	NTU	08/23/2012	N001	26.5	- 36.5	2.24		F	#		
Uranium	mg/L	08/23/2012	N001	26.5	- 36.5	0.0018		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0280 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	26.5	- 36.5	91		FQ	#		
Ammonia Total as N	mg/L	08/23/2012	N001	26.5	- 36.5	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/23/2012	N001	26.5	- 36.5	0.0021		FQ	#	0.000015	
Calcium	mg/L	08/23/2012	N001	26.5	- 36.5	33		FQ	#	0.012	
Chloride	mg/L	08/23/2012	N001	26.5	- 36.5	21		FQ	#	0.4	
Iron	mg/L	08/23/2012	N001	26.5	- 36.5	0.0065	B	UFQ	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	26.5	- 36.5	6.8		FQ	#	0.013	
Manganese	mg/L	08/23/2012	N001	26.5	- 36.5	0.00046	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	26.5	- 36.5	0.00048		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	26.5	- 36.5	2.9		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/23/2012	N001	26.5	- 36.5	167.4		FQ	#		
pH	s.u.	08/23/2012	N001	26.5	- 36.5	7.78		FQ	#		
Potassium	mg/L	08/23/2012	N001	26.5	- 36.5	0.5	B	FQ	#	0.11	
Selenium	mg/L	08/23/2012	N001	26.5	- 36.5	0.0021		FQ	#	0.000032	
Silica	mg/L	08/23/2012	N001	26.5	- 36.5	11		FQ	#	0.0095	
Silicon	mg/L	08/23/2012	N001	26.5	- 36.5	5.3		FQ	#	0.0044	
Sodium	mg/L	08/23/2012	N001	26.5	- 36.5	17		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0280 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	26.5	- 36.5	302		FQ	#		
Sulfate	mg/L	08/23/2012	N001	26.5	- 36.5	21		FQ	#	1	
Temperature	C	08/23/2012	N001	26.5	- 36.5	17.71		FQ	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	26.5	- 36.5	190		FQ	#	20	
Turbidity	NTU	08/23/2012	N001	26.5	- 36.5	5.59		FQ	#		
Uranium	mg/L	08/23/2012	N001	26.5	- 36.5	0.0013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0281 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	70.5	- 80.5	108		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	70.5	- 80.5	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	70.5	- 80.5	0.00074		FQ	#	0.000015	
Calcium	mg/L	08/22/2012	N001	70.5	- 80.5	100		FQ	#	0.012	
Chloride	mg/L	08/22/2012	N001	70.5	- 80.5	21		FQ	#	1	
Iron	mg/L	08/22/2012	N001	70.5	- 80.5	0.14		FQ	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	70.5	- 80.5	18		FQ	#	0.013	
Manganese	mg/L	08/22/2012	N001	70.5	- 80.5	0.01		FQ	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	70.5	- 80.5	0.00075		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	70.5	- 80.5	30		FQ	#	0.2	
Oxidation Reduction Potential	mV	08/22/2012	N001	70.5	- 80.5	104.6		FQ	#		
pH	s.u.	08/22/2012	N001	70.5	- 80.5	7.24		FQ	#		
Potassium	mg/L	08/22/2012	N001	70.5	- 80.5	1.6		FQ	#	0.11	
Selenium	mg/L	08/22/2012	N001	70.5	- 80.5	0.002		FQ	#	0.000032	
Silica	mg/L	08/22/2012	N001	70.5	- 80.5	13		FQ	#	0.0095	
Silicon	mg/L	08/22/2012	N001	70.5	- 80.5	6.2		FQ	#	0.0044	
Sodium	mg/L	08/22/2012	N001	70.5	- 80.5	14		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0281 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	70.5	- 80.5	760		FQ	#		
Sulfate	mg/L	08/22/2012	N001	70.5	- 80.5	100		FQ	#	2.5	
Temperature	C	08/22/2012	N001	70.5	- 80.5	17.12		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	70.5	- 80.5	490		FQ	#	20	
Turbidity	NTU	08/22/2012	N001	70.5	- 80.5	3.26		FQ	#		
Uranium	mg/L	08/22/2012	N001	70.5	- 80.5	0.0062		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0282 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	74.1	- 84.1	108		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	74.1	- 84.1	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	74.1	- 84.1	0.00016		FQ	#	0.000015	
Calcium	mg/L	08/22/2012	N001	74.1	- 84.1	130		FQ	#	0.012	
Chloride	mg/L	08/22/2012	N001	74.1	- 84.1	47		FQ	#	2	
Iron	mg/L	08/22/2012	N001	74.1	- 84.1	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	74.1	- 84.1	24		FQ	#	0.013	
Manganese	mg/L	08/22/2012	N001	74.1	- 84.1	0.00031	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	74.1	- 84.1	0.00031		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	74.1	- 84.1	48		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	74.1	- 84.1	106.6		FQ	#		
pH	s.u.	08/22/2012	N001	74.1	- 84.1	7.46		FQ	#		
Potassium	mg/L	08/22/2012	N001	74.1	- 84.1	2.1		FQ	#	0.11	
Selenium	mg/L	08/22/2012	N001	74.1	- 84.1	0.0017		FQ	#	0.000032	
Silica	mg/L	08/22/2012	N001	74.1	- 84.1	13		FQ	#	0.0095	
Silicon	mg/L	08/22/2012	N001	74.1	- 84.1	6.1		FQ	#	0.0044	
Sodium	mg/L	08/22/2012	N001	74.1	- 84.1	15		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0282 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	74.1	- 84.1	956		FQ	#		
Sulfate	mg/L	08/22/2012	N001	74.1	- 84.1	110		FQ	#	5	
Temperature	C	08/22/2012	N001	74.1	- 84.1	19.48		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	74.1	- 84.1	700		FQ	#	20	
Turbidity	NTU	08/22/2012	N001	74.1	- 84.1	1.23		FQ	#		
Uranium	mg/L	08/22/2012	N001	74.1	- 84.1	0.0059		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0286 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	93.2	- 103.2	670		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	93.2	- 103.2	4.2		FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	93.2	- 103.2	0.002		FQ	#	0.00015	
Calcium	mg/L	08/21/2012	N001	93.2	- 103.2	610		FQ	#	0.06	
Chloride	mg/L	08/21/2012	N001	93.2	- 103.2	150		FQ	#	10	
Dissolved Oxygen	mg/L	08/21/2012	N001	93.2	- 103.2	6.5		FQ	#		
Iron	mg/L	08/21/2012	N001	93.2	- 103.2	0.025	U	FQ	#	0.025	
Magnesium	mg/L	08/21/2012	N001	93.2	- 103.2	840		FQ	#	0.065	
Manganese	mg/L	08/21/2012	N001	93.2	- 103.2	6.7		FQ	#	0.00057	
Molybdenum	mg/L	08/21/2012	N001	93.2	- 103.2	0.0013		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	93.2	- 103.2	320		FQJ	#	2	
Oxidation Reduction Potential	mV	08/21/2012	N001	93.2	- 103.2	55		FQ	#		
pH	s.u.	08/21/2012	N001	93.2	- 103.2	6.5		FQ	#		
Potassium	mg/L	08/21/2012	N001	93.2	- 103.2	11		FQ	#	0.54	
Selenium	mg/L	08/21/2012	N001	93.2	- 103.2	0.045		FQ	#	0.00032	
Silica	mg/L	08/21/2012	N001	93.2	- 103.2	17		FQ	#	0.047	
Silicon	mg/L	08/21/2012	N001	93.2	- 103.2	7.9		FQ	#	0.022	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0286 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Sodium	mg/L	08/21/2012	N001	93.2	- 103.2	280		FQ	#	0.033	
Specific Conductance	umhos /cm	08/21/2012	N001	93.2	- 103.2	7510		FQ	#		
Sulfate	mg/L	08/21/2012	N001	93.2	- 103.2	3700		FQJ	#	25	
Temperature	C	08/21/2012	N001	93.2	- 103.2	19.07		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	93.2	- 103.2	7900		FQJ	#	200	
Turbidity	NTU	08/21/2012	N001	93.2	- 103.2	2.8		FQ	#		
Uranium	mg/L	08/21/2012	N001	93.2	- 103.2	0.35		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0287 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	100.7 - 110.7	574		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	100.7 - 110.7	0.3		FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	100.7 - 110.7	0.0017		FQ	#	0.00015	
Calcium	mg/L	08/21/2012	N001	100.7 - 110.7	890		FQ	#	0.06	
Chloride	mg/L	08/21/2012	N001	100.7 - 110.7	240		FQ	#	10	
Iron	mg/L	08/21/2012	N001	100.7 - 110.7	0.025	U	FQ	#	0.025	
Magnesium	mg/L	08/21/2012	N001	100.7 - 110.7	150		FQ	#	0.065	
Manganese	mg/L	08/21/2012	N001	100.7 - 110.7	0.0091	B	FQ	#	0.00057	
Molybdenum	mg/L	08/21/2012	N001	100.7 - 110.7	0.13		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	100.7 - 110.7	290		FQJ	#	2	
Oxidation Reduction Potential	mV	08/21/2012	N001	100.7 - 110.7	55		FQ	#		
pH	s.u.	08/21/2012	N001	100.7 - 110.7	6.55		FQ	#		
Potassium	mg/L	08/21/2012	N001	100.7 - 110.7	6.3		FQ	#	0.54	
Selenium	mg/L	08/21/2012	N001	100.7 - 110.7	0.091		FQ	#	0.00032	
Silica	mg/L	08/21/2012	N001	100.7 - 110.7	17		FQ	#	0.047	
Silicon	mg/L	08/21/2012	N001	100.7 - 110.7	7.9		FQ	#	0.022	
Sodium	mg/L	08/21/2012	N001	100.7 - 110.7	340		FQ	#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0287 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	100.7 - 110.7	5756		FQ	#		
Sulfate	mg/L	08/21/2012	N001	100.7 - 110.7	1800		FQJ	#	25	
Temperature	C	08/21/2012	N001	100.7 - 110.7	18.56		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	100.7 - 110.7	5400		FQJ	#	200	
Turbidity	NTU	08/21/2012	N001	100.7 - 110.7	3.81		FQ	#		
Uranium	mg/L	08/21/2012	N001	100.7 - 110.7	0.24		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0288 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	104	- 114	245		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	104	- 114	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	104	- 114	0.00063		FQ	#	0.000015	
Calcium	mg/L	08/21/2012	N001	104	- 114	190		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	104	- 114	25		FQ	#	4	
Iron	mg/L	08/21/2012	N001	104	- 114	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	104	- 114	35		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	104	- 114	0.00073	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	104	- 114	0.00011		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	104	- 114	57		FQJ	#	0.5	
Oxidation Reduction Potential	mV	08/21/2012	N001	104	- 114	60		FQ	#		
pH	s.u.	08/21/2012	N001	104	- 114	6.96		FQ	#		
Potassium	mg/L	08/21/2012	N001	104	- 114	3.2		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	104	- 114	0.0026		FQ	#	0.000032	
Silica	mg/L	08/21/2012	N001	104	- 114	15		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	104	- 114	6.9		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	104	- 114	39		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0288 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	104	- 114	1339		FQ	#		
Sulfate	mg/L	08/21/2012	N001	104	- 114	260		FQJ	#	10	
Temperature	C	08/21/2012	N001	104	- 114	18.21		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	104	- 114	980		FQJ	#	40	
Turbidity	NTU	08/21/2012	N001	104	- 114	2.66		FQ	#		
Uranium	mg/L	08/21/2012	N001	104	- 114	0.011		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0289 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	148.3 - 158.3	185		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	148.3 - 158.3	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	148.3 - 158.3	0.00091		FQ	#	0.000015	
Calcium	mg/L	08/21/2012	N001	148.3 - 158.3	160		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	148.3 - 158.3	23		FQ	#	2	
Iron	mg/L	08/21/2012	N001	148.3 - 158.3	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	148.3 - 158.3	29		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	148.3 - 158.3	0.007		FQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	148.3 - 158.3	0.0004		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	148.3 - 158.3	42		FQJ	#	0.5	
Oxidation Reduction Potential	mV	08/21/2012	N001	148.3 - 158.3	2		FQ	#		
pH	s.u.	08/21/2012	N001	148.3 - 158.3	7.19		FQ	#		
Potassium	mg/L	08/21/2012	N001	148.3 - 158.3	2.9		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	148.3 - 158.3	0.0019		FQ	#	0.000032	
Silica	mg/L	08/21/2012	N001	148.3 - 158.3	14		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	148.3 - 158.3	6.6		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	148.3 - 158.3	27		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0289 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	148.3 - 158.3	1132		FQ	#		
Sulfate	mg/L	08/21/2012	N001	148.3 - 158.3	200		FQJ	#	5	
Temperature	C	08/21/2012	N001	148.3 - 158.3	17.69		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	148.3 - 158.3	760		FQJ	#	40	
Turbidity	NTU	08/21/2012	N001	148.3 - 158.3	1.42		FQ	#		
Uranium	mg/L	08/21/2012	N001	148.3 - 158.3	0.013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0290 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	102.7 - 112.7	218		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	102.7 - 112.7	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	102.7 - 112.7	0.0014		FQ	#	0.000015	
Calcium	mg/L	08/22/2012	N001	102.7 - 112.7	310		FQ	#	0.012	
Chloride	mg/L	08/22/2012	N001	102.7 - 112.7	59		FQ	#	4	
Iron	mg/L	08/22/2012	N001	102.7 - 112.7	0.0056	B	UFQ	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	102.7 - 112.7	47		FQ	#	0.013	
Manganese	mg/L	08/22/2012	N001	102.7 - 112.7	0.00016	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	102.7 - 112.7	0.00011		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	102.7 - 112.7	80		FQ	#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	102.7 - 112.7	90		FQ	#		
pH	s.u.	08/22/2012	N001	102.7 - 112.7	6.93		FQ	#		
Potassium	mg/L	08/22/2012	N001	102.7 - 112.7	4		FQ	#	0.11	
Selenium	mg/L	08/22/2012	N001	102.7 - 112.7	0.011		FQ	#	0.000032	
Silica	mg/L	08/22/2012	N001	102.7 - 112.7	15		FQ	#	0.0095	
Silicon	mg/L	08/22/2012	N001	102.7 - 112.7	6.9		FQ	#	0.0044	
Sodium	mg/L	08/22/2012	N001	102.7 - 112.7	57		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0290 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	102.7 - 112.7	2095		FQ	#		
Sulfate	mg/L	08/22/2012	N001	102.7 - 112.7	550		FQ	#	10	
Temperature	C	08/22/2012	N001	102.7 - 112.7	17.5		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	102.7 - 112.7	1600		FQ	#	40	
Turbidity	NTU	08/22/2012	N001	102.7 - 112.7	4.21		FQ	#		
Uranium	mg/L	08/22/2012	N001	102.7 - 112.7	0.05		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0683 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	95	- 145	98		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	95	- 145	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	95	- 145	0.002		FQ	#	0.000015	
Calcium	mg/L	08/22/2012	N001	95	- 145	35		FQ	#	0.012	
Chloride	mg/L	08/22/2012	N001	95	- 145	13		FQ	#	0.4	
Iron	mg/L	08/22/2012	N001	95	- 145	0.056	B	UFQ	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	95	- 145	6		FQ	#	0.013	
Manganese	mg/L	08/22/2012	N001	95	- 145	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	95	- 145	0.00046		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	95	- 145	3.5		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	95	- 145	65		FQ	#		
pH	s.u.	08/22/2012	N001	95	- 145	7.79		FQ	#		
Potassium	mg/L	08/22/2012	N001	95	- 145	1.2		FQ	#	0.11	
Selenium	mg/L	08/22/2012	N001	95	- 145	0.0017		FQ	#	0.000032	
Silica	mg/L	08/22/2012	N001	95	- 145	12		FQ	#	0.0095	
Silicon	mg/L	08/22/2012	N001	95	- 145	5.4		FQ	#	0.0044	
Sodium	mg/L	08/22/2012	N001	95	- 145	11		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0683 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	95 - 145	300		FQ	#		
Sulfate	mg/L	08/22/2012	N001	95 - 145	18		FQ	#	1	
Temperature	C	08/22/2012	N001	95 - 145	17.1		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	95 - 145	190		FQ	#	20	
Turbidity	NTU	08/22/2012	N001	95 - 145	2.26		FQ	#		
Uranium	mg/L	08/22/2012	N001	95 - 145	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0684 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	124.2 - 175.5	72		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	124.2 - 175.5	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	124.2 - 175.5	0.0027		FQ	#	0.000015	
Calcium	mg/L	08/21/2012	N001	124.2 - 175.5	34		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	124.2 - 175.5	11		FQ	#	0.2	
Iron	mg/L	08/21/2012	N001	124.2 - 175.5	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	124.2 - 175.5	6.6		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	124.2 - 175.5	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	124.2 - 175.5	0.00047		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	124.2 - 175.5	3.4		FQJ	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	124.2 - 175.5	45		FQ	#		
pH	s.u.	08/21/2012	N001	124.2 - 175.5	7.7		FQ	#		
Potassium	mg/L	08/21/2012	N001	124.2 - 175.5	1.1		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	124.2 - 175.5	0.0015		FQ	#	0.000032	
Silica	mg/L	08/21/2012	N001	124.2 - 175.5	11		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	124.2 - 175.5	5.3		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	124.2 - 175.5	11		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0684 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	124.2 - 175.5	284		FQ	#		
Sulfate	mg/L	08/21/2012	N001	124.2 - 175.5	15		FQJ	#	0.5	
Temperature	C	08/21/2012	N001	124.2 - 175.5	17.62		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	124.2 - 175.5	160		FQJ	#	20	
Uranium	mg/L	08/21/2012	N001	124.2 - 175.5	0.0013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0685 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	93.66 - 145.5	86		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	93.66 - 145.5	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	93.66 - 145.5	0.0027		F	#	0.000015	
Calcium	mg/L	08/21/2012	N001	93.66 - 145.5	35		F	#	0.012	
Chloride	mg/L	08/21/2012	N001	93.66 - 145.5	13		F	#	0.2	
Iron	mg/L	08/21/2012	N001	93.66 - 145.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	93.66 - 145.5	6.7		F	#	0.013	
Manganese	mg/L	08/21/2012	N001	93.66 - 145.5	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	93.66 - 145.5	0.00039		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	93.66 - 145.5	3.5		FJ	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	93.66 - 145.5	90		F	#		
pH	s.u.	08/21/2012	N001	93.66 - 145.5	7.93		F	#		
Potassium	mg/L	08/21/2012	N001	93.66 - 145.5	1.1		F	#	0.11	
Selenium	mg/L	08/21/2012	N001	93.66 - 145.5	0.0017		F	#	0.000032	
Silica	mg/L	08/21/2012	N001	93.66 - 145.5	11		F	#	0.0095	
Silicon	mg/L	08/21/2012	N001	93.66 - 145.5	5.2		F	#	0.0044	
Sodium	mg/L	08/21/2012	N001	93.66 - 145.5	11		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0685 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	93.66 - 145.5	291		F	#		
Sulfate	mg/L	08/21/2012	N001	93.66 - 145.5	18		FJ	#	0.5	
Temperature	C	08/21/2012	N001	93.66 - 145.5	17.71		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	93.66 - 145.5	160		FJ	#	20	
Turbidity	NTU	08/21/2012	N001	93.66 - 145.5	1.56		F	#		
Uranium	mg/L	08/21/2012	N001	93.66 - 145.5	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0686 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	60	- 100	92		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	60	- 100	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	60	- 100	0.0016		F	#	0.000015	
Calcium	mg/L	08/21/2012	N001	60	- 100	84		F	#	0.012	
Chloride	mg/L	08/21/2012	N001	60	- 100	69		F	#	1	
Iron	mg/L	08/21/2012	N001	60	- 100	0.15		F	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	60	- 100	11		F	#	0.013	
Manganese	mg/L	08/21/2012	N001	60	- 100	0.0018	B	UF	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	60	- 100	0.0017		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	60	- 100	3.5		FJ	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	60	- 100	50		F	#		
pH	s.u.	08/21/2012	N001	60	- 100	7.77		F	#		
Potassium	mg/L	08/21/2012	N001	60	- 100	2.6		F	#	0.11	
Selenium	mg/L	08/21/2012	N001	60	- 100	0.0077		F	#	0.000032	
Silica	mg/L	08/21/2012	N001	60	- 100	11		F	#	0.0095	
Silicon	mg/L	08/21/2012	N001	60	- 100	5.1		F	#	0.0044	
Sodium	mg/L	08/21/2012	N001	60	- 100	34		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0686 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	60 - 100	688		F	#		
Sulfate	mg/L	08/21/2012	N001	60 - 100	130		FJ	#	2.5	
Temperature	C	08/21/2012	N001	60 - 100	17.67		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	60 - 100	430		FJ	#	20	
Turbidity	NTU	08/21/2012	N001	60 - 100	2.43		F	#		
Uranium	mg/L	08/21/2012	N001	60 - 100	0.0023		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0687 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	60	- 100	63		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	60	- 100	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	60	- 100	0.0046		F	#	0.000015	
Calcium	mg/L	08/21/2012	N001	60	- 100	37		F	#	0.012	
Chloride	mg/L	08/21/2012	N001	60	- 100	8.5		F	#	0.2	
Iron	mg/L	08/21/2012	N001	60	- 100	0.017	B	UF	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	60	- 100	4.8		F	#	0.013	
Manganese	mg/L	08/21/2012	N001	60	- 100	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	60	- 100	0.0081		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	60	- 100	6.4		FJ	#	0.05	
Oxidation Reduction Potential	mV	08/21/2012	N001	60	- 100	55		F	#		
pH	s.u.	08/21/2012	N001	60	- 100	8.11		F	#		
Potassium	mg/L	08/21/2012	N001	60	- 100	1.5		F	#	0.11	
Selenium	mg/L	08/21/2012	N001	60	- 100	0.0022		F	#	0.000032	
Silica	mg/L	08/21/2012	N001	60	- 100	12		F	#	0.0095	
Silicon	mg/L	08/21/2012	N001	60	- 100	5.6		F	#	0.0044	
Sodium	mg/L	08/21/2012	N001	60	- 100	30		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0687 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	60	- 100	402		F	#		
Sulfate	mg/L	08/21/2012	N001	60	- 100	80		FJ	#	0.5	
Temperature	C	08/21/2012	N001	60	- 100	20.17		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	60	- 100	250		FJ	#	20	
Turbidity	NTU	08/21/2012	N001	60	- 100	1.82		F	#		
Uranium	mg/L	08/21/2012	N001	60	- 100	0.0028		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0688 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	60	- 100	70		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	60	- 100	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	60	- 100	0.0018		F	#	0.000015	
Calcium	mg/L	08/21/2012	N001	60	- 100	89		F	#	0.012	
Chloride	mg/L	08/21/2012	N001	60	- 100	72		F	#	1	
Iron	mg/L	08/21/2012	N001	60	- 100	0.081	B	UF	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	60	- 100	12		F	#	0.013	
Manganese	mg/L	08/21/2012	N001	60	- 100	0.0014	B	UF	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	60	- 100	0.0011		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	60	- 100	7.3		FJ	#	0.05	
Oxidation Reduction Potential	mV	08/21/2012	N001	60	- 100	65		F	#		
pH	s.u.	08/21/2012	N001	60	- 100	7.77		F	#		
Potassium	mg/L	08/21/2012	N001	60	- 100	2.2		F	#	0.11	
Selenium	mg/L	08/21/2012	N001	60	- 100	0.008		F	#	0.000032	
Silica	mg/L	08/21/2012	N001	60	- 100	13		F	#	0.0095	
Silicon	mg/L	08/21/2012	N001	60	- 100	6.1		F	#	0.0044	
Sodium	mg/L	08/21/2012	N001	60	- 100	24		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0688 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	60	- 100	674		F	#		
Sulfate	mg/L	08/21/2012	N001	60	- 100	130		FJ	#	2.5	
Temperature	C	08/21/2012	N001	60	- 100	18.23		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	60	- 100	460		FJ	#	20	
Turbidity	NTU	08/21/2012	N001	60	- 100	6.99		F	#		
Uranium	mg/L	08/21/2012	N001	60	- 100	0.0021		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0689 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	55	- 95	92		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	55	- 95	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	55	- 95	0.002		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	55	- 95	33		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	55	- 95	10		F	#	0.4	
Iron	mg/L	08/22/2012	N001	55	- 95	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	55	- 95	6.6		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	55	- 95	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	55	- 95	0.00031		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	55	- 95	3.4		F	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	55	- 95	162		F	#		
pH	s.u.	08/22/2012	N001	55	- 95	8.01		F	#		
Potassium	mg/L	08/22/2012	N001	55	- 95	1.1		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	55	- 95	0.0013		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	55	- 95	12		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	55	- 95	5.4		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	55	- 95	7.4		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0689 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	55	- 95	255		F	#		
Sulfate	mg/L	08/22/2012	N001	55	- 95	14		F	#	1	
Temperature	C	08/22/2012	N001	55	- 95	19.71		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	55	- 95	160		F	#	20	
Turbidity	NTU	08/22/2012	N001	55	- 95	1.28		F	#		
Uranium	mg/L	08/22/2012	N001	55	- 95	0.0012		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0690 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	55	- 95	87		FQ	#		
Ammonia Total as N	mg/L	08/23/2012	N001	55	- 95	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/23/2012	N001	55	- 95	0.0013		FQ	#	0.000015	
Calcium	mg/L	08/23/2012	N001	55	- 95	28		FQ	#	0.012	
Chloride	mg/L	08/23/2012	N001	55	- 95	9.2		FQ	#	0.4	
Iron	mg/L	08/23/2012	N001	55	- 95	0.016	B	UFQ	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	55	- 95	7.8		FQ	#	0.013	
Manganese	mg/L	08/23/2012	N001	55	- 95	0.038		FQ	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	55	- 95	0.00025		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	55	- 95	3.4		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/23/2012	N001	55	- 95	160.3		FQ	#		
pH	s.u.	08/23/2012	N001	55	- 95	8		FQ	#		
Potassium	mg/L	08/23/2012	N001	55	- 95	1.9		FQ	#	0.11	
Selenium	mg/L	08/23/2012	N001	55	- 95	0.0013		FQ	#	0.000032	
Silica	mg/L	08/23/2012	N001	55	- 95	11		FQ	#	0.0095	
Silicon	mg/L	08/23/2012	N001	55	- 95	5.1		FQ	#	0.0044	
Sodium	mg/L	08/23/2012	N001	55	- 95	7.5		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0690 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	55	- 95	241		FQ	#		
Sulfate	mg/L	08/23/2012	N001	55	- 95	13		FQ	#	1	
Temperature	C	08/23/2012	N001	55	- 95	17.35		FQ	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	55	- 95	150		FQ	#	20	
Turbidity	NTU	08/23/2012	N001	55	- 95	2.71		FQ	#		
Uranium	mg/L	08/23/2012	N001	55	- 95	0.0015		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0691 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	55	- 95	221		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	55	- 95	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	55	- 95	0.001		F	#	0.000074	
Calcium	mg/L	08/22/2012	N001	55	- 95	330		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	55	- 95	56		F	#	4	
Iron	mg/L	08/22/2012	N001	55	- 95	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	55	- 95	51		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	55	- 95	0.026		F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	55	- 95	0.00016	U	F	#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	55	- 95	75		F	#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	55	- 95	169.3		F	#		
pH	s.u.	08/22/2012	N001	55	- 95	7.11		F	#		
Potassium	mg/L	08/22/2012	N001	55	- 95	4.1		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	55	- 95	0.0046		F	#	0.00016	
Silica	mg/L	08/22/2012	N001	55	- 95	14		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	55	- 95	6.7		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	55	- 95	42		FJ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0691 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	55	- 95	1819		F	#		
Sulfate	mg/L	08/22/2012	N001	55	- 95	550		F	#	10	
Temperature	C	08/22/2012	N001	55	- 95	17.79		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	55	- 95	1600		F	#	80	
Turbidity	NTU	08/22/2012	N001	55	- 95	1.89		F	#		
Uranium	mg/L	08/22/2012	N001	55	- 95	0.056		F	#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0692 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	55	- 95	85		FQ	#		
Ammonia Total as N	mg/L	08/23/2012	N001	55	- 95	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/23/2012	N001	55	- 95	0.0065		FQ	#	0.000015	
Calcium	mg/L	08/23/2012	N001	55	- 95	28		FQ	#	0.012	
Chloride	mg/L	08/23/2012	N001	55	- 95	12		FQ	#	0.4	
Iron	mg/L	08/23/2012	N001	55	- 95	0.27		FQ	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	55	- 95	6.7		FQ	#	0.013	
Manganese	mg/L	08/23/2012	N001	55	- 95	0.065		FQ	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	55	- 95	0.00026		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	55	- 95	3.3		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/23/2012	N001	55	- 95	167.9		FQ	#		
pH	s.u.	08/23/2012	N001	55	- 95	8.13		FQ	#		
Potassium	mg/L	08/23/2012	N001	55	- 95	3.3		FQ	#	0.11	
Selenium	mg/L	08/23/2012	N001	55	- 95	0.0014		FQ	#	0.000032	
Silica	mg/L	08/23/2012	N001	55	- 95	12		FQ	#	0.0095	
Silicon	mg/L	08/23/2012	N001	55	- 95	5.5		FQ	#	0.0044	
Sodium	mg/L	08/23/2012	N001	55	- 95	10		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0692 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	55	- 95	254		FQ	#		
Sulfate	mg/L	08/23/2012	N001	55	- 95	15		FQ	#	1	
Temperature	C	08/23/2012	N001	55	- 95	17.96		FQ	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	55	- 95	150		FQ	#	20	
Turbidity	NTU	08/23/2012	N001	55	- 95	8.3		FQ	#		
Uranium	mg/L	08/23/2012	N001	55	- 95	0.0016		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0695 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	55	- 95	187		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	55	- 95	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	55	- 95	0.0017		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	55	- 95	46		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	55	- 95	14		F	#	0.4	
Iron	mg/L	08/22/2012	N001	55	- 95	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	55	- 95	7.2		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	55	- 95	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	55	- 95	0.00052		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	55	- 95	5.4		F	#	0.05	
Oxidation Reduction Potential	mV	08/22/2012	N001	55	- 95	161.2		F	#		
pH	s.u.	08/22/2012	N001	55	- 95	7.98		F	#		
Potassium	mg/L	08/22/2012	N001	55	- 95	1.5		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	55	- 95	0.0017		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	55	- 95	12		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	55	- 95	5.4		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	55	- 95	10		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0695 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	55	- 95	346		F	#		
Sulfate	mg/L	08/22/2012	N001	55	- 95	39		F	#	1	
Temperature	C	08/22/2012	N001	55	- 95	17.91		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	55	- 95	210		F	#	20	
Turbidity	NTU	08/22/2012	N001	55	- 95	0.83		F	#		
Uranium	mg/L	08/22/2012	N001	55	- 95	0.0019		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0901 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	58	- 78	105		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	58	- 78	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	58	- 78	0.0025		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	58	- 78	40		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	58	- 78	18		F	#	0.4	
Iron	mg/L	08/22/2012	N001	58	- 78	0.064	B	UF	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	58	- 78	7		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	58	- 78	0.0052		F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	58	- 78	0.00056		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	58	- 78	3.2		F	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	58	- 78	90		F	#		
pH	s.u.	08/22/2012	N001	58	- 78	7.91		F	#		
Potassium	mg/L	08/22/2012	N001	58	- 78	1.1		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	58	- 78	0.0025	E	FJ	#	0.000032	
Silica	mg/L	08/22/2012	N001	58	- 78	12		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	58	- 78	5.4		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	58	- 78	16		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0901 WELL

Parameter	Units	Sample		Depth Range (Ft BLS)			Result	Qualifiers		Detection Limit	Uncertainty
		Date	ID					Lab	Data QA		
Specific Conductance	umhos/cm	08/22/2012	N001	58	-	78	350	F	#		
Sulfate	mg/L	08/22/2012	N001	58	-	78	28	F	#	1	
Temperature	C	08/22/2012	N001	58	-	78	16.5	F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	58	-	78	210	F	#	20	
Turbidity	NTU	08/22/2012	N001	58	-	78	6.37	F	#		
Uranium	mg/L	08/22/2012	N001	58	-	78	0.002	F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0903 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	28	- 48	104		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	28	- 48	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	28	- 48	0.0018		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	28	- 48	71		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	28	- 48	26		F	#	1	
Iron	mg/L	08/22/2012	N001	28	- 48	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	28	- 48	14		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	28	- 48	0.00013	B	UF	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	28	- 48	0.00022		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	28	- 48	17		F	#	0.1	
Oxidation Reduction Potential	mV	08/22/2012	N001	28	- 48	165.2		F	#		
pH	s.u.	08/22/2012	N001	28	- 48	7.77		F	#		
Potassium	mg/L	08/22/2012	N001	28	- 48	1.7		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	28	- 48	0.0021		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	28	- 48	11		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	28	- 48	5.3		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	28	- 48	12		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0903 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	28	- 48	535		F	#		
Sulfate	mg/L	08/22/2012	N001	28	- 48	85		F	#	2.5	
Temperature	C	08/22/2012	N001	28	- 48	17.88		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	28	- 48	360		F	#	20	
Turbidity	NTU	08/22/2012	N001	28	- 48	3.81		F	#		
Uranium	mg/L	08/22/2012	N001	28	- 48	0.0023		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0904 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	28	- 38	174		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	28	- 38	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	28	- 38	0.00055		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	28	- 38	57		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	28	- 38	150		F	#	2	
Iron	mg/L	08/22/2012	N001	28	- 38	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	28	- 38	14		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	28	- 38	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	28	- 38	0.0008		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	28	- 38	1.7		F	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	28	- 38	144.4		F	#		
pH	s.u.	08/22/2012	N001	28	- 38	7.73		F	#		
Potassium	mg/L	08/22/2012	N001	28	- 38	0.74	B	F	#	0.11	
Selenium	mg/L	08/22/2012	N001	28	- 38	0.013		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	28	- 38	19		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	28	- 38	8.8		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	28	- 38	100		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0904 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	28	- 38	912		F	#		
Sulfate	mg/L	08/22/2012	N001	28	- 38	79		F	#	5	
Temperature	C	08/22/2012	N001	28	- 38	20.27		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	28	- 38	550		F	#	20	
Turbidity	NTU	08/22/2012	N001	28	- 38	1.73		F	#		
Uranium	mg/L	08/22/2012	N001	28	- 38	0.0043		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0906 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	44	- 64	704		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	44	- 64	0.1	UN	FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	44	- 64	0.0017		FQ	#	0.00015	
Calcium	mg/L	08/22/2012	N001	44	- 64	940		FQ	#	0.06	
Chloride	mg/L	08/22/2012	N001	44	- 64	170		FQ	#	10	
Iron	mg/L	08/22/2012	N001	44	- 64	0.025	U	FQ	#	0.025	
Magnesium	mg/L	08/22/2012	N001	44	- 64	390		FQ	#	0.065	
Manganese	mg/L	08/22/2012	N001	44	- 64	0.015	B	FQ	#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	44	- 64	0.0018		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	44	- 64	530		FQ	#	5	
Oxidation Reduction Potential	mV	08/22/2012	N001	44	- 64	65		FQ	#		
pH	s.u.	08/22/2012	N001	44	- 64	6.59		FQ	#		
Potassium	mg/L	08/22/2012	N001	44	- 64	8.9		FQ	#	0.54	
Selenium	mg/L	08/22/2012	N001	44	- 64	0.032		FQ	#	0.00032	
Silica	mg/L	08/22/2012	N001	44	- 64	14		FQ	#	0.047	
Silicon	mg/L	08/22/2012	N001	44	- 64	6.5		FQ	#	0.022	
Sodium	mg/L	08/22/2012	N001	44	- 64	380		FQ	#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0906 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	44	- 64	7459		FQ	#		
Sulfate	mg/L	08/22/2012	N001	44	- 64	2100		FQ	#	25	
Temperature	C	08/22/2012	N001	44	- 64	18.03		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	44	- 64	7300		FQ	#	200	
Turbidity	NTU	08/22/2012	N001	44	- 64	8.48		FQ	#		
Uranium	mg/L	08/22/2012	N001	44	- 64	0.43		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0908 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	52	- 67	534		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	52	- 67	71		FQJ	#	2	
Arsenic	mg/L	08/21/2012	N001	52	- 67	0.0011		FQ	#	0.00003	
Calcium	mg/L	08/21/2012	N001	52	- 67	600		FQ	#	0.06	
Chloride	mg/L	08/21/2012	N001	52	- 67	70		FQ	#	10	
Iron	mg/L	08/21/2012	N001	52	- 67	0.025	U	FQ	#	0.025	
Magnesium	mg/L	08/21/2012	N001	52	- 67	450		FQ	#	0.065	
Manganese	mg/L	08/21/2012	N001	52	- 67	0.14		FQ	#	0.00057	
Molybdenum	mg/L	08/21/2012	N001	52	- 67	0.00032	U	FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	52	- 67	200		FQJ	#	2	
Oxidation Reduction Potential	mV	08/21/2012	N001	52	- 67	162.4		FQ	#		
pH	s.u.	08/21/2012	N001	52	- 67	6.33		FQ	#		
Potassium	mg/L	08/21/2012	N001	52	- 67	23		FQ	#	0.54	
Selenium	mg/L	08/21/2012	N001	52	- 67	0.02		FQ	#	0.00032	
Silica	mg/L	08/21/2012	N001	52	- 67	19		FQ	#	0.047	
Silicon	mg/L	08/21/2012	N001	52	- 67	8.8		FQ	#	0.022	
Sodium	mg/L	08/21/2012	N001	52	- 67	280		FQ	#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0908 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	52	- 67	6077		FQ	#		
Sulfate	mg/L	08/21/2012	N001	52	- 67	2800		FQJ	#	25	
Temperature	C	08/21/2012	N001	52	- 67	17.32		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	52	- 67	5600		FQJ	#	200	
Turbidity	NTU	08/21/2012	N001	52	- 67	2.76		FQ	#		
Uranium	mg/L	08/21/2012	N001	52	- 67	0.072		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0910 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	97	- 197	100		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	97	- 197	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	97	- 197	0.0018		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	97	- 197	32		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	97	- 197	11		F	#	0.4	
Iron	mg/L	08/22/2012	N001	97	- 197	0.051	B	UF	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	97	- 197	5.5		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	97	- 197	0.00061	B	UF	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	97	- 197	0.00049		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	97	- 197	3		F	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	97	- 197	65		F	#		
pH	s.u.	08/22/2012	N001	97	- 197	7.93		F	#		
Potassium	mg/L	08/22/2012	N001	97	- 197	0.94	B	F	#	0.11	
Selenium	mg/L	08/22/2012	N001	97	- 197	0.0013		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	97	- 197	11		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	97	- 197	4.9		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	97	- 197	11		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0910 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	97	- 197	271		F	#		
Sulfate	mg/L	08/22/2012	N001	97	- 197	14		F	#	1	
Temperature	C	08/22/2012	N001	97	- 197	16.89		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	97	- 197	150		F	#	20	
Turbidity	NTU	08/22/2012	N001	97	- 197	1.31		F	#		
Uranium	mg/L	08/22/2012	N001	97	- 197	0.001		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0911 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	309.4 - 349.4	72		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	309.4 - 349.4	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	309.4 - 349.4	0.0018		FQ	#	0.000015	
Calcium	mg/L	08/22/2012	N001	309.4 - 349.4	26		FQ	#	0.012	
Chloride	mg/L	08/22/2012	N001	309.4 - 349.4	7.1		FQ	#	0.2	
Iron	mg/L	08/22/2012	N001	309.4 - 349.4	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	309.4 - 349.4	5.4		FQ	#	0.013	
Manganese	mg/L	08/22/2012	N001	309.4 - 349.4	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	309.4 - 349.4	0.00018		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	309.4 - 349.4	3.1		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	309.4 - 349.4	75		FQ	#		
pH	s.u.	08/22/2012	N001	309.4 - 349.4	8.07		FQ	#		
Potassium	mg/L	08/22/2012	N001	309.4 - 349.4	1.2		FQ	#	0.11	
Selenium	mg/L	08/22/2012	N001	309.4 - 349.4	0.0011		FQ	#	0.000032	
Silica	mg/L	08/22/2012	N001	309.4 - 349.4	12		FQ	#	0.0095	
Silicon	mg/L	08/22/2012	N001	309.4 - 349.4	5.4		FQ	#	0.0044	
Sodium	mg/L	08/22/2012	N001	309.4 - 349.4	6.5		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0911 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	309.4 - 349.4	220		FQ	#		
Sulfate	mg/L	08/22/2012	N001	309.4 - 349.4	9.3		FQ	#	0.5	
Temperature	C	08/22/2012	N001	309.4 - 349.4	16.9		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	309.4 - 349.4	120		FQ	#	20	
Turbidity	NTU	08/22/2012	N001	309.4 - 349.4	1.34		FQ	#		
Uranium	mg/L	08/22/2012	N001	309.4 - 349.4	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0912 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	123	- 163	261		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	123	- 163	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	123	- 163	0.00099		FQ	#	0.00003	
Calcium	mg/L	08/21/2012	N001	123	- 163	300		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	123	- 163	31		FQ	#	4	
Iron	mg/L	08/21/2012	N001	123	- 163	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	123	- 163	66		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	123	- 163	0.0023	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	123	- 163	0.000086	B	FQ	#	0.000064	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	123	- 163	72		FQJ	#	0.5	
Oxidation Reduction Potential	mV	08/21/2012	N001	123	- 163	126		FQ	#		
pH	s.u.	08/21/2012	N001	123	- 163	6.6		FQ	#		
Potassium	mg/L	08/21/2012	N001	123	- 163	4.9		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	123	- 163	0.007		FQ	#	0.000065	
Silica	mg/L	08/21/2012	N001	123	- 163	13		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	123	- 163	6.1		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	123	- 163	62		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0912 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	123	- 163	1931		FQ	#		
Sulfate	mg/L	08/21/2012	N001	123	- 163	540		FQJ	#	10	
Temperature	C	08/21/2012	N001	123	- 163	18.13		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	123	- 163	1500		FQJ	#	40	
Turbidity	NTU	08/21/2012	N001	123	- 163	0.6		FQ	#		
Uranium	mg/L	08/21/2012	N001	123	- 163	0.024		FQ	#	0.0000058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0913 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	328.7 - 368.7	67		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	328.7 - 368.7	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	328.7 - 368.7	0.0024		FQ	#	0.000015	
Calcium	mg/L	08/21/2012	N001	328.7 - 368.7	24		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	328.7 - 368.7	5.6		FQ	#	0.2	
Iron	mg/L	08/21/2012	N001	328.7 - 368.7	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	328.7 - 368.7	5		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	328.7 - 368.7	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	328.7 - 368.7	0.00011		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	328.7 - 368.7	3.2		FQJ	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	328.7 - 368.7	86		FQ	#		
pH	s.u.	08/21/2012	N001	328.7 - 368.7	7.9		FQ	#		
Potassium	mg/L	08/21/2012	N001	328.7 - 368.7	1.3		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	328.7 - 368.7	0.00086		FQ	#	0.000032	
Silica	mg/L	08/21/2012	N001	328.7 - 368.7	9.6		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	328.7 - 368.7	4.5		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	328.7 - 368.7	6.1		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0913 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	328.7 - 368.7	203		FQ	#		
Sulfate	mg/L	08/21/2012	N001	328.7 - 368.7	7.6		FQJ	#	0.5	
Temperature	C	08/21/2012	N001	328.7 - 368.7	17.66		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	328.7 - 368.7	120		FQJ	#	20	
Turbidity	NTU	08/21/2012	N001	328.7 - 368.7	0.36		FQ	#		
Uranium	mg/L	08/21/2012	N001	328.7 - 368.7	0.0012		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0914 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	137.2 - 154.2	31		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	137.2 - 154.2	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	137.2 - 154.2	0.00065		FQ	#	0.000015	
Calcium	mg/L	08/22/2012	N001	137.2 - 154.2	6.1		FQ	#	0.012	
Chloride	mg/L	08/22/2012	N001	137.2 - 154.2	12		FQ	#	0.4	
Iron	mg/L	08/22/2012	N001	137.2 - 154.2	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	137.2 - 154.2	0.34	B	FQ	#	0.013	
Manganese	mg/L	08/22/2012	N001	137.2 - 154.2	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	137.2 - 154.2	0.00084		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	137.2 - 154.2	2.9		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	137.2 - 154.2	92.4		FQ	#		
pH	s.u.	08/22/2012	N001	137.2 - 154.2	9.46		FQ	#		
Potassium	mg/L	08/22/2012	N001	137.2 - 154.2	4.6		FQ	#	0.11	
Selenium	mg/L	08/22/2012	N001	137.2 - 154.2	0.0012		FQ	#	0.000032	
Silica	mg/L	08/22/2012	N001	137.2 - 154.2	30		FQ	#	0.0095	
Silicon	mg/L	08/22/2012	N001	137.2 - 154.2	14		FQ	#	0.0044	
Sodium	mg/L	08/22/2012	N001	137.2 - 154.2	17		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0914 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	137.2 - 154.2	162		FQ	#		
Sulfate	mg/L	08/22/2012	N001	137.2 - 154.2	13		FQ	#	1	
Temperature	C	08/22/2012	N001	137.2 - 154.2	17.1		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	137.2 - 154.2	120		FQ	#	20	
Turbidity	NTU	08/22/2012	N001	137.2 - 154.2	1.3		FQ	#		
Uranium	mg/L	08/22/2012	N001	137.2 - 154.2	0.000009	B	FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0915 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	170	- 180	38		FQ	#		
Ammonia Total as N	mg/L	08/23/2012	N001	170	- 180	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/23/2012	N001	170	- 180	0.000045	B	FQ	#	0.000015	
Calcium	mg/L	08/23/2012	N001	170	- 180	19		FQ	#	0.012	
Chloride	mg/L	08/23/2012	N001	170	- 180	12		FQ	#	0.4	
Iron	mg/L	08/23/2012	N001	170	- 180	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	170	- 180	0.57	B	FQ	#	0.013	
Manganese	mg/L	08/23/2012	N001	170	- 180	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	170	- 180	0.00056		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	170	- 180	3.4		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/23/2012	N001	170	- 180	100		FQ	#		
pH	s.u.	08/23/2012	N001	170	- 180	10.62		FQ	#		
Potassium	mg/L	08/23/2012	N001	170	- 180	2		FQ	#	0.11	
Selenium	mg/L	08/23/2012	N001	170	- 180	0.0018		FQ	#	0.000032	
Silica	mg/L	08/23/2012	N001	170	- 180	7.1		FQ	#	0.0095	
Silicon	mg/L	08/23/2012	N001	170	- 180	3.3		FQ	#	0.0044	
Sodium	mg/L	08/23/2012	N001	170	- 180	12		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0915 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	170	- 180	280		FQ	#		
Sulfate	mg/L	08/23/2012	N001	170	- 180	17		FQ	#	1	
Temperature	C	08/23/2012	N001	170	- 180	16.3		FQ	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	170	- 180	110		FQ	#	20	
Turbidity	NTU	08/23/2012	N001	170	- 180	1.44		FQ	#		
Uranium	mg/L	08/23/2012	N001	170	- 180	0.000004	B	FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0916 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	345.7 - 355.7	237		FQ	#		
Ammonia Total as N	mg/L	08/22/2012	N001	345.7 - 355.7	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/22/2012	N001	345.7 - 355.7	0.00021		FQ	#	0.000015	
Calcium	mg/L	08/22/2012	N001	345.7 - 355.7	88		FQ	#	0.012	
Chloride	mg/L	08/22/2012	N001	345.7 - 355.7	7.1		FQ	#	0.2	
Iron	mg/L	08/22/2012	N001	345.7 - 355.7	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	345.7 - 355.7	0.064	B	FQ	#	0.013	
Manganese	mg/L	08/22/2012	N001	345.7 - 355.7	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	345.7 - 355.7	0.00099		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	345.7 - 355.7	2		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	345.7 - 355.7	22.8		FQ	#		
pH	s.u.	08/22/2012	N001	345.7 - 355.7	11.21		FQ	#		
Potassium	mg/L	08/22/2012	N001	345.7 - 355.7	5.7		FQ	#	0.11	
Selenium	mg/L	08/22/2012	N001	345.7 - 355.7	0.00079		FQ	#	0.000032	
Silica	mg/L	08/22/2012	N001	345.7 - 355.7	15		FQ	#	0.0095	
Silicon	mg/L	08/22/2012	N001	345.7 - 355.7	6.9		FQ	#	0.0044	
Sodium	mg/L	08/22/2012	N001	345.7 - 355.7	16		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0916 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	345.7 - 355.7	1171		FQ	#		
Sulfate	mg/L	08/22/2012	N001	345.7 - 355.7	8.6		FQ	#	0.5	
Temperature	C	08/22/2012	N001	345.7 - 355.7	17.1		FQ	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	345.7 - 355.7	300		FQ	#	20	
Turbidity	NTU	08/22/2012	N001	345.7 - 355.7	0.47		FQ	#		
Uranium	mg/L	08/22/2012	N001	345.7 - 355.7	0.000016		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0920 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	114.4 - 154.4	100		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	114.4 - 154.4	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	114.4 - 154.4	0.0022		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	114.4 - 154.4	33		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	114.4 - 154.4	9.3		F	#	0.4	
Iron	mg/L	08/22/2012	N001	114.4 - 154.4	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	114.4 - 154.4	7.1		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	114.4 - 154.4	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	114.4 - 154.4	0.00024		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	114.4 - 154.4	3.7		F	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	114.4 - 154.4	159		F	#		
pH	s.u.	08/22/2012	N001	114.4 - 154.4	8.08		F	#		
Potassium	mg/L	08/22/2012	N001	114.4 - 154.4	1.3		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	114.4 - 154.4	0.0012		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	114.4 - 154.4	11		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	114.4 - 154.4	5		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	114.4 - 154.4	6.9		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0920 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	114.4 - 154.4	253		F	#		
Sulfate	mg/L	08/22/2012	N001	114.4 - 154.4	13		F	#	1	
Temperature	C	08/22/2012	N001	114.4 - 154.4	19.92		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	114.4 - 154.4	150		F	#	20	
Turbidity	NTU	08/22/2012	N001	114.4 - 154.4	1.17		F	#		
Uranium	mg/L	08/22/2012	N001	114.4 - 154.4	0.0013		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0921 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	313.2 - 353.2	69		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	313.2 - 353.2	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	313.2 - 353.2	0.0003		F	#	0.000015	
Calcium	mg/L	08/21/2012	N001	313.2 - 353.2	24		F	#	0.012	
Chloride	mg/L	08/21/2012	N001	313.2 - 353.2	6.4		F	#	0.2	
Iron	mg/L	08/21/2012	N001	313.2 - 353.2	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	313.2 - 353.2	3.7		F	#	0.013	
Manganese	mg/L	08/21/2012	N001	313.2 - 353.2	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	313.2 - 353.2	0.00018		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	313.2 - 353.2	2.9		FJ	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	313.2 - 353.2	107.7		F	#		
pH	s.u.	08/21/2012	N001	313.2 - 353.2	7.97		F	#		
Potassium	mg/L	08/21/2012	N001	313.2 - 353.2	4.5		F	#	0.11	
Selenium	mg/L	08/21/2012	N001	313.2 - 353.2	0.00096		F	#	0.000032	
Silica	mg/L	08/21/2012	N001	313.2 - 353.2	8.8		F	#	0.0095	
Silicon	mg/L	08/21/2012	N001	313.2 - 353.2	4.1		F	#	0.0044	
Sodium	mg/L	08/21/2012	N001	313.2 - 353.2	7.9		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0921 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	313.2 - 353.2	215		F	#		
Sulfate	mg/L	08/21/2012	N001	313.2 - 353.2	8.3		FJ	#	0.5	
Temperature	C	08/21/2012	N001	313.2 - 353.2	17.42		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	313.2 - 353.2	130		FJ	#	20	
Turbidity	NTU	08/21/2012	N001	313.2 - 353.2	2.15		F	#		
Uranium	mg/L	08/21/2012	N001	313.2 - 353.2	0.0043		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0929 WELL No Log Information.

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	48.2	- 88.2	78		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	48.2	- 88.2	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	48.2	- 88.2	0.0016		FQ	#	0.000015	
Calcium	mg/L	08/21/2012	N001	48.2	- 88.2	49		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	48.2	- 88.2	16		FQ	#	0.4	
Iron	mg/L	08/21/2012	N001	48.2	- 88.2	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	48.2	- 88.2	8.2		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	48.2	- 88.2	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	48.2	- 88.2	0.00028		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	48.2	- 88.2	15		FQJ	#	0.1	
Oxidation Reduction Potential	mV	08/21/2012	N001	48.2	- 88.2	120.8		FQ	#		
pH	s.u.	08/21/2012	N001	48.2	- 88.2	7.46		FQ	#		
Potassium	mg/L	08/21/2012	N001	48.2	- 88.2	1.5		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	48.2	- 88.2	0.0022		FQ	#	0.000032	
Silica	mg/L	08/21/2012	N001	48.2	- 88.2	12		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	48.2	- 88.2	5.4		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	48.2	- 88.2	9.9		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0929 WELL No Log Information.

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	48.2	- 88.2	393		FQ	#		
Sulfate	mg/L	08/21/2012	N001	48.2	- 88.2	23		FQJ	#	1	
Temperature	C	08/21/2012	N001	48.2	- 88.2	17.75		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	48.2	- 88.2	240		FQJ	#	20	
Turbidity	NTU	08/21/2012	N001	48.2	- 88.2	1.1		FQ	#		
Uranium	mg/L	08/21/2012	N001	48.2	- 88.2	0.0014		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0930 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	20	- 50	103		F	#		
Ammonia Total as N	mg/L	08/23/2012	N001	20	- 50	0.1	U	F	#	0.1	
Arsenic	mg/L	08/23/2012	N001	20	- 50	0.0013		F	#	0.000015	
Calcium	mg/L	08/23/2012	N001	20	- 50	85		F	#	0.012	
Chloride	mg/L	08/23/2012	N001	20	- 50	29		F	#	1	
Iron	mg/L	08/23/2012	N001	20	- 50	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	20	- 50	18		F	#	0.013	
Manganese	mg/L	08/23/2012	N001	20	- 50	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	20	- 50	0.00016		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	20	- 50	23		F	#	0.2	
Oxidation Reduction Potential	mV	08/23/2012	N001	20	- 50	157.2		F	#		
pH	s.u.	08/23/2012	N001	20	- 50	7.8		F	#		
Potassium	mg/L	08/23/2012	N001	20	- 50	2.1		F	#	0.11	
Selenium	mg/L	08/23/2012	N001	20	- 50	0.0022		F	#	0.000032	
Silica	mg/L	08/23/2012	N001	20	- 50	12		F	#	0.0095	
Silicon	mg/L	08/23/2012	N001	20	- 50	5.6		F	#	0.0044	
Sodium	mg/L	08/23/2012	N001	20	- 50	12		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0930 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	20	- 50	636		F	#		
Sulfate	mg/L	08/23/2012	N001	20	- 50	110		F	#	2.5	
Temperature	C	08/23/2012	N001	20	- 50	17.35		F	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	20	- 50	450		F	#	20	
Turbidity	NTU	08/23/2012	N001	20	- 50	0.79		F	#		
Uranium	mg/L	08/23/2012	N001	20	- 50	0.0042		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0932 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	112.5 - 132.5	84		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	112.5 - 132.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	112.5 - 132.5	0.0016		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	112.5 - 132.5	44		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	112.5 - 132.5	12		F	#	0.4	
Iron	mg/L	08/22/2012	N001	112.5 - 132.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	112.5 - 132.5	8.7		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	112.5 - 132.5	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	112.5 - 132.5	0.00037		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	112.5 - 132.5	7.2		F	#	0.05	
Oxidation Reduction Potential	mV	08/22/2012	N001	112.5 - 132.5	145.4		F	#		
pH	s.u.	08/22/2012	N001	112.5 - 132.5	7.46		F	#		
Potassium	mg/L	08/22/2012	N001	112.5 - 132.5	1.4		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	112.5 - 132.5	0.0015		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	112.5 - 132.5	11		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	112.5 - 132.5	5.3		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	112.5 - 132.5	10		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0932 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	112.5 - 132.5	352		F	#		
Sulfate	mg/L	08/22/2012	N001	112.5 - 132.5	29		F	#	1	
Temperature	C	08/22/2012	N001	112.5 - 132.5	17.45		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	112.5 - 132.5	220		F	#	20	
Turbidity	NTU	08/22/2012	N001	112.5 - 132.5	0.49		F	#		
Uranium	mg/L	08/22/2012	N001	112.5 - 132.5	0.002		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0934 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	45	- 90	568		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	45	- 90	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	45	- 90	0.00078		FQ	#	0.000074	
Calcium	mg/L	08/21/2012	N001	45	- 90	720		FQ	#	0.06	
Chloride	mg/L	08/21/2012	N001	45	- 90	230		FQ	#	10	
Iron	mg/L	08/21/2012	N001	45	- 90	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	45	- 90	700		FQ	#	0.065	
Manganese	mg/L	08/21/2012	N001	45	- 90	0.0049	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	45	- 90	0.00052	B	FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	45	- 90	390		FQJ	#	2	
Oxidation Reduction Potential	mV	08/21/2012	N001	45	- 90	167.4		FQ	#		
pH	s.u.	08/21/2012	N001	45	- 90	6.43		FQ	#		
Potassium	mg/L	08/21/2012	N001	45	- 90	9.5		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	45	- 90	0.01		FQ	#	0.00032	
Silica	mg/L	08/21/2012	N001	45	- 90	16		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	45	- 90	7.6		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	45	- 90	130		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0934 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	45	- 90	6844		FQ	#		
Sulfate	mg/L	08/21/2012	N001	45	- 90	2600		FQJ	#	25	
Temperature	C	08/21/2012	N001	45	- 90	17.95		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	45	- 90	7000		FQJ	#	200	
Turbidity	NTU	08/21/2012	N001	45	- 90	2.01		FQ	#		
Uranium	mg/L	08/21/2012	N001	45	- 90	0.13		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0935 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	50	- 90	634			#		
Ammonia Total as N	mg/L	08/22/2012	N001	50	- 90	2.3			#	0.1	
Arsenic	mg/L	08/22/2012	N001	50	- 90	0.0032			#	0.00015	
Calcium	mg/L	08/22/2012	N001	50	- 90	690			#	0.06	
Chloride	mg/L	08/22/2012	N001	50	- 90	92			#	10	
Iron	mg/L	08/22/2012	N001	50	- 90	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	50	- 90	320			#	0.065	
Manganese	mg/L	08/22/2012	N001	50	- 90	0.49			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	50	- 90	0.0011			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	50	- 90	180			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	50	- 90	175			#		
pH	s.u.	08/22/2012	N001	50	- 90	6.51			#		
Potassium	mg/L	08/22/2012	N001	50	- 90	17			#	0.54	
Selenium	mg/L	08/22/2012	N001	50	- 90	0.0075			#	0.00032	
Silica	mg/L	08/22/2012	N001	50	- 90	20			#	0.047	
Silicon	mg/L	08/22/2012	N001	50	- 90	9.3			#	0.022	
Sodium	mg/L	08/22/2012	N001	50	- 90	320			#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0935 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	50	- 90	5680			#		
Sulfate	mg/L	08/22/2012	N001	50	- 90	2500			#	25	
Temperature	C	08/22/2012	N001	50	- 90	23.5			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	50	- 90	5300			#	200	
Turbidity	NTU	08/22/2012	N001	50	- 90	4.82			#		
Uranium	mg/L	08/22/2012	N001	50	- 90	0.12			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0940 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	45	- 60	806		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	45	- 60	42		FQJ	#	2	
Arsenic	mg/L	08/21/2012	N001	45	- 60	0.0025		FQ	#	0.00015	
Calcium	mg/L	08/21/2012	N001	45	- 60	480		FQ	#	0.06	
Chloride	mg/L	08/21/2012	N001	45	- 60	170		FQ	#	20	
Iron	mg/L	08/21/2012	N001	45	- 60	0.025	U	FQ	#	0.025	
Magnesium	mg/L	08/21/2012	N001	45	- 60	1700		FQ	#	0.065	
Manganese	mg/L	08/21/2012	N001	45	- 60	22		FQ	#	0.00057	
Molybdenum	mg/L	08/21/2012	N001	45	- 60	0.0012		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	45	- 60	420		FQJ	#	4	
Oxidation Reduction Potential	mV	08/21/2012	N001	45	- 60	30		FQ	#		
pH	s.u.	08/21/2012	N001	45	- 60	6.58		FQ	#		
Potassium	mg/L	08/21/2012	N001	45	- 60	30		FQ	#	0.54	
Selenium	mg/L	08/21/2012	N001	45	- 60	0.07		FQ	#	0.00032	
Silica	mg/L	08/21/2012	N001	45	- 60	15		FQ	#	0.047	
Silicon	mg/L	08/21/2012	N001	45	- 60	7.2		FQ	#	0.022	
Sodium	mg/L	08/21/2012	N001	45	- 60	390		FQ	#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0940 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	45	- 60	11065		FQ	#		
Sulfate	mg/L	08/21/2012	N001	45	- 60	7000		FQJ	#	50	
Temperature	C	08/21/2012	N001	45	- 60	19.21		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	45	- 60	13000		FQJ	#	200	
Turbidity	NTU	08/21/2012	N001	45	- 60	3.86		FQ	#		
Uranium	mg/L	08/21/2012	N001	45	- 60	0.49		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0941 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	45	- 65	625		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	45	- 65	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	45	- 65	0.0018		FQ	#	0.00015	
Calcium	mg/L	08/21/2012	N001	45	- 65	960		FQ	#	0.06	
Chloride	mg/L	08/21/2012	N001	45	- 65	200		FQ	#	10	
Iron	mg/L	08/21/2012	N001	45	- 65	0.025	U	FQ	#	0.025	
Magnesium	mg/L	08/21/2012	N001	45	- 65	150		FQ	#	0.065	
Manganese	mg/L	08/21/2012	N001	45	- 65	0.12		FQ	#	0.00057	
Molybdenum	mg/L	08/21/2012	N001	45	- 65	0.032		FQ	#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	45	- 65	280		FQJ	#	2	
Oxidation Reduction Potential	mV	08/21/2012	N001	45	- 65	80		FQ	#		
pH	s.u.	08/21/2012	N001	45	- 65	6.69		FQ	#		
Potassium	mg/L	08/21/2012	N001	45	- 65	5.5		FQ	#	0.54	
Selenium	mg/L	08/21/2012	N001	45	- 65	0.098		FQ	#	0.00032	
Silica	mg/L	08/21/2012	N001	45	- 65	17		FQ	#	0.047	
Silicon	mg/L	08/21/2012	N001	45	- 65	8		FQ	#	0.022	
Sodium	mg/L	08/21/2012	N001	45	- 65	190		FQ	#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0941 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	45 - 65	4943		FQ	#		
Sulfate	mg/L	08/21/2012	N001	45 - 65	1600		FQJ	#	25	
Temperature	C	08/21/2012	N001	45 - 65	19.97		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	45 - 65	5100		FQJ	#	200	
Turbidity	NTU	08/21/2012	N001	45 - 65	6.9		FQ	#		
Uranium	mg/L	08/21/2012	N001	45 - 65	0.21		FQ	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0943 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/20/2012	N001	101	- 121	44		F	#		
Ammonia Total as N	mg/L	08/20/2012	N001	101	- 121	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/20/2012	N001	101	- 121	0.0046		F	#	0.000015	
Calcium	mg/L	08/20/2012	N001	101	- 121	9.9		F	#	0.012	
Chloride	mg/L	08/20/2012	N001	101	- 121	1.7		F	#	0.2	
Iron	mg/L	08/20/2012	N001	101	- 121	0.01	B	UF	#	0.0049	
Magnesium	mg/L	08/20/2012	N001	101	- 121	2.2		F	#	0.013	
Manganese	mg/L	08/20/2012	N001	101	- 121	0.031		F	#	0.00011	
Molybdenum	mg/L	08/20/2012	N001	101	- 121	0.00046		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/20/2012	N001	101	- 121	2.3		FJ	#	0.02	
Oxidation Reduction Potential	mV	08/20/2012	N001	101	- 121	155		F	#		
pH	s.u.	08/20/2012	N001	101	- 121	6.76		F	#		
Potassium	mg/L	08/20/2012	N001	101	- 121	0.85	B	F	#	0.11	
Selenium	mg/L	08/20/2012	N001	101	- 121	0.0003		F	#	0.000032	
Silica	mg/L	08/20/2012	N001	101	- 121	15		F	#	0.0095	
Silicon	mg/L	08/20/2012	N001	101	- 121	7.1		F	#	0.0044	
Sodium	mg/L	08/20/2012	N001	101	- 121	13		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0943 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/20/2012	N001	101	- 121	150		F	#		
Sulfate	mg/L	08/20/2012	N001	101	- 121	22		FJ	#	0.5	
Temperature	C	08/20/2012	N001	101	- 121	19.92		F	#		
Total Dissolved Solids	mg/L	08/20/2012	N001	101	- 121	91		FJ	#	20	
Turbidity	NTU	08/20/2012	N001	101	- 121	2.34		F	#		
Uranium	mg/L	08/20/2012	N001	101	- 121	0.0053		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0945 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	110	- 130	62		FQ	#		
Ammonia Total as N	mg/L	08/21/2012	N001	110	- 130	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	110	- 130	0.0022		FQ	#	0.000015	
Calcium	mg/L	08/21/2012	N001	110	- 130	47		FQ	#	0.012	
Chloride	mg/L	08/21/2012	N001	110	- 130	39		FQ	#	1	
Iron	mg/L	08/21/2012	N001	110	- 130	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	110	- 130	9.3		FQ	#	0.013	
Manganese	mg/L	08/21/2012	N001	110	- 130	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	110	- 130	0.0006		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	110	- 130	5.3		FQJ	#	0.05	
Oxidation Reduction Potential	mV	08/21/2012	N001	110	- 130	55		FQ	#		
pH	s.u.	08/21/2012	N001	110	- 130	7.71		FQ	#		
Potassium	mg/L	08/21/2012	N001	110	- 130	1.4		FQ	#	0.11	
Selenium	mg/L	08/21/2012	N001	110	- 130	0.0036		FQ	#	0.000032	
Silica	mg/L	08/21/2012	N001	110	- 130	11		FQ	#	0.0095	
Silicon	mg/L	08/21/2012	N001	110	- 130	5.3		FQ	#	0.0044	
Sodium	mg/L	08/21/2012	N001	110	- 130	13		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0945 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	110	- 130	410		FQ	#		
Sulfate	mg/L	08/21/2012	N001	110	- 130	40		FQJ	#	1	
Temperature	C	08/21/2012	N001	110	- 130	17.08		FQ	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	110	- 130	230		FQJ	#	20	
Turbidity	NTU	08/21/2012	N001	110	- 130	1.48		FQ	#		
Uranium	mg/L	08/21/2012	N001	110	- 130	0.0013		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0946 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	40	- 60	46		F	#		
Ammonia Total as N	mg/L	08/21/2012	N001	40	- 60	0.1	U	FJ	#	0.1	
Arsenic	mg/L	08/21/2012	N001	40	- 60	0.01		F	#	0.000015	
Calcium	mg/L	08/21/2012	N001	40	- 60	20		F	#	0.012	
Chloride	mg/L	08/21/2012	N001	40	- 60	10		F	#	0.2	
Iron	mg/L	08/21/2012	N001	40	- 60	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	40	- 60	3.6		F	#	0.013	
Manganese	mg/L	08/21/2012	N001	40	- 60	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	40	- 60	0.0013		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	40	- 60	2.6		FJ	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	40	- 60	45		F	#		
pH	s.u.	08/21/2012	N001	40	- 60	8.08		F	#		
Potassium	mg/L	08/21/2012	N001	40	- 60	0.89	B	F	#	0.11	
Selenium	mg/L	08/21/2012	N001	40	- 60	0.001		F	#	0.000032	
Silica	mg/L	08/21/2012	N001	40	- 60	12		F	#	0.0095	
Silicon	mg/L	08/21/2012	N001	40	- 60	5.5		F	#	0.0044	
Sodium	mg/L	08/21/2012	N001	40	- 60	20		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0946 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/21/2012	N001	40	- 60	251		F	#		
Sulfate	mg/L	08/21/2012	N001	40	- 60	40	N	FJ	#	0.5	
Temperature	C	08/21/2012	N001	40	- 60	22.06		F	#		
Total Dissolved Solids	mg/L	08/21/2012	N001	40	- 60	150		FJ	#	20	
Turbidity	NTU	08/21/2012	N001	40	- 60	1.55		F	#		
Uranium	mg/L	08/21/2012	N001	40	- 60	0.00015		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0947 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/20/2012	N001	105	- 125	127		FQ	#		
Ammonia Total as N	mg/L	08/20/2012	N001	105	- 125	0.1	U	FQJ	#	0.1	
Arsenic	mg/L	08/20/2012	N001	105	- 125	0.0029		FQ	#	0.000015	
Calcium	mg/L	08/20/2012	N001	105	- 125	35		FQ	#	0.012	
Chloride	mg/L	08/20/2012	N001	105	- 125	12		FQ	#	0.4	
Iron	mg/L	08/20/2012	N001	105	- 125	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/20/2012	N001	105	- 125	7.2		FQ	#	0.013	
Manganese	mg/L	08/20/2012	N001	105	- 125	0.00011	U	FQ	#	0.00011	
Molybdenum	mg/L	08/20/2012	N001	105	- 125	0.00045		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/20/2012	N001	105	- 125	3.5		FQJ	#	0.02	
Oxidation Reduction Potential	mV	08/20/2012	N001	105	- 125	121.9		FQ	#		
pH	s.u.	08/20/2012	N001	105	- 125	7.45		FQ	#		
Potassium	mg/L	08/20/2012	N001	105	- 125	1		FQ	#	0.11	
Selenium	mg/L	08/20/2012	N001	105	- 125	0.0017		FQ	#	0.000032	
Silica	mg/L	08/20/2012	N001	105	- 125	11		FQ	#	0.0095	
Silicon	mg/L	08/20/2012	N001	105	- 125	5.3		FQ	#	0.0044	
Sodium	mg/L	08/20/2012	N001	105	- 125	9.2		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0947 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/20/2012	N001	105	- 125	280		FQ	#		
Sulfate	mg/L	08/20/2012	N001	105	- 125	17		FQJ	#	1	
Temperature	C	08/20/2012	N001	105	- 125	16.92		FQ	#		
Total Dissolved Solids	mg/L	08/20/2012	N001	105	- 125	160		FQJ	#	20	
Turbidity	NTU	08/20/2012	N001	105	- 125	0.79		FQ	#		
Uranium	mg/L	08/20/2012	N001	105	- 125	0.0011		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1003 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	55.5	- 105.5	211		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	55.5	- 105.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	55.5	- 105.5	0.0013		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	55.5	- 105.5	300		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	55.5	- 105.5	59		F	#	4	
Iron	mg/L	08/22/2012	N001	55.5	- 105.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	55.5	- 105.5	45		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	55.5	- 105.5	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	55.5	- 105.5	0.00013		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	55.5	- 105.5	69		F	#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	55.5	- 105.5	151.6		F	#		
pH	s.u.	08/22/2012	N001	55.5	- 105.5	7.25		F	#		
Potassium	mg/L	08/22/2012	N001	55.5	- 105.5	3.7		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	55.5	- 105.5	0.0037		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	55.5	- 105.5	13		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	55.5	- 105.5	6.1		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	55.5	- 105.5	34		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1003 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	55.5	- 105.5	1744		F	#		
Sulfate	mg/L	08/22/2012	N001	55.5	- 105.5	530		F	#	10	
Temperature	C	08/22/2012	N001	55.5	- 105.5	18.5		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	55.5	- 105.5	1400		F	#	40	
Turbidity	NTU	08/22/2012	N001	55.5	- 105.5	1.92		F	#		
Uranium	mg/L	08/22/2012	N001	55.5	- 105.5	0.037		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1004 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	45.5	- 95.5	130		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	45.5	- 95.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	45.5	- 95.5	0.0025		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	45.5	- 95.5	48		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	45.5	- 95.5	14		F	#	0.4	
Iron	mg/L	08/22/2012	N001	45.5	- 95.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	45.5	- 95.5	8.8		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	45.5	- 95.5	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	45.5	- 95.5	0.00034		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	45.5	- 95.5	6.8		F	#	0.05	
Oxidation Reduction Potential	mV	08/22/2012	N001	45.5	- 95.5	169.5		F	#		
pH	s.u.	08/22/2012	N001	45.5	- 95.5	7.7		F	#		
Potassium	mg/L	08/22/2012	N001	45.5	- 95.5	1.1		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	45.5	- 95.5	0.0016		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	45.5	- 95.5	12		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	45.5	- 95.5	5.5		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	45.5	- 95.5	11		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1004 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	45.5	- 95.5	363		F	#		
Sulfate	mg/L	08/22/2012	N001	45.5	- 95.5	39		F	#	1	
Temperature	C	08/22/2012	N001	45.5	- 95.5	18.3		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	45.5	- 95.5	230		F	#	20	
Turbidity	NTU	08/22/2012	N001	45.5	- 95.5	0.73		F	#		
Uranium	mg/L	08/22/2012	N001	45.5	- 95.5	0.004		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1006 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	45.74 - 95.74	88		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	45.74 - 95.74	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	45.74 - 95.74	0.0017		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	45.74 - 95.74	27		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	45.74 - 95.74	9.1		F	#	0.2	
Iron	mg/L	08/22/2012	N001	45.74 - 95.74	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	45.74 - 95.74	7.1		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	45.74 - 95.74	0.00011	U	F	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	45.74 - 95.74	0.00028		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	45.74 - 95.74	3.2		F	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	45.74 - 95.74	162.8		F	#		
pH	s.u.	08/22/2012	N001	45.74 - 95.74	8.16		F	#		
Potassium	mg/L	08/22/2012	N001	45.74 - 95.74	1.8		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	45.74 - 95.74	0.0012		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	45.74 - 95.74	11		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	45.74 - 95.74	5.3		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	45.74 - 95.74	7.3		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1006 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	45.74 - 95.74	232		F	#		
Sulfate	mg/L	08/22/2012	N001	45.74 - 95.74	12		F	#	0.5	
Temperature	C	08/22/2012	N001	45.74 - 95.74	20.59		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	45.74 - 95.74	150		F	#	20	
Turbidity	NTU	08/22/2012	N001	45.74 - 95.74	0.58		F	#		
Uranium	mg/L	08/22/2012	N001	45.74 - 95.74	0.0013		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1007 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	45.79 - 95.99	97		F	#		
Ammonia Total as N	mg/L	08/22/2012	N001	45.79 - 95.99	0.1	U	F	#	0.1	
Arsenic	mg/L	08/22/2012	N001	45.79 - 95.99	0.0019		F	#	0.000015	
Calcium	mg/L	08/22/2012	N001	45.79 - 95.99	29		F	#	0.012	
Chloride	mg/L	08/22/2012	N001	45.79 - 95.99	8.9		F	#	0.4	
Iron	mg/L	08/22/2012	N001	45.79 - 95.99	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	45.79 - 95.99	7.1		F	#	0.013	
Manganese	mg/L	08/22/2012	N001	45.79 - 95.99	0.00019	B	UF	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	45.79 - 95.99	0.00025		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	45.79 - 95.99	3.5		F	#	0.02	
Oxidation Reduction Potential	mV	08/22/2012	N001	45.79 - 95.99	151.6		F	#		
pH	s.u.	08/22/2012	N001	45.79 - 95.99	8.11		F	#		
Potassium	mg/L	08/22/2012	N001	45.79 - 95.99	1.4		F	#	0.11	
Selenium	mg/L	08/22/2012	N001	45.79 - 95.99	0.0012		F	#	0.000032	
Silica	mg/L	08/22/2012	N001	45.79 - 95.99	12		F	#	0.0095	
Silicon	mg/L	08/22/2012	N001	45.79 - 95.99	5.6		F	#	0.0044	
Sodium	mg/L	08/22/2012	N001	45.79 - 95.99	6.2		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1007 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	45.79 - 95.99	237		F	#		
Sulfate	mg/L	08/22/2012	N001	45.79 - 95.99	12		F	#	1	
Temperature	C	08/22/2012	N001	45.79 - 95.99	17.69		F	#		
Total Dissolved Solids	mg/L	08/22/2012	N001	45.79 - 95.99	140		F	#	20	
Uranium	mg/L	08/22/2012	N001	45.79 - 95.99	0.0013		F	#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1101 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	96.15 - 251.5	334			#		
Ammonia Total as N	mg/L	08/22/2012	N001	96.15 - 251.5	0.1	U		#	0.1	
Arsenic	mg/L	08/22/2012	N001	96.15 - 251.5	0.0025			#	0.00015	
Calcium	mg/L	08/22/2012	N001	96.15 - 251.5	460			#	0.06	
Chloride	mg/L	08/22/2012	N001	96.15 - 251.5	140			#	10	
Iron	mg/L	08/22/2012	N001	96.15 - 251.5	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	96.15 - 251.5	120			#	0.065	
Manganese	mg/L	08/22/2012	N001	96.15 - 251.5	4.3			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	96.15 - 251.5	0.0024			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	96.15 - 251.5	74			#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	96.15 - 251.5	210			#		
pH	s.u.	08/22/2012	N001	96.15 - 251.5	6.69			#		
Potassium	mg/L	08/22/2012	N001	96.15 - 251.5	6.7			#	0.54	
Selenium	mg/L	08/22/2012	N001	96.15 - 251.5	0.0092			#	0.00032	
Silica	mg/L	08/22/2012	N001	96.15 - 251.5	16			#	0.047	
Silicon	mg/L	08/22/2012	N001	96.15 - 251.5	7.3			#	0.022	
Sodium	mg/L	08/22/2012	N001	96.15 - 251.5	250			#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1101 WELL

Parameter	Units	Sample		Depth Range (Ft BLS)	Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID			Lab	Data	QA		
Specific Conductance	umhos/cm	08/22/2012	N001	96.15 - 251.5	3650			#		
Sulfate	mg/L	08/22/2012	N001	96.15 - 251.5	1400			#	25	
Temperature	C	08/22/2012	N001	96.15 - 251.5	17.6			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	96.15 - 251.5	3100			#	80	
Turbidity	NTU	08/22/2012	N001	96.15 - 251.5	2.71			#		
Uranium	mg/L	08/22/2012	N001	96.15 - 251.5	0.27			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1103 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	100	- 250	950			#		
Ammonia Total as N	mg/L	08/22/2012	N001	100	- 250	32			#	2	
Ammonia Total as N	mg/L	08/22/2012	N002	100	- 250	32			#	2	
Arsenic	mg/L	08/22/2012	N001	100	- 250	0.0015			#	0.00015	
Arsenic	mg/L	08/22/2012	N002	100	- 250	0.0018			#	0.000015	
Calcium	mg/L	08/22/2012	N001	100	- 250	590			#	0.06	
Calcium	mg/L	08/22/2012	N002	100	- 250	620			#	0.06	
Chloride	mg/L	08/22/2012	N001	100	- 250	130			#	10	
Chloride	mg/L	08/22/2012	N002	100	- 250	130			#	10	
Iron	mg/L	08/22/2012	N001	100	- 250	0.025	U		#	0.025	
Iron	mg/L	08/22/2012	N002	100	- 250	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	100	- 250	250			#	0.065	
Magnesium	mg/L	08/22/2012	N002	100	- 250	260			#	0.065	
Manganese	mg/L	08/22/2012	N001	100	- 250	3.8			#	0.00057	
Manganese	mg/L	08/22/2012	N002	100	- 250	4			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	100	- 250	0.0057			#	0.00032	
Molybdenum	mg/L	08/22/2012	N002	100	- 250	0.0058			#	0.000032	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1103 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	100 - 250	180			#	1	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N002	100 - 250	180			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	100 - 250	170			#		
pH	s.u.	08/22/2012	N001	100 - 250	6.49			#		
Potassium	mg/L	08/22/2012	N001	100 - 250	14			#	0.54	
Potassium	mg/L	08/22/2012	N002	100 - 250	14			#	0.54	
Selenium	mg/L	08/22/2012	N001	100 - 250	0.032			#	0.00032	
Selenium	mg/L	08/22/2012	N002	100 - 250	0.036			#	0.000032	
Silica	mg/L	08/22/2012	N001	100 - 250	15			#	0.047	
Silica	mg/L	08/22/2012	N002	100 - 250	16			#	0.047	
Silicon	mg/L	08/22/2012	N001	100 - 250	7.2			#	0.022	
Silicon	mg/L	08/22/2012	N002	100 - 250	7.4			#	0.022	
Sodium	mg/L	08/22/2012	N001	100 - 250	340			#	0.033	
Sodium	mg/L	08/22/2012	N002	100 - 250	350			#	0.033	
Specific Conductance	umhos/cm	08/22/2012	N001	100 - 250	5330			#		
Sulfate	mg/L	08/22/2012	N001	100 - 250	2200			#	25	
Sulfate	mg/L	08/22/2012	N002	100 - 250	2100			#	25	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1103 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	08/22/2012	N001	100 - 250	17.1			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	100 - 250	4800			#	200	
Total Dissolved Solids	mg/L	08/22/2012	N002	100 - 250	4800			#	200	
Turbidity	NTU	08/22/2012	N001	100 - 250	1.76			#		
Uranium	mg/L	08/22/2012	N001	100 - 250	0.39			#	0.000029	
Uranium	mg/L	08/22/2012	N002	100 - 250	0.4			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1104 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	90	- 245	566			#		
Ammonia Total as N	mg/L	08/22/2012	N001	90	- 245	24			#	1	
Arsenic	mg/L	08/22/2012	N001	90	- 245	0.0029			#	0.000074	
Calcium	mg/L	08/22/2012	N001	90	- 245	650			#	0.06	
Chloride	mg/L	08/22/2012	N001	90	- 245	140			#	10	
Iron	mg/L	08/22/2012	N001	90	- 245	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	90	- 245	270			#	0.065	
Manganese	mg/L	08/22/2012	N001	90	- 245	1.5			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	90	- 245	0.038			#	0.0016	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	90	- 245	180			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	90	- 245	60			#		
pH	s.u.	08/22/2012	N001	90	- 245	6.67			#		
Potassium	mg/L	08/22/2012	N001	90	- 245	15			#	0.54	
Selenium	mg/L	08/22/2012	N001	90	- 245	0.045			#	0.0016	
Silica	mg/L	08/22/2012	N001	90	- 245	16			#	0.047	
Silicon	mg/L	08/22/2012	N001	90	- 245	7.6			#	0.022	
Sodium	mg/L	08/22/2012	N001	90	- 245	410			#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1104 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	90	- 245	5855			#		
Sulfate	mg/L	08/22/2012	N001	90	- 245	2500			#	25	
Temperature	C	08/22/2012	N001	90	- 245	17.4			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	90	- 245	5200			#	200	
Turbidity	NTU	08/22/2012	N001	90	- 245	1.44			#		
Uranium	mg/L	08/22/2012	N001	90	- 245	1.1			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1105 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	90	- 245	414			#		
Ammonia Total as N	mg/L	08/22/2012	N001	90	- 245	8.2			#	0.5	
Arsenic	mg/L	08/22/2012	N001	90	- 245	0.31			#	0.003	
Calcium	mg/L	08/22/2012	N001	90	- 245	490			#	0.06	
Chloride	mg/L	08/22/2012	N001	90	- 245	94			#	10	
Iron	mg/L	08/22/2012	N001	90	- 245	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	90	- 245	140			#	0.065	
Manganese	mg/L	08/22/2012	N001	90	- 245	0.11			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	90	- 245	0.51			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	90	- 245	140			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	90	- 245	75			#		
pH	s.u.	08/22/2012	N001	90	- 245	6.7			#		
Potassium	mg/L	08/22/2012	N001	90	- 245	6.1			#	0.54	
Selenium	mg/L	08/22/2012	N001	90	- 245	0.042			#	0.0065	
Silica	mg/L	08/22/2012	N001	90	- 245	14			#	0.047	
Silicon	mg/L	08/22/2012	N001	90	- 245	6.7			#	0.022	
Sodium	mg/L	08/22/2012	N001	90	- 245	260			#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1105 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	90	- 245	3910			#		
Sulfate	mg/L	08/22/2012	N001	90	- 245	1400			#	25	
Temperature	C	08/22/2012	N001	90	- 245	17.4			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	90	- 245	3500			#	200	
Turbidity	NTU	08/22/2012	N001	90	- 245	3.65			#		
Uranium	mg/L	08/22/2012	N001	90	- 245	1.1			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1106 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	96.5	- 251.1	390			#		
Ammonia Total as N	mg/L	08/22/2012	N001	96.5	- 251.1	37			#	2	
Arsenic	mg/L	08/22/2012	N001	96.5	- 251.1	0.24			#	0.003	
Calcium	mg/L	08/22/2012	N001	96.5	- 251.1	400			#	0.06	
Chloride	mg/L	08/22/2012	N001	96.5	- 251.1	100			#	10	
Iron	mg/L	08/22/2012	N001	96.5	- 251.1	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	96.5	- 251.1	110			#	0.065	
Manganese	mg/L	08/22/2012	N001	96.5	- 251.1	0.07			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	96.5	- 251.1	0.11			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	96.5	- 251.1	110			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	96.5	- 251.1	55			#		
pH	s.u.	08/22/2012	N001	96.5	- 251.1	6.97			#		
Potassium	mg/L	08/22/2012	N001	96.5	- 251.1	9.7			#	0.54	
Selenium	mg/L	08/22/2012	N001	96.5	- 251.1	0.043			#	0.0065	
Silica	mg/L	08/22/2012	N001	96.5	- 251.1	16			#	0.047	
Silicon	mg/L	08/22/2012	N001	96.5	- 251.1	7.4			#	0.022	
Sodium	mg/L	08/22/2012	N001	96.5	- 251.1	250			#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1106 WELL

Parameter	Units	Sample		Depth Range (Ft BLS)		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID				Lab	Data	QA		
Specific Conductance	umhos/cm	08/22/2012	N001	96.5	- 251.1	3615			#		
Sulfate	mg/L	08/22/2012	N001	96.5	- 251.1	1100			#	25	
Temperature	C	08/22/2012	N001	96.5	- 251.1	17.5			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	96.5	- 251.1	2800			#	200	
Turbidity	NTU	08/22/2012	N001	96.5	- 251.1	1.6			#		
Uranium	mg/L	08/22/2012	N001	96.5	- 251.1	1.8			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1107 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	91.1 - 245.5	514			#		
Ammonia Total as N	mg/L	08/22/2012	N001	91.1 - 245.5	2.3			#	0.1	
Arsenic	mg/L	08/22/2012	N001	91.1 - 245.5	0.0026			#	0.00015	
Calcium	mg/L	08/22/2012	N001	91.1 - 245.5	600			#	0.06	
Chloride	mg/L	08/22/2012	N001	91.1 - 245.5	120			#	10	
Iron	mg/L	08/22/2012	N001	91.1 - 245.5	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	91.1 - 245.5	120			#	0.065	
Manganese	mg/L	08/22/2012	N001	91.1 - 245.5	0.11			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	91.1 - 245.5	0.089			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	91.1 - 245.5	170			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	91.1 - 245.5	70			#		
pH	s.u.	08/22/2012	N001	91.1 - 245.5	6.71			#		
Potassium	mg/L	08/22/2012	N001	91.1 - 245.5	6.8			#	0.54	
Selenium	mg/L	08/22/2012	N001	91.1 - 245.5	0.052			#	0.00032	
Silica	mg/L	08/22/2012	N001	91.1 - 245.5	16			#	0.047	
Silicon	mg/L	08/22/2012	N001	91.1 - 245.5	7.4			#	0.022	
Sodium	mg/L	08/22/2012	N001	91.1 - 245.5	260			#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1107 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	91.1	- 245.5	4170			#		
Sulfate	mg/L	08/22/2012	N001	91.1	- 245.5	1300			#	25	
Temperature	C	08/22/2012	N001	91.1	- 245.5	17.5			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	91.1	- 245.5	3600			#	200	
Turbidity	NTU	08/22/2012	N001	91.1	- 245.5	2.53			#		
Uranium	mg/L	08/22/2012	N001	91.1	- 245.5	0.36			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1108 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	96.3	- 246.3	522			#		
Ammonia Total as N	mg/L	08/22/2012	N001	96.3	- 246.3	44			#	2	
Arsenic	mg/L	08/22/2012	N001	96.3	- 246.3	0.0014			#	0.00015	
Calcium	mg/L	08/22/2012	N001	96.3	- 246.3	490			#	0.06	
Chloride	mg/L	08/22/2012	N001	96.3	- 246.3	94			#	10	
Iron	mg/L	08/22/2012	N001	96.3	- 246.3	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	96.3	- 246.3	170			#	0.065	
Manganese	mg/L	08/22/2012	N001	96.3	- 246.3	3.1			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	96.3	- 246.3	0.00043	B		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	96.3	- 246.3	130			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	96.3	- 246.3	80			#		
pH	s.u.	08/22/2012	N001	96.3	- 246.3	6.77			#		
Potassium	mg/L	08/22/2012	N001	96.3	- 246.3	10			#	0.54	
Selenium	mg/L	08/22/2012	N001	96.3	- 246.3	0.032			#	0.00032	
Silica	mg/L	08/22/2012	N001	96.3	- 246.3	15			#	0.047	
Silicon	mg/L	08/22/2012	N001	96.3	- 246.3	7.1			#	0.022	
Sodium	mg/L	08/22/2012	N001	96.3	- 246.3	250			#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1108 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	96.3	- 246.3	4350			#		
Sulfate	mg/L	08/22/2012	N001	96.3	- 246.3	1600			#	25	
Temperature	C	08/22/2012	N001	96.3	- 246.3	17.8			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	96.3	- 246.3	3600			#	200	
Turbidity	NTU	08/22/2012	N001	96.3	- 246.3	1.48			#		
Uranium	mg/L	08/22/2012	N001	96.3	- 246.3	0.75			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1110 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	95.5	- 245.5	376			#		
Ammonia Total as N	mg/L	08/22/2012	N001	95.5	- 245.5	7.8			#	0.5	
Arsenic	mg/L	08/22/2012	N001	95.5	- 245.5	0.0014			#	0.000074	
Calcium	mg/L	08/22/2012	N001	95.5	- 245.5	280			#	0.012	
Chloride	mg/L	08/22/2012	N001	95.5	- 245.5	49			#	10	
Iron	mg/L	08/22/2012	N001	95.5	- 245.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/22/2012	N001	95.5	- 245.5	100			#	0.013	
Manganese	mg/L	08/22/2012	N001	95.5	- 245.5	1.1			#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	95.5	- 245.5	0.00016	U		#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	95.5	- 245.5	80			#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	95.5	- 245.5	75			#		
pH	s.u.	08/22/2012	N001	95.5	- 245.5	6.91			#		
Potassium	mg/L	08/22/2012	N001	95.5	- 245.5	5.4			#	0.11	
Selenium	mg/L	08/22/2012	N001	95.5	- 245.5	0.01			#	0.00016	
Silica	mg/L	08/22/2012	N001	95.5	- 245.5	13			#	0.0095	
Silicon	mg/L	08/22/2012	N001	95.5	- 245.5	5.9			#	0.0044	
Sodium	mg/L	08/22/2012	N001	95.5	- 245.5	88			#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1110 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	95.5	- 245.5	3310			#		
Sulfate	mg/L	08/22/2012	N001	95.5	- 245.5	910			#	25	
Temperature	C	08/22/2012	N001	95.5	- 245.5	17.8			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	95.5	- 245.5	2200			#	200	
Turbidity	NTU	08/22/2012	N001	95.5	- 245.5	1.66			#		
Uranium	mg/L	08/22/2012	N001	95.5	- 245.5	0.12			#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1111 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	90.68 - 245.1	170			#		
Ammonia Total as N	mg/L	08/22/2012	N001	90.68 - 245.1	19			#	1	
Arsenic	mg/L	08/22/2012	N001	90.68 - 245.1	0.001			#	0.00003	
Calcium	mg/L	08/22/2012	N001	90.68 - 245.1	470			#	0.06	
Chloride	mg/L	08/22/2012	N001	90.68 - 245.1	65			#	10	
Iron	mg/L	08/22/2012	N001	90.68 - 245.1	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	90.68 - 245.1	160			#	0.065	
Manganese	mg/L	08/22/2012	N001	90.68 - 245.1	1.6			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	90.68 - 245.1	0.00032	U		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	90.68 - 245.1	110			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	90.68 - 245.1	50			#		
pH	s.u.	08/22/2012	N001	90.68 - 245.1	6.95			#		
Potassium	mg/L	08/22/2012	N001	90.68 - 245.1	8.3			#	0.54	
Selenium	mg/L	08/22/2012	N001	90.68 - 245.1	0.013			#	0.00032	
Silica	mg/L	08/22/2012	N001	90.68 - 245.1	15			#	0.047	
Silicon	mg/L	08/22/2012	N001	90.68 - 245.1	7.1			#	0.022	
Sodium	mg/L	08/22/2012	N001	90.68 - 245.1	160			#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1111 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	90.68 - 245.1	3385			#		
Sulfate	mg/L	08/22/2012	N001	90.68 - 245.1	1300			#	25	
Temperature	C	08/22/2012	N001	90.68 - 245.1	17.9			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	90.68 - 245.1	3000			#	200	
Turbidity	NTU	08/22/2012	N001	90.68 - 245.1	1.29			#		
Uranium	mg/L	08/22/2012	N001	90.68 - 245.1	0.16			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1112 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	90.5 - 245.5	204			#		
Ammonia Total as N	mg/L	08/22/2012	N001	90.5 - 245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/22/2012	N001	90.5 - 245.5	0.0015			#	0.000074	
Calcium	mg/L	08/22/2012	N001	90.5 - 245.5	200			#	0.012	
Chloride	mg/L	08/22/2012	N001	90.5 - 245.5	28			#	4	
Iron	mg/L	08/22/2012	N001	90.5 - 245.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/22/2012	N001	90.5 - 245.5	55			#	0.013	
Manganese	mg/L	08/22/2012	N001	90.5 - 245.5	0.0069			#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	90.5 - 245.5	0.00022	B		#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	90.5 - 245.5	55			#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	90.5 - 245.5	105			#		
pH	s.u.	08/22/2012	N001	90.5 - 245.5	6.9			#		
Potassium	mg/L	08/22/2012	N001	90.5 - 245.5	2.6			#	0.11	
Selenium	mg/L	08/22/2012	N001	90.5 - 245.5	0.0071			#	0.00016	
Silica	mg/L	08/22/2012	N001	90.5 - 245.5	12			#	0.0095	
Silicon	mg/L	08/22/2012	N001	90.5 - 245.5	5.6			#	0.0044	
Sodium	mg/L	08/22/2012	N001	90.5 - 245.5	32			#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1112 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	90.5 - 245.5	1560			#		
Sulfate	mg/L	08/22/2012	N001	90.5 - 245.5	370			#	10	
Temperature	C	08/22/2012	N001	90.5 - 245.5	17.6			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	90.5 - 245.5	1100			#	40	
Turbidity	NTU	08/22/2012	N001	90.5 - 245.5	1.55			#		
Uranium	mg/L	08/22/2012	N001	90.5 - 245.5	0.071			#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1113 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	90.5	- 245.5	176			#		
Ammonia Total as N	mg/L	08/22/2012	N001	90.5	- 245.5	9.6			#	0.5	
Arsenic	mg/L	08/22/2012	N001	90.5	- 245.5	0.0016			#	0.000015	
Calcium	mg/L	08/22/2012	N001	90.5	- 245.5	420			#	0.012	
Chloride	mg/L	08/22/2012	N001	90.5	- 245.5	56			#	10	
Iron	mg/L	08/22/2012	N001	90.5	- 245.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/22/2012	N001	90.5	- 245.5	170			#	0.013	
Manganese	mg/L	08/22/2012	N001	90.5	- 245.5	0.41			#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	90.5	- 245.5	0.0043			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	90.5	- 245.5	130			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	90.5	- 245.5	90			#		
pH	s.u.	08/22/2012	N001	90.5	- 245.5	7.37			#		
Potassium	mg/L	08/22/2012	N001	90.5	- 245.5	9.7			#	0.11	
Selenium	mg/L	08/22/2012	N001	90.5	- 245.5	0.015			#	0.000032	
Silica	mg/L	08/22/2012	N001	90.5	- 245.5	14			#	0.0095	
Silicon	mg/L	08/22/2012	N001	90.5	- 245.5	6.7			#	0.0044	
Sodium	mg/L	08/22/2012	N001	90.5	- 245.5	120			#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1113 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	90.5 - 245.5	1130			#		
Sulfate	mg/L	08/22/2012	N001	90.5 - 245.5	1200			#	25	
Temperature	C	08/22/2012	N001	90.5 - 245.5	21.9			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	90.5 - 245.5	2900			#	200	
Turbidity	NTU	08/22/2012	N001	90.5 - 245.5	2.28			#		
Uranium	mg/L	08/22/2012	N001	90.5 - 245.5	0.075			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1114 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	90.59 - 245.5	310			#		
Ammonia Total as N	mg/L	08/22/2012	N001	90.59 - 245.5	0.17			#	0.1	
Arsenic	mg/L	08/22/2012	N001	90.59 - 245.5	0.0011			#	0.000074	
Calcium	mg/L	08/22/2012	N001	90.59 - 245.5	340			#	0.012	
Chloride	mg/L	08/22/2012	N001	90.59 - 245.5	36			#	4	
Iron	mg/L	08/22/2012	N001	90.59 - 245.5	0.042	B	U	#	0.0049	
Magnesium	mg/L	08/22/2012	N001	90.59 - 245.5	65			#	0.013	
Manganese	mg/L	08/22/2012	N001	90.59 - 245.5	0.00073	B	U	#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	90.59 - 245.5	0.0038			#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	90.59 - 245.5	72			#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	90.59 - 245.5	130			#		
pH	s.u.	08/22/2012	N001	90.59 - 245.5	6.87			#		
Potassium	mg/L	08/22/2012	N001	90.59 - 245.5	4.4			#	0.11	
Selenium	mg/L	08/22/2012	N001	90.59 - 245.5	0.0094			#	0.00016	
Silica	mg/L	08/22/2012	N001	90.59 - 245.5	14			#	0.0095	
Silicon	mg/L	08/22/2012	N001	90.59 - 245.5	6.5			#	0.0044	
Sodium	mg/L	08/22/2012	N001	90.59 - 245.5	57			#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1114 WELL

Parameter	Units	Sample		Depth Range (Ft BLS)	Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID			Lab	Data	QA		
Specific Conductance	umhos/cm	08/22/2012	N001	90.59 - 245.5	2190			#		
Sulfate	mg/L	08/22/2012	N001	90.59 - 245.5	650			#	10	
Temperature	C	08/22/2012	N001	90.59 - 245.5	19.3			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	90.59 - 245.5	1800			#	80	
Turbidity	NTU	08/22/2012	N001	90.59 - 245.5	2.51			#		
Uranium	mg/L	08/22/2012	N001	90.59 - 245.5	0.063			#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1116 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	92.37	- 195.5	120			#		
Ammonia Total as N	mg/L	08/22/2012	N001	92.37	- 195.5	0.1	U		#	0.1	
Arsenic	mg/L	08/22/2012	N001	92.37	- 195.5	0.0019			#	0.000015	
Calcium	mg/L	08/22/2012	N001	92.37	- 195.5	35			#	0.012	
Chloride	mg/L	08/22/2012	N001	92.37	- 195.5	9			#	0.4	
Iron	mg/L	08/22/2012	N001	92.37	- 195.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/22/2012	N001	92.37	- 195.5	7.6			#	0.013	
Manganese	mg/L	08/22/2012	N001	92.37	- 195.5	0.00011	U		#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	92.37	- 195.5	0.00022			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	92.37	- 195.5	4.2			#	0.05	
Oxidation Reduction Potential	mV	08/22/2012	N001	92.37	- 195.5	25			#		
pH	s.u.	08/22/2012	N001	92.37	- 195.5	8			#		
Potassium	mg/L	08/22/2012	N001	92.37	- 195.5	1.4			#	0.11	
Selenium	mg/L	08/22/2012	N001	92.37	- 195.5	0.0013			#	0.000032	
Silica	mg/L	08/22/2012	N001	92.37	- 195.5	11			#	0.0095	
Silicon	mg/L	08/22/2012	N001	92.37	- 195.5	5.1			#	0.0044	
Sodium	mg/L	08/22/2012	N001	92.37	- 195.5	6.1			#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1116 WELL

Parameter	Units	Sample		Depth Range (Ft BLS)	Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID			Lab	Data	QA		
Specific Conductance	umhos/cm	08/22/2012	N001	92.37 - 195.5	305			#		
Sulfate	mg/L	08/22/2012	N001	92.37 - 195.5	18			#	1	
Temperature	C	08/22/2012	N001	92.37 - 195.5	17.4			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	92.37 - 195.5	170			#	20	
Turbidity	NTU	08/22/2012	N001	92.37 - 195.5	1.44			#		
Uranium	mg/L	08/22/2012	N001	92.37 - 195.5	0.0018			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1117 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	92.3	- 195.5	440			#		
Ammonia Total as N	mg/L	08/22/2012	N001	92.3	- 195.5	0.16			#	0.1	
Arsenic	mg/L	08/22/2012	N001	92.3	- 195.5	0.0012			#	0.000015	
Calcium	mg/L	08/22/2012	N001	92.3	- 195.5	350			#	0.012	
Chloride	mg/L	08/22/2012	N001	92.3	- 195.5	48			#	4	
Iron	mg/L	08/22/2012	N001	92.3	- 195.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/22/2012	N001	92.3	- 195.5	120			#	0.013	
Manganese	mg/L	08/22/2012	N001	92.3	- 195.5	0.021			#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	92.3	- 195.5	0.000095	B		#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	92.3	- 195.5	110			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	92.3	- 195.5	120			#		
pH	s.u.	08/22/2012	N001	92.3	- 195.5	6.83			#		
Potassium	mg/L	08/22/2012	N001	92.3	- 195.5	6			#	0.11	
Selenium	mg/L	08/22/2012	N001	92.3	- 195.5	0.012			#	0.000032	
Silica	mg/L	08/22/2012	N001	92.3	- 195.5	14			#	0.0095	
Silicon	mg/L	08/22/2012	N001	92.3	- 195.5	6.5			#	0.0044	
Sodium	mg/L	08/22/2012	N001	92.3	- 195.5	92			#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1117 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	92.3	- 195.5	2730			#		
Sulfate	mg/L	08/22/2012	N001	92.3	- 195.5	810			#	10	
Temperature	C	08/22/2012	N001	92.3	- 195.5	17.6			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	92.3	- 195.5	2400			#	80	
Turbidity	NTU	08/22/2012	N001	92.3	- 195.5	0.99			#		
Uranium	mg/L	08/22/2012	N001	92.3	- 195.5	0.034			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1118 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	89.93 - 195.5	418			#		
Ammonia Total as N	mg/L	08/22/2012	N001	89.93 - 195.5	13			#	1	
Arsenic	mg/L	08/22/2012	N001	89.93 - 195.5	0.0016			#	0.000015	
Calcium	mg/L	08/22/2012	N001	89.93 - 195.5	470			#	0.012	
Chloride	mg/L	08/22/2012	N001	89.93 - 195.5	61			#	10	
Iron	mg/L	08/22/2012	N001	89.93 - 195.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/22/2012	N001	89.93 - 195.5	200			#	0.013	
Manganese	mg/L	08/22/2012	N001	89.93 - 195.5	0.17			#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	89.93 - 195.5	0.00033			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	89.93 - 195.5	140			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	89.93 - 195.5	180			#		
pH	s.u.	08/22/2012	N001	89.93 - 195.5	6.67			#		
Potassium	mg/L	08/22/2012	N001	89.93 - 195.5	12			#	0.11	
Selenium	mg/L	08/22/2012	N001	89.93 - 195.5	0.017			#	0.000032	
Silica	mg/L	08/22/2012	N001	89.93 - 195.5	14			#	0.0095	
Silicon	mg/L	08/22/2012	N001	89.93 - 195.5	6.8			#	0.0044	
Sodium	mg/L	08/22/2012	N001	89.93 - 195.5	140			#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1118 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	89.93 - 195.5	3790			#		
Sulfate	mg/L	08/22/2012	N001	89.93 - 195.5	1400			#	25	
Temperature	C	08/22/2012	N001	89.93 - 195.5	19.2			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	89.93 - 195.5	3400			#	200	
Turbidity	NTU	08/22/2012	N001	89.93 - 195.5	1.21			#		
Uranium	mg/L	08/22/2012	N001	89.93 - 195.5	0.068			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1119 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	95.33 - 245.33	304			#		
Ammonia Total as N	mg/L	08/22/2012	N001	95.33 - 245.33	15			#	1	
Ammonia Total as N	mg/L	08/22/2012	N002	95.33 - 245.33	15			#	1	
Arsenic	mg/L	08/22/2012	N001	95.33 - 245.33	0.0022			#	0.00015	
Arsenic	mg/L	08/22/2012	N002	95.33 - 245.33	0.0024			#	0.000015	
Calcium	mg/L	08/22/2012	N001	95.33 - 245.33	350			#	0.06	
Calcium	mg/L	08/22/2012	N002	95.33 - 245.33	360			#	0.06	
Chloride	mg/L	08/22/2012	N001	95.33 - 245.33	78			#	10	
Chloride	mg/L	08/22/2012	N002	95.33 - 245.33	78			#	10	
Iron	mg/L	08/22/2012	N001	95.33 - 245.33	0.025	U		#	0.025	
Iron	mg/L	08/22/2012	N002	95.33 - 245.33	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	95.33 - 245.33	160			#	0.065	
Magnesium	mg/L	08/22/2012	N002	95.33 - 245.33	160			#	0.065	
Manganese	mg/L	08/22/2012	N001	95.33 - 245.33	4.8			#	0.00057	
Manganese	mg/L	08/22/2012	N002	95.33 - 245.33	4.9			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	95.33 - 245.33	0.0047			#	0.00032	
Molybdenum	mg/L	08/22/2012	N002	95.33 - 245.33	0.0048			#	0.000032	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1119 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	95.33 - 245.33	83			#	0.5	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N002	95.33 - 245.33	82			#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	95.33 - 245.33	60			#		
pH	s.u.	08/22/2012	N001	95.33 - 245.33	6.89			#		
Potassium	mg/L	08/22/2012	N001	95.33 - 245.33	6.9			#	0.54	
Potassium	mg/L	08/22/2012	N002	95.33 - 245.33	7.2			#	0.54	
Selenium	mg/L	08/22/2012	N001	95.33 - 245.33	0.017			#	0.00032	
Selenium	mg/L	08/22/2012	N002	95.33 - 245.33	0.019			#	0.000032	
Silica	mg/L	08/22/2012	N001	95.33 - 245.33	15			#	0.047	
Silica	mg/L	08/22/2012	N002	95.33 - 245.33	15			#	0.047	
Silicon	mg/L	08/22/2012	N001	95.33 - 245.33	7.1			#	0.022	
Silicon	mg/L	08/22/2012	N002	95.33 - 245.33	7.1			#	0.022	
Sodium	mg/L	08/22/2012	N001	95.33 - 245.33	190			#	0.033	
Sodium	mg/L	08/22/2012	N002	95.33 - 245.33	200			#	0.033	
Specific Conductance	umhos/cm	08/22/2012	N001	95.33 - 245.33	3230			#		
Sulfate	mg/L	08/22/2012	N001	95.33 - 245.33	1400			#	25	
Sulfate	mg/L	08/22/2012	N002	95.33 - 245.33	1400			#	25	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1119 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	08/22/2012	N001	95.33 - 245.33	16.7			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	95.33 - 245.33	2900			#	200	
Total Dissolved Solids	mg/L	08/22/2012	N002	95.33 - 245.33	2800			#	200	
Turbidity	NTU	08/22/2012	N001	95.33 - 245.33	1.91			#		
Uranium	mg/L	08/22/2012	N001	95.33 - 245.33	0.19			#	0.000029	
Uranium	mg/L	08/22/2012	N002	95.33 - 245.33	0.19			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1120 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	95.5	- 245.5	194			#		
Ammonia Total as N	mg/L	08/22/2012	N001	95.5	- 245.5	32			#	2	
Ammonia Total as N	mg/L	08/22/2012	N002	95.5	- 245.5	32			#	2	
Arsenic	mg/L	08/22/2012	N001	95.5	- 245.5	0.0014			#	0.00015	
Arsenic	mg/L	08/22/2012	N002	95.5	- 245.5	0.0014			#	0.000015	
Calcium	mg/L	08/22/2012	N001	95.5	- 245.5	510			#	0.06	
Calcium	mg/L	08/22/2012	N002	95.5	- 245.5	500			#	0.06	
Chloride	mg/L	08/22/2012	N001	95.5	- 245.5	44			#	10	
Chloride	mg/L	08/22/2012	N002	95.5	- 245.5	43			#	10	
Iron	mg/L	08/22/2012	N001	95.5	- 245.5	0.025	U		#	0.025	
Iron	mg/L	08/22/2012	N002	95.5	- 245.5	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	95.5	- 245.5	190			#	0.065	
Magnesium	mg/L	08/22/2012	N002	95.5	- 245.5	190			#	0.065	
Manganese	mg/L	08/22/2012	N001	95.5	- 245.5	50			#	0.00057	
Manganese	mg/L	08/22/2012	N002	95.5	- 245.5	49			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	95.5	- 245.5	0.037			#	0.00032	
Molybdenum	mg/L	08/22/2012	N002	95.5	- 245.5	0.037			#	0.000032	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1120 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	95.5	- 245.5	29			#	0.2	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N002	95.5	- 245.5	29			#	0.2	
Oxidation Reduction Potential	mV	08/22/2012	N001	95.5	- 245.5	110			#		
pH	s.u.	08/22/2012	N001	95.5	- 245.5	6.75			#		
Potassium	mg/L	08/22/2012	N001	95.5	- 245.5	10			#	0.54	
Potassium	mg/L	08/22/2012	N002	95.5	- 245.5	10			#	0.54	
Selenium	mg/L	08/22/2012	N001	95.5	- 245.5	0.0098		J	#	0.00032	
Selenium	mg/L	08/22/2012	N002	95.5	- 245.5	0.013		J	#	0.000032	
Silica	mg/L	08/22/2012	N001	95.5	- 245.5	21			#	0.047	
Silica	mg/L	08/22/2012	N002	95.5	- 245.5	21			#	0.047	
Silicon	mg/L	08/22/2012	N001	95.5	- 245.5	10			#	0.022	
Silicon	mg/L	08/22/2012	N002	95.5	- 245.5	9.8			#	0.022	
Sodium	mg/L	08/22/2012	N001	95.5	- 245.5	200			#	0.033	
Sodium	mg/L	08/22/2012	N002	95.5	- 245.5	200			#	0.033	
Specific Conductance	umhos/cm	08/22/2012	N001	95.5	- 245.5	3960			#		
Sulfate	mg/L	08/22/2012	N001	95.5	- 245.5	2300			#	25	
Sulfate	mg/L	08/22/2012	N002	95.5	- 245.5	2300			#	25	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1120 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	08/22/2012	N001	95.5	- 245.5	17.2			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	95.5	- 245.5	3700			#	200	
Total Dissolved Solids	mg/L	08/22/2012	N002	95.5	- 245.5	3600			#	200	
Turbidity	NTU	08/22/2012	N001	95.5	- 245.5	3.37			#		
Uranium	mg/L	08/22/2012	N001	95.5	- 245.5	0.11			#	0.000029	
Uranium	mg/L	08/22/2012	N002	95.5	- 245.5	0.11			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1123 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	91	- 245	284			#		
Ammonia Total as N	mg/L	08/22/2012	N001	91	- 245	22			#	2	
Arsenic	mg/L	08/22/2012	N001	91	- 245	0.0021			#	0.00015	
Calcium	mg/L	08/22/2012	N001	91	- 245	430			#	0.06	
Chloride	mg/L	08/22/2012	N001	91	- 245	110			#	10	
Iron	mg/L	08/22/2012	N001	91	- 245	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	91	- 245	210			#	0.065	
Manganese	mg/L	08/22/2012	N001	91	- 245	0.49			#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	91	- 245	0.00032	U		#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	91	- 245	16			#	0.1	
Oxidation Reduction Potential	mV	08/22/2012	N001	91	- 245	50			#		
pH	s.u.	08/22/2012	N001	91	- 245	6.69			#		
Potassium	mg/L	08/22/2012	N001	91	- 245	13			#	0.54	
Selenium	mg/L	08/22/2012	N001	91	- 245	0.0093			#	0.00032	
Silica	mg/L	08/22/2012	N001	91	- 245	17			#	0.047	
Silicon	mg/L	08/22/2012	N001	91	- 245	8			#	0.022	
Sodium	mg/L	08/22/2012	N001	91	- 245	230			#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1123 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	91	- 245	3850			#		
Sulfate	mg/L	08/22/2012	N001	91	- 245	2100			#	25	
Temperature	C	08/22/2012	N001	91	- 245	18.5			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	91	- 245	3400			#	200	
Turbidity	NTU	08/22/2012	N001	91	- 245	1.04			#		
Uranium	mg/L	08/22/2012	N001	91	- 245	0.16			#	0.000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1124 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	87.9	- 245.5	416			#		
Ammonia Total as N	mg/L	08/22/2012	N001	87.9	- 245.5	0.1	U		#	0.1	
Ammonia Total as N	mg/L	08/22/2012	N002	87.9	- 245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/22/2012	N001	87.9	- 245.5	0.0018			#	0.00015	
Arsenic	mg/L	08/22/2012	N002	87.9	- 245.5	0.0021			#	0.000074	
Calcium	mg/L	08/22/2012	N001	87.9	- 245.5	720			#	0.06	
Calcium	mg/L	08/22/2012	N002	87.9	- 245.5	720			#	0.06	
Chloride	mg/L	08/22/2012	N001	87.9	- 245.5	150			#	10	
Chloride	mg/L	08/22/2012	N002	87.9	- 245.5	150			#	10	
Iron	mg/L	08/22/2012	N001	87.9	- 245.5	0.025	U		#	0.025	
Iron	mg/L	08/22/2012	N002	87.9	- 245.5	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	87.9	- 245.5	120			#	0.065	
Magnesium	mg/L	08/22/2012	N002	87.9	- 245.5	120			#	0.065	
Manganese	mg/L	08/22/2012	N001	87.9	- 245.5	0.00057	U		#	0.00057	
Manganese	mg/L	08/22/2012	N002	87.9	- 245.5	0.00057	U		#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	87.9	- 245.5	0.00032	U		#	0.00032	
Molybdenum	mg/L	08/22/2012	N002	87.9	- 245.5	0.00098			#	0.00016	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1124 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	87.9	- 245.5	91			#	0.5	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N002	87.9	- 245.5	92			#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	87.9	- 245.5	105			#		
pH	s.u.	08/22/2012	N001	87.9	- 245.5	6.84			#		
Potassium	mg/L	08/22/2012	N001	87.9	- 245.5	5.5			#	0.54	
Potassium	mg/L	08/22/2012	N002	87.9	- 245.5	5.4			#	0.54	
Selenium	mg/L	08/22/2012	N001	87.9	- 245.5	0.029			#	0.00032	
Selenium	mg/L	08/22/2012	N002	87.9	- 245.5	0.03			#	0.00016	
Silica	mg/L	08/22/2012	N001	87.9	- 245.5	16			#	0.047	
Silica	mg/L	08/22/2012	N002	87.9	- 245.5	16			#	0.047	
Silicon	mg/L	08/22/2012	N001	87.9	- 245.5	7.3			#	0.022	
Silicon	mg/L	08/22/2012	N002	87.9	- 245.5	7.3			#	0.022	
Sodium	mg/L	08/22/2012	N001	87.9	- 245.5	370			#	0.033	
Sodium	mg/L	08/22/2012	N002	87.9	- 245.5	360			#	0.033	
Specific Conductance	umhos/cm	08/22/2012	N001	87.9	- 245.5	4670			#		
Sulfate	mg/L	08/22/2012	N001	87.9	- 245.5	2200			#	25	
Sulfate	mg/L	08/22/2012	N002	87.9	- 245.5	2200			#	25	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1124 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	08/22/2012	N001	87.9	- 245.5	17.2			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	87.9	- 245.5	4400			#	200	
Total Dissolved Solids	mg/L	08/22/2012	N002	87.9	- 245.5	4500			#	200	
Turbidity	NTU	08/22/2012	N001	87.9	- 245.5	3.44			#		
Uranium	mg/L	08/22/2012	N001	87.9	- 245.5	0.28			#	0.000029	
Uranium	mg/L	08/22/2012	N002	87.9	- 245.5	0.28			#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1125 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	95.5	- 245.5	120			#		
Ammonia Total as N	mg/L	08/22/2012	N001	95.5	- 245.5	0.1	U		#	0.1	
Arsenic	mg/L	08/22/2012	N001	95.5	- 245.5	0.0021			#	0.000015	
Calcium	mg/L	08/22/2012	N001	95.5	- 245.5	72			#	0.012	
Chloride	mg/L	08/22/2012	N001	95.5	- 245.5	17			#	1	
Iron	mg/L	08/22/2012	N001	95.5	- 245.5	0.0049	U		#	0.0049	
Magnesium	mg/L	08/22/2012	N001	95.5	- 245.5	13			#	0.013	
Manganese	mg/L	08/22/2012	N001	95.5	- 245.5	0.00011	U		#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	95.5	- 245.5	0.00033			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	95.5	- 245.5	15			#	0.1	
Oxidation Reduction Potential	mV	08/22/2012	N001	95.5	- 245.5	100			#		
pH	s.u.	08/22/2012	N001	95.5	- 245.5	7.65			#		
Potassium	mg/L	08/22/2012	N001	95.5	- 245.5	1.7			#	0.11	
Selenium	mg/L	08/22/2012	N001	95.5	- 245.5	0.0024			#	0.000032	
Silica	mg/L	08/22/2012	N001	95.5	- 245.5	12			#	0.0095	
Silicon	mg/L	08/22/2012	N001	95.5	- 245.5	5.5			#	0.0044	
Sodium	mg/L	08/22/2012	N001	95.5	- 245.5	16			#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1125 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	95.5 - 245.5	605			#		
Sulfate	mg/L	08/22/2012	N001	95.5 - 245.5	89			#	2.5	
Temperature	C	08/22/2012	N001	95.5 - 245.5	17.7			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	95.5 - 245.5	380			#	20	
Turbidity	NTU	08/22/2012	N001	95.5 - 245.5	1.64			#		
Uranium	mg/L	08/22/2012	N001	95.5 - 245.5	0.012			#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1129 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	68.2	- 98.2	234			#		
Ammonia Total as N	mg/L	08/22/2012	N001	68.2	- 98.2	0.1	U		#	0.1	
Arsenic	mg/L	08/22/2012	N001	68.2	- 98.2	0.0016			#	0.000074	
Calcium	mg/L	08/22/2012	N001	68.2	- 98.2	450			#	0.012	
Chloride	mg/L	08/22/2012	N001	68.2	- 98.2	56			#	10	
Iron	mg/L	08/22/2012	N001	68.2	- 98.2	0.0049	U		#	0.0049	
Magnesium	mg/L	08/22/2012	N001	68.2	- 98.2	86			#	0.013	
Manganese	mg/L	08/22/2012	N001	68.2	- 98.2	0.00011	U		#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	68.2	- 98.2	0.49			#	0.0016	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	68.2	- 98.2	110			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	68.2	- 98.2	65			#		
pH	s.u.	08/22/2012	N001	68.2	- 98.2	7.13			#		
Potassium	mg/L	08/22/2012	N001	68.2	- 98.2	5			#	0.11	
Selenium	mg/L	08/22/2012	N001	68.2	- 98.2	0.05			#	0.0016	
Silica	mg/L	08/22/2012	N001	68.2	- 98.2	14			#	0.0095	
Silicon	mg/L	08/22/2012	N001	68.2	- 98.2	6.7			#	0.0044	
Sodium	mg/L	08/22/2012	N001	68.2	- 98.2	88			#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1129 WELL

Parameter	Units	Sample		Depth Range (Ft BLS)		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID				Lab	Data	QA		
Specific Conductance	umhos/cm	08/22/2012	N001	68.2	-	98.2			#		
Sulfate	mg/L	08/22/2012	N001	68.2	-	98.2			#	25	
Temperature	C	08/22/2012	N001	68.2	-	98.2			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	68.2	-	98.2			#	200	
Turbidity	NTU	08/22/2012	N001	68.2	-	98.2			#		
Uranium	mg/L	08/22/2012	N001	68.2	-	98.2			#	0.00015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1132 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	49.7	- 99.7	366			#		
Ammonia Total as N	mg/L	08/22/2012	N001	49.7	- 99.7	0.1	U		#	0.1	
Arsenic	mg/L	08/22/2012	N001	49.7	- 99.7	0.0021			#	0.000074	
Calcium	mg/L	08/22/2012	N001	49.7	- 99.7	720			#	0.06	
Chloride	mg/L	08/22/2012	N001	49.7	- 99.7	100			#	10	
Iron	mg/L	08/22/2012	N001	49.7	- 99.7	0.025	U		#	0.025	
Magnesium	mg/L	08/22/2012	N001	49.7	- 99.7	150			#	0.065	
Manganese	mg/L	08/22/2012	N001	49.7	- 99.7	0.00057	U		#	0.00057	
Molybdenum	mg/L	08/22/2012	N001	49.7	- 99.7	1.4			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	49.7	- 99.7	170			#	1	
Oxidation Reduction Potential	mV	08/22/2012	N001	49.7	- 99.7	60			#		
pH	s.u.	08/22/2012	N001	49.7	- 99.7	7.02			#		
Potassium	mg/L	08/22/2012	N001	49.7	- 99.7	5.2			#	0.54	
Selenium	mg/L	08/22/2012	N001	49.7	- 99.7	0.084			#	0.0065	
Silica	mg/L	08/22/2012	N001	49.7	- 99.7	16			#	0.047	
Silicon	mg/L	08/22/2012	N001	49.7	- 99.7	7.3			#	0.022	
Sodium	mg/L	08/22/2012	N001	49.7	- 99.7	190			#	0.033	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1132 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	49.7	- 99.7	4450			#		
Sulfate	mg/L	08/22/2012	N001	49.7	- 99.7	1700			#	25	
Temperature	C	08/22/2012	N001	49.7	- 99.7	19.7			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	49.7	- 99.7	4300			#	200	
Turbidity	NTU	08/22/2012	N001	49.7	- 99.7	2.46			#		
Uranium	mg/L	08/22/2012	N001	49.7	- 99.7	1.1			#	0.00058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1133 WELL

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/22/2012	N001	59.7	- 99.7	192			#		
Ammonia Total as N	mg/L	08/22/2012	N001	59.7	- 99.7	0.1	U		#	0.1	
Arsenic	mg/L	08/22/2012	N001	59.7	- 99.7	0.0015			#	0.000074	
Calcium	mg/L	08/22/2012	N001	59.7	- 99.7	180			#	0.012	
Chloride	mg/L	08/22/2012	N001	59.7	- 99.7	31			#	2	
Iron	mg/L	08/22/2012	N001	59.7	- 99.7	0.0049	U		#	0.0049	
Magnesium	mg/L	08/22/2012	N001	59.7	- 99.7	30			#	0.013	
Manganese	mg/L	08/22/2012	N001	59.7	- 99.7	0.00011	U		#	0.00011	
Molybdenum	mg/L	08/22/2012	N001	59.7	- 99.7	0.01			#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/22/2012	N001	59.7	- 99.7	48			#	0.5	
Oxidation Reduction Potential	mV	08/22/2012	N001	59.7	- 99.7	85			#		
pH	s.u.	08/22/2012	N001	59.7	- 99.7	7.44			#		
Potassium	mg/L	08/22/2012	N001	59.7	- 99.7	2.5			#	0.11	
Selenium	mg/L	08/22/2012	N001	59.7	- 99.7	0.018			#	0.00016	
Silica	mg/L	08/22/2012	N001	59.7	- 99.7	12			#	0.0095	
Silicon	mg/L	08/22/2012	N001	59.7	- 99.7	5.7			#	0.0044	
Sodium	mg/L	08/22/2012	N001	59.7	- 99.7	24			#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1133 WELL

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)		Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/22/2012	N001	59.7	- 99.7	1210			#		
Sulfate	mg/L	08/22/2012	N001	59.7	- 99.7	220			#	5	
Temperature	C	08/22/2012	N001	59.7	- 99.7	18			#		
Total Dissolved Solids	mg/L	08/22/2012	N001	59.7	- 99.7	890			#	40	
Turbidity	NTU	08/22/2012	N001	59.7	- 99.7	1.47			#		
Uranium	mg/L	08/22/2012	N001	59.7	- 99.7	0.074			#	0.000015	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-1A WELL NAVAJO MONITORING WELL NMW-1A; Owned by NNEPA

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	167.5 - 187.5	99		F	#		
Ammonia Total as N	mg/L	08/23/2012	N001	167.5 - 187.5	0.1	U	F	#	0.1	
Arsenic	mg/L	08/23/2012	N001	167.5 - 187.5	0.0021		F	#	0.000015	
Calcium	mg/L	08/23/2012	N001	167.5 - 187.5	32		F	#	0.012	
Chloride	mg/L	08/23/2012	N001	167.5 - 187.5	9.6		F	#	0.4	
Iron	mg/L	08/23/2012	N001	167.5 - 187.5	0.0049	U	F	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	167.5 - 187.5	5.9		F	#	0.013	
Manganese	mg/L	08/23/2012	N001	167.5 - 187.5	0.0029	B	UF	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	167.5 - 187.5	0.00039		F	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	167.5 - 187.5	3.3		F	#	0.02	
Oxidation Reduction Potential	mV	08/23/2012	N001	167.5 - 187.5	65		F	#		
pH	s.u.	08/23/2012	N001	167.5 - 187.5	7.98		F	#		
Potassium	mg/L	08/23/2012	N001	167.5 - 187.5	0.99	B	F	#	0.11	
Selenium	mg/L	08/23/2012	N001	167.5 - 187.5	0.0011		F	#	0.000032	
Silica	mg/L	08/23/2012	N001	167.5 - 187.5	10		F	#	0.0095	
Silicon	mg/L	08/23/2012	N001	167.5 - 187.5	4.8		F	#	0.0044	
Sodium	mg/L	08/23/2012	N001	167.5 - 187.5	8.3		F	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-1A WELL NAVAJO MONITORING WELL NMW-1A; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	167.5 - 187.5	270		F	#		
Sulfate	mg/L	08/23/2012	N001	167.5 - 187.5	13		F	#	1	
Temperature	C	08/23/2012	N001	167.5 - 187.5	17.1		F	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	167.5 - 187.5	150		F	#	20	
Turbidity	NTU	08/23/2012	N001	167.5 - 187.5	0.91		F	#		
Uranium	mg/L	08/23/2012	N001	167.5 - 187.5	0.0014		F	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-6S WELL NAVAJO MONITORING WELL NMW-6S; Owned by NNEPA

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	167.62 - 187.62	90		FQ	#		
Ammonia Total as N	mg/L	08/23/2012	N001	167.62 - 187.62	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/23/2012	N001	167.62 - 187.62	0.0013		FQ	#	0.000015	
Calcium	mg/L	08/23/2012	N001	167.62 - 187.62	35		FQ	#	0.012	
Chloride	mg/L	08/23/2012	N001	167.62 - 187.62	11		FQ	#	0.4	
Iron	mg/L	08/23/2012	N001	167.62 - 187.62	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	167.62 - 187.62	6.1		FQ	#	0.013	
Manganese	mg/L	08/23/2012	N001	167.62 - 187.62	0.0023	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	167.62 - 187.62	0.00043		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	167.62 - 187.62	3.4		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/23/2012	N001	167.62 - 187.62	110		FQ	#		
pH	s.u.	08/23/2012	N001	167.62 - 187.62	7.87		FQ	#		
Potassium	mg/L	08/23/2012	N001	167.62 - 187.62	1.1		FQ	#	0.11	
Selenium	mg/L	08/23/2012	N001	167.62 - 187.62	0.0015		FQ	#	0.000032	
Silica	mg/L	08/23/2012	N001	167.62 - 187.62	11		FQ	#	0.0095	
Silicon	mg/L	08/23/2012	N001	167.62 - 187.62	5		FQ	#	0.0044	
Sodium	mg/L	08/23/2012	N001	167.62 - 187.62	7.5		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-6S WELL NAVAJO MONITORING WELL NMW-6S; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	167.62 - 187.62	280		FQ	#		
Sulfate	mg/L	08/23/2012	N001	167.62 - 187.62	15		FQ	#	1	
Temperature	C	08/23/2012	N001	167.62 - 187.62	16.4		FQ	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	167.62 - 187.62	160		FQ	#	20	
Turbidity	NTU	08/23/2012	N001	167.62 - 187.62	0.89		FQ	#		
Uranium	mg/L	08/23/2012	N001	167.62 - 187.62	0.0011		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-7D WELL NAVAJO MONITORING WELL NMW-7D; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	278.19 - 283.19	72		FQ	#		
Ammonia Total as N	mg/L	08/23/2012	N001	278.19 - 283.19	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/23/2012	N001	278.19 - 283.19	0.0021		FQ	#	0.000015	
Calcium	mg/L	08/23/2012	N001	278.19 - 283.19	26		FQ	#	0.012	
Chloride	mg/L	08/23/2012	N001	278.19 - 283.19	6.8		FQ	#	0.2	
Iron	mg/L	08/23/2012	N001	278.19 - 283.19	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	278.19 - 283.19	5.2		FQ	#	0.013	
Manganese	mg/L	08/23/2012	N001	278.19 - 283.19	0.00028	B	UFQ	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	278.19 - 283.19	0.00031		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	278.19 - 283.19	3.1		FQ	#	0.02	
Oxidation Reduction Potential	mV	08/23/2012	N001	278.19 - 283.19	95		FQ	#		
pH	s.u.	08/23/2012	N001	278.19 - 283.19	7.61		FQ	#		
Potassium	mg/L	08/23/2012	N001	278.19 - 283.19	1.2		FQ	#	0.11	
Selenium	mg/L	08/23/2012	N001	278.19 - 283.19	0.00095		FQ	#	0.000032	
Silica	mg/L	08/23/2012	N001	278.19 - 283.19	12		FQ	#	0.0095	
Silicon	mg/L	08/23/2012	N001	278.19 - 283.19	5.5		FQ	#	0.0044	
Sodium	mg/L	08/23/2012	N001	278.19 - 283.19	4.5		FQ	#	0.0066	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-7D WELL NAVAJO MONITORING WELL NMW-7D; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Specific Conductance	umhos/cm	08/23/2012	N001	278.19 - 283.19	215		FQ	#		
Sulfate	mg/L	08/23/2012	N001	278.19 - 283.19	9.2		FQ	#	0.5	
Temperature	C	08/23/2012	N001	278.19 - 283.19	17.6		FQ	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	278.19 - 283.19	130		FQ	#	20	
Turbidity	NTU	08/23/2012	N001	278.19 - 283.19	2.03		FQ	#		
Uranium	mg/L	08/23/2012	N001	278.19 - 283.19	0.00084		FQ	#	0.0000029	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-8S WELL NAVAJO MONITORING WELL NMW_8S; Owned by NNEPA

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	149.43 - 169.43	91		F	#		
Ammonia Total as N	mg/L	08/23/2012	N001	149.43 - 169.43	0.1	U	F	#	0.1	
Ammonia Total as N	mg/L	08/23/2012	N002	149.43 - 169.43	0.1	U	F	#	0.1	
Arsenic	mg/L	08/23/2012	N001	149.43 - 169.43	0.0023		F	#	0.000015	
Arsenic	mg/L	08/23/2012	N002	149.43 - 169.43	0.0024		F	#	0.00003	
Calcium	mg/L	08/23/2012	N001	149.43 - 169.43	32		F	#	0.012	
Calcium	mg/L	08/23/2012	N002	149.43 - 169.43	33		F	#	0.012	
Chloride	mg/L	08/23/2012	N001	149.43 - 169.43	9.7		F	#	0.4	
Chloride	mg/L	08/23/2012	N002	149.43 - 169.43	9.8		F	#	0.4	
Iron	mg/L	08/23/2012	N001	149.43 - 169.43	0.0059	B	UF	#	0.0049	
Iron	mg/L	08/23/2012	N002	149.43 - 169.43	0.02	B	UF	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	149.43 - 169.43	5.3		F	#	0.013	
Magnesium	mg/L	08/23/2012	N002	149.43 - 169.43	5.5		F	#	0.013	
Manganese	mg/L	08/23/2012	N001	149.43 - 169.43	0.00011	U	F	#	0.00011	
Manganese	mg/L	08/23/2012	N002	149.43 - 169.43	0.0017	B	UF	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	149.43 - 169.43	0.00027		F	#	0.000032	
Molybdenum	mg/L	08/23/2012	N002	149.43 - 169.43	0.00025		F	#	0.000064	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-8S WELL NAVAJO MONITORING WELL NMW_8S; Owned by NNEPA

Parameter	Units	Sample Date	ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	149.43 - 169.43	3.4		F	#	0.02	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N002	149.43 - 169.43	3.5		F	#	0.02	
Oxidation Reduction Potential	mV	08/23/2012	N001	149.43 - 169.43	45		F	#		
pH	s.u.	08/23/2012	N001	149.43 - 169.43	8.06		F	#		
Potassium	mg/L	08/23/2012	N001	149.43 - 169.43	1.2		F	#	0.11	
Potassium	mg/L	08/23/2012	N002	149.43 - 169.43	1.2		F	#	0.11	
Selenium	mg/L	08/23/2012	N001	149.43 - 169.43	0.0012		F	#	0.000032	
Selenium	mg/L	08/23/2012	N002	149.43 - 169.43	0.0012		F	#	0.000065	
Silica	mg/L	08/23/2012	N001	149.43 - 169.43	9.7		F	#	0.0095	
Silica	mg/L	08/23/2012	N002	149.43 - 169.43	10		F	#	0.0095	
Silicon	mg/L	08/23/2012	N001	149.43 - 169.43	4.5		F	#	0.0044	
Silicon	mg/L	08/23/2012	N002	149.43 - 169.43	4.7		F	#	0.0044	
Sodium	mg/L	08/23/2012	N001	149.43 - 169.43	8.4		F	#	0.0066	
Sodium	mg/L	08/23/2012	N002	149.43 - 169.43	8.5		F	#	0.0066	
Specific Conductance	umhos/cm	08/23/2012	N001	149.43 - 169.43	265		F	#		
Sulfate	mg/L	08/23/2012	N001	149.43 - 169.43	13		F	#	1	
Sulfate	mg/L	08/23/2012	N002	149.43 - 169.43	13		F	#	1	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-8S WELL NAVAJO MONITORING WELL NMW_8S; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Temperature	C	08/23/2012	N001	149.43 - 169.43	16.8		F	#		
Total Dissolved Solids	mg/L	08/23/2012	N001	149.43 - 169.43	150		F	#	20	
Total Dissolved Solids	mg/L	08/23/2012	N002	149.43 - 169.43	160		F	#	20	
Turbidity	NTU	08/23/2012	N001	149.43 - 169.43	0.98		F	#		
Uranium	mg/L	08/23/2012	N001	149.43 - 169.43	0.0012		F	#	0.000029	
Uranium	mg/L	08/23/2012	N002	149.43 - 169.43	0.0013		F	#	0.000058	

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-9D WELL NAVAJO MONITORING WELL NMW-9D; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Lab	Qualifiers Data	QA	Detection Limit	Uncertainty
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	265.52 - 270.52	106		FQ	#		
Ammonia Total as N	mg/L	08/23/2012	N001	265.52 - 270.52	0.1	U	FQ	#	0.1	
Arsenic	mg/L	08/23/2012	N001	265.52 - 270.52	0.00069		FQ	#	0.000015	
Calcium	mg/L	08/23/2012	N001	265.52 - 270.52	35		FQ	#	0.012	
Chloride	mg/L	08/23/2012	N001	265.52 - 270.52	11		FQ	#	0.2	
Iron	mg/L	08/23/2012	N001	265.52 - 270.52	0.0049	U	FQ	#	0.0049	
Magnesium	mg/L	08/23/2012	N001	265.52 - 270.52	7		FQ	#	0.013	
Manganese	mg/L	08/23/2012	N001	265.52 - 270.52	0.17		FQ	#	0.00011	
Molybdenum	mg/L	08/23/2012	N001	265.52 - 270.52	0.0024		FQ	#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	265.52 - 270.52	1.8		FQ	#	0.01	
Oxidation Reduction Potential	mV	08/23/2012	N001	265.52 - 270.52	70		FQ	#		
pH	s.u.	08/23/2012	N001	265.52 - 270.52	7.43		FQ	#		
Potassium	mg/L	08/23/2012	N001	265.52 - 270.52	1.4		FQ	#	0.11	
Selenium	mg/L	08/23/2012	N001	265.52 - 270.52	0.0009		FQ	#	0.000032	
Silica	mg/L	08/23/2012	N001	265.52 - 270.52	12		FQ	#	0.0095	
Silicon	mg/L	08/23/2012	N001	265.52 - 270.52	5.7		FQ	#	0.0044	
Sodium	mg/L	08/23/2012	N001	265.52 - 270.52	15		FQ	#	0.0066	
Specific Conductance	umhos/cm	08/23/2012	N001	265.52 - 270.52	320		FQ	#		

Groundwater Quality Data by Location (USEE100) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: NMW-9D WELL NAVAJO MONITORING WELL NMW-9D; Owned by NNEPA

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)	Result	Qualifiers		Detection Limit	Uncertainty
						Lab	QA		
Sulfate	mg/L	08/23/2012	N001	265.52 - 270.52	28		FQ #	0.5	
Temperature	C	08/23/2012	N001	265.52 - 270.52	17.6		FQ #		
Total Dissolved Solids	mg/L	08/23/2012	N001	265.52 - 270.52	200		FQ #	20	
Turbidity	NTU	08/23/2012	N001	265.52 - 270.52	1.24		FQ #		
Uranium	mg/L	08/23/2012	N001	265.52 - 270.52	0.0013		FQ #	0.0000029	

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X,Y,Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

- F Low flow sampling method used.
- L Less than 3 bore volumes purged prior to sampling.
- U Parameter analyzed for but was not detected.
- G Possible grout contamination, pH > 9.
- Q Qualitative result due to sampling technique.
- X Location is undefined.
- J Estimated value.
- R Unusable result.

QA QUALIFIER:

- # Validated according to quality assurance guidelines.

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**Treatment System
and
Surface Water Quality Data**

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Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0759 SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID		Lab	Data	QA		
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	0001	166			#		
Arsenic	mg/L	08/21/2012	0001	0.00072			#	0.000015	
Calcium	mg/L	08/21/2012	0001	230			#	0.012	
Chloride	mg/L	08/21/2012	0001	7.3			#	0.4	
Iron	mg/L	08/21/2012	0001	0.71		J	#	0.0049	
Magnesium	mg/L	08/21/2012	0001	38			#	0.013	
Manganese	mg/L	08/21/2012	0001	0.015			#	0.00011	
Molybdenum	mg/L	08/21/2012	0001	0.0022			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	0001	2.2		J	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	158.1			#		
pH	s.u.	08/21/2012	N001	7.59			#		
Potassium	mg/L	08/21/2012	0001	9.6			#	0.11	
Selenium	mg/L	08/21/2012	0001	0.0015			#	0.000032	
Sodium	mg/L	08/21/2012	0001	73			#	0.0066	
Specific Conductance	umhos/cm	08/21/2012	N001	1436			#		
Sulfate	mg/L	08/21/2012	0001	760		J	#	10	
Temperature	C	08/21/2012	N001	25.07			#		
Total Dissolved Solids	mg/L	08/21/2012	0001	1300		J	#	40	
Turbidity	NTU	08/21/2012	N001	1000	>		#		
Uranium	mg/L	08/21/2012	0001	0.0037			#	0.0000029	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0778 SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID		Lab	Data	QA		
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	0001	140			#		
Arsenic	mg/L	08/21/2012	0001	0.00059			#	0.000015	
Calcium	mg/L	08/21/2012	0001	220			#	0.012	
Chloride	mg/L	08/21/2012	0001	7.4			#	0.4	
Iron	mg/L	08/21/2012	0001	0.17		J	#	0.0049	
Magnesium	mg/L	08/21/2012	0001	37			#	0.013	
Manganese	mg/L	08/21/2012	0001	0.047			#	0.00011	
Molybdenum	mg/L	08/21/2012	0001	0.0021			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	0001	2.5		J	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	243.6			#		
pH	s.u.	08/21/2012	N001	7.72			#		
Potassium	mg/L	08/21/2012	0001	9.5			#	0.11	
Selenium	mg/L	08/21/2012	0001	0.0019			#	0.000032	
Sodium	mg/L	08/21/2012	0001	73			#	0.0066	
Specific Conductance	umhos/cm	08/21/2012	N001	1025			#		
Sulfate	mg/L	08/21/2012	0001	730		J	#	10	
Temperature	C	08/21/2012	N001	26.54			#		
Total Dissolved Solids	mg/L	08/21/2012	0001	1200		J	#	40	
Turbidity	NTU	08/21/2012	N001	1000	>		#		
Uranium	mg/L	08/21/2012	0001	0.0035			#	0.0000029	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 0965 SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID		Lab	Data	QA		
Alkalinity, Total (as CaCO ₃)	mg/L	08/20/2012	0001	160			#		
Arsenic	mg/L	08/20/2012	0001	0.00055			#	0.000015	
Calcium	mg/L	08/20/2012	0001	89			#	0.012	
Chloride	mg/L	08/20/2012	0001	4.5			#	1	
Iron	mg/L	08/20/2012	0001	0.18		J	#	0.0049	
Magnesium	mg/L	08/20/2012	0001	14			#	0.013	
Manganese	mg/L	08/20/2012	0001	0.0097			#	0.00011	
Molybdenum	mg/L	08/20/2012	0001	0.0024			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/20/2012	0001	1.4		J	#	0.01	
Oxidation Reduction Potential	mV	08/20/2012	N001	193.9			#		
pH	s.u.	08/20/2012	N001	7.77			#		
Potassium	mg/L	08/20/2012	0001	7.3			#	0.11	
Selenium	mg/L	08/20/2012	0001	0.0011			#	0.000032	
Sodium	mg/L	08/20/2012	0001	36			#	0.0066	
Specific Conductance	umhos/cm	08/20/2012	N001	747			#		
Sulfate	mg/L	08/20/2012	0001	270		J	#	2.5	
Temperature	C	08/20/2012	N001	28.73			#		
Total Dissolved Solids	mg/L	08/20/2012	0001	500		J	#	20	
Turbidity	NTU	08/20/2012	N001	1000	>		#		
Uranium	mg/L	08/20/2012	0001	0.0015			#	0.0000029	

General Water Quality Data by Location (USEE105) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/2/2012
Location: 1202 TREATMENT SYSTEM Soft Water Feed Tank

Parameter	Units	Sample		Depth Range			Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID	(Ft BLS)				Lab	Data	QA		
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	0	-	0	256			#		
Ammonia Total as N	mg/L	08/23/2012	N001	0	-	0	7.9			#	0.2	
Calcium	mg/L	08/23/2012	N001	0	-	0	250			#	0.12	
Chloride	mg/L	08/23/2012	N001	0	-	0	520			#	10	
Molybdenum	mg/L	08/23/2012	N001	0	-	0	0.079			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	0	-	0	110			#	1	
Oxidation Reduction Potential	mV	08/23/2012	N001	0	-	0	141.8			#		
pH	s.u.	08/23/2012	N001	0	-	0	6.08			#		
Selenium	mg/L	08/23/2012	N001	0	-	0	0.021			#	0.00032	
Specific Conductance	umhos/cm	08/23/2012	N001	0	-	0	5091			#		
Sulfate	mg/L	08/23/2012	N001	0	-	0	1500			#	25	
Temperature	C	08/23/2012	N001	0	-	0	22.85			#		
Total Dissolved Solids	mg/L	08/23/2012	N001	0	-	0	3800			#	200	
Turbidity	NTU	08/23/2012	N001	0	-	0	0.56			#		
Uranium	mg/L	08/23/2012	N001	0	-	0	0.35			#	0.000029	

General Water Quality Data by Location (USEE105) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/2/2012
Location: 1205 TREATMENT SYSTEM Distillate from Evaporator

Parameter	Units	Sample Date	Sample ID	Depth Range (Ft BLS)			Result	Qualifiers			Detection Limit	Uncertainty
								Lab	Data	QA		
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	0	-	0	0			#		
Ammonia Total as N	mg/L	08/23/2012	N001	0	-	0	0.1	U		#	0.1	
Calcium	mg/L	08/23/2012	N001	0	-	0	0.46	B		#	0.012	
Chloride	mg/L	08/23/2012	N001	0	-	0	67			#	1	
Molybdenum	mg/L	08/23/2012	N001	0	-	0	0.0028			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	0	-	0	4.2			#	0.05	
Oxidation Reduction Potential	mV	08/23/2012	N001	0	-	0	80.3			#		
pH	s.u.	08/23/2012	N001	0	-	0	5.24			#		
Selenium	mg/L	08/23/2012	N001	0	-	0	0.00084			#	0.000032	
Specific Conductance	umhos/cm	08/23/2012	N001	0	-	0	438			#		
Sulfate	mg/L	08/23/2012	N001	0	-	0	62			#	1	
Temperature	C	08/23/2012	N001	0	-	0	32.82			#		
Total Dissolved Solids	mg/L	08/23/2012	N001	0	-	0	220			#	20	
Turbidity	NTU	08/23/2012	N001	0	-	0	0.4			#		
Uranium	mg/L	08/23/2012	N001	0	-	0	0.017			#	0.000029	

General Water Quality Data by Location (USEE105) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1206 TREATMENT SYSTEM Brine from Evaporator

Parameter	Units	Sample		Depth Range (Ft BLS)	Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID			Lab	Data	QA		
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	0 - 0	0			#		
Ammonia Total as N	mg/L	08/23/2012	N001	0 - 0	43			#	1	
Calcium	mg/L	08/23/2012	N001	0 - 0	86	B		#	1.2	
Chloride	mg/L	08/23/2012	N001	0 - 0	15000			#	200	
Molybdenum	mg/L	08/23/2012	N001	0 - 0	0.73			#	0.00032	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	0 - 0	870			#	10	
Oxidation Reduction Potential	mV	08/23/2012	N001	0 - 0	410.3			#		
pH	s.u.	08/23/2012	N001	0 - 0	2.74			#		
Selenium	mg/L	08/23/2012	N001	0 - 0	0.21			#	0.00032	
Specific Conductance	umhos/cm	08/23/2012	N001	0 - 0	61347			#		
Sulfate	mg/L	08/23/2012	N001	0 - 0	14000			#	500	
Temperature	C	08/23/2012	N001	0 - 0	29.59			#		
Total Dissolved Solids	mg/L	08/23/2012	N001	0 - 0	53000			#	4000	
Turbidity	NTU	08/23/2012	N001	0 - 0	1.42			#		
Uranium	mg/L	08/23/2012	N001	0 - 0	3.7			#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1569 SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID		Lab	Data	QA		
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	0			#		
Arsenic	mg/L	08/23/2012	N001	0.041			#	0.003	
Calcium	mg/L	08/23/2012	N001	1200			#	1.2	
Chloride	mg/L	08/23/2012	N001	49000			#	1000	
Iron	mg/L	08/23/2012	N001	0.49	U		#	0.49	
Magnesium	mg/L	08/23/2012	N001	3700			#	1.3	
Manganese	mg/L	08/23/2012	N001	59			#	0.011	
Molybdenum	mg/L	08/23/2012	N001	0.12			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	2900			#	20	
Oxidation Reduction Potential	mV	08/23/2012	N001	415			#		
pH	s.u.	08/23/2012	N001	3.51			#		
Potassium	mg/L	08/23/2012	N001	270			#	11	
Selenium	mg/L	08/23/2012	N001	0.39			#	0.0065	
Sodium	mg/L	08/23/2012	N001	25000			#	3.3	
Specific Conductance	umhos/cm	08/23/2012	N001	121500			#		
Sulfate	mg/L	08/23/2012	N001	9700			#	1000	
Temperature	C	08/23/2012	N001	20.8			#		
Total Dissolved Solids	mg/L	08/23/2012	N001	110000			#	4000	
Turbidity	NTU	08/23/2012	N001	3.24			#		
Uranium	mg/L	08/23/2012	N001	2.1			#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1570 SURFACE LOCATION

Parameter	Units	Sample		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID		Lab	Data	QA		
Alkalinity, Total (as CaCO ₃)	mg/L	08/23/2012	N001	0			#		
Arsenic	mg/L	08/23/2012	N001	0.039			#	0.003	
Calcium	mg/L	08/23/2012	N001	1300			#	1.2	
Chloride	mg/L	08/23/2012	N001	49000			#	1000	
Iron	mg/L	08/23/2012	N001	0.49	U		#	0.49	
Magnesium	mg/L	08/23/2012	N001	4000			#	1.3	
Manganese	mg/L	08/23/2012	N001	66			#	0.011	
Molybdenum	mg/L	08/23/2012	N001	0.12			#	0.0064	
Nitrate + Nitrite as Nitrogen	mg/L	08/23/2012	N001	2800			#	20	
Oxidation Reduction Potential	mV	08/23/2012	N001	405			#		
pH	s.u.	08/23/2012	N001	3.41			#		
Potassium	mg/L	08/23/2012	N001	310			#	11	
Selenium	mg/L	08/23/2012	N001	0.38			#	0.0065	
Sodium	mg/L	08/23/2012	N001	24000			#	3.3	
Specific Conductance	umhos/cm	08/23/2012	N001	120000			#		
Sulfate	mg/L	08/23/2012	N001	9900			#	1000	
Temperature	C	08/23/2012	N001	20.8			#		
Total Dissolved Solids	mg/L	08/23/2012	N001	110000			#	4000	
Turbidity	NTU	08/23/2012	N001	3.8			#		
Uranium	mg/L	08/23/2012	N001	2.1			#	0.00058	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1571 SURFACE LOCATION Jimmy Spring West

Parameter	Units	Sample		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID		Lab	Data	QA		
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	0001	274			#		
Arsenic	mg/L	08/21/2012	0001	0.002			#	0.000015	
Arsenic	mg/L	08/21/2012	0002	0.002			#	0.000074	
Calcium	mg/L	08/21/2012	0001	28			#	0.012	
Calcium	mg/L	08/21/2012	0002	28			#	0.012	
Chloride	mg/L	08/21/2012	0001	42			#	1	
Chloride	mg/L	08/21/2012	0002	42			#	1	
Iron	mg/L	08/21/2012	0001	0.011	B	U	#	0.0049	
Iron	mg/L	08/21/2012	0002	0.0049	U		#	0.0049	
Magnesium	mg/L	08/21/2012	0001	9.2			#	0.013	
Magnesium	mg/L	08/21/2012	0002	9.1			#	0.013	
Manganese	mg/L	08/21/2012	0001	0.005	B		#	0.00011	
Manganese	mg/L	08/21/2012	0002	0.0026	B	U	#	0.00011	
Molybdenum	mg/L	08/21/2012	0001	0.0033			#	0.000032	
Molybdenum	mg/L	08/21/2012	0002	0.0032			#	0.00016	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	0001	2.6		J	#	0.02	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	0002	2.6		J	#	0.02	
Oxidation Reduction Potential	mV	08/21/2012	N001	174.8			#		
pH	s.u.	08/21/2012	N001	8.81			#		
Potassium	mg/L	08/21/2012	0001	2.4			#	0.11	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1571 SURFACE LOCATION Jimmy Spring West

Parameter	Units	Sample Date	Sample ID	Result	Qualifiers		Detection Limit	Uncertainty
					Lab	Data QA		
Potassium	mg/L	08/21/2012	0002	2.4		#	0.11	
Selenium	mg/L	08/21/2012	0001	0.0048		#	0.000032	
Selenium	mg/L	08/21/2012	0002	0.0049	U	#	0.00016	
Sodium	mg/L	08/21/2012	0001	68		#	0.0066	
Sodium	mg/L	08/21/2012	0002	68		#	0.0066	
Specific Conductance	umhos/cm	08/21/2012	N001	558		#		
Sulfate	mg/L	08/21/2012	0001	88	J	#	2.5	
Sulfate	mg/L	08/21/2012	0002	87	J	#	2.5	
Temperature	C	08/21/2012	N001	23.56		#		
Total Dissolved Solids	mg/L	08/21/2012	0001	340	J	#	20	
Total Dissolved Solids	mg/L	08/21/2012	0002	360	J	#	20	
Turbidity	NTU	08/21/2012	N001	245		#		
Uranium	mg/L	08/21/2012	0001	0.0032		#	0.0000029	
Uranium	mg/L	08/21/2012	0002	0.0031		#	0.000015	

Surface Water Quality Data by Location (USEE102) FOR SITE TUB01, Tuba City Disposal Site

REPORT DATE: 11/2/2012

Location: 1573 SURFACE LOCATION Shonto Well West Pipe

Parameter	Units	Sample		Result	Qualifiers			Detection Limit	Uncertainty
		Date	ID		Lab	Data	QA		
Alkalinity, Total (as CaCO ₃)	mg/L	08/21/2012	N001	172			#		
Arsenic	mg/L	08/21/2012	N001	0.006			#	0.000015	
Calcium	mg/L	08/21/2012	N001	17			#	0.012	
Chloride	mg/L	08/21/2012	N001	31			#	0.4	
Iron	mg/L	08/21/2012	N001	0.03	B	U	#	0.0049	
Magnesium	mg/L	08/21/2012	N001	3.8			#	0.013	
Manganese	mg/L	08/21/2012	N001	0.00082	B	U	#	0.00011	
Molybdenum	mg/L	08/21/2012	N001	0.0012			#	0.000032	
Nitrate + Nitrite as Nitrogen	mg/L	08/21/2012	N001	1.1		J	#	0.01	
Oxidation Reduction Potential	mV	08/21/2012	N001	177.5			#		
pH	s.u.	08/21/2012	N001	8.32			#		
Potassium	mg/L	08/21/2012	N001	3.3			#	0.11	
Selenium	mg/L	08/21/2012	N001	0.0029			#	0.000032	
Sodium	mg/L	08/21/2012	N001	70			#	0.0066	
Specific Conductance	umhos/cm	08/21/2012	N001	443			#		
Sulfate	mg/L	08/21/2012	N001	30		J	#	1	
Temperature	C	08/21/2012	N001	25.7			#		
Total Dissolved Solids	mg/L	08/21/2012	N001	280		J	#	20	
Turbidity	NTU	08/21/2012	N001	0.52			#		
Uranium	mg/L	08/21/2012	N001	0.002			#	0.0000029	

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.
- E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
- H Holding time expired, value suspect.
- I Increased detection limit due to required dilution.
- J Estimated
- N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
- P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
- U Analytical result below detection limit.
- W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
- X,Y,Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

- | | | | | | |
|---|--|---|---|---|------------------|
| F | Low flow sampling method used. | G | Possible grout contamination, pH > 9. | J | Estimated value. |
| L | Less than 3 bore volumes purged prior to sampling. | Q | Qualitative result due to sampling technique. | R | Unusable result. |
| U | Parameter analyzed for but was not detected. | X | Location is undefined. | | |

QA QUALIFIER:

- # Validated according to quality assurance guidelines.

Equipment Blank Data

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BLANKS REPORT

LAB: PARAGON/ALS LABORATORY GROUP (Fort Collins, CO)

RIN: 12084778

Report Date: 11/2/2012

Parameter	Site Code	Location ID	Sample Date	Sample ID	Units	Result	Qualifiers Lab Data	Detection Limit	Uncertainty	Sample Type
Arsenic	TUB01	0999	08/21/2012	N001	mg/L	0.000079	B	0.000015		E
Calcium	TUB01	0999	08/21/2012	N001	mg/L	0.34	B	0.012		E
Chloride	TUB01	0999	08/21/2012	N001	mg/L	0.2	U	0.2		E
Iron	TUB01	0999	08/21/2012	N001	mg/L	0.25		0.0049		E
Magnesium	TUB01	0999	08/21/2012	N001	mg/L	0.17	B	0.013		E
Manganese	TUB01	0999	08/21/2012	N001	mg/L	0.0033	B U	0.00011		E
Molybdenum	TUB01	0999	08/21/2012	N001	mg/L	0.000032	U	0.000032		E
Nitrate + Nitrite as Nitrogen	TUB01	0999	08/21/2012	N001	mg/L	0.01	U	0.01		E
Potassium	TUB01	0999	08/21/2012	N001	mg/L	0.11	U	0.11		E
Selenium	TUB01	0999	08/21/2012	N001	mg/L	0.000032	U	0.000032		E
Sodium	TUB01	0999	08/21/2012	N001	mg/L	0.02	B	0.0066		E
Sulfate	TUB01	0999	08/21/2012	N001	mg/L	0.5	U	0.5		E
Total Dissolved Solids	TUB01	0999	08/21/2012	N001	mg/L	20	U	20		E
Uranium	TUB01	0999	08/21/2012	N001	mg/L	0.000029		0.000029		E

SAMPLE ID CODES: 000X = Filtered sample (0.45 µm). N00X = Unfiltered sample. X = replicate number.

LAB QUALIFIERS:

- * Replicate analysis not within control limits.
- > Result above upper detection limit.
- A TIC is a suspected aldol-condensation product.
- B Inorganic: Result is between the IDL and CRDL. Organic: Analyte also found in method blank.
- C Pesticide result confirmed by GC-MS.
- D Analyte determined in diluted sample.

E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.
H Holding time expired, value suspect.
I Increased detection limit due to required dilution.
J Estimated
N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).
P > 25% difference in detected pesticide or Aroclor concentrations between 2 columns.
U Analytical result below detection limit.
W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.
X,Y,Z Laboratory defined qualifier, see case narrative.

DATA QUALIFIERS:

F	Low flow sampling method used.	G	Possible grout contamination, pH > 9.	J	Estimated value.
L	Less than 3 bore volumes purged prior to sampling.	Q	Qualitative result due to sampling technique.	R	Unusable result.
U	Parameter analyzed for but was not detected.	X	Location is undefined.		

SAMPLE TYPES:

E Equipment Blank.

Static Water Level Data

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STATIC WATER LEVELS (USEE700) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/2/2012

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
0251		5061.25	08/21/2012	14:10:41	75.41	4985.84	
0252		5061.3	08/21/2012	14:45:26	70.62	4990.68	
0258		5055.56	08/23/2012	10:30:15	97.49	4958.07	
0261		5069.69	08/22/2012	16:55:16	128.75	4940.94	
0262		5061.99	08/22/2012	15:45:40	48.8	5013.19	
0263		5063.1	08/21/2012	18:10:51	54.67	5008.43	
0264		5062.19	08/21/2012	18:40:18	83.33	4978.86	
0265		5053.88	08/22/2012	11:55:47	80.81	4973.07	
0266		5053.32	08/22/2012	12:35:02	95.5	4957.82	
0267		5053.4	08/21/2012	16:50:05	62.25	4991.15	
0268		5067.24	08/21/2012	16:40:11	92.94	4974.3	
0271		5046.72	08/22/2012	09:40:16	55.06	4991.66	
0272		5064.24	08/21/2012	12:10:54	69.61	4994.63	
0273		5064.74	08/21/2012	15:45:45	72.7	4992.04	
0274		5064.42	08/21/2012	16:10:33	70.68	4993.74	
0275		5062.64	08/21/2012	17:10:08	71.39	4991.25	
0276		5067.55	08/21/2012	17:35:53	70.16	4997.39	
0277		4982.35	08/22/2012	10:15:52	36	4946.35	
0278		4956.09	08/23/2012	08:25:59	23.03	4933.06	
0279		4951.04	08/23/2012	09:05:59	25.77	4925.27	
0280		4951.52	08/23/2012	09:35:11	27.6	4923.92	
0281		5051	08/22/2012	10:10:34	70.54	4980.46	
0282		5060.04	08/22/2012	11:00:58	83.71	4976.33	
0283		5057.97	08/22/2012	13:49:00	83.67	4974.3	B
0284		5098.72	08/23/2012	12:30:00	29.35	5069.37	
0285		5096.47	08/20/2012	18:49:00			D
0286		5063.99	08/21/2012	14:35:07	65.81	4998.18	
0287		5065.65	08/21/2012	14:55:58	55.1	5010.55	

STATIC WATER LEVELS (USEE700) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/2/2012

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Measurement Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
0288		5072.54	08/21/2012	11:45:46	55.97	5016.57	
0289		5070.82	08/21/2012	11:30:42	55.65	5015.17	
0290		5068.91	08/22/2012	18:10:57	86.78	4982.13	
0683		5070.64	08/22/2012	18:35:53	99.2	4971.44	
0684		5070.05	08/21/2012	18:35:02	69.26	5000.79	
0685		5072.44	08/21/2012	08:40:45	49.41	5023.03	
0686		5107.97	08/21/2012	10:10:30	67.71	5040.26	
0687		5109.82	08/21/2012	09:40:03	55.7	5054.12	
0688		5106.98	08/21/2012	09:05:59	63.72	5043.26	
0689		4981.63	08/22/2012	11:20:32	39.46	4942.17	
0690		4950.87	08/23/2012	09:20:26	25.09	4925.78	
0691		4979.41	08/22/2012	14:45:13	41.76	4937.65	
0692		4953.31	08/23/2012	10:00:31	26.18	4927.13	
0695		4976.83	08/22/2012	15:10:30	50.56	4926.27	
0901	U	5105.46	08/22/2012	16:45:51	47.85	5057.61	
0902	N	4737.42	08/21/2012	11:55:00	30.31	4707.11	
0903	D	4983.33	08/22/2012	09:50:42	32.9	4950.43	
0904	N	4904.11	08/22/2012	17:00:42	23.18	4880.93	
0906	O	5062.1	08/22/2012	11:35:28	50	5012.1	
0908	D	5058.14	08/21/2012	10:50:07	58.53	4999.61	
0909	D	5057.17	08/22/2012	14:15:00	74.97	4982.2	B
0910	U	5106.7	08/22/2012	17:40:39	49.99	5056.71	
0911	U	5106.96	08/22/2012	16:20:57	47.41	5059.55	
0912	D	5059.97	08/21/2012	12:25:56	60.98	4998.99	
0913	D	5060.16	08/21/2012	11:50:37	67.12	4993.04	
0914	D	5070.1	08/22/2012	18:40:16	112.23	4957.87	
0915	D	5070.84	08/23/2012	08:35:31	108.87	4961.97	
0916	D	5070	08/22/2012	17:40:14	118.96	4951.04	

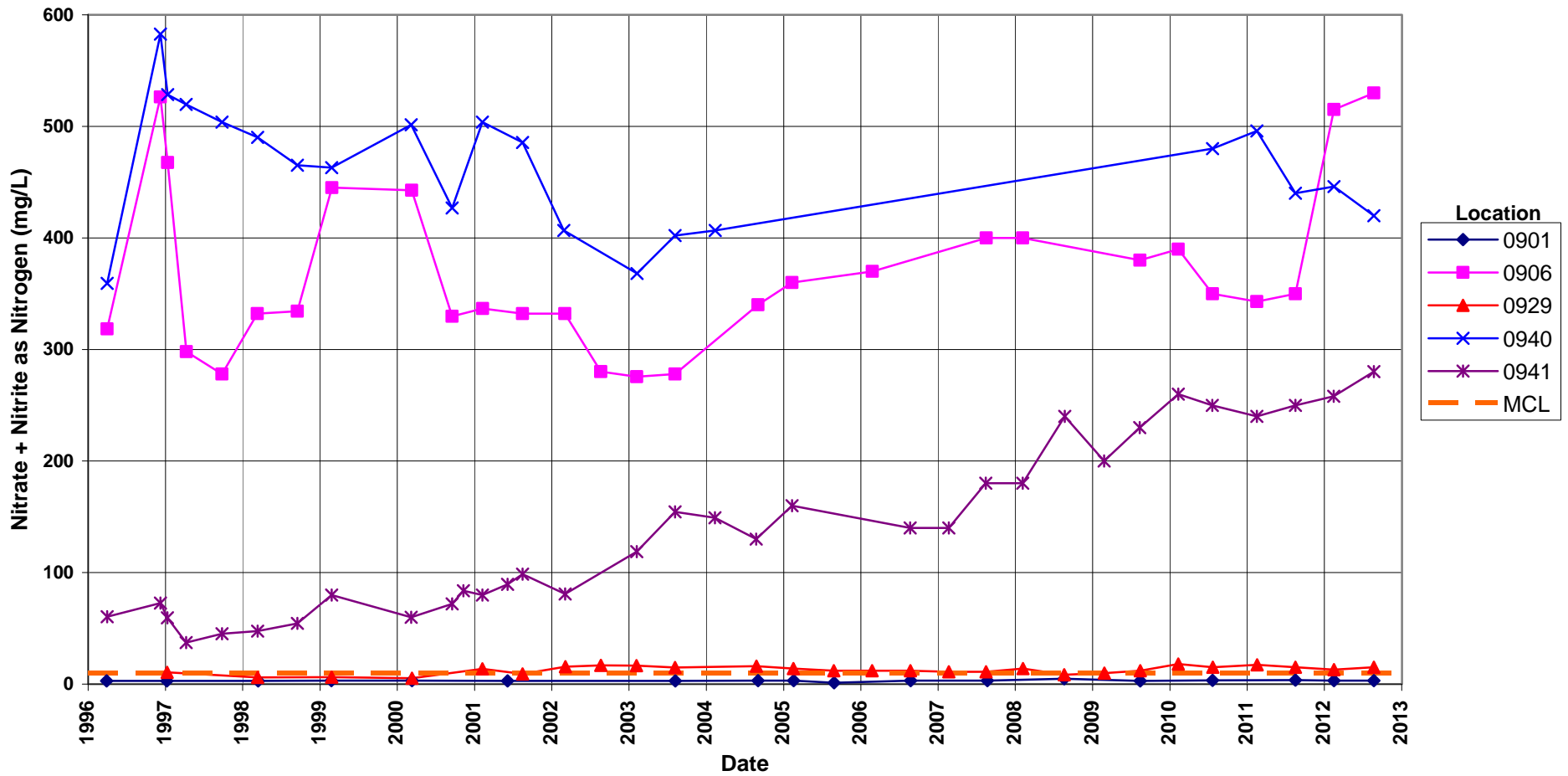
STATIC WATER LEVELS (USEE700) FOR SITE TUB01, Tuba City Disposal Site
REPORT DATE: 11/2/2012

Location Code	Flow Code	Top of Casing Elevation (Ft)	Measurement Date	Measurement Time	Depth From Top of Casing (Ft)	Water Elevation (Ft)	Water Level Flag
0917	D	5048.02	08/21/2012	16:05:00	69.52	4978.5	
0918	D	5049.63	08/21/2012	16:00:00			D
0919	D	5048.56	08/21/2012	16:10:00	146.9	4901.66	
0920	D	4982.97	08/22/2012	10:45:55	33.85	4949.12	
0921	D	4979.08	08/21/2012	09:35:54	39.14	4939.94	
0929	D	5060.82	08/21/2012	16:10:39	81.33	4979.49	
0930	D	4954.96	08/23/2012	08:45:46	21.26	4933.7	
0932	D	5057.32	08/22/2012	15:10:41	101.14	4956.18	
0934	D	5059.73	08/21/2012	15:25:36	76.88	4982.85	
0935	D	5061.5	08/22/2012	13:45:15			F
0940	D	5064.77	08/21/2012	14:15:15	58.81	5005.96	
0941	D	5065.97	08/21/2012	15:10:06	53.8	5012.17	
0943	U	5098.05	08/20/2012	18:40:23	54.08	5043.97	
0945	U	5140.49	08/21/2012	18:00:38	91.12	5049.37	
0946	C	5100.5	08/21/2012	10:50:31	52.02	5048.48	
0947	U	5097.01	08/20/2012	18:30:25	67.93	5029.08	
1003		4976.58	08/22/2012	14:25:40	39.16	4937.42	
1004		4961.55	08/22/2012	15:35:01	25.11	4936.44	
1005		4947.83	08/22/2012	09:15:00	22.31	4925.52	
1006		4947.08	08/22/2012	18:00:48	16.9	4930.18	
1007		4958.56	08/22/2012	17:35:12	22.05	4936.51	
1008		4980.52	08/22/2012	09:00:00	37.81	4942.71	
1101		5067.29	08/22/2012	08:15:13			F
1103		5059.56	08/22/2012	09:00:48			F
1104		5059.57	08/22/2012	09:50:15			F
1105		5059.33	08/22/2012	10:10:18			F
1106		5059.73	08/22/2012	10:15:40			F
1107		5059.51	08/22/2012	10:30:38			F

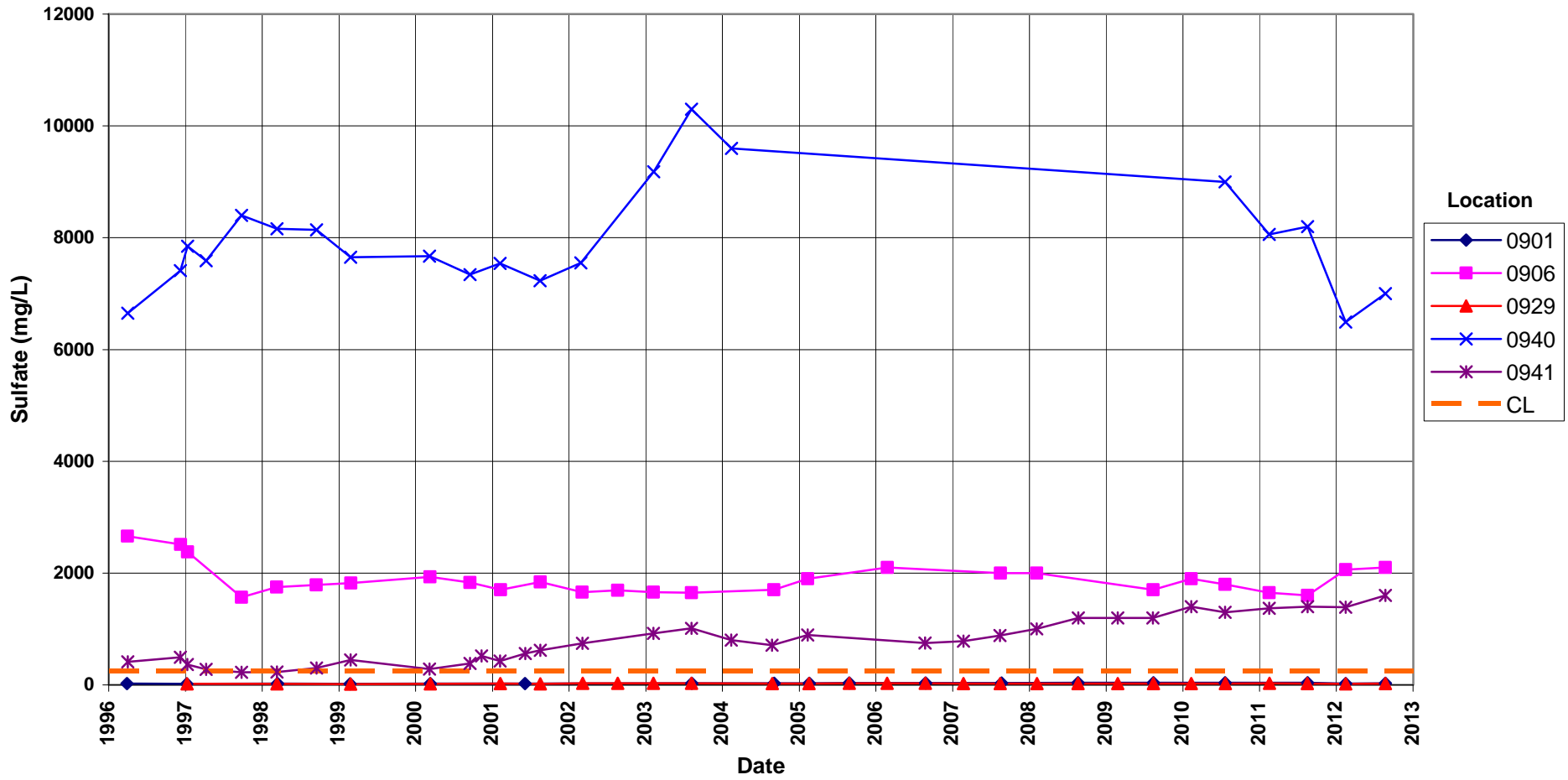
Time-Concentration Graphs

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Tuba City Disposal Site
Horizon A Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
 Maximum Contaminant Level (MCL) = 10.0 mg/L

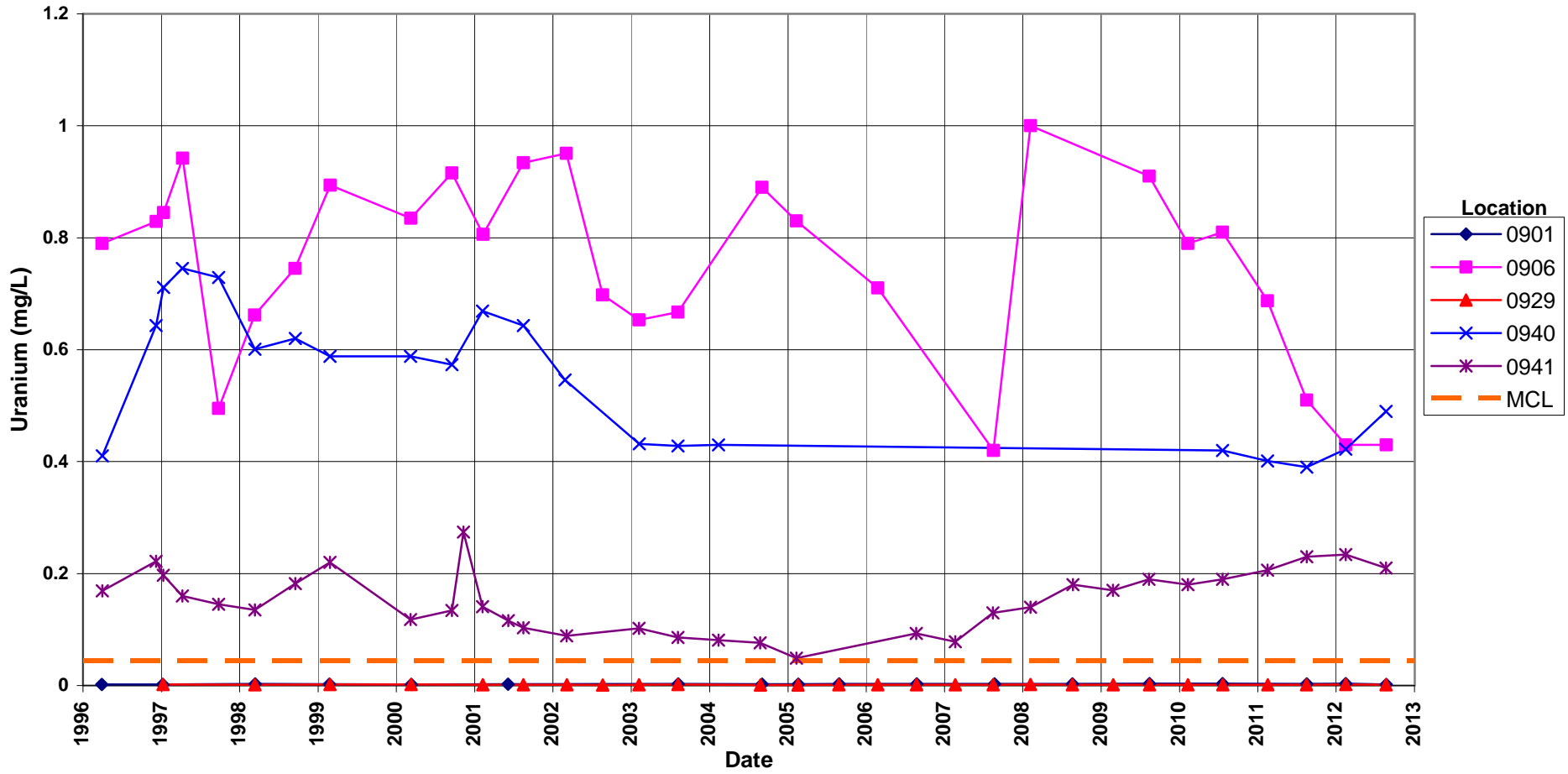


**Tuba City Disposal Site
Horizon A Monitoring Wells
Sulfate Concentration**
Cleanup Level (CL) = 250 mg/L

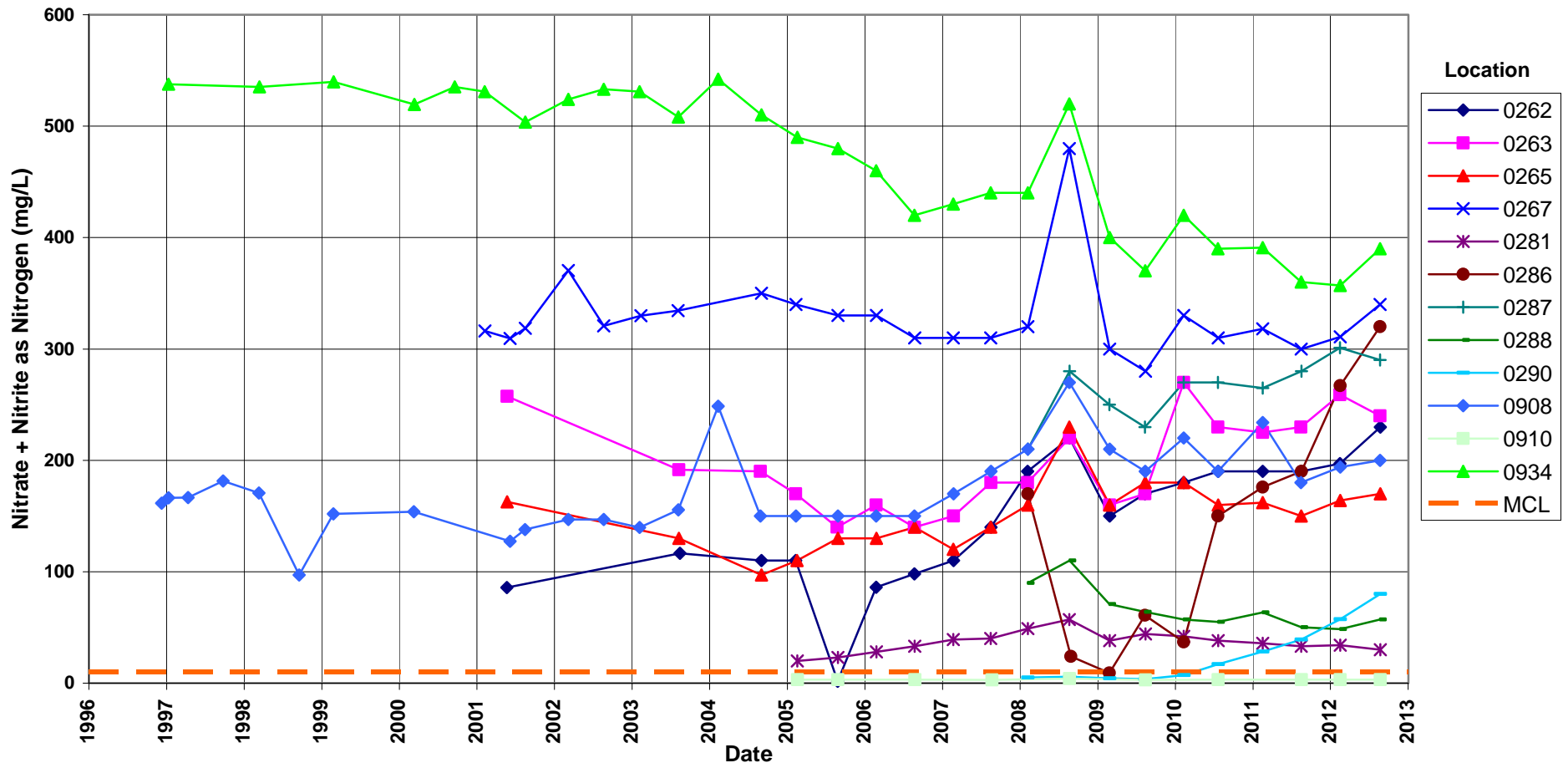


**Tuba City Disposal Site
Horizon A Monitoring Wells
Uranium Concentration**

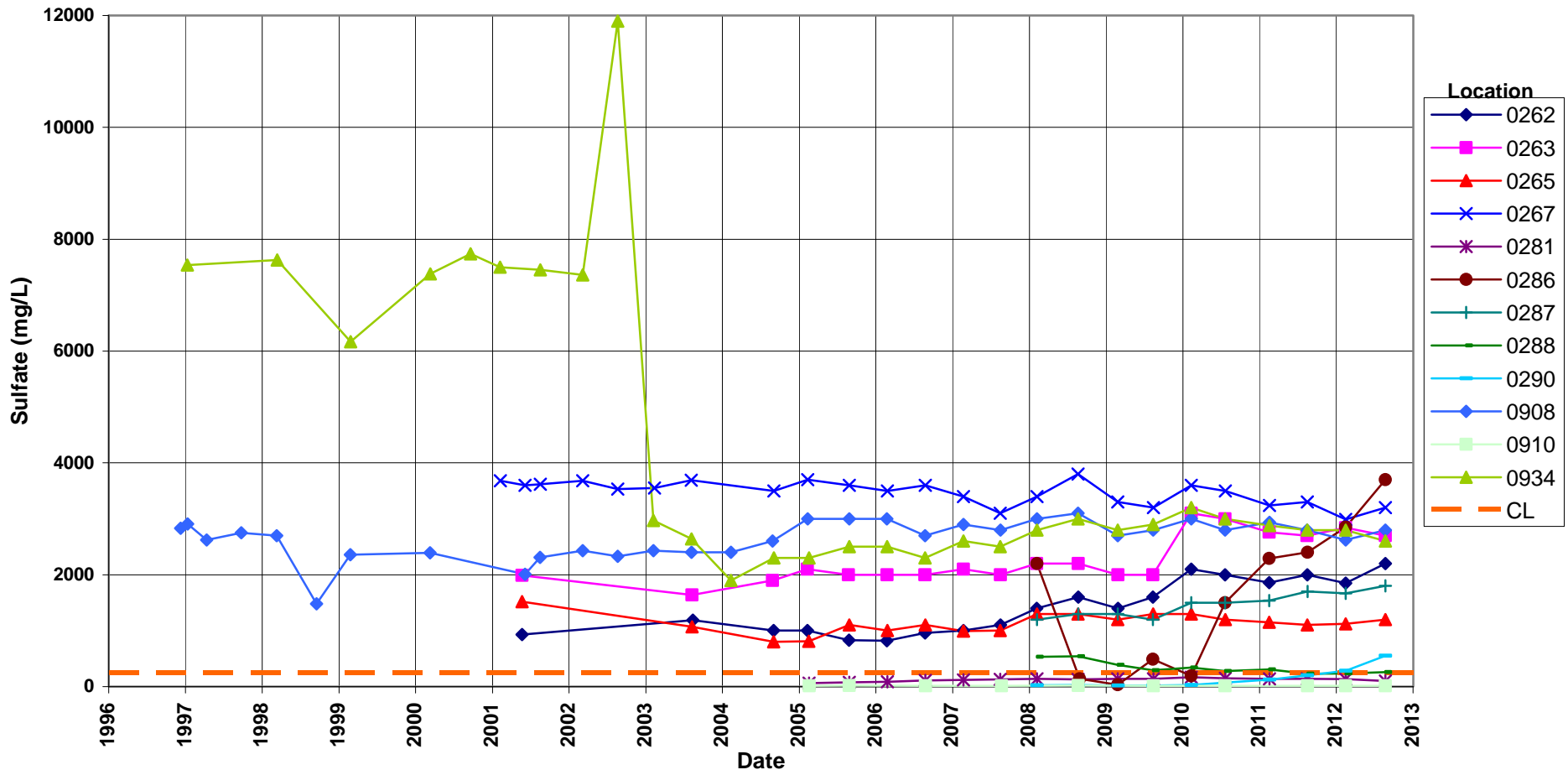
Maximum Contaminant Level (MCL) = 0.044 mg/L



**Tuba City Disposal Site
Horizon B Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration**
Maximum Contaminant Level (MCL) = 10.0 mg/L

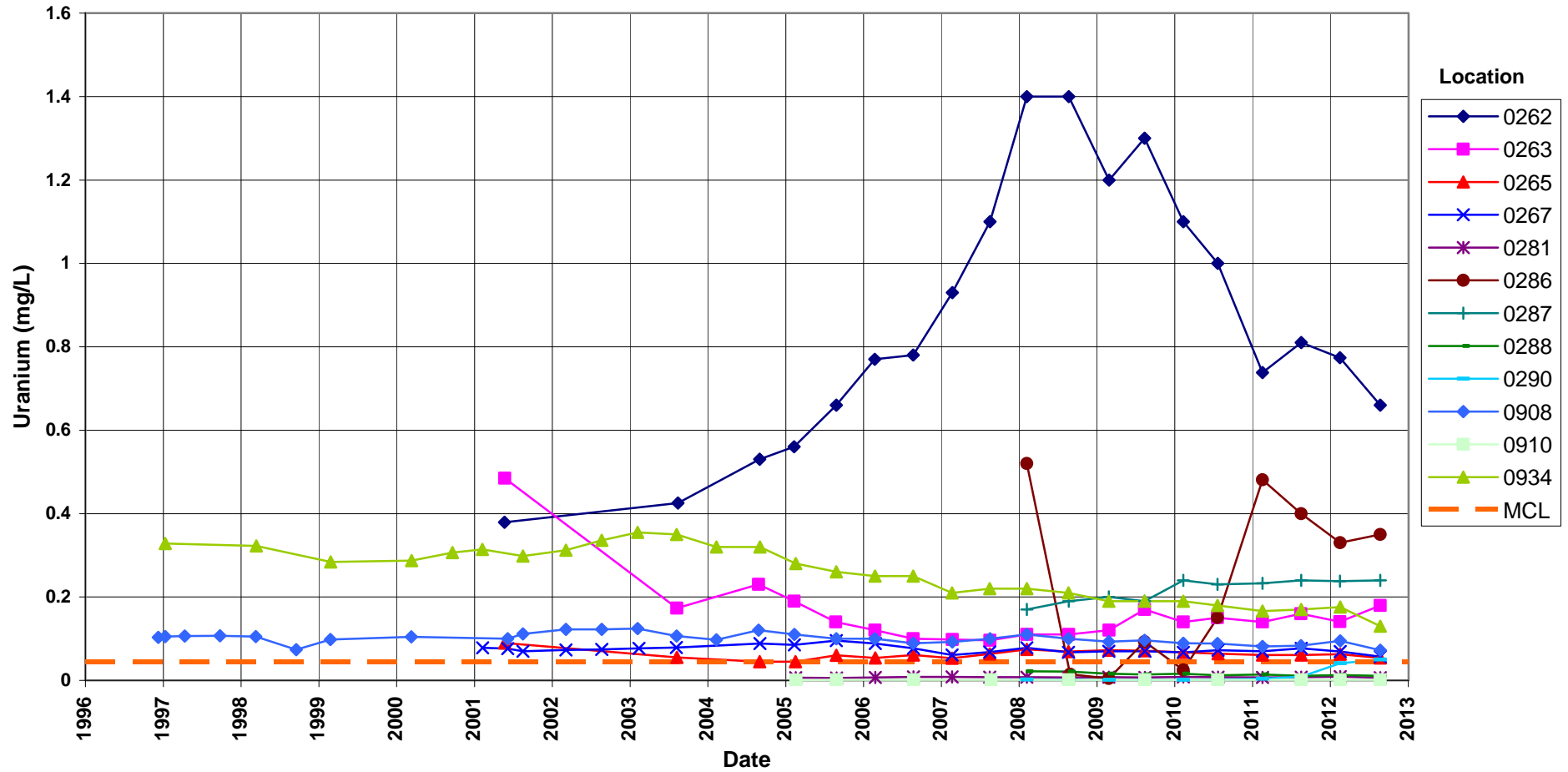


**Tuba City Disposal Site
Horizon B Monitoring Wells
Sulfate Concentration**
Cleanup Level (CL) = 250 mg/L

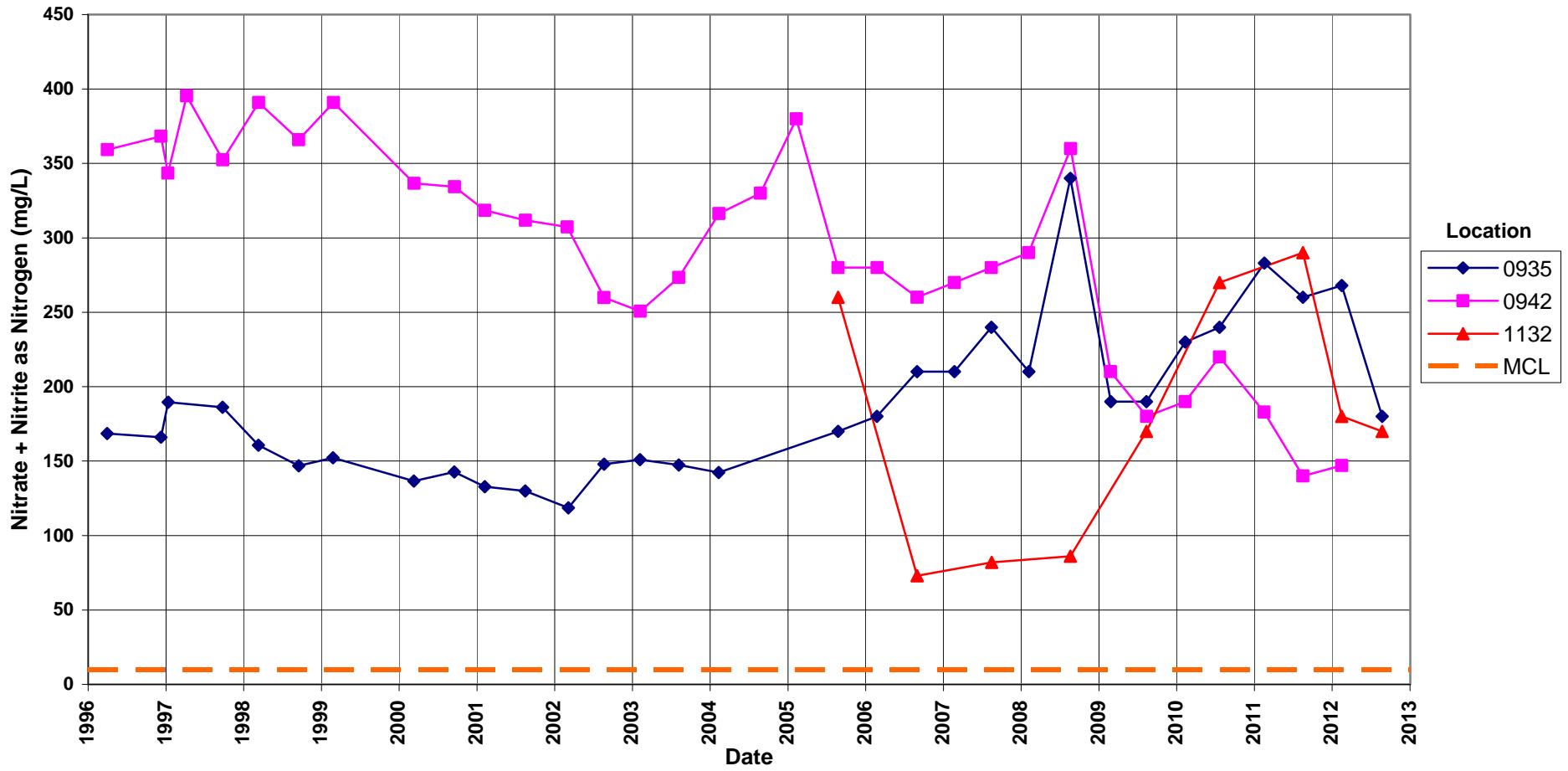


Tuba City Disposal Site Horizon B Monitoring Wells Uranium Concentration

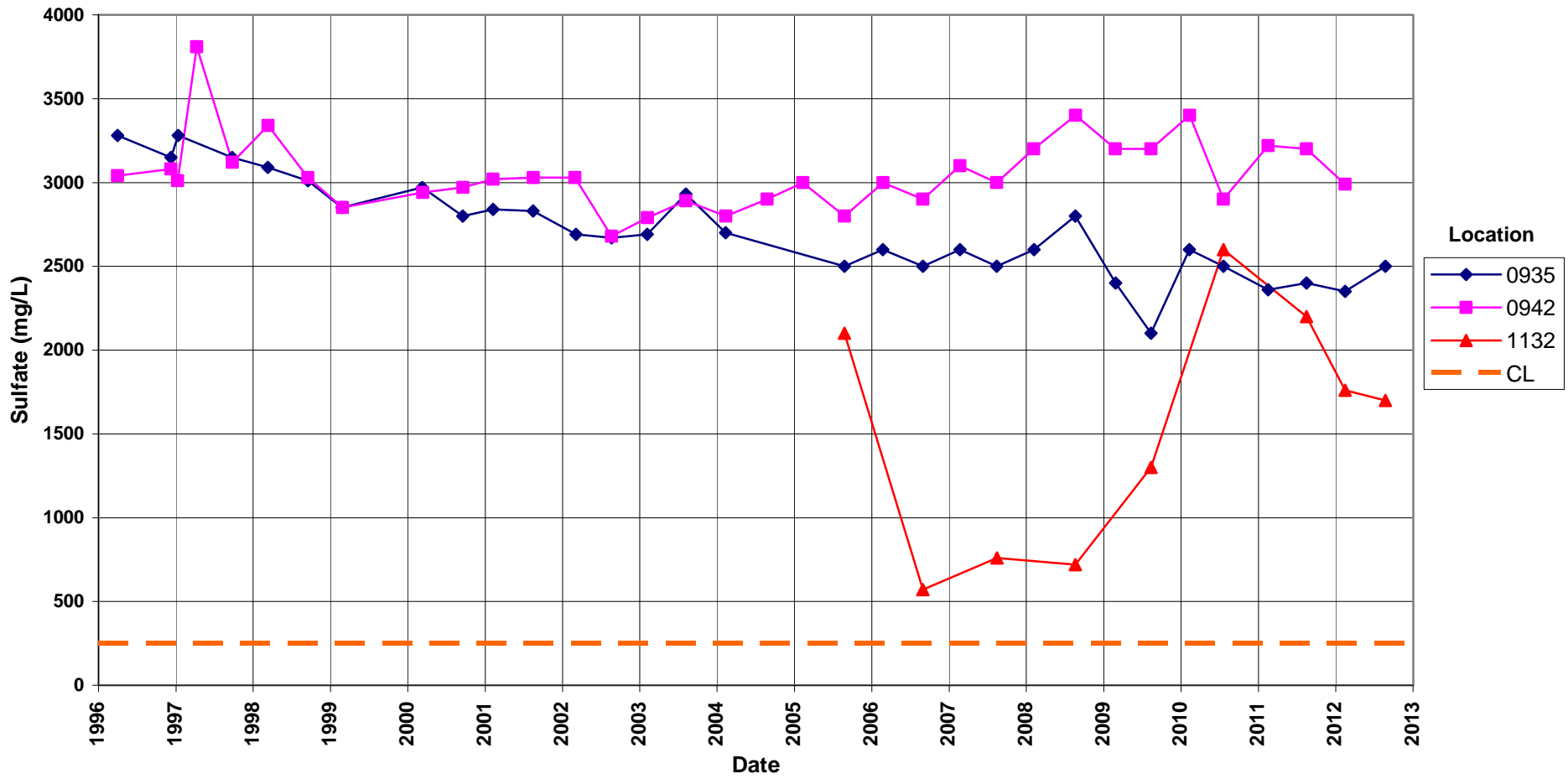
Maximum Contaminant Level (MCL) = 0.044 mg/L



Tuba City Disposal Site
Horizon B Extraction Wells
Nitrate + Nitrite as Nitrogen Concentration
 Maximum Contaminant Level (MCL) = 10.0 mg/L

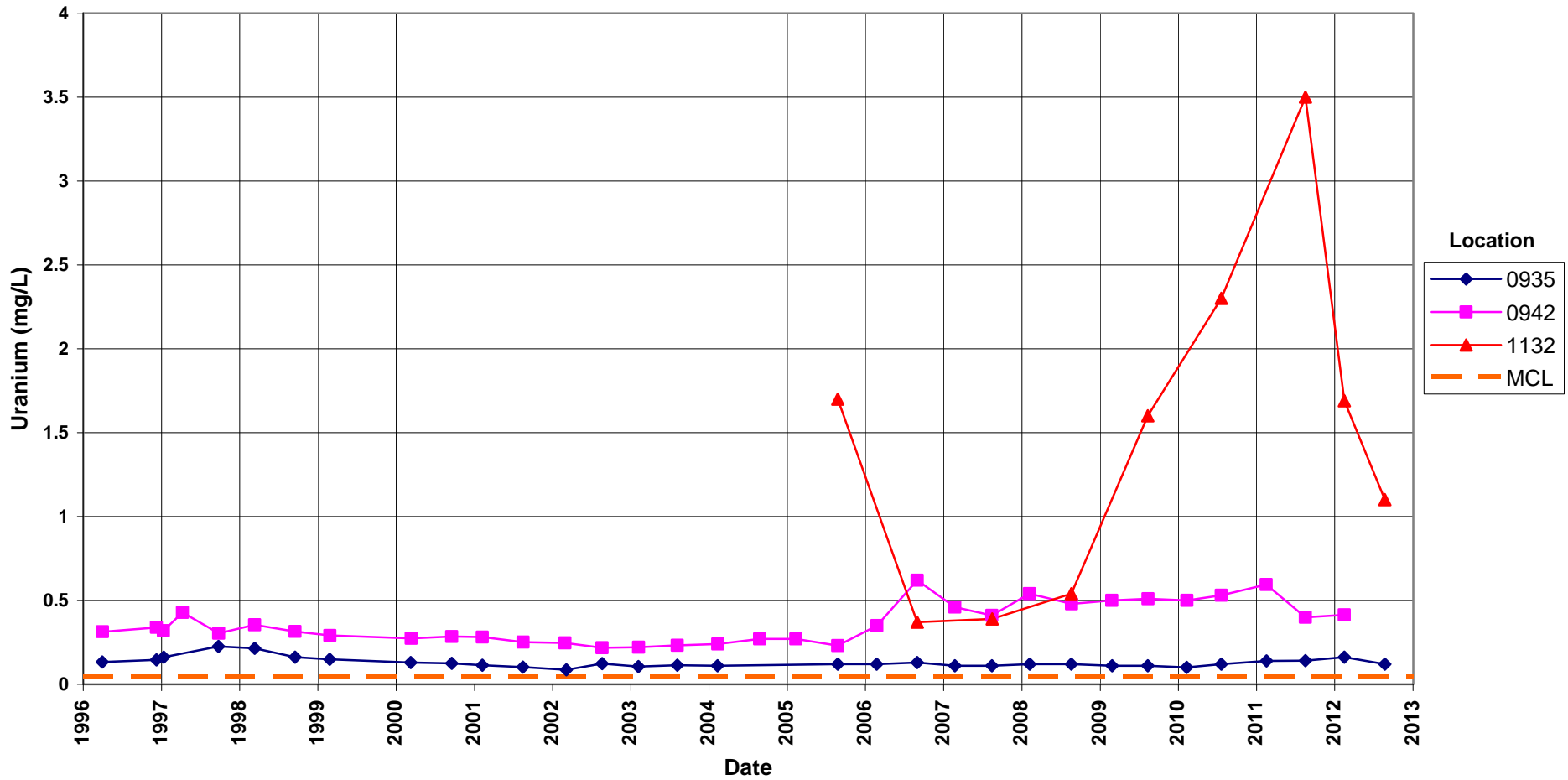


**Tuba City Disposal Site
Horizon B Extraction Wells
Sulfate Concentration**
Cleanup Level (CL) = 250 mg/L

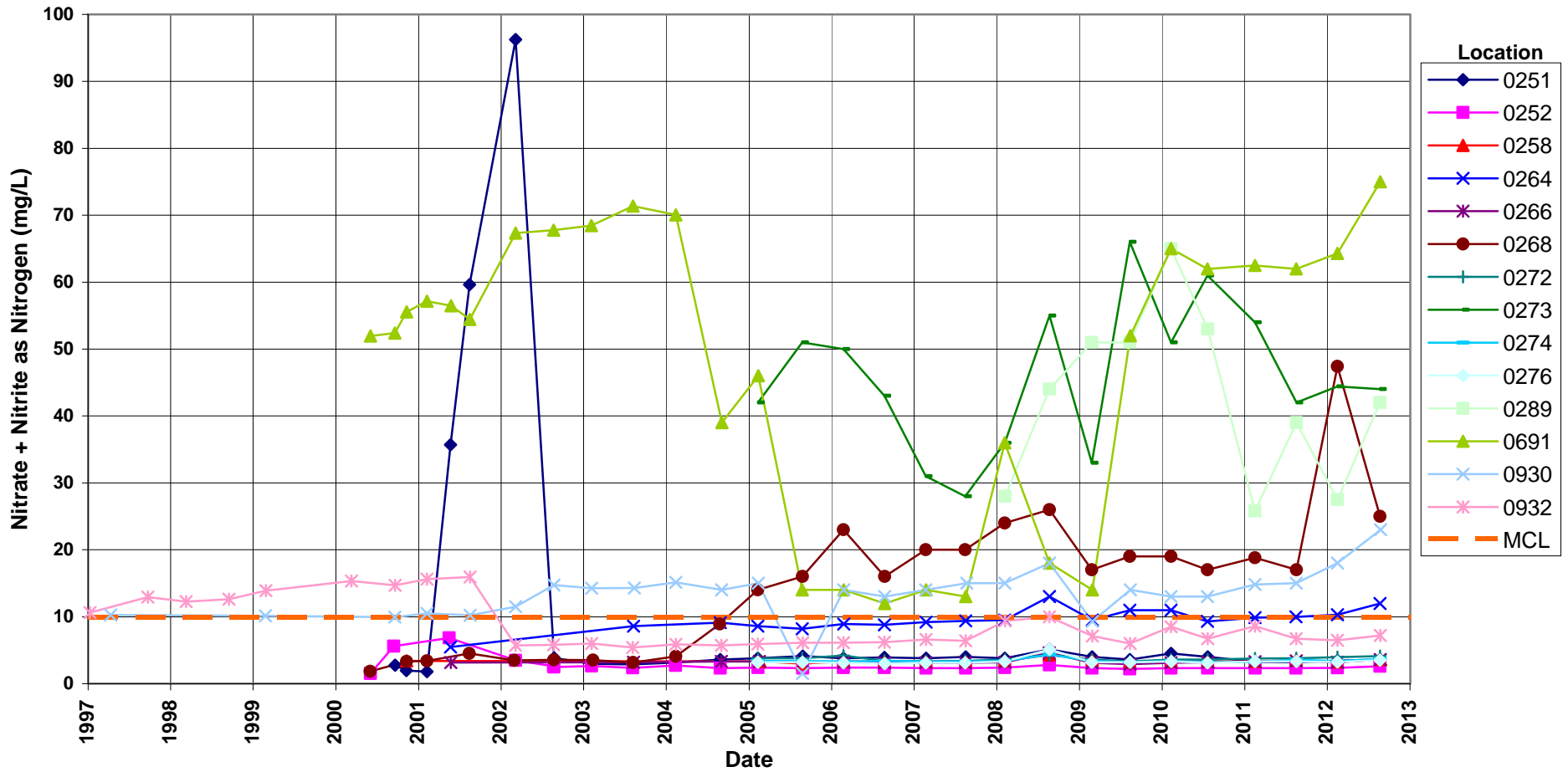


Tuba City Disposal Site Horizon B Extraction Wells Uranium Concentration

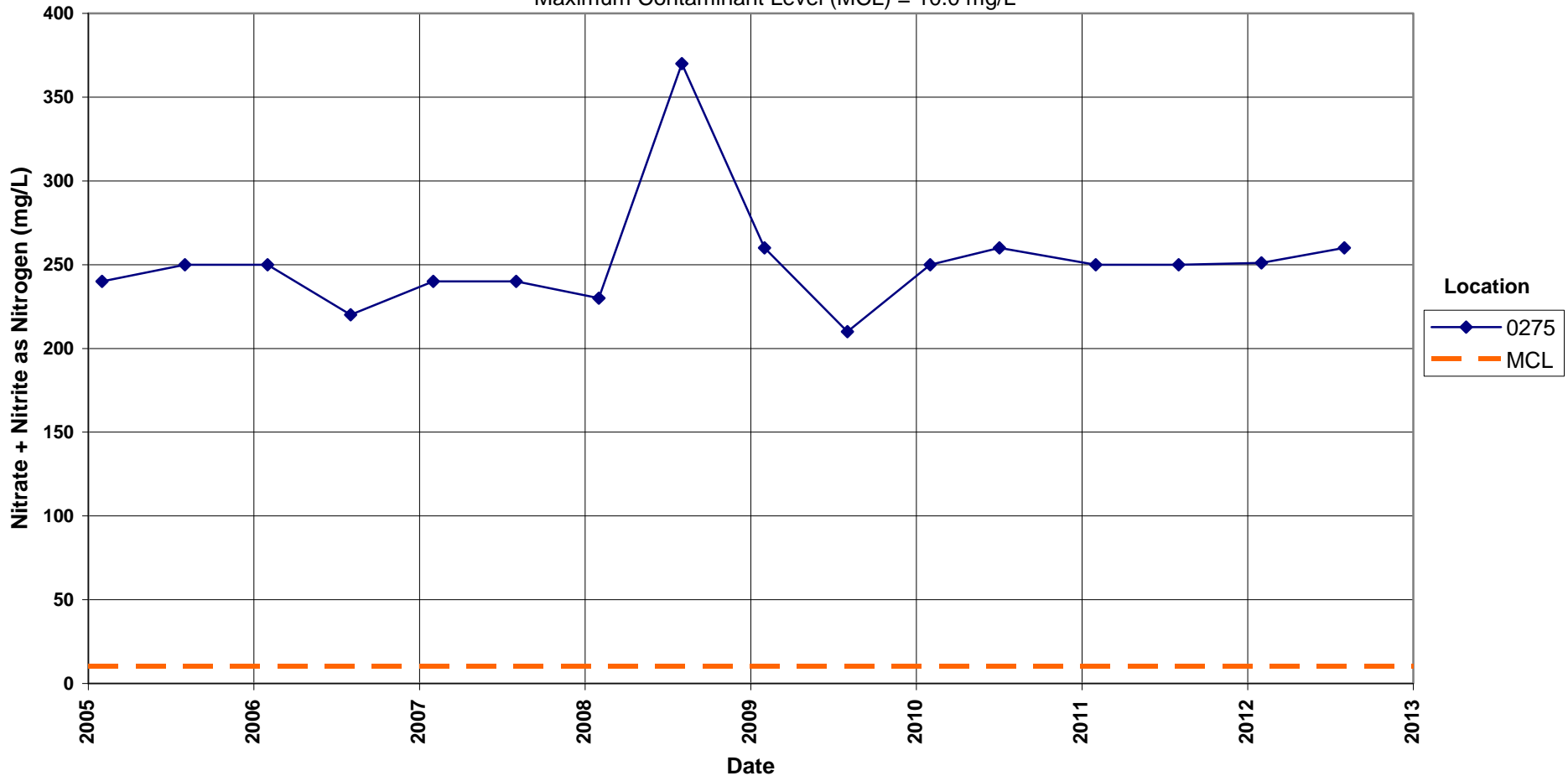
Maximum Contaminant Level (MCL) = 0.044 mg/L



Tuba City Disposal Site
Horizons C, D, E, & I Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
 Maximum Contaminant Level (MCL) = 10.0 mg/L

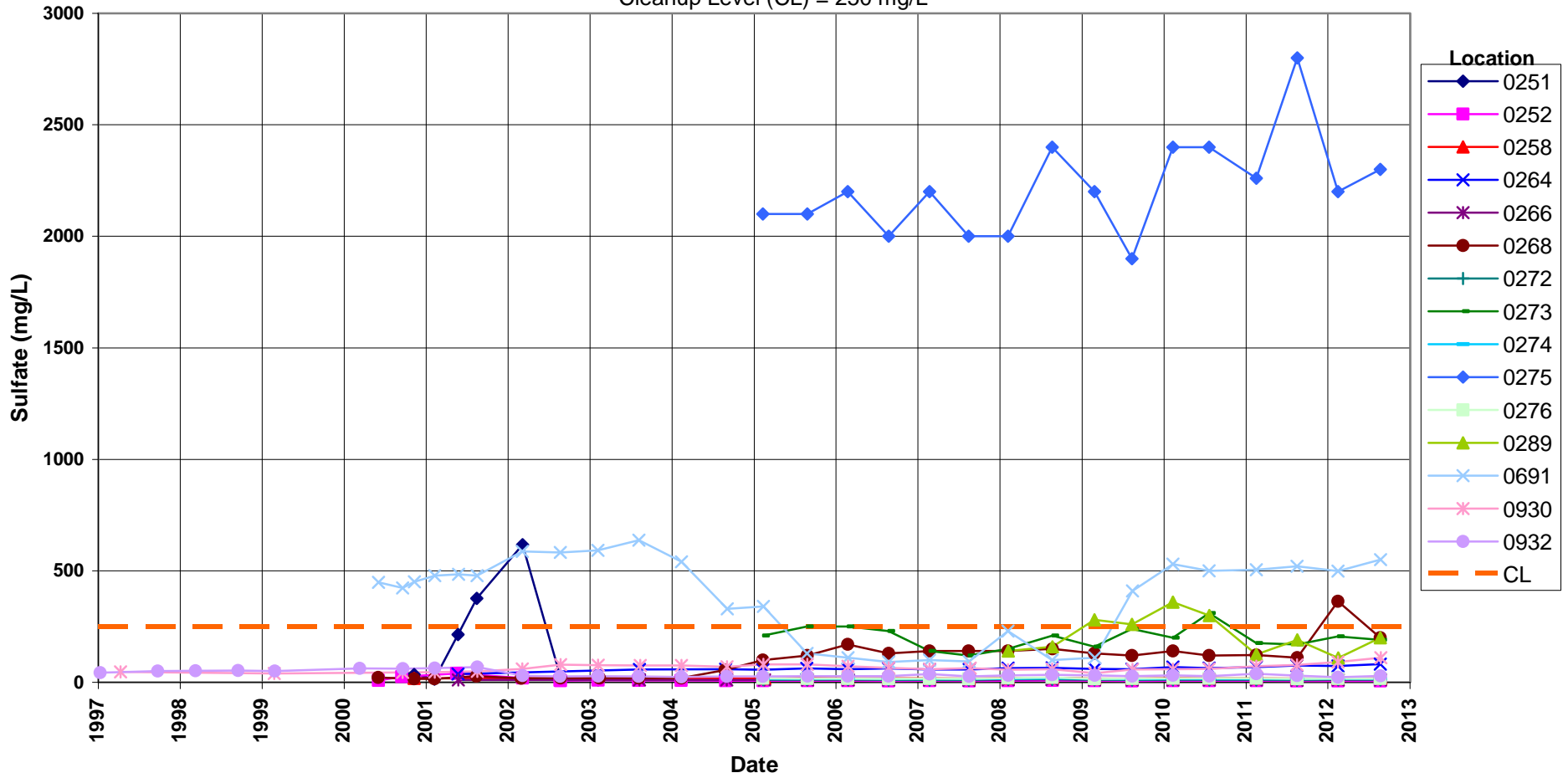


Tuba City Disposal Site
Horizons C, D, E, & I Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration
Maximum Contaminant Level (MCL) = 10.0 mg/L

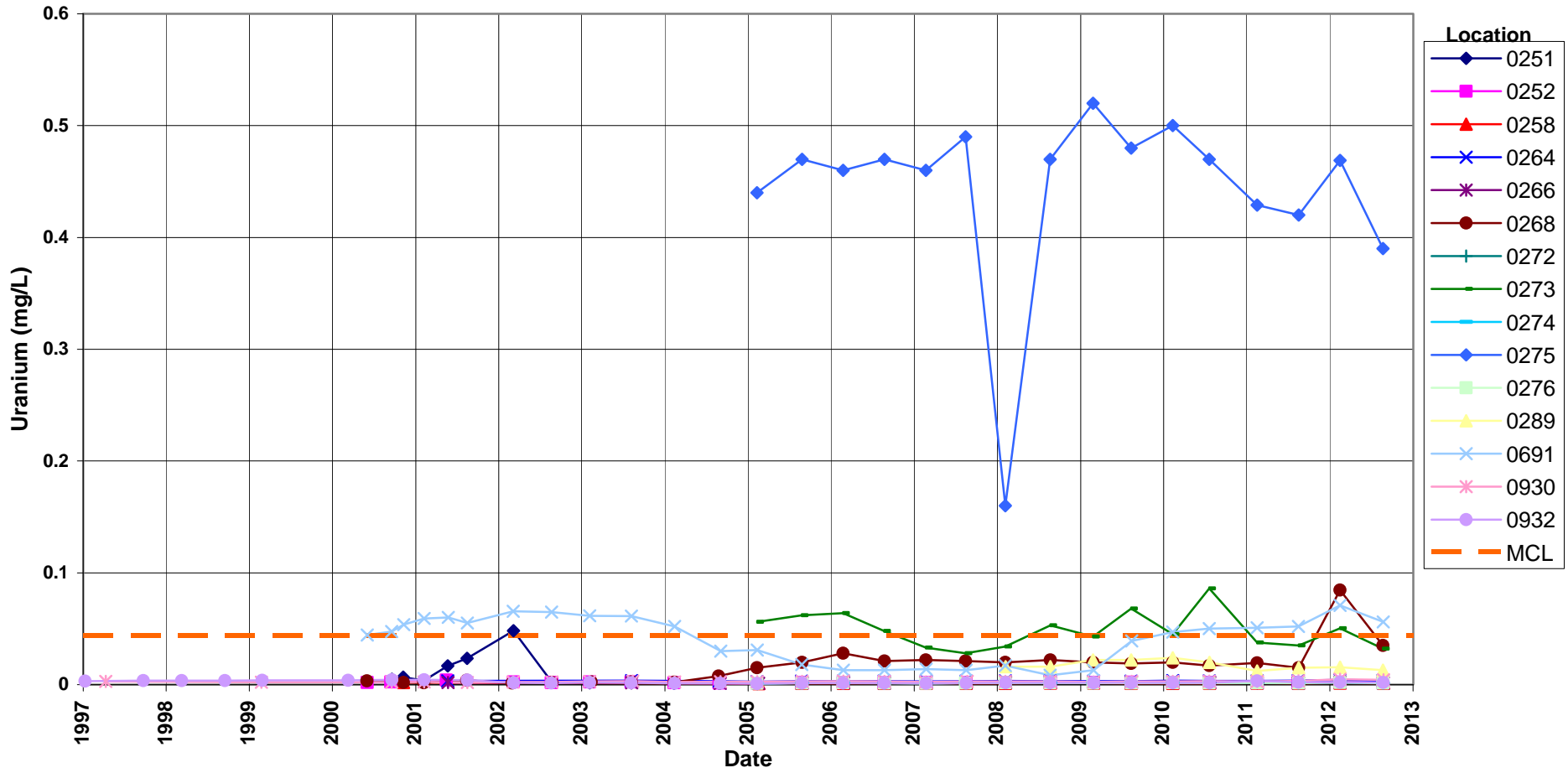


**Tuba City Disposal Site
Horizons C, D, E, & I Monitoring Wells
Sulfate Concentration**

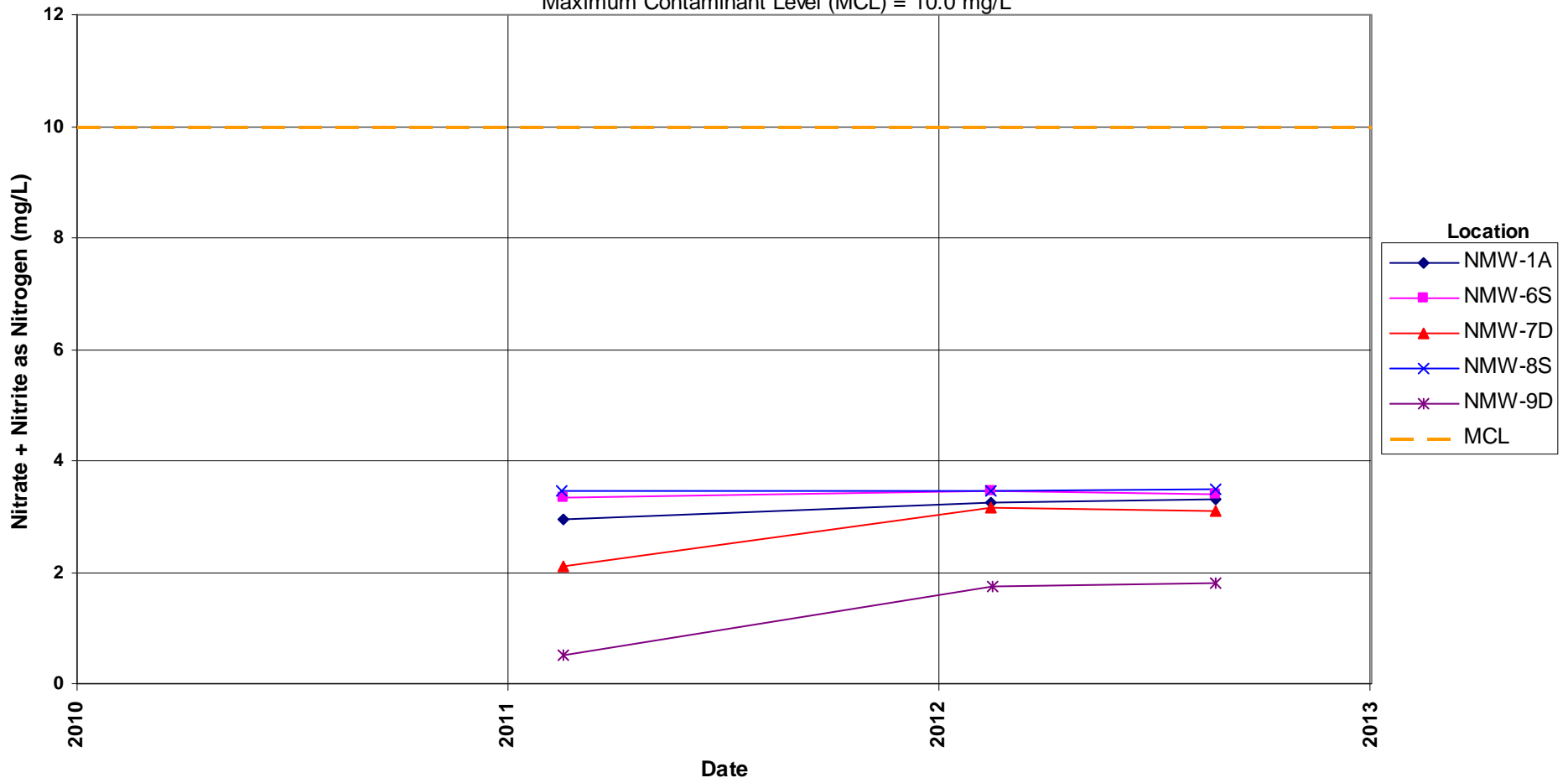
Cleanup Level (CL) = 250 mg/L



Tuba City Disposal Site
Horizons C, D, E, & I Monitoring Wells
Uranium Concentration
 Maximum Contaminant Level (MCL) = 0.044 mg/L

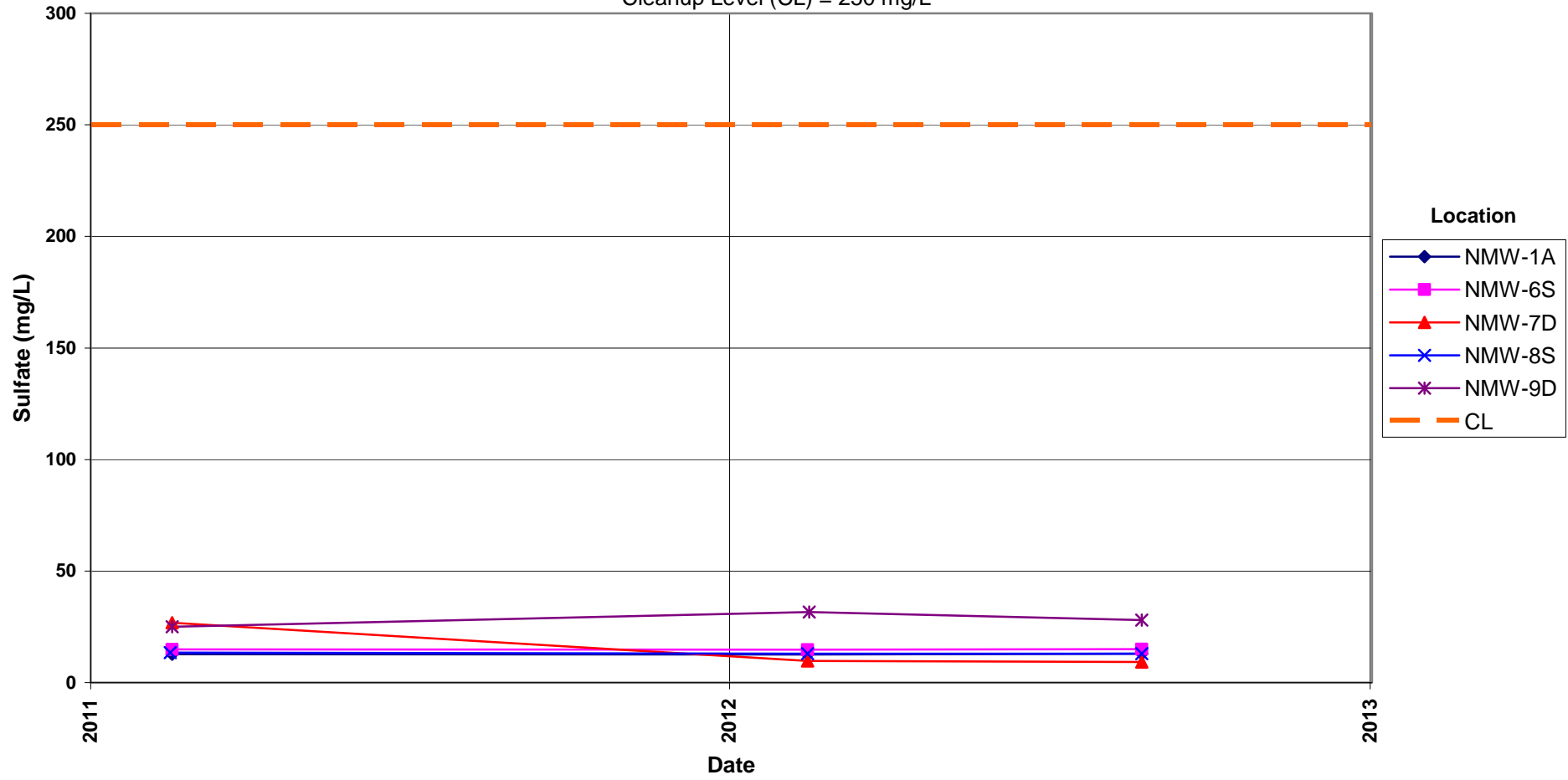


**Tuba City Disposal Site
Navajo Monitoring Wells
Nitrate + Nitrite as Nitrogen Concentration**
Maximum Contaminant Level (MCL) = 10.0 mg/L



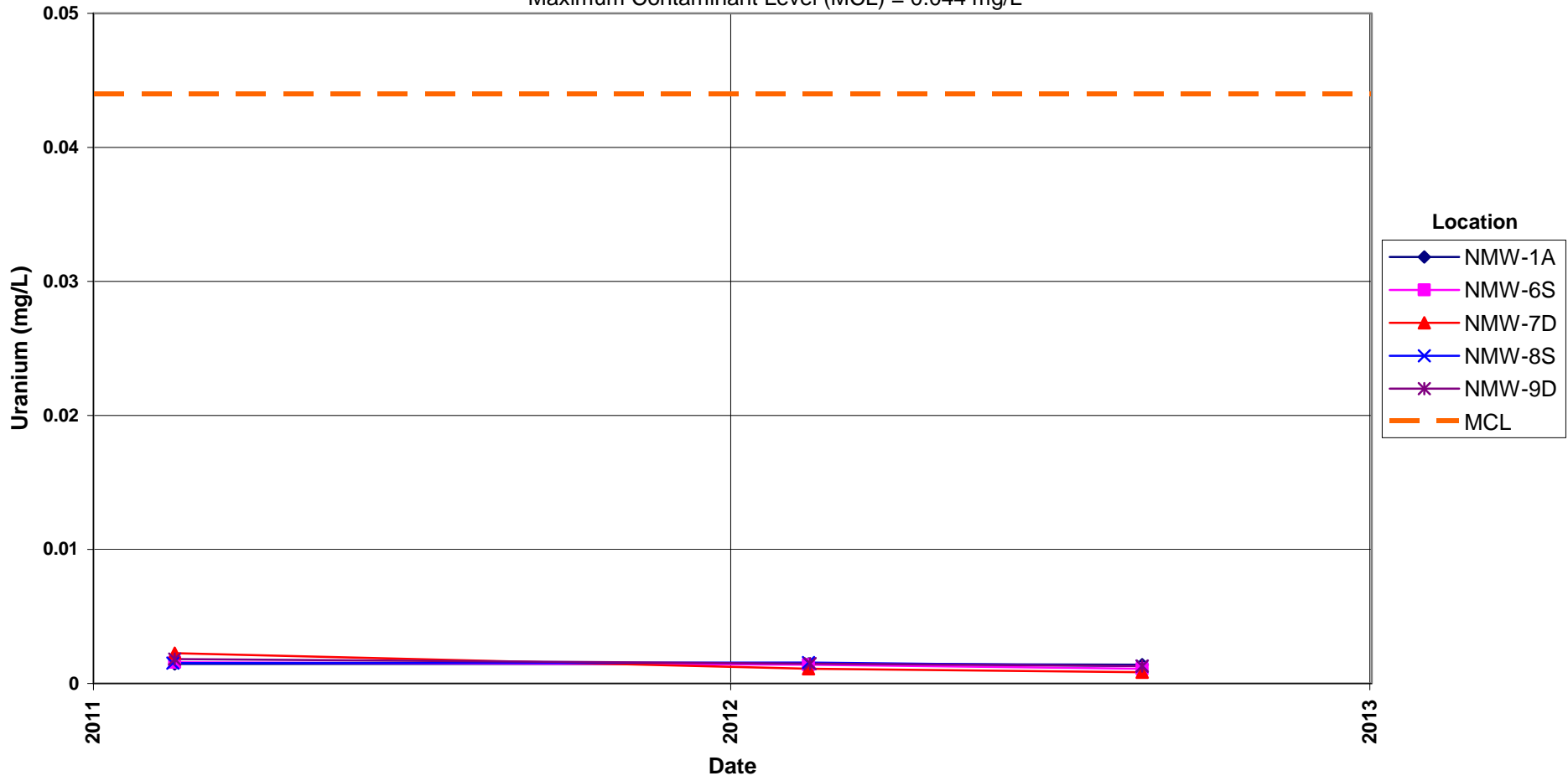
Tuba City Disposal Site Navajo Monitoring Wells Sulfate Concentration

Cleanup Level (CL) = 250 mg/L



Tuba City Disposal Site Navajo Monitoring Wells Uranium Concentration

Maximum Contaminant Level (MCL) = 0.044 mg/L



Attachment 3
Sampling and Analysis Work Order

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established 1959

Task Order LM00-501
Control Number 12-0801

July 30, 2012

U.S. Department of Energy
Office of Legacy Management
ATTN: Richard Bush
Site Manager
2597 Legacy Way
Grand Junction, CO 81503

SUBJECT: Contract No. DE-AM01-07LM00060, S.M. Stoller Corporation (Stoller)
August 2012 Environmental Sampling at the Tuba City, Arizona, Disposal Site

REFERENCE: Task Order LM00-501-02-122-402, Tuba City, Arizona, Disposal Site

Dear Mr. Bush:

The purpose of this letter is to inform you of the upcoming sampling event at Tuba City, Arizona. Enclosed are the map and tables specifying sample locations and analytes for monitoring at the Tuba City site. Water quality data will be collected from monitoring wells and surface locations at this site as part of the routine environmental sampling currently scheduled to begin the week of August 20, 2012.

The following lists show the monitoring wells (with zone of completion) and surface locations scheduled to be sampled during this event.

Monitoring Wells*

251 Na	276 Na	685 Al	910 Na	938 Na	1104 Na	1119 Na
252 Na	277 Na	686 Na	911 Na	940 Na	1105 Na	1120 Na
258 Na	278 Na	687 Na	912 Na	941 Na	1106 Na	1121 Na
261 Na	279 Na	688 Na	913 Na	942 Na	1107 Na	1122 Na
262 Na	280 Na	689 Na	914 Na	943 Na	1108 Na	1123 Na
263 Na	281 Na	690 Na	915 Na	945 Na	1109 Na	1124 Na
264 Na	282 Na	691 Na	916 Na	946 Na	1110 Na	1125 Na
265 Na	283 Na	692 Na	920 Na	947 Na	1111 Na	1126 Na
266 Na	286 Na	695 Na	921 Na	1003 Al	1112 Na	1127 Na
267 Na	287 Na	901 Na	929 Na	1004 Al	1113 Na	1128 Na
268 Na	288 Na	903 Na	930 Na	1006 Al	1114 Na	1129 Na
271 Na	289 Na	904 Na	932 Na	1007 Al	1115 Na	1130 Na
272 Na	290 Na	906 Na	934 Na	1101 Na	1116 Na	1131 Na
273 Na	683 Al	908 Na	935 Na	1102 Na	1117 Na	1132 Na
274 Na	684 Al	909 Na	936 Na	1103 Na	1118 Na	1133 Na
275 Na	NMW-1A Ss	NMW-6S Ss	NMW-7D Ss	NMW-8S Ss	NMW-9D Ss	

*NOTE: Al = alluvium; Na = Navajo sandstone; Ss = sandstone

The S.M. Stoller Corporation 2597 Legacy Way Grand Junction, CO 81503 (970) 248-6000 Fax (970) 248-6040

Richard Bush
Control Number 12-0801
Page 2

Surface locations

759 965 1205 1569 1570 1571 1573
778

All samples will be collected as directed in the *Sampling and Analysis Plan for U.S. Department of Energy Office of Legacy Management Sites*. In addition, water levels will be collected from all wells on site.

Please contact me at (970) 248-6568 if you have any questions.

Sincerely,



Carl Jacobson
Site Lead

CJ/leg/lb

Enclosures (3)

cc: (electronic)

Karl Stoeckle, DOE
Steve Donovan, Stoller
Lauren Goodknight, Stoller
Carl Jacobson, Stoller
EDD Delivery
re-grand.junction
File: TUB410.02 (A)

Constituent Sampling Breakdown

Site	Tuba City		Required Detection Limit (mg/L)	Analytical Method	Line Item Code
	Groundwater	Surface Water			
Approx. No. Samples/yr	143	9			
<i>Field Measurements</i>					
Alkalinity	X	X			
Dissolved Oxygen					
Redox Potential	X	X			
pH	X	X			
Specific Conductance	X	X			
Turbidity	X				
Temperature	X	X			
<i>Laboratory Measurements</i>					
Aluminum					
Ammonia as N (NH ₃ -N)	X		0.1	EPA 350.1	WCH-A-005
Arsenic	X	X	0.0001	SW-846 6020	LMM-02
Calcium	X	X	5	SW-846 6010	LMM-01
Chloride	X	X	0.5	SW-846 9056	WCH-A-039
Chromium					
Gross Alpha					
Gross Beta					
Iron	X	X	0.05	SW-846 6020	LMM-02
Lead					
Magnesium	X	X	5	SW-846 6010	LMM-01
Manganese	X	X	0.005	SW-846 6010	LMM-01
Molybdenum	X	X	0.003	SW-846 6020	LMM-02
Nickel					
Nickel-63					
Nitrate + Nitrite as N (NO ₃ +NO ₂)-N	X	X	0.05	EPA 353.1	WCH-A-022
Potassium	X	X	1	SW-846 6010	LMM-01
Radium-226					
Radium-228					
Selenium	X	X	0.0001	SW-846 6020	LMM-02
Silica	X		0.2	SW-846 6010	LMM-01
Sodium	X	X	1	SW-846 6010	LMM-01
Strontium					
Sulfate	X	X	0.5	SW-846 9056	MIS-A-044
Sulfide					
Total Dissolved Solids	X	X	10	SM2540 C	WCH-A-033

Constituent Sampling Breakdown

Site	Tuba City		Required Detection Limit (mg/L)	Analytical Method	Line Item Code
Analyte	Groundwater	Surface Water			
Total Organic Carbon					
Uranium	X	X	0.0001	SW-846 6020	LMM-02
Vanadium					
Zinc					
Total No. of Analytes	16	14			

Note: All private well samples are to be unfiltered. The total number of analytes does not include field parameters.

Sampling Frequencies for Locations at Tuba City, Arizona

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
Monitoring Wells						
251		X				
252		X				
258		X				
261			X			August
262		X				
263		X				
264		X				
265		X				
266		X				
267		X				
268		X				
271			X			August
272		X				
273		X				
274		X				
275		X				
276		X				
277			X			August
278			X			August
279			X			August
280			X			August
281		X				
282		X				
283		X				
284					X	Water level only
285					X	Water level only
286		X				
287		X				
288		X				
289		X				
290		X				
683			X			August
684			X			August
685			X			August
686			X			DATA LOGGER; August
687			X			DATA LOGGER; August
688			X			DATA LOGGER; August
689			X			August
690			X			August
691		X				
692			X			August
695			X			August
901			X			August
902					X	Water level only
903			X			August
904			X			August
906		X				DATA LOGGER
908		X				DATA LOGGER
909		X				DATA LOGGER
910			X			August
911			X			August
912			X			August

Sampling Frequencies for Locations at Tuba City, Arizona

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
913			X			August
914			X			August
915			X			August
916			X			August
917					X	Water level only
918					X	Water level only
919					X	Water level only
920			X			August
921			X			August
929		X				
930		X				
932		X				
934		X				DATA LOGGER
935		X				Converted to extraction well 7/05
936		X				DATA LOGGER
938		X				Converted to extraction well 7/05
940		X				DATA LOGGER
941		X				DATA LOGGER
942		X				DATA LOGGER
943			X			DATA LOGGER; August
945			X			August
946			X			DATA LOGGER; August
947			X			August
948					X	Water level only
1003			X			August
1004			X			August
1005					X	Water level only
1006			X			August
1007			X			August
1008					X	Water level only
1101			X			August
1102			X			August
1103			X			August
1104			X			August
1105			X			August
1106			X			August
1107			X			August
1108			X			August
1109			X			August
1110			X			August
1111			X			August
1112			X			August
1113			X			August
1114			X			August
1115			X			August
1116			X			August
1117			X			August
1118			X			August
1119			X			August
1120			X			August
1121			X			August
1122			X			August

Sampling Frequencies for Locations at Tuba City, Arizona

Location ID	Quarterly	Semiannually	Annually	Biennially	Not Sampled	Notes
1123			X			August
1124			X			August
1125			X			August
1126			X			August
1127			X			August
1128			X			August
1129			X			August
1130			X			August
1131			X			August
1132			X			August
1133			X			August
NMW-1A		X				Added by T. Bartlett 1/24/12
NMW-6S		X				Added by T. Bartlett 1/24/12
NMW-7D		X				Added by T. Bartlett 1/24/12
NMW-8S		X				Added by T. Bartlett 1/24/12
NMW-9D		X				Added by T. Bartlett 1/24/12
Surface Locations						
759			X			August; Moenkopi wash-downgradient
778			X			August; Moenkopi wash-at Jimmy Spring
965			X			August; Moenkopi wash-far upgradient
1205		X				Treatment system distillate; verify location with system operators
1569		X				Evap pond - North
1570		X				Evap pond - South
1571			X			Jimmy Spr West - August
1573			X			West pipe Shonto Well - August

Semi-annual sampling conducted in February and August; Annual sampling conducted in August.

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Attachment 4

Trip Report

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Memorandum

DATE: October 15, 2012
TO: Carl Jacobson
FROM: Gretchen Baer
SUBJECT: Trip Report
Site: Tuba City, Arizona

Dates of Sampling Event: August 20-23, 2012

Team Members: Gretchen Baer, Lauren Goodknight, Michelle Hanson, Kent Moe, Jeff Price, Dan Sellers

Number of Locations Sampled: 119 locations were identified on the sampling notification letter. An additional 2 locations at the treatment system were added before the sampling event. A total of 106 locations were sampled as follows.

	Sampled Locations	Planned Locations
Monitoring wells	72	74
Extraction wells	24	37
Surface locations	7	7
Treatment System locations	3	3

Locations Not Sampled/Reason: A total of 15 locations were not sampled.

- Monitoring wells 0283 and 0909 did not have enough water to sample.
- The pumps at 13 extraction wells (0936, 0938, 0942, 1126, 1127, 1128, 1130, 1131, 1102, 1109, 1115, 1121, and 1122) were not functioning.

Location Specific Information:

Location IDs	Comments
0251, 0258, 0262, 0263, 0264, 0266, 0272, 0273, 0274, 0277, 0278, 0280, 0281, 0282, 0286, 0287, 0288, 0289, 0290, 0683, 0684, 0690, 0692, 0906, 0908, 0911, 0912, 0913, 0914, 0915, 0916, 0929, 0934, 0940, 0941, 0945, 0947, NMW-6S, NMW-7D, NMW-9D	Category II or III based on water level drop.
0280, 0687	Cement pad is undermined by wind or water erosion.
0283, 0909	Insufficient water to sample. WL is only inches above the bottom of the pump. Pump was removed to take WL and then the pump was replaced.
0914, 0915, 0916	pH >9.
1202, 1205, 1206 (Treatment system)	SPLIT samples were taken at each location for the ESL: At each location, water was collected in a larger container. The individual sample bottles for the contract lab and for the ESL were filled from this larger container. Individual bottles were then acidified according to requirements.
1206, 1569, 1570	pH <4.

Quality Control Sample Cross Reference: The following are the false identifications assigned to the quality control samples.

False ID	True ID	Ticket Number	Sample Type	Analyte List	Associated Matrix
2186	1124	KJW 691	Duplicate	Monitoring Well list	Groundwater
2386	NMW-8S	KJX 009	Duplicate	Monitoring Well list	Groundwater
2532	1571	KJW 677	Duplicate	Surface Location list	Surface Water
2987	Associated with 0759, 0778, 0965	KJW 669	Equipment Blank	Surface Location list	Surface Water
2988	1103	KJW 670	Duplicate	Monitoring Well list	Groundwater
2989	1119	KJW 671	Duplicate	Monitoring Well list	Groundwater
2990	1120	KJW 672	Duplicate	Monitoring Well list	Groundwater

Report Identification Numbers (RINs) Assigned: Samples were assigned to RIN 12084778 (ALS Fort Collins) and 12084788 (ESL). Field data sheets can be found in Crow\sms\12084778 in the FieldData folder.

Sample Shipment: Samples were shipped overnight via FedEx to ALS Laboratory Group, Fort Collins, CO, from Tuba City, Arizona, on August 22 & 23, 2012. Samples for the ESL were hand delivered on August 24, 2012.

Water Level Measurements: Water levels were measured in all sampled wells, and in 8 additional wells. The Water Level Data report for these 8 additional wells (TUB01_962012.pdf) can be found in Crow\sms\12084778. The water level at well 0948 was not taken: This well is a former monitoring well with a pump added to supply the treatment plant lab with domestic non-potable water. The water level at this well fluctuates widely because it is pumped.

Well Inspection Summary: All wells were in good condition.

Field Variance: Program Directive TUB-2012-01 requires that the surface water samples collected at pond locations 1569 and 1570 be filtered. These samples were inadvertently not filtered. All other samples were collected according to the *Sampling and Analysis Plan for the U. S. Department of Energy Office of Legacy Management Sites*.

Equipment: All equipment functioned properly. Multi-gas meters were used to verify the air quality in the extraction vaults. Monitoring wells were sampled with a peristaltic pump and dedicated tubing or a dedicated bladder pump. Extraction wells have dedicated submersible pumps and were sampled at taps. Surface waters were sampled using a peristaltic pump and dedicated tubing, a peristaltic pump and tubing reel, or by container immersion. Dedicated tubing was used at pond locations 1569 and 1570. This tubing was left at the site. An equipment blank was collected after decontamination of non-dedicated equipment (the tubing reel). The Field Data Collection System was used to collect data. The times collected are in the MDT time zone.

Dataloggers: Dataloggers were downloaded and checked for accuracy at the following locations: 0263, 0264, 0265, 0274, 0286, 0287, 0908, 0929, 0934, 0941, 0943, and 0946. Data and information from each data logger can be viewed electronically using SEEPro.

Institutional Controls:

Fences, Gates, and Locks: Acceptable

Signs: Acceptable

Trespassing/Site Disturbances: None observed

Site Issues: Cell phone service (Verizon) was weak and was not available at all areas of the site.

Disposal Cell/Drainage Structure Integrity: No issues observed

Vegetation/Noxious Weed Concerns: None observed

Maintenance Requirements: None observed

Safety Issues: None

Access Issues: Approximately 3 weeks before the sampling event, heavy rainstorms caused isolated flooding at and around the site. Roads on the site were slightly damaged but were passable. Some sections of road south of the site were severely damaged and were impassable. Wells in this area were accessed by driving around the damaged sections.



Photo taken on 08/21/12 near well 0258 facing south.

Corrective Action Required/Taken: None

(GB/lcg)

cc: (electronic)
Richard Bush, DOE
Timothy Bartlett, Stoller
Steve Donovan, Stoller
Susan Kamp, Stoller
EDD Delivery