

Legend

Well Type

- Water Quality and Level Monitoring
- ⊕ Water Level Monitoring
- ⊙ Decommissioned East Pump Back
- ▲ Revised East Pump Back
- Cell Boundary
- ▬▬▬▬ Property Boundary
- Approximate Extent of Zone 1 Seepage Impacts
- Approximate Extent of Sulfate Exceeding 2,125 mg/L

(<0.01) Sulfate Concentration, mg/L

Notes:

1. Seepage impacts delineated by Chloride detections greater than 50 mg/L.
2. Well names are displayed with black text.
3. Aerial photo taken on August 1, 1996.

0 250 500 1,000
Feet

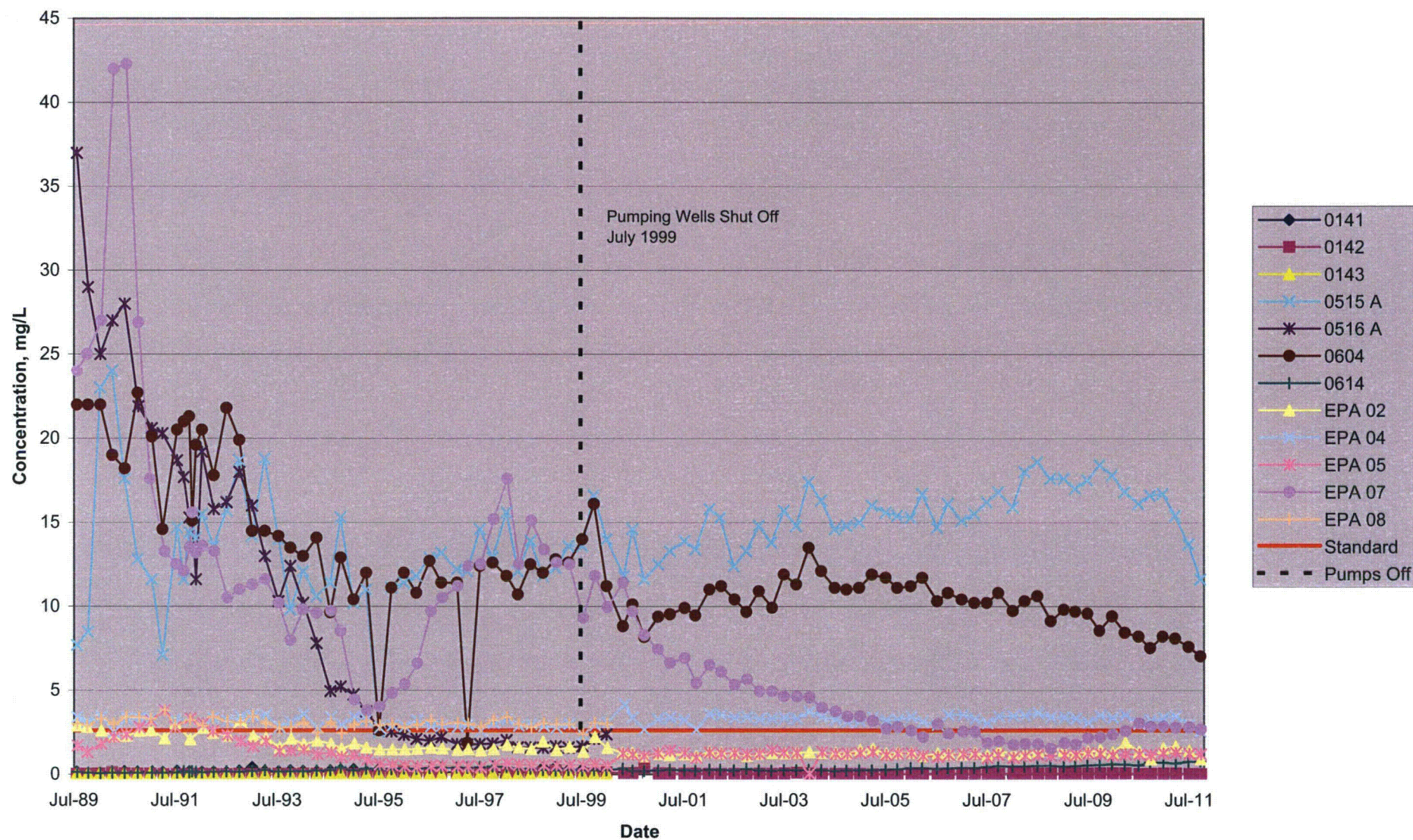
FIGURE 51

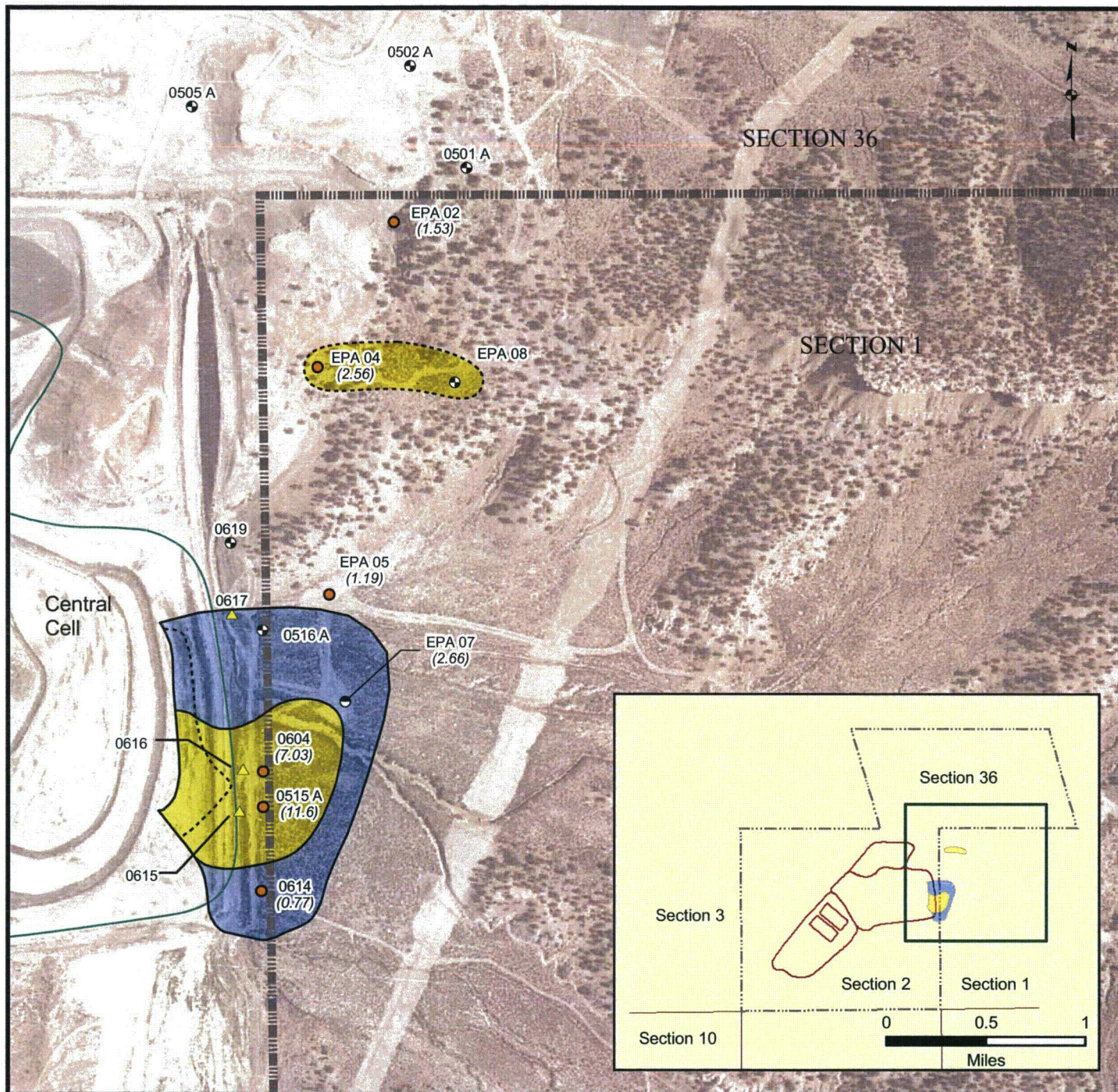
Zone 1 Approximate Extent of Sulfate Exceeding 2,125 mg/L, October 2011

United Nuclear Corporation Church Rock Site,
Church Rock, New Mexico



FIGURE 52
Zone 1 Manganese Concentrations Over Time
 United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico





Legend

Well Type

- Water Quality and Water Level Monitoring
- ⊙ Water Level Monitoring
- ⊗ Decommissioned East Pump Back
- ▲ Revised East Pump Back (Inactive)

— Cell Boundary

▬ Property Boundary

■ Approximate Extent of Zone 1 Seepage Impacts

■ Approximate Extent of Manganese Exceeding 2.60 mg/L

(3.43) Manganese values in mg/L

Notes:

1. Seepage impacts delineated by chloride detections greater than 50 mg/L.
2. Aerial photo taken on August 1, 1996.

0 250 500 1,000
Feet

FIGURE 53

Zone 1 Approximate Extent of Manganese Exceeding 2.6 mg/L, October 2011

United Nuclear Corporation Church Rock Site,
Church Rock, New Mexico



FIGURE 54
Zone 1 Bicarbonate Concentrations Over Time
 United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

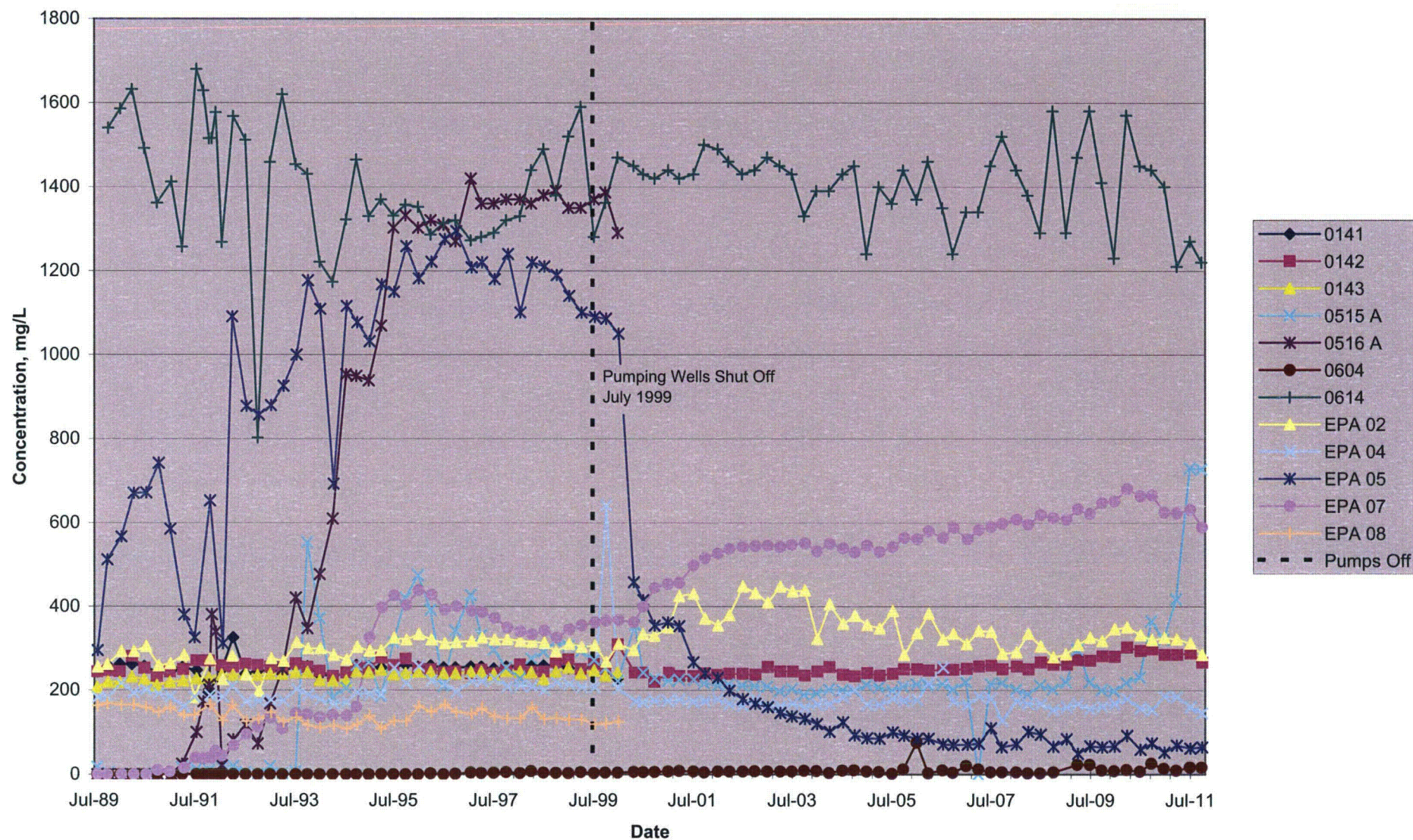
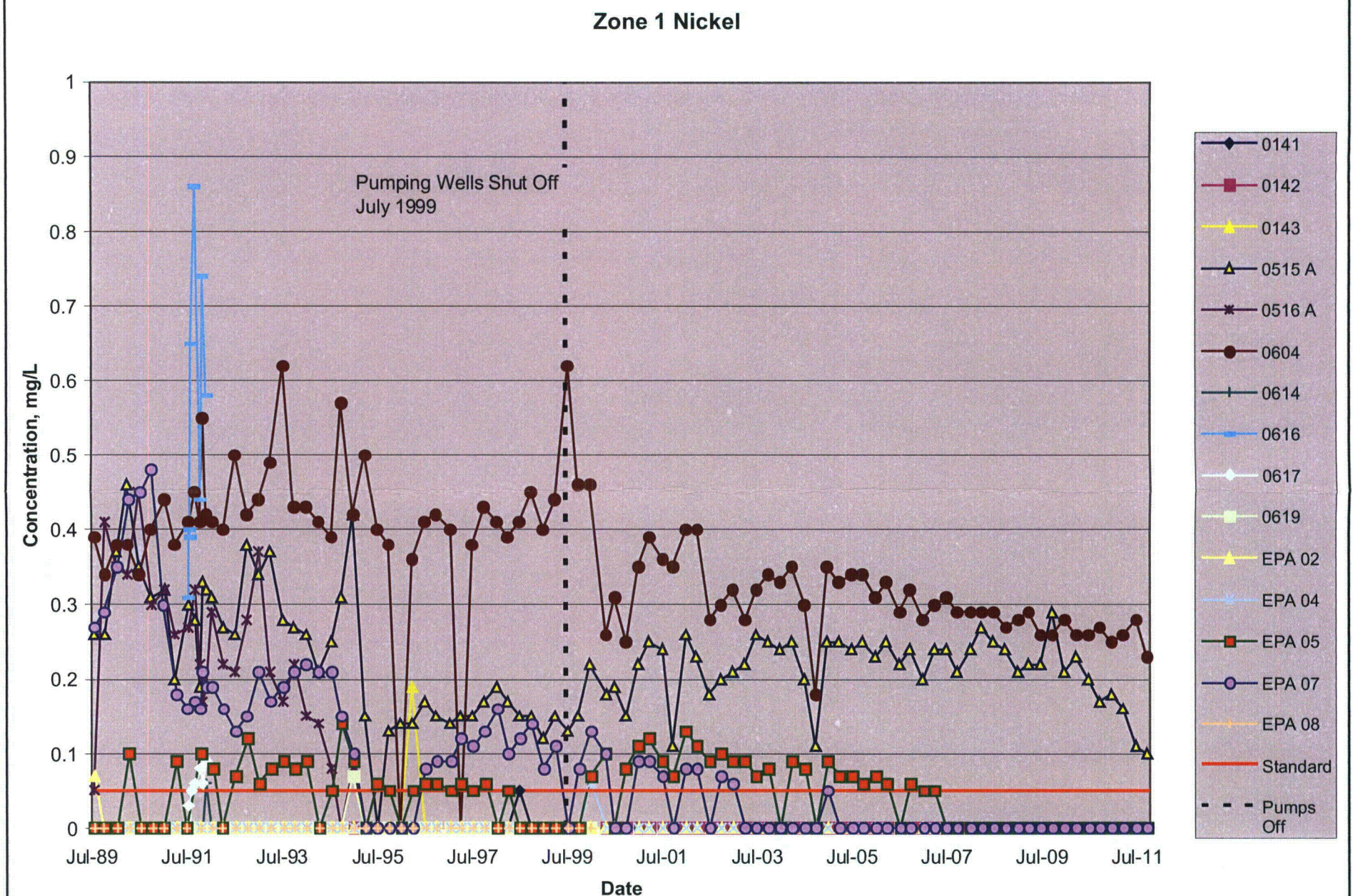
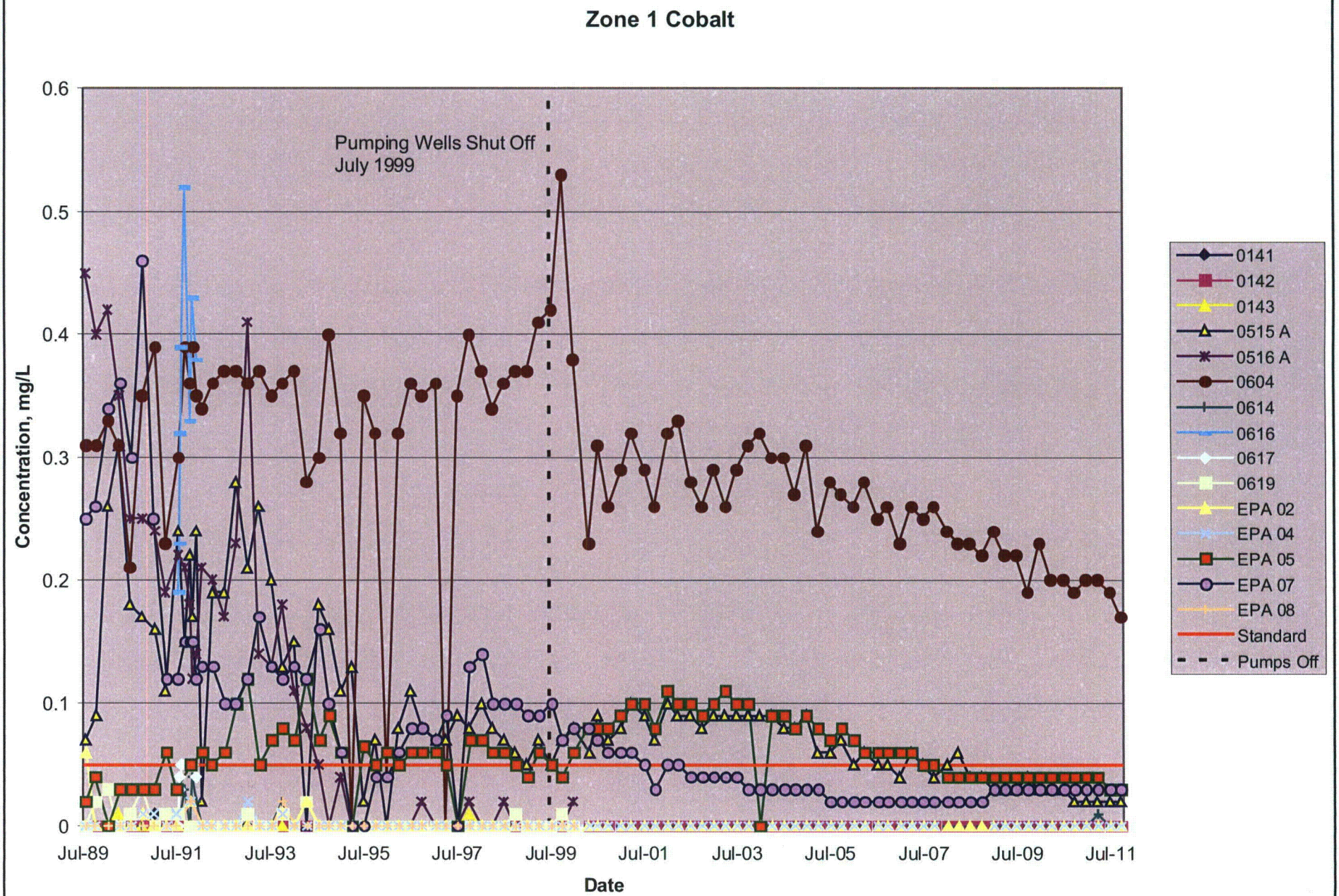


FIGURE 55
 Zone 1 Cobalt and Nickel Concentrations over Time
 United Nuclear Corporation Church Rock Site, Church Rock, New Mexico



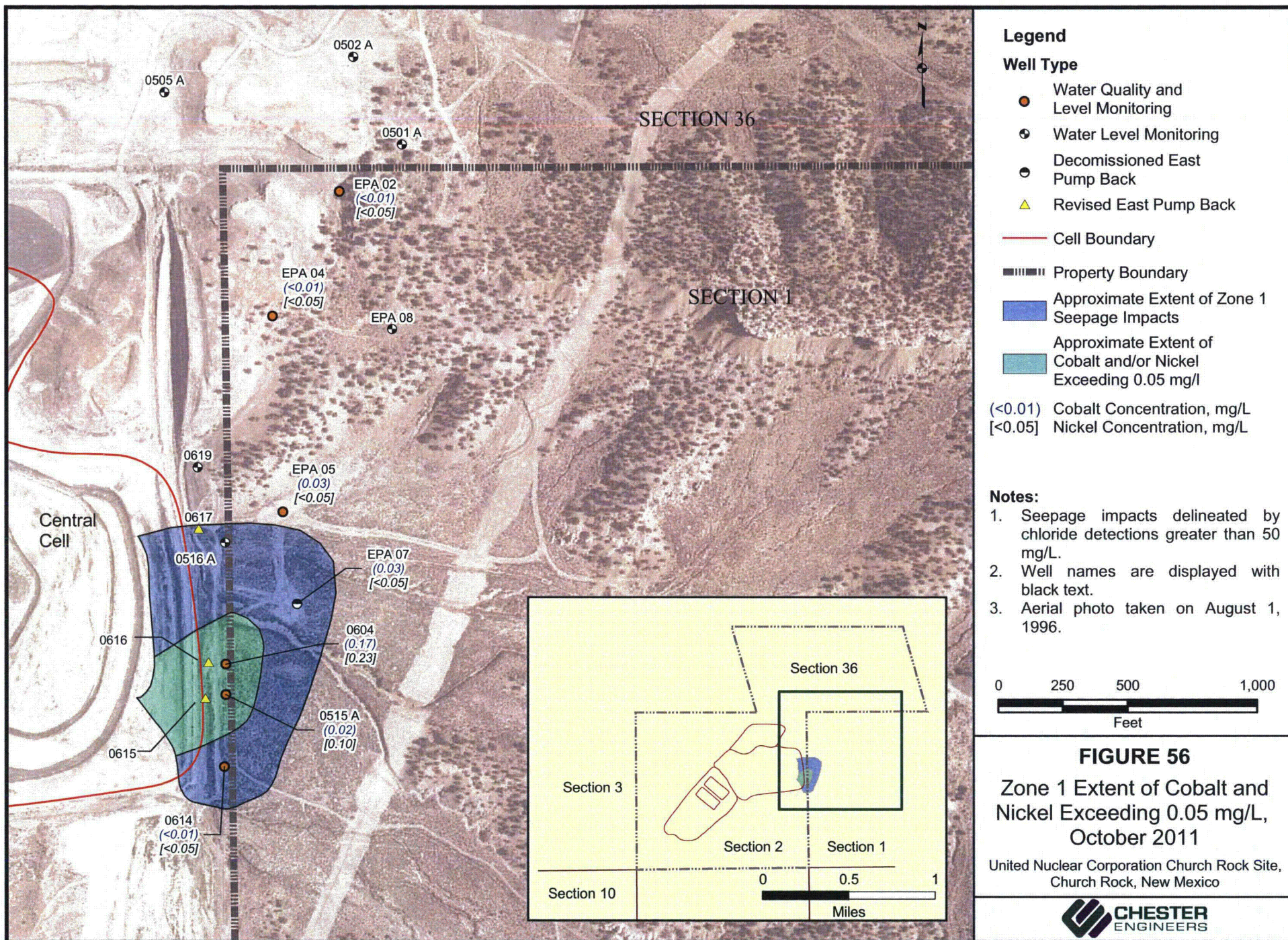
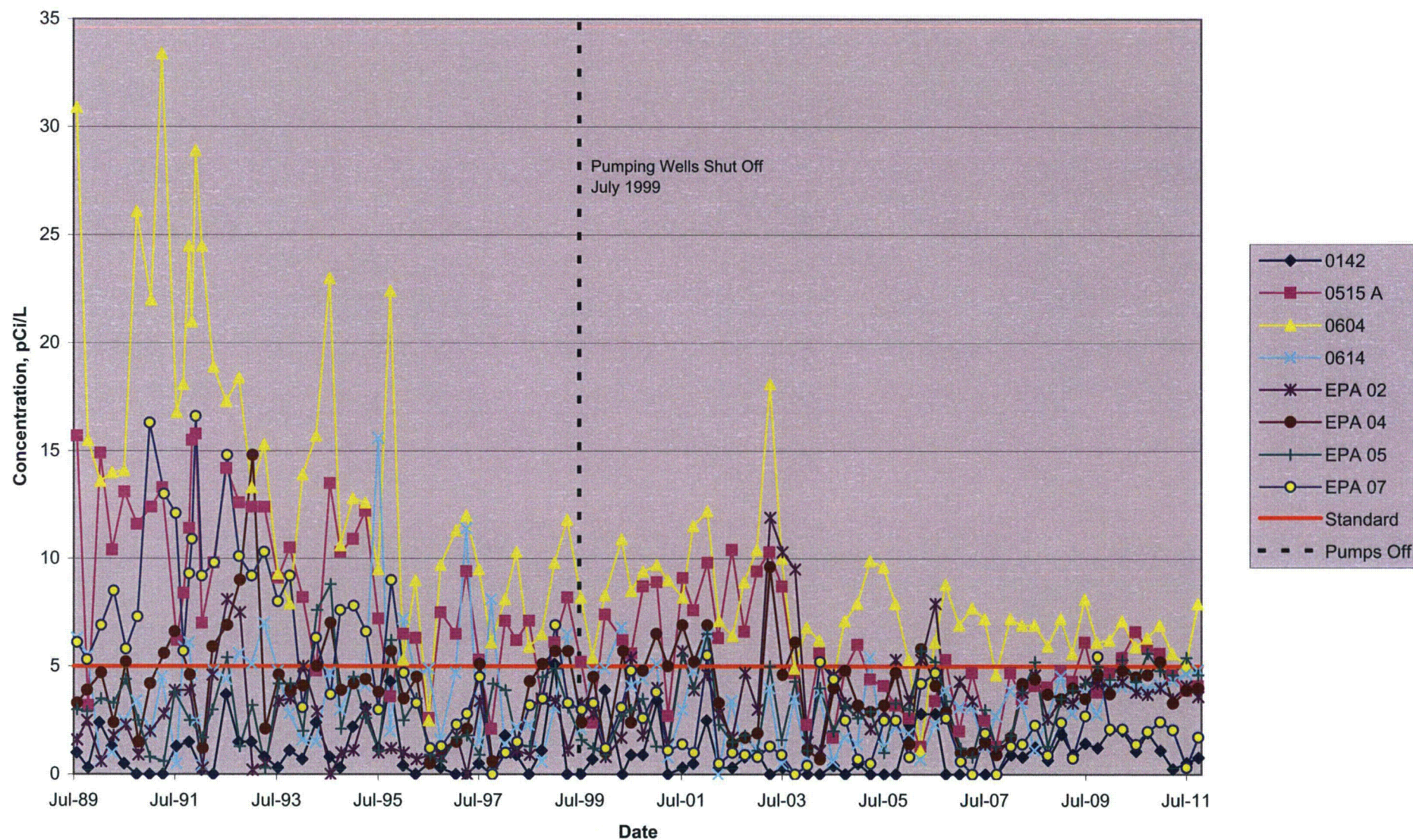
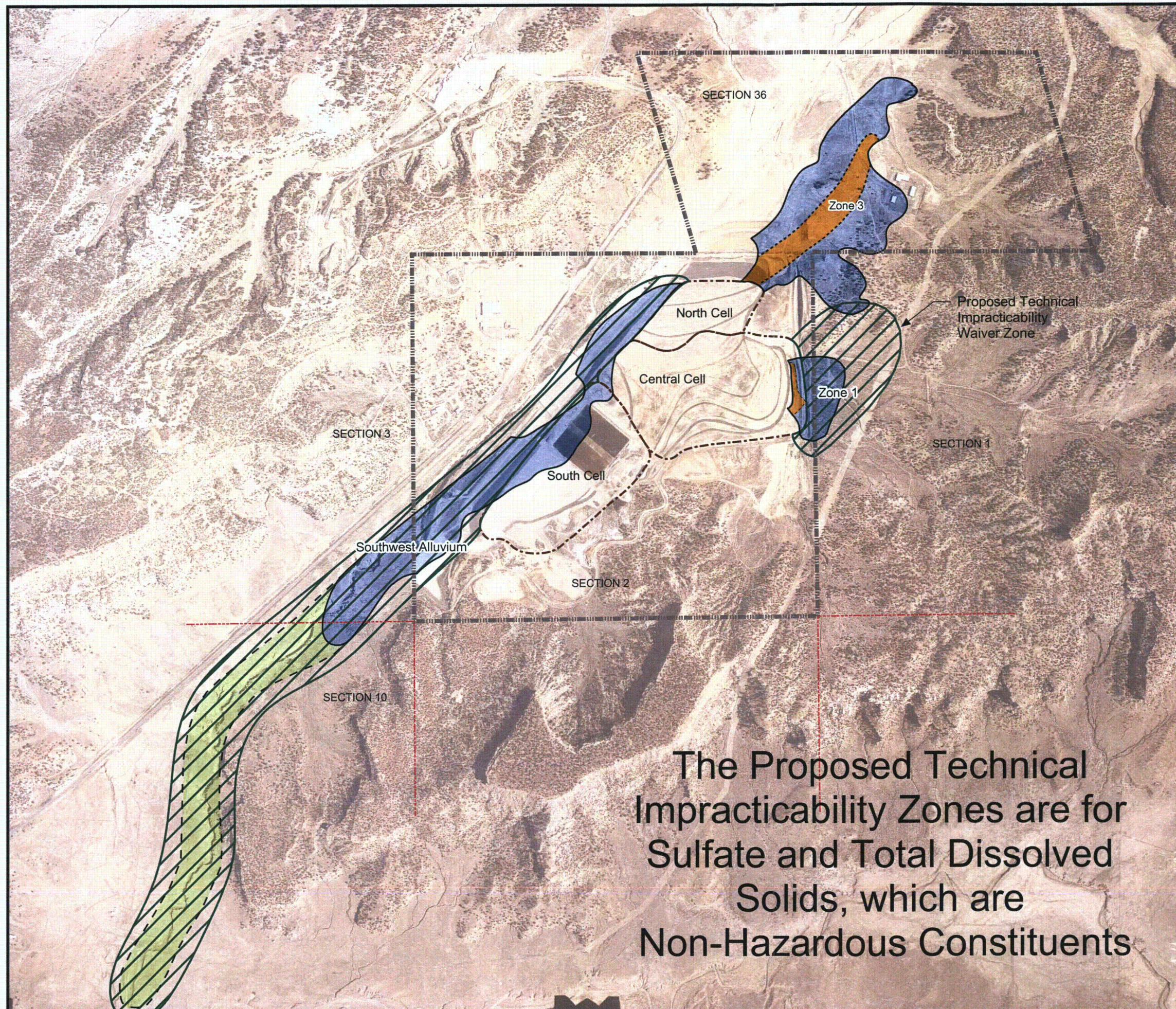


FIGURE 57
 Zone 1 Combined Radium-226 and Radium-228 Over Time
 United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico





The Proposed Technical Impracticability Zones are for Sulfate and Total Dissolved Solids, which are Non-Hazardous Constituents

Legend

- Section Boundary
- Property Boundary
- Tailings Pond
- Groundwater with pH ≤ 4
- Seepage-Impacted Groundwater
- Proposed Technical Impracticability Waiver Zone
- Seepage Impact in 2204
- Extrapolated Extent of Seepage Impact in Southwest Alluvium in 2204

Notes:

1. Extrapolated Extent of Southwest Alluvium Seepage Impact in 2204 based upon an average annual seepage impact advance of 30 feet per year.
2. Aerial photo taken on August 1, 1996.

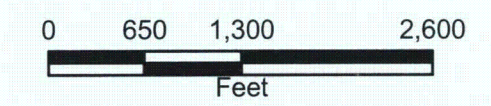


FIGURE 58

Proposed TI Waiver for Zone 1 and Extrapolated Extent of Southwest Alluvium Seepage Impact in 2204

United Nuclear Corporation Church Rock Site
Church Rock, New Mexico



Appendix A

Southwest Alluvium Monitoring Data

The Southwest Alluvium Remedial Action System was installed in August 1989 and began operating in October 1989. The initial system consisted of three extraction wells (Wells 801, 802, and 803) and four water level observation wells (Wells 804, 805, 806, and 807). An additional extraction well, Well 808, was installed and began operating in June 1991, as required by the Nuclear Regulatory Commission and the U.S. Environmental Protection Agency (EPA). Extraction Wells 801, 802, and 803 are monitored for water quality, and Observation Wells 804, 805, 806, and 807 are monitored for water level elevations on a quarterly basis. Well 801 was decommissioned at the end of July 1999 because it pumped at a rate of less than 0.5 gallon per minute for the previous eight years.

Water level elevations and water quality data have also been collected on a quarterly basis from 18 monitoring wells located up-, down-, and cross-gradient from the tailings area. The 18 monitoring wells include Wells GW 1, GW 2, GW 3, GW 4, EPA 22A, EPA 23, EPA 25, EPA 27, EPA 28, 509 D, 632, 29 A, 624, 627, 639, 642, 644, and 645. All of these wells, except for Wells EPA 27 and 29 A, are completed in the alluvium. Well EPA 27 is completed partially in the alluvium and partially in the Mancos formation and Well 29 A is completed in the underlying Zone 1 formation. Consequently, water quality data collected from these two wells may not be representative of alluvial groundwater conditions.

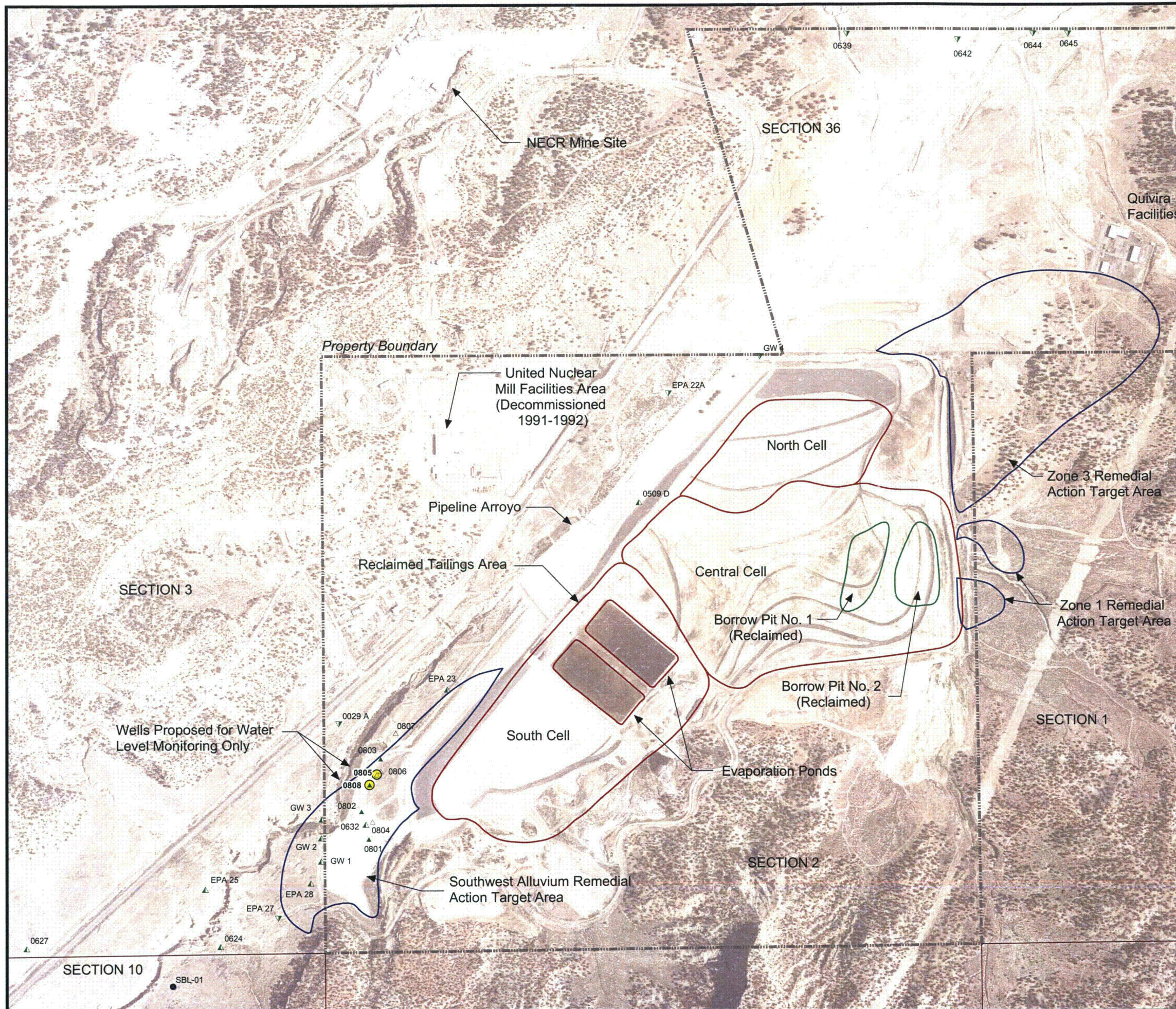
Beginning with the second quarter of 2000, a revised monitoring program was implemented. Changes to the wells included in the monitoring program for the Southwest Alluvium are shown in Table 1 of this 2011 Annual Review Report. See the enclosed Figure A-1 for the current layout of the wells.

Beginning in January 2001, a natural attenuation test was implemented, as requested during the November 14, 2000, meeting in Sante Fe, New Mexico, and as documented in the EPA's e-mail letter from Greg Lyssy, dated November 15, 2000 (Lyssy, 2000). For this test, Extraction Wells 802, 803, and 808 were turned off and added to the revised monitoring program wells. During the 18-month test period, the wells were sampled and water level elevations were measured on a monthly basis. The results of the first 18 months of the natural attenuation test were provided in a report submitted in November 2002 (Earth Tech, 2002c). The natural attenuation test has continued through October 2011 with a quarterly frequency of water quality and water level monitoring.

During July 2004, a new downgradient well was installed within the Southwest Alluvium: SBL 1. The first sampling and water-level measurement of this well occurred in October 2004; quarterly results through October 2011 are included in this appendix. This well is not part of the formal performance monitoring program.

Table A.1 presents the quarterly water level and water quality data for the observation and monitoring wells from the second quarter of 1989 through the fourth quarter of 2011. The laboratory analytical data for 2011 are presented at the end of this appendix.

Figure A-1



Legend

- Southwest Alluvium**
- ▲ Idled Extraction Well
 - ▲ Groundwater Quality and Water Level Monitoring Well
 - △ Water Level Monitoring Well
 - ▼ Dry Monitoring Well
 - Monitoring Well Installed in 2004
 - Well Proposed for Water Level Monitoring Only
 - Property Boundary
 - Section Boundary
 - Tailings Pond
 - Remedial Action Target Area

Aerial photo taken on August 1, 1996.

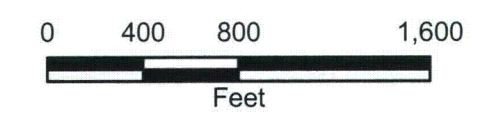


FIGURE A-1

Southwest Alluvium Proposed Revised Monitoring Well Locations

United Nuclear Corporation Church Rock Site,
Church Rock, New Mexico



*Notes For Table A.1**Southwest Alluvium Data Summary, 1989 – 2011**General Notes:*

1. NRC standard as listed in License Condition 30, Part B.
2. EPA standard as listed in Table 2, "Contaminant-Specific Groundwater ARARs" of the ROD (EPA, 1988).
3. Standards for TDS, sulfate, and nitrate changed to reflect revised standards recommended in the NRC's 1996 evaluation of background water quality and documented in the January 6, 1998, letter from NMED to EPA.
4. NA – Not applicable.
5. "ND" for combined Ra-226 and Ra-228 indicates that both constituents were less than the laboratory reporting limits, which are 0.2 and 1.0 pCi/L, respectively.
6. All values that exceed the NRC and/or EPA standards are shaded.
7. Gross alpha value excludes contribution from radon and uranium.
8. "*" (Asterisk) indicates a Point of Compliance well.
9. Reporting limit for bicarbonate changed from 0.0 mg/L to 0.1 mg/L in fourth quarter 1997.
10. Reporting limit for cadmium changed from 0.01 mg/L to 0.005 mg/L after fourth quarter 1997. The analytical method changed from EPA 200.7 (ICP) to 200.8 (ICP.MS).
11. NO₃ (nitrate) is reported by the laboratory as nitrate + nitrite as N.
12. During August 2007, the NRC issued License Amendment 37 (NRC, 2006b) revising the former 1 ug/L chloroform groundwater protection standard to 80 ug/L for total trihalomethanes (TTHMs) in the Southwest Alluvium, Zone 1 and Zone 3; and also revising the current combined radium-226 and -228 groundwater protection standard of 5 pCi/L to 5.2 pCi/L in the Southwest Alluvium and 9.4 pCi/L in Zone 1.
13. Energy Laboratory's reporting of radiological analyses changed during 2008 (N.A. Water Systems, 2008d). This affected the reporting of Church Rock sample analyses beginning in April 2008 (2nd quarter). The changes were made to make the reporting methods consistent with Section 7.5 of The United States Nuclear Regulatory Commission's Regulatory Guide 4.14.

The changes are summarized as follows:

- A minimum detectable concentration (MDC) is determined and reported for each analysis.

- Sample results are reported regardless of whether they are lower than the MDC for the analysis. This may result in the reporting of negative concentrations.
- Sample results lower than the MDC are qualified with a "U".

These noted changes affected the reporting of all radiological parameters analyzed in Church Rock samples, except for thorium-230. Energy Labs did not have an approved methodology for determining MDC values for thorium-230. In the absence of MDC values, the historical reporting limit was used instead. Therefore, U-qualified results for thorium-230 indicate concentrations below a reporting limit rather than an MDC. Otherwise, the reporting of thorium-230 results was treated similarly to other radiological parameters. This means that measured concentrations were reported with a U qualification if the values were below the reporting limit.

The rationale for reporting values below the MDC or reporting limit, even if negative, is that errors associated with the reported values are expected, over time, to average to zero. This means that averages or sums (e.g. for total radium) of concentrations will tend to be more accurate if below limit (MDC or reporting) results are retained in the calculations.

Specific Notes:

- Well 801 is monitored for water level only beginning in 2nd quarter 2000.
- Well 803 was not sampled in 3rd quarter 1999.
- Well EPA 22A contained insufficient water for sampling beginning 4th quarter 1997.
- Well EPA 27 contained insufficient water for sampling beginning 4th quarter 1997.
- Well GW 4 contained insufficient water for sampling, 1st and 3rd quarters 1996, and 3rd Quarter 1999.
- Well 29 A contained insufficient water for sampling, 1st quarter 1995.
- Well 639 contained insufficient water for sampling, 1st quarter 1995.
- Well 642 contained insufficient water for sampling, 4th quarter 1995.
- Well 644 contained insufficient water for sampling, 1st quarter 1993.
- Well 645 contained insufficient water for sampling, 1st quarter 1991.
- The following changes to the revised monitoring program were implemented for the Natural Attenuation test beginning January 2001:
 - Well 801 is monitored for water level and water quality.
 - Pumping wells 802, 803, and 808 were temporarily shut off and are monitored for water level and water quality.

Table A.1

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation	Field pH	Lab pH	Lab TDS	Ca	Mg	Na	K	HCO3	SO4	Cl	NH4 as N	NO3 as N	TTHMs (Chloroform)	Al	As
			ft amsl	SU	SU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0029 A	N	7/20/1989	6,879.40	7.2	7.04	4870	570	250	538	1.2	102	2362	38.3	0.15	183	< 1	< 0.1	< 0.001
0029 A	N	10/16/1989	6,879.10	7.1	7.6	5144	518	240	662	1.3	546	2176	30.4	0.24	189	< 1	< 0.1	< 0.001
0029 A	N	1/4/1990	6,878.60	6.9	7.28	5080	554	233	607	0.9	528	2333	42.5	0.09	190	< 1	< 0.1	< 0.001
0029 A	N	4/3/1990	no data	7	7.5	4981	567	240	573	0.9	582	2244	41.9	0.09	147	< 1	< 0.1	< 0.001
0029 A	N	7/2/1990	no data	7	7.48	5000	632	266	463	3.7	596	2268	38	< 0.05	172	< 1	< 0.1	< 0.001
0029 A	N	10/2/1990	6,877.40	7.1	7.73	4778	520	231	472	0.8	558	2367	39.1	< 0.05	118	< 1	< 0.1	< 0.001
0029 A	N	1/15/1991	6,877.00	7.1	7.65	4825	580	242	516	3.5	494	2474	42.8	< 0.05	166	< 1	< 0.1	< 0.001
0029 A	N	4/2/1991	6,876.80	6.9	7.49	4775	592	239	351	0.5	538	2368	39.6	< 0.05	160	< 1	< 0.1	< 0.001
0029 A	N	7/16/1991	6,876.20	6.9	7.5	4595	579	221	347	1.1	598	2487	37.2	< 0.05	147	< 1	< 0.1	< 0.001
0029 A	N	10/14/1991	6,875.40	6.8	7.34	4672	490	204	365	1.1	571	2197	45.2	< 0.05	111	< 1	< 0.1	0.001
0029 A	N	1/14/1992	6,875.00	6.8	7.38	4512	560	239	329	0.7	607	2110	36.4	< 0.05	125	< 1	< 0.1	< 0.001
0029 A	N	4/9/1992	6,874.80	6.8	7.26	4656	574	235	432	1.6	531	2421	39	6.08	70.2	< 1	< 0.1	< 0.001
0029 A	N	7/14/1992	6,873.50	6.5	7.58	4599	644	242	419	1.4	518	2358	37.7	5	129	< 1	< 0.1	< 0.001
0029 A	N	10/13/1992	6,872.30	6.9	7.55	4147	584	267	417	1.7	588	2568	36.5	0.16	105	< 1	0.1	< 0.001
0029 A	N	1/12/1993	6,872.10	7	7.6	4274	591	219	415	3.2	558	2520	36.7	< 0.05	91.8	< 1	< 0.1	< 0.001
0029 A	N	4/14/1993	6,872.20	7	7.62	4349	569	212	373	3.1	568	2349	39.8	0.95	96.6	< 1	< 0.1	< 0.001
0029 A	N	7/15/1993	6,865.90	7.1	6.93	4135	591	201	342	8.6	589	2195	37.1	< 0.05	81.6	< 1	< 0.1	< 0.001
0029 A	N	10/7/1993	6,868.30	7.1	7.7	4425	586	212	345	< 0.1	549	2120	35.9	< 0.05	120	< 1	< 0.1	< 0.001
0029 A	N	1/6/1994	6,870.30	7.1	7.57	4264	567	206	370	0.3	544	2376	35.8	< 0.05	51.8	< 1	< 0.1	< 0.001
0029 A	N	4/14/1994	6,870.20	7.2	7.26	4070	557	207	344	0.5	576	2339	36	0.21	72.8	< 1	< 0.1	< 0.001
0029 A	N	7/21/1994	6,869.50	7	7.56	4233	678	229	324	< 0.1	630	2625	33	< 0.05	70.5	< 1	< 0.1	< 0.001
0029 A	N	10/5/1994	6,869.10	6.9	7.81	4347	641	221	344	0.8	593	2365	36.2	0.11	86	< 1	< 0.1	< 0.001
0509 D	N	7/19/1989	6,916.60	6.4	7.07	4652	819	290	198	10	1525	2017	176	0.06	50	< 1	< 0.1	< 0.001
0509 D	N	10/12/1989	6,915.80	6.4	6.98	4860	854	332	201	13.5	1703	2053	197	0.13	58	< 1	0.12	0.001
0509 D	N	1/4/1990	6,915.30	6.1	6.54	4986	833	403	214	10.7	1745	2024	202	0.1	43	< 1	< 0.1	< 0.001
0509 D	N	4/3/1990	6,914.30	6.2	6.7	5192	794	411	210	11.2	1877	1996	220	0.1	39	< 1	< 0.1	< 0.001
0509 D	N	7/3/1990	6,913.40	6.3	6.74	5278	909	348	203	12	1898	2026	209	< 0.05	53.4	< 1	< 0.1	< 0.001
0509 D	N	10/3/1990	6,912.60	6.2	7.24	5373	847	358	252	12.2	1819	2118	221	< 0.05	38	< 1	< 0.1	< 0.001
0509 D	N	1/15/1991	6,908.00	6.3	7.15	5428	851	379	273	15.1	1463	2355	226	0.05	56.4	< 1	< 0.1	< 0.001
0509 D	N	4/9/1991	6,907.50	6.6	7.25	4208	923	292	192	9.2	1218	1958	178	0.05	37	< 1	< 0.1	< 0.001

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0029 A	N	7/20/1989	< 0.05	< 0.01	0.02	< 0.05	0.08	< 0.1	< 0.05	0.002	< 0.1	0.0556	0.4	< 1	0.4	5.9	< 1	0.6
0029 A	N	10/16/1989	< 0.05	< 0.01	< 0.01	< 0.05	< 0.05	< 0.1	< 0.05	0.003	< 0.1	0.0396	0.3	< 1	0.3	1.1	< 1	1.5
0029 A	N	1/4/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.039	< 0.2	< 1	0	< 0.2	1.9	< 1
0029 A	N	4/3/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.09	< 0.1	< 0.05	0.002	< 0.1	0.036	0.3	< 1	0.3	< 0.2	1.9	0.9
0029 A	N	7/2/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.11	< 0.1	< 0.05	< 0.001	< 0.1	0.0302	0.3	1.4	1.7	0.6	< 1	1
0029 A	N	10/2/1990	< 0.05	< 0.01	0.02	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.031	< 0.2	2.5	2.5	< 0.2	< 1	< 1
0029 A	N	1/15/1991	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0416	< 0.2	< 1	0	< 0.2	< 1	< 1
0029 A	N	4/2/1991	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	0.002	< 0.1	0.0459	< 0.2	1.2	1.2	< 0.2	< 1	< 1
0029 A	N	7/16/1991	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.01	< 0.1	0.037	< 0.2	< 1	0	< 0.2	< 1	< 1
0029 A	N	10/14/1991	< 0.01	0.02	0.02	< 0.05	0.02	< 0.1	< 0.05	0.001	< 0.1	0.05	< 0.2	< 1	0	< 0.2	< 1	< 1
0029 A	N	1/14/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.01	< 0.1	0.05	0.001	< 0.1	0.032	< 0.2	< 1	0	< 0.2	1.8	< 1
0029 A	N	4/9/1992	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	0.021	< 0.1	0.039	2.1	4.7	6.8	< 0.2	1.5	2.4
0029 A	N	7/14/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	0.002	< 0.1	0.04	9.4	1.5	10.9	< 0.2	< 1	9.5
0029 A	N	10/13/1992	< 0.01	0.01	0.01	< 0.05	0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.027	3.1	< 1	3.1	< 0.2	< 1	< 1
0029 A	N	1/12/1993	< 0.01	0.03	0.03	< 0.05	< 0.01	< 0.1	< 0.05	0.011	< 0.1	0.034	< 0.2	< 1	0	< 0.2	< 1	< 1
0029 A	N	4/14/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.053	0.4	< 1	0.4	< 0.2	< 1	< 1
0029 A	N	7/15/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.158	0.3	< 1	0.3	< 0.2	< 1	< 1
0029 A	N	10/7/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.04	< 0.1	< 0.05	< 0.001	< 0.1	0.04	0.8	2.9	3.7	< 0.2	< 1	< 1
0029 A	N	1/6/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.035	0.6	< 1	0.6	< 0.2	1.4	< 1
0029 A	N	4/14/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.043	1	1.5	2.5	< 0.2	< 1	3.4
0029 A	N	7/21/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.03	< 0.1	< 0.05	0.002	< 0.1	0.043	< 0.2	< 1	0	< 0.2	< 1	< 1
0029 A	N	10/5/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.04	< 0.2	3.9	3.9	< 0.2	1.9	6.2
0509 D	N	7/19/1989	< 0.05	< 0.01	< 0.01	< 0.05	0.29	< 0.1	< 0.05	< 0.001	< 0.1	0.111	0.6	1.5	2.1	6.9	2.8	6.8
0509 D	N	10/12/1989	< 0.05	< 0.01	< 0.01	< 0.05	0.39	< 0.1	< 0.05	0.001	< 0.1	0.105	0.8	< 1	0.8	< 0.2	2.3	1.2
0509 D	N	1/4/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.38	< 0.1	< 0.05	< 0.001	< 0.1	0.107	0.9	< 1	0.9	< 0.2	3.4	2.5
0509 D	N	4/3/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.43	< 0.1	< 0.05	< 0.001	< 0.1	0.106	0.7	< 1	0.7	< 0.2	< 1	1.4
0509 D	N	7/3/1990	< 0.05	< 0.01	0.02	< 0.05	0.48	< 0.1	< 0.05	< 0.001	< 0.1	0.126	0.4	< 1	0.4	< 0.2	< 1	< 1
0509 D	N	10/3/1990	< 0.05	< 0.01	0.02	< 0.05	0.55	< 0.1	< 0.05	0.002	< 0.1	0.074	< 0.2	< 1	0	< 0.2	1.9	< 1
0509 D	N	1/15/1991	< 0.01	0.01	< 0.01	< 0.05	0.44	< 0.1	< 0.05	< 0.001	< 0.1	0.1202	0.8	< 1	0.8	1	< 1	< 1
0509 D	N	4/9/1991	< 0.01	0.02	< 0.01	< 0.05	0.91	< 0.1	< 0.05	0.001	< 0.1	0.1274	0.5	< 1	0.5	< 0.2	2.9	< 1

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Cl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0509 D	N	7/17/1991	6,906.80	6.3	7.35	5554	905	365	225	11	1826	2303	237	0.07	56.8	< 1	< 0.1	< 0.001
0509 D	N	10/15/1991	6,906.20	6.2	6.97	5616	917	432	253	12.3	1813	2407	239	< 0.05	22.5	< 1	< 0.1	0.001
0509 D	N	1/15/1992	6,905.50	6.1	7.16	4832	782	378	228	10.2	1206	2226	215	< 0.05	42.3	< 1	0.26	< 0.001
0509 D	N	4/8/1992	6,904.80	6.1	7.41	5122	822	437	258	11.6	1763	2392	227	< 0.05	33.3	< 1	< 0.1	< 0.001
0509 D	N	7/7/1992	6,904.00	6	7.8	5151	791	413	319	16.1	1253	2379	182	0.15	55.6	< 1	0.12	< 0.001
0509 D	N	10/6/1992	6,903.40	6.2	8.15	5913	913	451	293	12.1	1946	2358	230	< 0.05	62.5	< 1	0.1	< 0.001
0509 D	N	1/6/1993	6,902.90	6.3	7.26	5281	453	995	156	8	2013	2878	262	0.81	84	< 1	< 0.1	< 0.001
0509 D	N	4/7/1993	6,902.30	6.3	7	5254	786	389	319	10.5	1797	2393	251	0.06	51.6	< 1	< 0.1	< 0.001
0509 D	N	7/14/1993	6,901.30	6.3	7.04	5055	810	402	283	11.4	1961	2101	257	< 0.05	47.4	< 1	< 0.1	< 0.001
0509 D	N	10/6/1993	6,900.60	6.5	7	5090	830	424	271	11.3	1787	2476	231	< 0.05	56.9	< 1	< 0.1	< 0.001
0509 D	N	1/6/1994	6,900.20	6.5	6.83	5480	814	438	293	10.6	1726	2583	240	0.16	39.6	< 1	< 0.1	< 0.001
0509 D	N	4/12/1994	6,899.50	6.5	6.75	5766	780	452	277	11.3	1660	2729	256	0.51	59.3	< 1	< 0.1	< 0.001
0509 D	N	7/21/1994	6,898.90	6.4	7.34	6216	918	487	295	11.7	1817	3043	246	0.39	54.1	< 1	< 0.1	< 0.001
0509 D	N	10/5/1994	6,898.60	6.2	7.59	6177	901	522	319	12.8	1800	2749	259	0.93	54.8	< 1	< 0.1	< 0.001
0509 D	N	1/5/1995	6,898.00	6.4	7.12	6296	880	542	298	14	1898	2693	271	1.05	49.7	< 1	< 0.1	< 0.001
0509 D	N	4/5/1995	6,897.30	6.5	6.92	6165	814	494	276	12	1856	2766	302	1.63	63	< 1	< 0.1	< 0.001
0509 D	N	7/6/1995	6,896.60	6.4	7.6	6186	835	510	300	13.5	1841	2602	299	1.54	46.5	< 1	< 0.1	< 0.001
0509 D	N	10/3/1995	6,896.20	6.3	7.41	6534	820	545	296	13.6	1928	2825	292	2.22	50.5	< 1	< 0.1	0.003
0509 D	N	1/3/1996	6,895.70	6.5	6.96	5314	760	490	287	13.3	1903	2229	227	2.22	50.4	< 1	< 0.1	< 0.001
0509 D	N	4/2/1996	6,895.10	6.5	7.67	6804	800	610	324	15	1979	3030	342	3.86	53.6	< 1	< 0.1	< 0.001
0509 D	N	7/7/1996	6,890.10	6.2	7.04	6283	805	495	300	14.7	1769	2580	255	2.45	44.5	< 1	< 0.1	< 0.001
0509 D	N	10/1/1996	6,889.60	6.4	6.8	6440	818	578	308	15.2	1900	2795	297	3.97	86.1	< 1	< 0.1	< 0.001
0509 D	N	1/22/1997	6,889.20	6.3	7.21	6140	820	545	277	14.4	1900	2789	337	3.56	43.2	< 1	< 0.1	< 0.001
0509 D	N	4/8/1997	6,888.50	6.5	7.64	6430	825	581	328	15.7	1910	2869	345	5.09	48.4	< 1	< 0.1	< 0.001
0509 D	N	7/8/1997	6,888.00	6.8	7.61	6640	827	599	293	16.1	1900	2650	337	6.19	44.8	< 1	< 0.1	< 0.001
0509 D	N	10/7/1997	6,887.80	6.2	7.42	6530	807	584	302	16.2	1920	2850	350	6.7	44.5	< 1	< 0.1	< 0.001
0509 D	N	1/16/1998	6,887.20	6.6	7.75	6640	768	602	319	17.3	1930	3000	343	9.43	47.3	< 1	< 0.1	< 0.001
0509 D	N	4/7/1998	6,887.00	6.4	7.24	6390	805	610	310	16.2	1910	2950	274	8.49	46	< 1	< 0.1	< 0.001
0509 D	N	7/7/1998	6,886.60	6.7	7.64	6320	800	548	305	16.1	1890	2500	322	7.32	42.3	< 1	< 0.1	< 0.001
0509 D	N	10/6/1998	6,886.20	6.6	7.78	6960	815	689	353	19.9	1910	3050	312	13.8	44.4	< 1	< 0.1	< 0.001

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0509 D	N	7/17/1991	< 0.01	< 0.01	< 0.01	< 0.05	0.46	< 0.1	< 0.05	< 0.001	< 0.1	0.136	0.4	< 1	0.4	< 0.2	< 1	< 1
0509 D	N	10/15/1991	< 0.01	< 0.01	0.01	< 0.05	0.5	< 0.1	< 0.05	0.001	< 0.1	0.132	0.5	7.6	8.1	< 0.2	< 1	< 1
0509 D	N	1/15/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.7	< 0.1	< 0.05	0.002	< 0.1	0.22	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	4/8/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.61	< 0.1	< 0.05	0.004	< 0.1	0.124	< 0.2	1.1	1.1	< 0.2	1.9	< 1
0509 D	N	7/7/1992	< 0.01	< 0.01	< 0.01	0.07	0.72	< 0.1	< 0.05	0.002	< 0.1	0.12	1	< 1	1	< 0.2	< 1	1.2
0509 D	N	10/6/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.66	< 0.1	< 0.05	0.005	< 0.1	0.119	0.7	2.2	2.9	< 0.2	2.3	< 1
0509 D	N	1/6/1993	< 0.01	< 0.01	< 0.01	< 0.05	1.86	< 0.1	< 0.05	0.005	< 0.1	0.003	1.5	4.9	6.4	< 0.2	< 1	1.7
0509 D	N	4/7/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.68	< 0.1	< 0.05	< 0.001	< 0.1	0.142	0.3	1.9	2.2	< 0.2	2.9	< 1
0509 D	N	7/14/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.74	< 0.1	< 0.05	< 0.001	< 0.1	0.082	0.5	2	2.5	< 0.2	< 1	< 1
0509 D	N	10/6/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.75	< 0.1	< 0.05	< 0.001	< 0.1	0.043	0.9	< 1	0.9	< 0.2	< 1	< 1
0509 D	N	1/6/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.81	< 0.1	< 0.05	< 0.001	< 0.1	0.081	0.4	< 1	0.4	< 0.2	1.1	< 1
0509 D	N	4/12/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.81	< 0.1	< 0.05	< 0.001	< 0.1	0.082	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	7/21/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.88	< 0.1	< 0.05	0.004	< 0.1	0.075	0.4	4.7	5.1	< 0.2	y	5.5
0509 D	N	10/5/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.88	< 0.1	< 0.05	< 0.001	< 0.1	0.084	0.5	1.8	2.3	< 0.2	2.7	3.4
0509 D	N	1/5/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.85	< 0.1	< 0.05	< 0.001	< 0.1	0.084	0.6	1.6	2.2	< 0.2	< 1	3.2
0509 D	N	4/5/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.44	< 0.1	< 0.05	< 0.001	< 0.1	0.084	0.2	1.6	1.8	< 0.2	< 1	2.8
0509 D	N	7/6/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.91	< 0.1	< 0.05	0.001	< 0.1	0.0816	< 0.2	< 1	0	0.4	< 1	< 1
0509 D	N	10/3/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.82	< 0.1	< 0.05	0.002	< 0.1	0.084	0.8	< 1	0.8	< 0.2	< 1	1.7
0509 D	N	1/3/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.79	< 0.1	< 0.05	0.002	< 0.1	0.09	0.4	< 1	0.4	< 0.2	1.5	2
0509 D	N	4/2/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.86	< 0.1	< 0.05	< 0.001	< 0.1	0.101	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	7/7/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.97	< 0.1	< 0.05	< 0.001	< 0.1	0.143	0.5	< 1	0.5	< 0.2	< 1	< 1
0509 D	N	10/1/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.9	< 0.1	< 0.05	0.007	< 0.1	0.088	0.6	< 1	0.6	< 0.2	< 1	< 1
0509 D	N	1/22/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.85	< 0.1	< 0.05	< 0.001	< 0.1	0.087	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	4/8/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.97	< 0.1	< 0.05	0.028	< 0.1	0.099	0.5	< 1	0.5	< 0.2	< 1	< 1
0509 D	N	7/8/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.84	< 0.1	< 0.05	< 0.001	< 0.1	0.094	1.6	< 1	1.6	< 0.2	< 1	< 1
0509 D	N	10/7/1997	< 0.01	< 0.01	< 0.01	< 0.05	1.21	< 0.1	< 0.05	< 0.001	< 0.1	0.089	< 0.2	< 1	0	< 0.2	< 1	1
0509 D	N	1/16/1998	< 0.01	< 0.01	< 0.01	< 0.05	1.2	< 0.1	< 0.05	< 0.001	< 0.1	0.102	0.7	< 1	0.7	< 0.2	< 1	2.5
0509 D	N	4/7/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.8	< 0.1	< 0.05	< 0.001	< 0.1	0.101	0.6	< 1	0.6	< 0.2	< 1	< 1
0509 D	N	7/7/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.98	< 0.1	< 0.05	< 0.001	< 0.1	0.115	0.6	< 1	0.6	< 0.2	< 1	< 1
0509 D	N	10/6/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.83	< 0.1	< 0.05	< 0.001	< 0.1	0.105	0.6	< 1	0.6	< 0.2	< 1	< 1

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Cl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0509 D	N	1/5/1999	6,885.70	6.6	7.76	6830	761	609	289	17.1	1970	3100	317	12.9	41.1	< 1	< 0.1	< 0.001
0509 D	N	4/6/1999	6,885.40	6.5	7.6	3780	805	630	289	17.6	1950	2830	345	13.1	9.53	< 1	< 0.1	< 0.001
0509 D	N	7/13/1999	6,884.84	6.5	7.72	6620	762	644	314	25.1	1540	3000	312	17.6	36.6	< 1	< 0.1	< 0.001
0509 D	N	10/5/1999	6,884.60	6.56	7.4	6290	847	664	307	18.6	1990	3070	317	0.05	35.4	< 1	< 0.1	< 0.001
0509 D	N	1/4/2000	6,884.20	6.7	7.59	6090	798	529	232	17.5	1980	2520	278	11.7	36.6	< 1	< 0.1	< 0.001
0509 D	N	5/3/2000	6,883.70	6.3	7.12	4990	859	337	241	13.2	2010	1570	293	0.6	32.7	1.9	0.2	< 0.001
0509 D	N	7/12/2000	6,883.30	6.31	7.18	4920	866	306	228	10.3	2110	1380	324	0.24	31.3	< 1	< 0.1	< 0.001
0509 D	N	10/3/2000	6,883.10	6.21	7.14	5090	893	372	240	13.5	2050	1990	350	1.9	31.2	< 1	< 0.1	< 0.001
0509 D	N	1/8/2001	6,882.70	6.46	7.47	5010	924	331	220	11.1	2200	1610	317	0.94	30.6	< 1	< 0.1	< 0.001
0509 D	N	2/5/2001	6,882.35	6.5	7.03	5090	1000	384	265	13.5	2090	1860	365	1.75	29.5	< 1	0.2	0.001
0509 D	N	3/5/2001	6,882.10	6.65	7.41	5110	901	347	310	13.9	2100	1850	279	0.91	28.4	< 1	< 0.1	< 0.001
0509 D	N	4/3/2001	6,882.30	6.42	6.76	5120	984	366	211	11.8	2080	1800	311	0.82	31.8	< 1	< 0.1	< 0.001
0509 D	N	5/7/2001	6,881.90	6.46	7.01	5240	864	338	221	12.5	2060	1700	322	1.56	27.3	< 1	< 0.1	< 0.001
0509 D	N	6/4/2001	6,882.10	6.46	6.97	4860	848	336	232	12.7	2070	1760	318	1.92	30.2	< 1	< 0.1	< 0.001
0509 D	N	7/9/2001	6,881.80	6.36	6.84	5210	956	369	293	12.6	2180	1730	326	0.8	29.2	< 1	< 0.1	< 0.001
0509 D	N	8/6/2001	6,881.60	6.36	7.3	5210	890	340	230	13	2130	1500	370	0.61	26.6	< 1	< 0.1	< 0.001
0509 D	N	9/10/2001	6,881.40	6.38	7.2	5130	940	340	246	11.4	2210	1600	297	0.42	26	< 1	< 0.1	< 0.001
0509 D	N	10/1/2001	6,881.35	6.43	7.2	5190	920	320	234	12.1	2250	1570	411	0.37	25	< 1	< 0.1	< 0.001
0509 D	N	11/5/2001	6,881.30	6.47	7.4	5300	930	348	258	13.6	2300	1770	401	1.37	26.4	< 1	< 0.1	< 0.001
0509 D	N	12/3/2001	6,881.20	6.44	7.3	5370	875	338	237	12.3	2280	1590	357	2.14	29	< 1	< 0.1	< 0.001
0509 D	N	1/7/2002	6,881.00	6.41	6.8	5220	1040	354	229	11.8	2290	1840	383	1.1	23	< 1	< 0.1	< 0.001
0509 D	N	2/4/2002	6,880.80	6.48	7.1	5290	994	358	274	13.1	2170	1760	362	1.11	23.9	< 1	< 0.1	< 0.001
0509 D	N	3/4/2002	6,880.70	6.45	6.9	5220	934	342	262	12.6	2240	1790	376	0.9	24.4	< 1	< 0.1	< 0.001
0509 D	N	4/1/2002	6,880.68	6.36	7.69	5260	974	337	262	13.3	2250	1750	380	0.4	23.5	< 1	< 0.1	< 0.001
0509 D	N	5/6/2002	6,880.55	6.38	7.74	5390	916	361	279	14.5	2120	1850	344	2.76	27.3	< 1	< 0.1	< 0.001
0509 D	N	6/3/2002	6,880.50	6.36	7.87	5200	949	331	244	11.1	2240	1500	318	0.32	24.5	< 1	< 0.1	< 0.001
0509 D	N	7/8/2002	6,880.17	6.57	7.83	5470	925	381	306	13.4	2160	1900	308	4.08	25	< 1	< 0.1	< 0.001
0509 D	N	10/7/2002	6,879.78	6.12	7.82	4290	856	333	254	11.9	2100	1750	300	1.17	26.4	< 1	< 0.1	< 0.001
0509 D	N	1/6/2003	6,879.36	6.53	6.84	5260	840	309	240	12.4	2150	1640	291	1.1	23.7	< 1	< 0.1	< 0.001
0509 D	N	4/7/2003	6,879.09	6.33	6.77	5320	887	344	275	18.6	2160	1700	330	2.1	23.3	< 1	< 0.1	< 0.001

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0509 D	N	1/5/1999	< 0.01	< 0.005	< 0.01	< 0.05	0.78	< 0.1	< 0.05	< 0.001	< 0.1	0.103	1	< 1	1	< 0.2	< 1	< 1
0509 D	N	4/6/1999	< 0.01	< 0.005	< 0.01	< 0.05	0.89	< 0.1	< 0.05	< 0.001	< 0.1	0.104	1.1	< 1	1.1	< 0.2	< 1	< 1
0509 D	N	7/13/1999	< 0.01	< 0.005	< 0.01	< 0.05	0.56	< 0.1	< 0.05	0.003	< 0.1	0.104	1.9	< 1	1.9	< 0.2	< 1	9.3
0509 D	N	10/5/1999	< 0.01	0.008	< 0.01	< 0.05	1.05	< 0.1	< 0.05	< 0.001	< 0.1	0.108	0.5	< 1	0.5	< 0.2	< 1	< 1
0509 D	N	1/4/2000	< 0.01	< 0.005	< 0.01	< 0.05	1.09	< 0.1	0.05	0.001	< 0.1	0.134	0.5	< 1	0.5	< 0.2	< 1	< 1
0509 D	N	5/3/2000	< 0.01	0.005	< 0.01	< 0.05	1.6	< 0.1	< 0.05	< 0.001	< 0.1	0.176	< 0.2	2.6	2.6	< 0.2	< 1	< 1
0509 D	N	7/12/2000	< 0.01	< 0.005	< 0.01	< 0.05	1.89	< 0.1	< 0.05	< 0.001	< 0.1	0.226	0.6	2.8	3.4	< 0.2	< 1	< 1
0509 D	N	10/3/2000	< 0.01	< 0.005	< 0.01	0.07	2.05	< 0.1	< 0.05	< 0.001	< 0.1	0.184	0.7	< 1	0.7	< 0.2	< 1	< 1
0509 D	N	1/8/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.08	< 0.1	< 0.05	< 0.001	< 0.1	0.211	0.5	< 1	0.5	< 0.2	< 1	< 1
0509 D	N	2/5/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.2	< 0.1	< 0.05	< 0.001	< 0.1	0.197	0.6	< 1	0.6	< 0.2	< 1	< 1
0509 D	N	3/5/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.51	< 0.1	< 0.05	0.001	< 0.1	0.186	< 0.2	2.3	2.3	< 0.2	< 1	< 1
0509 D	N	4/3/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.53	< 0.1	< 0.05	< 0.001	< 0.1	0.183	0.5	< 1	0.5	< 0.2	< 1	< 1
0509 D	N	5/7/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.5	< 0.1	< 0.05	< 0.001	< 0.1	0.188	0.4	< 1	0.4	< 0.2	< 1	< 1
0509 D	N	6/4/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.42	< 0.1	< 0.05	< 0.001	< 0.1	0.186	0.9	< 1	0.9	< 0.2	< 1	< 1
0509 D	N	7/9/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.71	< 0.1	< 0.05	< 0.001	< 0.1	0.217	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	8/6/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.8	< 0.1	< 0.05	< 0.001	< 0.1	0.22	0.7	< 1	0.7	< 0.2	< 1	< 1
0509 D	N	9/10/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.7	< 0.1	< 0.05	< 0.001	< 0.1	0.222	0.5	< 1	0.5	< 0.2	< 1	< 1
0509 D	N	10/1/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.46	< 0.1	< 0.05	< 0.001	< 0.1	0.225	0.5	< 1	0.5	< 0.2	< 1	< 1
0509 D	N	11/5/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.41	< 0.1	< 0.05	< 0.001	< 0.1	0.197	< 0.2	3.9	3.9	< 0.2	< 1	< 1
0509 D	N	12/3/2001	< 0.01	< 0.005	< 0.01	< 0.05	2.33	< 0.1	< 0.05	0.001	< 0.1	0.252	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	1/7/2002	< 0.01	< 0.005	< 0.01	< 0.05	2.49	< 0.1	< 0.05	< 0.001	< 0.1	0.206	1.2	< 1	1.2	< 0.2	< 1	< 1
0509 D	N	2/4/2002	< 0.01	< 0.005	< 0.01	< 0.05	2.41	< 0.1	< 0.05	< 0.001	< 0.1	0.189	0.4	< 1	0.4	< 0.2	< 1	< 1
0509 D	N	3/4/2002	< 0.01	< 0.005	< 0.01	< 0.05	2.91	< 0.1	< 0.05	< 0.001	< 0.1	0.228	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	4/1/2002	< 0.01	0.007	< 0.01	< 0.05	2.95	< 0.1	0.05	< 0.001	< 0.1	0.213	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	5/6/2002	< 0.01	< 0.005	< 0.01	< 0.05	2.48	< 0.1	< 0.05	< 0.001	< 0.1	0.198	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	6/3/2002	< 0.01	< 0.005	< 0.01	< 0.05	2.99	< 0.1	0.05	< 0.001	< 0.1	0.192	< 0.2	2.7	2.7	< 0.2	< 1	< 1
0509 D	N	7/8/2002	< 0.01	< 0.005	< 0.01	< 0.05	2.34	0.3	< 0.05	< 0.001	< 0.1	0.229	0.3	< 1	0.3	< 0.2	< 1	< 1
0509 D	N	10/7/2002	< 0.01	< 0.005	< 0.01	< 0.05	2.47	< 0.1	< 0.05	< 0.001	< 0.1	0.159	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	1/6/2003	< 0.01	< 0.005	< 0.01	< 0.05	2.9	< 0.1	< 0.05	< 0.001	< 0.1	0.19	< 0.2	< 1	0	< 0.2	< 1	1.5
0509 D	N	4/7/2003	< 0.01	< 0.005	< 0.01	< 0.05	2.45	< 0.1	< 0.05	< 0.001	< 0.1	0.19	< 0.2	< 1	0	< 0.2	< 1	< 1.0

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
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Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Cl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0509 D	N	7/7/2003	6,878.81	6.2	7.28	5350	816	316	280	22.8	2120	1670	344	1.46	23.3	< 1	< 0.1	< 0.001
0509 D	N	10/6/2003	6,878.52	6.24	7.97	5360	901	362	297	13.6	2160	1840	338	2.21	21.4	< 1	< 0.1	< 0.001
0509 D	N	1/5/2004	6,877.96	6.38	7.86	5610	883	435	267	15.7	2270	2170	404	8.37	22.5 D	< 1.0	0.2	< 0.001
0509 D	N	4/5/2004	6,877.89	6.62	6.67	5300	912	344	291	12.3	2120	1710 D	350	1	20 D	< 1	< 0.1	< 0.001
0509 D	N	7/12/2004	6,877.38	6.22	6.67	5540	934	366	327	13.6	2380	1850 D	345	2.48	18.9 D	< 1.0	< 0.1	< 0.001
0509 D	N	10/4/2004	6,877.03	6.31	6.96	5430	853 D	322 D	308	11.7	2310	1660	349	0.59	17.1 D	< 1.0	< 0.1	< 0.001
0509 D	N	1/3/2005	6,876.74	6.51	6.89	5380	925 D	335 D	311	12.9	2360	1610 D	367	0.76	17.5 D	< 1.0	< 0.1	< 0.001
0509 D	N	4/4/2005	6,876.54	6.48	6.87	6050	906	360	329	12.3	2370	1810	344	0.47	14.7	< 1.0	< 0.1	< 0.001
0509 D	N	7/11/2005	6,876.04	6.38	7.1	5260	881 D	360 D	332	12.6	2330	1840 D	355	0.53	15.1 D	< 1.0	< 0.1	< 0.001
0509 D	N	10/3/2005	6,875.84	6.38	7.01	5460	875 D	430 D	323	13.7	2250	1890 D	327	3.93	14.9 D	< 1.0	< 0.1	< 0.001
0509 D	N	1/9/2006	6,875.35	6.51	7.42	5080	868 D	380 D	290	11.6 D	1600	2080 D	345	1.57	14.7 D	< 1.0	< 0.1	< 0.001
0509 D	N	4/3/2006	6,875.04	6.37	7.06	5260	817	356	296	12.6	1710	1820 D	323	1.28	13.8 D	< 1.0	< 0.1	< 0.001
0509 D	N	7/17/2006	6,874.74	6.28	6.78	5120	926 D	365 D	330	13.2	2210	1920 D	351	0.28	13.1 D	< 1.0	< 0.1	< 0.001
0509 D	N	10/2/2006	6,874.54	6.35	6.69	5180	816 D	350 D	312 D	14.1	2330	1760 D	297	2.15	13.7 D	< 0.5	< 0.1	< 0.001
0509 D	N	1/8/2007	6,874.05	6.44	6.4	5340	914 D	355 D	294	12.4	2260	1580	344	0.23	13.2 D	< 0.5	< 0.1	< 0.001
0509 D	N	4/9/2007	6,873.82	6.46	6.62	5280	925 D	342 D	326	12.8	2350	1630	361	0.08	12.8 D	< 0.5	< 0.1	< 0.001
0509 D	N	7/9/2007	6,873.69	6.33	6.69	5110	891 D	364 D	356	12.2	2450	1730	324	< 0.05	12.4	< 0.5	< 0.1	0.008
0509 D	N	10/1/2007	6,873.39	6.41	6.75	5180	826 D	334 D	334 D	13.1	2340	1720 D	352 D	0.62	12.4	< 0.5	< 0.1	< 0.001
0509 D	N	1/14/2008	6,872.94	6.48	6.35	5030	886 D	337 D	334 D	13	2280	1660 D	374 D	0.12	13.3 D	< 0.5	< 0.1	< 0.001
0509 D	N	4/7/2008	6,873.04	6.37	6.7	5210	876 D	409 D	370 D	15.0 D	2150	1970 D	361	1.2 D	21.1	< 0.50	< 0.1	< 0.001
0509 D	N	7/7/2008	6,872.84	6.19	7 H	5390 H	664	729	270 D	12	2340	2080 D	347	4.7	14.6	< 0.5	< 0.1	< 0.003
0509 D	N	10/6/2008	6,872.54	6.3	6.6	5650	918	365	346 D	12	2340	1960 D	343	5.4	14.4	< 0.5	< 0.1	< 0.001
0509 D	N	1/12/2009	6,872.19	6.32	6.69	5750	842	373	368	13	2300	1690 D	332	0.98	18.3	< 0.5	< 0.1	< 0.001
0509 D	N	4/6/2009	6,871.84	6.35	6.54	5860	820 D	389 D	380 D	13	2430	2090 D	333	2.3	13.5	< 0.50	< 0.1	< 0.001
0509 D	N	7/6/2009	6,871.84	6.24	6.67	5660	911 D	386	388 D	14	2450	2040 D	357	1.82	11	< 0.50	0.2	< 0.001
0509 D	N	10/5/2009	6,871.74	6.44	7.16	5600	878 D	418	379 D	13	2500	1910 D	367	4.3	11	< 0.50	< 0.1	< 0.001
0509 D	N	1/4/2010	6,871.24	6.54	6.71	5800 D	899 D	374	379 D	12	2610	2050 D	362	0.75	11.2	< 0.50	< 0.1	< 0.001
0509 D	N	4/5/2010	6,871.24	6.41	6.51	5690 DH	963 D	416	431 D	13	2660	2080 D	356	1.76	10.1 D	< 0.50	0.1	< 0.001
0509 D	N	7/12/2010	6,870.94	6.31	6.71	5820 D	948 D	418	399 D	13	2590	2130 D	365 D	4.05	9.8 D	< 0.50	< 0.1	< 0.001
0509 D	N	10/4/2010	6,870.79	6.41	7.37	5570 D	882	424	418	14	2690	2040 D	359 D	4.8 D	9.2 D	< 0.50	< 0.1	0.001

TABLE A.1
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Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0509 D	N	7/7/2003	< 0.01	< 0.005	0.02	< 0.05	3.46	< 0.1	< 0.05	< 0.001	< 0.1	0.22	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0509 D	N	10/6/2003	< 0.01	< 0.005	< 0.01	< 0.05	3.1	< 0.1	< 0.05	< 0.001	< 0.1	0.231	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0509 D	N	1/5/2004	< 0.01	< 0.005	< 0.01	< 0.05	2.1	< 0.1	< 0.05	< 0.001	< 0.1	0.161 D	0.5	< 1.0	0.5	< 0.2	< 1.0	< 1.0
0509 D	N	4/5/2004	< 0.01	< 0.005	< 0.01	< 0.05	3.26	< 0.1	< 0.05	0.001	< 0.1	0.24 D	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	7/12/2004	< 0.01	< 0.005	0.01	< 0.05	2.9	< 0.1	< 0.05	< 0.001	< 0.1	0.219 D	0.5	< 1.0	0.5	< 0.2	< 1.0	< 1.0
0509 D	N	10/4/2004	< 0.01	< 0.005	< 0.01	< 0.05	3.13	< 0.1	< 0.05	< 0.001	< 0.1	0.211 D	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0509 D	N	1/3/2005	< 0.01	< 0.005	< 0.01	< 0.05	3.47	< 0.1	< 0.05	< 0.001	< 0.1	0.231	0.4	< 1.0	0.4	< 0.2	< 1.0	1.7
0509 D	N	4/4/2005	< 0.01	< 0.005	< 0.01	< 0.05	3.1	< 0.1	< 0.05	< 0.001	< 0.1	0.215	0.9	< 1.0	0.9	< 0.2	< 1.0	< 1.0
0509 D	N	7/11/2005	< 0.01	< 0.005	< 0.01	< 0.05	3.03	< 0.1	< 0.05	< 0.001	< 0.1	0.209	0.4	< 1.0	0.4	< 0.2	< 1.0	< 1.0
0509 D	N	10/3/2005	< 0.01	< 0.005	< 0.01	< 0.05	2.36	< 0.1	< 0.05	< 0.001	< 0.1	0.197	< 0.2	1.7	1.7	< 0.2	< 1.0	< 1.0
0509 D	N	1/9/2006	< 0.01	< 0.005	< 0.01	< 0.05	2.79	< 0.1	< 0.05	< 0.001	< 0.1	0.189	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0509 D	N	4/3/2006	< 0.01	< 0.005	< 0.01	< 0.05	2.91	< 0.1	< 0.05	< 0.001	< 0.1	0.187 D	0.6	< 1.0	0.6	< 0.2	< 1.0	< 1.0
0509 D	N	7/17/2006	< 0.01	< 0.005	< 0.01	< 0.05	3.3	< 0.1	< 0.05	< 0.001	< 0.1	0.222	0.6	2.2	2.8	< 0.2	< 1.0	< 1.0
0509 D	N	10/2/2006	< 0.01	< 0.005	< 0.01	< 0.05	3.03	< 0.1	< 0.05	< 0.001	< 0.1	0.227	< 0.2	< 1	0	< 0.2	< 1	< 1
0509 D	N	1/8/2007	< 0.01	< 0.005	< 0.01	< 0.05	3.97	< 0.1	< 0.05	< 0.001	< 0.1	0.229	0.3	< 1	0.3	< 0.2	< 1	< 1
0509 D	N	4/9/2007	< 0.01	< 0.005	< 0.01	< 0.05	4.14	< 0.1	< 0.05	< 0.001	< 0.1	0.243	< 0.2	< 1	0	< 0.2	< 1	1
0509 D	N	7/9/2007	< 0.01	< 0.005	< 0.01	< 0.05	2.25	< 0.1	< 0.05	< 0.001	< 0.1	0.24	< 0.2	< 1	0	< 0.2	< 1	1
0509 D	N	10/1/2007	< 0.01	< 0.005	< 0.01	< 0.05	3.55	< 0.1	< 0.05	< 0.001	< 0.1	0.246	< 0.2	< 1	0	< 0.2	< 1	1.5
0509 D	N	1/14/2008	< 0.01	< 0.005	< 0.01	< 0.05	3.6	< 0.1	< 0.05	< 0.001	< 0.1	0.232	< 0.2	< 1	0	< 0.2	< 1	1.6
0509 D	N	4/7/2008	< 0.01	< 0.005	< 0.01	< 0.05	2.72	< 0.1	< 0.05	< 0.001	< 0.1	0.218	0.3	0.5 U	0.8	-0.07 U	0 U	1.6
0509 D	N	7/7/2008	< 0.01	< 0.005	< 0.01	< 0.05	2.7	< 0.1	< 0.05	< 0.001	< 0.1	0.208	-0.08 U	1.6	1.52	0.5	2.7 U	1.3
0509 D	N	10/6/2008	< 0.01	< 0.005	< 0.01	< 0.05	2.36	< 0.1	< 0.05	< 0.001	< 0.1	0.199	0.14 U	0.31 U	0.45	0.2	-2 U	1.7
0509 D	N	1/12/2009	< 0.01	< 0.005	< 0.01	< 0.05	2.99	< 0.1	< 0.05	< 0.001	< 0.1	0.214	0.24	2.4	2.64	0.1 U	1.5 U	1.6
0509 D	N	4/6/2009	< 0.01	< 0.005	< 0.01	< 0.05	2.61	< 0.1	< 0.05	0.001	< 0.1	0.211	0.35	1.4	1.75	0.09 U	-5 U	1
0509 D	N	7/6/2009	< 0.01	< 0.005	< 0.01	< 0.05	3.3	< 0.1	< 0.05	< 0.001	< 0.1	0.223	0.75	1.5	2.25	0.03 U	0.4 U	2.7
0509 D	N	10/5/2009	< 0.01	< 0.005	< 0.01	< 0.05	3.35	< 0.1	< 0.05	< 0.001	< 0.1	0.239	0.69	0.89 U	1.58	0.05 U	4.0 U	1
0509 D	N	1/4/2010	< 0.01	< 0.005	< 0.01	< 0.05	3.71	< 0.1	< 0.05	< 0.001	< 0.1	0.235	0.37	1.8	2.17	-0.01 U	-6 U	0.7 U
0509 D	N	4/5/2010	< 0.01	< 0.005	< 0.01	< 0.05	3.45	< 0.1	< 0.05	< 0.001	< 0.1	0.244	0.4	0.96 U	1.36	0.06 U	1.7 U	0.8
0509 D	N	7/12/2010	< 0.01	< 0.005	< 0.01	< 0.05	3.25	< 0.1	< 0.05	< 0.001	< 0.1	0.26	0.39	0.51 U	0.9	0.001 U	-0.1 U	0.4 U
0509 D	N	10/4/2010	< 0.01	< 0.005	0.01	< 0.05	4.44	< 0.1	< 0.05	< 0.001	< 0.1	0.312	0.23	0.54 U	0.77	0.02 U	1 U	0.5 U

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Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Chl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0509 D	N	1/3/2011	6870.59	6.39	6.74	5820 D	917 D	460	429 D	14	2550	2230 D	368 D	5.5 D	8.1 D	<0.50	<0.1	<0.001
0509 D	N	4/4/2011	6870.14	6.55	6.68	5790 D	905	426	442 D	14	2530	2220 D	366 D	2.95 D	9.6 D	<0.50	<0.1	<0.001
0509 D	N	7/11/2011	6870.09	6.35	6.97	5600 D	876	440	443	13	2550	2150 D	350 D	4.9 D	9.0 D	<0.50	<0.1	0.005
0509 D	N	10/3/2011	6869.85	6.47	7.65	5600 D	918	434	430	13	2420	2170 D	368 D	2.3 D	8.9 D	<0.50	<0.1	0.006
0624	N	7/19/1989	6,860.40	7.3	7.64	4637	565	412	226	4.1	378	2479	108	0.06	116	< 1	< 0.1	< 0.001
0624	N	10/16/1989	6,860.40	7.1	7.5	4760	535	399	211	5	456	2182	110	0.1	108	< 1	< 0.1	< 0.001
0624	N	1/10/1990	6,860.10	7.2	7.32	4642	562	363	208	3.61	473	2370	110	0.05	118	< 1	< 0.1	< 0.001
0624	N	4/5/1990	6,860.40	7.1	7.58	4722	559	390	206	3.8	537	2311	115	0.12	130	< 1	< 0.1	< 0.001
0624	N	7/3/1990	6,859.70	7.1	7.48	4839	553	371	195	3.9	512	2306	113	< 0.05	127	< 1	0.1	< 0.001
0624	N	10/3/1990	6,859.80	7	7.75	4783	565	384	215	4	561	2311	117	< 0.05	82	< 1	< 0.1	0.001
0624	N	1/15/1991	6,860.00	7.1	7.55	4686	612	405	212	5.6	528	2468	120	< 0.05	117	< 1	< 0.1	< 0.001
0624	N	4/2/1991	6,860.10	7.2	7.68	4832	555	362	203	3.2	524	2428	130	< 0.05	132	< 1	0.13	< 0.001
0624	N	7/17/1991	6,859.20	7.1	7.75	4689	540	335	195	2.9	595	2602	132	0.05	159	< 1	0.1	< 0.001
0624	N	10/15/1991	6,858.80	6.9	7.54	4640	609	373	186	2.5	549	2327	118	< 0.05	93.9	< 1	0.1	0.001
0624	N	1/15/1992	6,858.50	6.9	7.57	4267	525	348	197	2.8	539	2296	113	< 0.05	82	< 1	< 0.1	< 0.001
0624	N	4/8/1992	6,858.30	6.9	7.73	4279	581	371	208	3.5	597	2276	118	< 0.05	83.2	< 1	< 0.1	< 0.001
0624	N	7/8/1992	6,857.90	6.8	7.43	4323	581	360	254	4.3	432	2259	125	0.08	106	< 1	< 0.1	< 0.001
0624	N	10/6/1992	6,857.50	7	7.56	4704	626	364	218	2.1	593	2304	112	< 0.05	120	< 1	< 0.1	< 0.001
0624	N	1/7/1993	6,857.10	7	7.71	4698	587	348	211	3.9	586	2245	122	< 0.05	105	< 1	< 0.1	< 0.001
0624	N	4/7/1993	6,857.10	7	7.5	4111	553	307	230	15.9	581	2172	129	< 0.05	107	< 1	< 0.1	< 0.001
0624	N	7/14/1993	6,856.60	7	7.11	4803	645	361	211	2.4	748	2307	138	< 0.05	106	< 1	< 0.1	< 0.001
0624	N	10/7/1993	6,856.40	7.1	7.62	4371	602	326	188	1.4	700	2107	128	< 0.05	117	< 1	< 0.1	< 0.001
0624	N	1/6/1994	6,856.00	7.2	7.41	4425	618	345	200	2.2	694	2241	129	< 0.05	89.4	< 1	< 0.1	< 0.001
0624	N	4/12/1994	6,855.60	7.1	7.45	4779	623	344	197	1.7	625	2324	118	0.3	124	< 1	< 0.1	< 0.001
0624	N	7/21/1994	6,855.20	7.1	7.54	4592	674	356	203	2	649	2203	118	< 0.05	115	< 1	< 0.1	0.001
0624	N	10/5/1994	6,855.00	6.8	7.64	4815	661	391	212	3.8	843	2160	137	< 0.05	97.3	< 1	< 0.1	< 0.001
0624	N	1/4/1995	6,854.70	6.9	7.63	4803	665	375	202	3.5	814	2303	137	0.27	92.8	< 1	< 0.1	< 0.001
0624	N	4/5/1995	6,854.40	7	7.44	4661	630	342	195	3	475	2383	155	0.27	101	< 1	< 0.1	< 0.001
0624	N	7/6/1995	6,854.40	7.1	7.63	4358	655	405	207	3.9	766	2201	157	0.1	93.5	< 1	< 0.1	< 0.001
0624	N	10/3/1995	6,853.80	7	7.83	4950	655	415	197	3.8	972	2247	154	0.18	94.3	< 1	< 0.1	0.002

TABLE A.1
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United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0509 D	N	1/3/2011	<0.01	<0.005	0.01	<0.05	3.5	<0.1	<0.05	<0.001	<0.1	0.264	0.11 U	0.51 U	0.62	0.06 U	0.1 U	1.5
0509 D	N	4/4/2011	<0.01	<0.005	0.01	<0.05	3.66	<0.1	<0.05	<0.001	<0.1	0.258	-0.03 U	0.76 U	0.73	0.05 U	-0.4 U	0.9
0509 D	N	7/11/2011	<0.01	<0.005	0.01	<0.05	3.98	<0.1	<0.05	<0.001	<0.1	0.262	0.12 U	0.73 U	0.85	0.05 U	-0.3 U	0.9 U
0509 D	N	10/3/2011	<0.01	<0.005	<0.01	<0.05	3.7	<0.1	<0.05	<0.001	<0.1	0.226	0.3	1.1	1.4	0.04 U	0.2 U	0.2 U
0624	N	7/19/1989	< 0.05	< 0.01	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	0.003	< 0.1	0.0217	0.6	< 1	0.6	6.9	< 1	6
0624	N	10/16/1989	< 0.05	< 0.01	< 0.01	< 0.05	0.01	< 0.1	< 0.05	0.003	< 0.1	0.021	1.6	< 1	1.6	0.5	< 1	1.8
0624	N	1/10/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.01	< 0.1	< 0.05	0.002	< 0.1	0.022	0.2	1.2	1.4	< 0.2	< 1	0.8
0624	N	4/5/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.03	< 0.1	< 0.05	0.003	< 0.1	0.02	0.4	< 1	0.4	< 0.2	1.1	0.9
0624	N	7/3/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	0.001	< 0.1	0.0242	0.7	< 1	0.7	< 0.2	< 1	< 1
0624	N	10/3/1990	< 0.05	< 0.01	0.02	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.022	< 0.2	1.8	1.8	< 0.2	< 1	< 1
0624	N	1/15/1991	< 0.01	< 0.01	0.01	< 0.05	0.01	< 0.1	< 0.05	0.001	< 0.1	0.0268	0.4	< 1	0.4	< 0.2	< 1	< 1
0624	N	4/2/1991	< 0.01	< 0.01	0.02	< 0.05	< 0.01	< 0.1	< 0.05	0.001	< 0.1	0.038	0.4	1.5	1.9	< 0.2	< 1	< 1
0624	N	7/17/1991	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	0.002	< 0.1	0.034	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	10/15/1991	< 0.01	< 0.01	0.01	< 0.05	0.01	< 0.1	< 0.05	0.002	< 0.1	0.034	0.4	1.8	2.2	< 0.2	< 1	< 1
0624	N	1/15/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.01	< 0.1	< 0.05	0.002	< 0.1	0.029	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	4/8/1992	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	0.002	< 0.1	0.034	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	7/8/1992	< 0.01	< 0.01	< 0.01	0.07	< 0.01	< 0.1	< 0.05	0.002	< 0.1	0.03	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	10/6/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	0.006	< 0.1	0.048	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	1/7/1993	< 0.01	< 0.01	0.02	< 0.05	0.02	< 0.1	< 0.05	0.008	< 0.1	0.043	< 0.2	4.2	4.2	< 0.2	< 1	< 1
0624	N	4/7/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	0.002	< 0.1	0.033	4.6	< 1	4.6	< 0.2	1.4	4.8
0624	N	7/14/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	0.003	< 0.1	0.019	< 0.2	< 1	0	< 0.2	2.8	< 1
0624	N	10/7/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	0.003	< 0.1	0.023	0.6	< 1	0.6	< 0.2	4.8	< 1
0624	N	1/6/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.027	1.3	5.1	6.4	< 0.2	< 1	9.9
0624	N	4/12/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.01	< 0.1	< 0.05	0.001	< 0.1	0.043	7.5	2.4	9.9	< 0.2	< 1	11.3
0624	N	7/21/1994	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.029	< 0.2	1.1	1.1	< 0.2	< 1	1.8
0624	N	10/5/1994	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.035	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	1/4/1995	< 0.01	< 0.01	< 0.01	0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.033	0.6	1.3	1.9	< 0.2	< 1	2.7
0624	N	4/5/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.037	3.9	1.6	5.5	< 0.2	2.1	6.5
0624	N	7/6/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.01	< 0.1	< 0.05	0.002	< 0.1	0.0405	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	10/3/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.01	< 0.1	< 0.05	0.013	< 0.1	0.0331	0.3	< 1	0.3	< 0.2	< 1	< 1

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Cl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0624	N	1/3/1996	6,853.60	7	7.43	4553	610	392	203	4.8	1182	1879	123	< 0.05	97	< 1	< 0.1	< 0.001
0624	N	4/2/1996	6,853.20	6.8	7.92	4942	655	430	204	4.7	1048	2310	150	< 0.05	100	< 1	< 0.1	< 0.001
0624	N	7/7/1996	6,852.90	6.6	7.45	4946	645	405	206	4.6	1158	2190	145	0.07	84.4	< 1	< 0.1	< 0.001
0624	N	10/1/1996	6,852.90	6.8	7.25	5050	666	430	204	4.6	1180	2179	161	< 0.05	93	< 1	< 0.1	0.001
0624	N	1/22/1997	6,852.60	6.7	7.69	4920	675	440	202	4.8	1070	2146	161	< 0.05	84.6	< 1	< 0.1	< 0.001
0624	N	4/8/1997	6,852.40	6.9	7.89	5000	683	427	195	3.8	1030	2227	169	0.06	103	< 1	< 0.1	< 0.001
0624	N	7/8/1997	6,852.00	7.1	7.54	5040	680	444	186	4.6	1060	2260	181	< 0.05	92.6	< 1	< 0.1	< 0.001
0624	N	10/7/1997	6,852.50	6.5	7.66	5140	712	459	179	3.51	1310	2160	166	< 0.05	86.3	< 1	< 0.1	< 0.001
0624	N	1/16/1998	6,852.40	7	7.78	5140	679	436	208	5.6	1300	2350	194	0.16	101	< 1	< 0.1	< 0.001
0624	N	4/7/1998	6,851.90	6.9	7.6	5190	691	442	197	4.4	1180	2400	153	< 0.05	98.7	< 1	< 0.1	< 0.001
0624	N	7/7/1998	6,851.70	7.2	7.79	5050	679	435	206	4.4	1080	2400	174	< 0.05	92.2	< 1	< 0.1	< 0.001
0624	N	10/6/1998	6,851.30	7.01	7.88	5210	708	464	216	6.2	1230	2220	175	< 0.05	101	< 1	< 0.1	< 0.001
0624	N	1/5/1999	6,851.20	6.8	7.85	5140	659	423	188	5.3	1160	2030	172	0.18	94.2	< 1	< 0.1	< 0.001
0624	N	4/6/1999	6,851.10	6.8	7.89	5150	692	451	188	5.4	1230	2000	180	0.08	94.5	< 1	< 0.1	< 0.001
0624	N	7/13/1999	6,850.77	6.7	7.85	5020	646	452	191	10.8	1070	2070	181	0.18	88.7	< 1	< 0.1	< 0.001
0624	N	10/5/1999	6,851.80	6.78	7.59	4900	618	411	199	6.1	1350	1860	179	0.09	88.3	< 1	< 0.1	< 0.001
0624	N	1/4/2000	6,851.20	6.8	7.76	4840	649	429	170	6.9	1160	2080	155	< 0.05	49.2	< 1	< 0.1	< 0.001
0624	N	5/9/2000	6,850.60	6.5	7.67	5130	652	438	207	6.3	1470	1970	177	< 0.05	93.6	< 1	< 0.1	< 0.001
0624	N	7/17/2000	6,850.40	6.55	7.62	5170	697	456	194	6.46	1480	1790	184	< 0.05	85.1	< 1	< 0.1	< 0.001
0624	N	10/9/2000	6,850.25	6.7	7.59	5090	606	412	185	7.6	1440	1530	147	0.1	98.5	< 1	< 0.1	< 0.001
0624	N	1/8/2001	6,850.10	6.65	7.4	5100	707	464	173	6.9	1480	1810	177	< 0.05	104	< 1	< 0.1	< 0.001
0624	N	2/5/2001	6,850.10	6.72	7.31	5110	801	510	171	7.6	1480	2320	170	0.21	93.9	< 1	< 0.1	< 0.001
0624	N	3/5/2001	6,850.10	7.03	7.47	4740	690	457	148	8.1	1450	2190	154	< 0.05	101	< 1	< 0.1	< 0.001
0624	N	4/10/2001	6,850.10	7.24	7.33	4910	791	497	238	7.3	1470	2250	176	< 0.05	103	< 1	< 0.1	< 0.001
0624	N	5/8/2001	6,849.90	6.62	7.54	5150	677	444	181	6.7	1450	1880	187	0.08	99.3	< 1	< 0.1	< 0.001
0624	N	6/5/2001	6,849.90	6.62	7.02	5050	683	454	182	6.5	1470	2000	182	0.11	101	< 1	< 0.1	< 0.001
0624	N	7/10/2001	6,849.90	6.62	7.4	5290	726	488	198	6.1	1480	2050	172	< 0.05	101	< 1	< 0.1	< 0.001
0624	N	8/7/2001	6,849.87	6.59	7.4	5230	660	450	200	6	1470	1900	180	0.05	88	< 1	0.13	< 0.001
0624	N	9/11/2001	6,850.30	6.52	7.3	5200	670	450	191	6.8	1490	1930	217	0.05	118	< 1	0.11	< 0.001
0624	N	10/2/2001	6,850.30	6.65	7.8	5210	660	450	192	7	1500	1850	240	< 0.05	100	< 1	< 0.1	< 0.001

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0624	N	1/3/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.01	< 0.1	< 0.05	0.007	< 0.1	0.032	0.6	1.3	1.9	0.6	< 1	< 1
0624	N	4/2/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.033	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	7/7/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.043	0.3	< 1	0.3	< 0.2	< 1	< 1
0624	N	10/1/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	0.003	< 0.1	0.032	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	1/22/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.027	0.6	< 1	0.6	< 0.2	< 1	< 1
0624	N	4/8/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	0.014	< 0.1	0.036	0.8	< 1	0.8	< 0.2	< 1	< 1
0624	N	7/8/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.034	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	10/7/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.12	< 0.1	< 0.05	< 0.001	< 0.1	0.03	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	1/16/1998	< 0.01	< 0.01	< 0.01	< 0.05	0.11	< 0.1	< 0.05	< 0.001	< 0.1	0.0379	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	4/7/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.039	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	7/7/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0409	0.7	< 1	0.7	< 0.2	< 1	< 1
0624	N	10/6/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	0.001	< 0.1	0.0409	0.7	< 1	0.7	< 0.2	< 1	< 1
0624	N	1/5/1999	< 0.01	0.006	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0395	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	4/6/1999	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0366	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	7/13/1999	< 0.01	< 0.005	0.02	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0339	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	10/5/1999	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0366	0.5	< 1	0.5	< 0.2	< 1	< 1
0624	N	1/4/2000	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	0.001	< 0.1	0.0443	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	5/9/2000	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0348	< 0.2	2	2	< 0.2	6.4	< 1
0624	N	7/17/2000	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0325	< 0.2	1.5	1.5	< 0.2	< 1	< 1
0624	N	10/9/2000	< 0.01	< 0.005	< 0.01	< 0.05	0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.031	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	1/8/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.032	0.4	< 1	0.4	< 0.2	< 1	< 1
0624	N	2/5/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.033	0.3	< 1	0.3	< 0.2	< 1	< 1
0624	N	3/5/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0327	< 0.2	4	4	< 0.2	< 1	< 1
0624	N	4/10/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.031	0.3	< 1	0.3	< 0.2	< 1	< 1
0624	N	5/8/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.034	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	6/5/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	0.009	< 0.1	0.065	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	7/10/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0329	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	8/7/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.04	0.4	2.3	2.7	< 0.2	< 1	< 1
0624	N	9/11/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.03	< 0.2	2.9	2.9	< 0.2	< 1	< 1
0624	N	10/2/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0319	0.2	< 1	0.2	< 0.2	< 1	< 1

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Cl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0624	N	11/6/2001	6,850.15	6.6	7.2	5210	731	475	196	7.4	1490	2100	232	0.05	104	< 1	< 0.1	< 0.001
0624	N	12/4/2001	6,850.20	6.62	7.3	5250	673	433	172	6.4	1500	1750	197	< 0.05	101	< 1	< 0.1	< 0.001
0624	N	1/8/2002	6,850.10	6.95	7.3	5190	787	481	201	7	1490	2270	208	< 0.05	91.5	< 1	< 0.1	< 0.001
0624	N	2/5/2002	6,850.10	6.78	7.3	5190	762	461	193	7.8	1470	2120	219	0.06	90.5	< 1	< 0.1	< 0.001
0624	Dup	2/5/2002	no data	6.78	7.2	5210	762	460	214	6.8	1470	2140	205	0.06	88.3	< 1	< 0.1	< 0.001
0624	N	3/5/2002	6,850.10	6.61	7.2	5170	726	463	228	6.8	1530	2190	207	0.06	95.1	< 1	< 0.1	< 0.001
0624	Dup	3/5/2002	no data	6.57	7.5	5130	714	456	223	6.6	1530	2170	193	0.06	97.2	< 1	< 0.1	< 0.001
0624	N	4/2/2002	6,850.16	6.54	7.45	5270	748	464	225	8.3	1500	2180	203	0.06	95.5	< 1	< 0.1	< 0.001
0624	Dup	4/2/2002	no data	6.53	7.48	5210	741	459	220	8	1500	2130	206	0.05	95.7	< 1	< 0.1	< 0.001
0624	N	5/7/2002	6,850.08	6.59	7.61	5220	719	448	226	7.4	1480	2100	186	0.13	104	< 1	< 0.1	< 0.001
0624	N	6/4/2002	6,850.10	6.52	7.66	5220	720	450	201	6.4	1480	1830	181	< 0.05	96.3	< 1	< 0.1	< 0.001
0624	Dup	6/4/2002	no data	6.51	7.68	5210	711	444	208	6	1480	1850	174	0.08	92.1	< 1	< 0.1	< 0.001
0624	N	7/9/2002	6,849.95	6.67	7.42	5300	713	463	223	7.3	1500	2150	200	0.05	92.4	< 1	< 0.1	< 0.001
0624	Dup	7/9/2002	no data	6.59	7.41	5320	709	460	225	7.8	1500	2110	201	0.05	91.4	< 1	< 0.1	< 0.001
0624	N	10/8/2002	6,849.90	6.67	7.25	5150	659	425	208	6.2	1490	1810	173	0.08	97.1	< 1	< 0.1	< 0.001
0624	Dup	10/8/2002	no data	6.47	7.4	5160	663	427	207	6.1	1480	1800	167	0.06	96.6	< 1	< 0.1	< 0.001
0624	N	1/7/2003	6,849.61	6.74	7.21	5210	733	480	242	7.4	1490	2250	175	0.19	92	< 1	< 0.1	< 0.001
0624	Dup	1/7/2003	no data	no data	7.24	5190	726	476	120	7.8	1500	2220	118	0.15	90	< 1	< 0.1	< 0.001
0624	N	4/8/2003	6,849.72	6.49	6.85	5250	685	422	230	8.3	1450	1900	184	0.11	102	< 1	< 0.1	< 0.001
0624	N	7/8/2003	6,849.70	6.36	7.41	4540	646	413	198	8.5	1480	2040	158	0.07	100	< 1	< 0.1	< 0.001
0624	Dup	7/8/2003	no data	no data	7.38	5290	657	418	208	7.8	1470	2080	160	0.5	93	< 1	< 0.1	< 0.001
0624	N	10/7/2003	6,849.72	6.4	7.76	5260	725	469	239	6.4	1430	2240	178	0.2	90	< 1	< 0.1	< 0.001
0624	Dup	10/7/2003	no data	no data	7.8	5290	723	467	240	6.6	1460	2210	178	0.17	92	< 1	< 0.1	< 0.001
0624	N	1/6/2004	6,849.60	6.57	7.71	5180	690	445	212	7	1440	2140	197	0.11	87.9 D	< 1.0	0.2	< 0.001
0624	Dup	1/6/2004	no data	no data	7.69	5170	698	452	214	6.4	1440	2190	172	0.08	100 D	< 1.0	0.2	< 0.001
0624	N	4/6/2004	6,849.67	6.76	6.87	5220	695	448	190	6.4	1460	2100 D	147	0.13	92.2 D	< 1	< 0.1	< 0.001
0624	Dup	4/6/2004	no data	no data	6.81	5240	693	448	212	7.1	1460	2120 D	173	0.14	92.8 D	< 1	< 0.1	< 0.001
0624	N	7/13/2004	6,849.52	6.41	6.87	5320	715	442	249	6.8	1440	2120 D	172	0.13	93.1 D	< 1.0	7.7	< 0.001
0624	Dup	7/13/2004	no data	no data	6.86	5310	714	441	245	7.2	1440	2130 D	175	0.14	92.0 D	< 1.0	1.8	< 0.001
0624	N	10/5/2004	6,849.34	6.46	7.07	5520	666 D	422 D	237	6.4	1380	2020 D	172	< 0.05	85.9 D	< 1.0	< 0.1	< 0.001

TABLE A.1
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Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0624	N	11/6/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0288	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	12/4/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0295	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	1/8/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0301	0.4	< 1	0.4	< 0.2	< 1	< 1
0624	N	2/5/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0212	0.4	2	2.4	< 0.2	< 1	< 1
0624	Dup	2/5/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0218	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	3/5/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0351	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	Dup	3/5/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.04	< 0.1	< 0.05	< 0.001	< 0.1	0.037	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	4/2/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.04	< 0.1	< 0.05	< 0.001	< 0.1	0.0326	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	Dup	4/2/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0338	0.4	< 1	0.4	< 0.2	< 1	1.5
0624	N	5/7/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0355	0.5	< 1	0.5	< 0.2	< 1	< 1
0624	N	6/4/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0333	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	Dup	6/4/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0314	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	7/9/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.036	0.3	< 1	0.3	< 0.2	< 1	< 1
0624	Dup	7/9/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0363	0.4	< 1	0.4	< 0.2	< 1	< 1
0624	N	10/8/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0262	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	Dup	10/8/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0265	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	1/7/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.04	< 0.1	< 0.05	< 0.001	< 0.1	0.0348	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0624	Dup	1/7/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.04	< 0.1	< 0.05	< 0.001	< 0.1	0.0409	< 0.2	< 1	0	< 0.2	< 1	< 1.6
0624	N	4/8/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.04	< 0.1	< 0.05	< 0.001	< 0.1	0.0336	0.5	< 1	0.5	< 0.2	< 1	< 1.0
0624	N	7/8/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.0289	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0624	Dup	7/8/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.0277	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0624	N	10/7/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.0333	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0624	Dup	10/7/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.0334	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0624	N	1/6/2004	< 0.01	< 0.005	< 0.01	< 0.05	0.06	< 0.1	< 0.05	< 0.001	< 0.1	0.0296 D	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0624	Dup	1/6/2004	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.0284 D	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0624	N	4/6/2004	< 0.01	< 0.005	< 0.01	< 0.05	0.045	< 0.1	< 0.05	< 0.001	< 0.1	0.0288 D	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	Dup	4/6/2004	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.0314 D	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	7/13/2004	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.0305 D	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0624	Dup	7/13/2004	< 0.01	< 0.005	0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.0303 D	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0624	N	10/5/2004	< 0.01	< 0.005	< 0.01	< 0.05	0.06	< 0.1	< 0.05	< 0.001	< 0.1	0.0321 D	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation	Field pH	Lab pH	Lab TDS	Ca	Mg	Na	K	HCO3	SO4	Cl	NH4 as N	NO3 as N	TTHMs (Chloroform)	Al	As
			ft amsl	SU	SU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0624	Dup	10/5/2004	no data	no data	7.05	5380	664 D	420 D	227	6.1	1390	2030 D	163	< 0.05	83.2 D	< 1.0	< 0.1	< 0.001
0624	N	1/4/2005	6,849.37	6.87	6.99	5240	702 D	435 D	240	6.3	1360	2030 D	166	0.05	86 D	< 1.0	< 0.1	< 0.001
0624	Dup	1/4/2005	no data	no data	7.06	5240	692 D	430 D	234	6.3	1420	2000 D	162	0.05	86 D	< 1.0	< 0.1	< 0.001
0624	N	4/5/2005	6,849.37	6.65	7.3	5000	635	394	238	5.6	1400	1930	159	< 0.05	73	< 1.0	< 0.1	< 0.001
0624	Dup	4/5/2005	no data	no data	7.29	4970	599	382	237	4.5	1400	2060	169	< 0.05	70	< 1.0	< 0.1	< 0.001
0624	N	7/12/2005	6,849.17	6.55	7.29	5120	673 D	434 D	246	5.9	1340	2100 D	176	0.09	70 D	< 1.0	< 0.1	< 0.001
0624	Dup	7/12/2005	no data	no data	7.32	5010	694 D	424 D	244	5.9	1340	2100 D	177	< 0.05	81 D	< 1.0	< 0.1	< 0.001
0624	N	10/4/2005	6,849.02	6.56	7.21	5130	693 D	436 D	241	6.2	1370	2170 D	184	< 0.05	75 D	< 1.0	< 0.1	< 0.001
0624	Dup	10/4/2005	no data	no data	7.18	5070	696 D	434 D	242	6.3	1370	2160 D	188	< 0.05	75 D	< 1.0	< 0.1	< 0.001
0624	N	1/10/2006	6,848.93	6.71	7.64	4890	631	392	236	5.1	1340	1950 D	161	< 0.05	82 D	< 1.0	< 0.1	< 0.001
0624	Dup	1/10/2006	no data	no data	7.33	5020	660	409	247	5.2	1420	2050 D	164	< 0.05	85 D	< 1.0	< 0.1	< 0.001
0624	N	4/4/2006	6,848.92	6.47	7.21	5070	730 D	463 D	230	6.4	1350	2180 D	184	< 0.05	86 D	< 1.0	0.2	< 0.001
0624	Dup	4/4/2006	no data	no data	7.2	5080	711 D	452 D	233	6.5	1340	2140 D	186	< 0.05	86 D	< 1.0	< 0.1	< 0.001
0624	N	7/18/2006	6,848.92	6.48	6.89	5030	713 D	443 D	260	6.9	1360	2300 D	178	0.05	82 D	< 1.0	< 0.1	< 0.001
0624	Dup	7/18/2006	no data	no data	6.91	5010	698 D	434 D	258	6.3	1350	2270 D	173	< 0.05	79 D	< 1.0	< 0.1	< 0.001
0624	N	10/3/2006	6,848.93	6.48	6.72	4920	682 D	419 D	231	6.2	1100	2100 D	144	0.08	76 D	< 0.5	< 0.1	< 0.001
0624	Dup	10/3/2006	no data	no data	6.74	4970	672 D	411 D	224	6.2	1070	2070 D	134	0.08	77 D	< 0.5	< 0.1	< 0.001
0624	N	1/9/2007	6,848.88	6.62	6.82	5130	704 D	437 D	226	6.9	1360	2250 D	168	< 0.05	74 D	< 0.5	< 0.1	< 0.001
0624	Dup	1/9/2007	6,848.97	6.61	6.85	5130	680 D	421 D	228	6.7	1360	2130 D	169	0.05	77 D	< 0.5	< 0.1	< 0.001
0624	N	4/10/2007	6,849.02	6.65	6.75	5090	693 D	427 D	226	8.1	1380	2150 D	182	< 0.05	82 D	< 0.5	< 0.1	< 0.001
0624	Dup	4/10/2007	6,848.99	6.74	6.88	5070	689 D	425 D	222	7.7	1400	2140 D	169	< 0.05	83 D	< 0.5	< 0.1	< 0.001
0624	N	7/10/2007	6,848.67	6.5	6.87	5020	702 D	433 D	245	6.2	1450	2230 D	154	0.08	77 D	< 0.5	< 0.1	0.009
0624	Dup	7/10/2007	6,848.67	6.47	6.84	4930	688 D	435 D	243	6.1	1450	2250 D	162	0.08	77 D	< 0.5	< 0.1	0.009
0624	N	10/2/2007	6,848.67	6.5	6.91	5030	626 D	385 D	246 D	6.9	1430	1990 D	188 D	< 0.05	74 D	< 0.5	< 0.1	< 0.001
0624	N	1/15/2008	6,848.62	6.53	6.69	5110	650 D	396 D	246 D	7.1	1390	2000 D	205 D	< 0.05	68 D	< 0.5	< 0.1	< 0.001
0624	N	4/8/2008	6,849.12	6.47	6.9	4830	708 D	442 D	280 D	8.2 D	1320	2240 D	174	< 0.05	108 D	< 0.50	< 0.1	< 0.001
0624	N	7/8/2008	6,848.67	6.33	6.82	4700	657	396	233 D	5	1410	2170 D	184	< 0.05	74.9 D	< 0.5	< 0.1	< 0.003
0624	N	10/7/2008	6,848.42	6.46	6.88	4920	662	403	248 D	6	1390	2380 D	178	< 0.1	94.9 D	< 0.5	< 0.1	< 0.001
0624	N	1/13/2009	6,848.27	6.5	6.9	5180	614	383	257	6	1420	1870 D	169	< 0.05	111 D	< 0.5	< 0.1	< 0.001
0624	N	4/7/2009	6,848.22	6.48	6.64	5080	650 D	413 D	271 D	6	1460	2190 D	191	< 0.05	77.4 D	< 0.50	< 0.1	< 0.001

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
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Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0624	Dup	10/5/2004	< 0.01	0.005	< 0.01	< 0.05	0.06	< 0.1	< 0.05	< 0.001	< 0.1	0.0338 D	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0624	N	1/4/2005	< 0.01	< 0.005	< 0.01	< 0.05	0.06	< 0.1	< 0.05	< 0.001	< 0.1	0.0343	0.4	< 1.0	0.4	< 0.2	< 1.0	2.2
0624	Dup	1/4/2005	< 0.01	< 0.005	< 0.01	< 0.05	0.06	< 0.1	< 0.05	< 0.001	< 0.1	0.0324	0.3	< 1.0	0.3	< 0.2	< 1.0	< 1.0
0624	N	4/5/2005	< 0.01	< 0.005	< 0.01	< 0.05	0.06	< 0.1	< 0.05	< 0.001	< 0.1	0.033	0.7	< 1.0	0.7	< 0.2	< 1.0	< 1.0
0624	Dup	4/5/2005	< 0.01	< 0.005	< 0.01	< 0.05	0.06	< 0.1	< 0.05	< 0.001	< 0.1	0.0325	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0624	N	7/12/2005	< 0.01	< 0.005	< 0.01	< 0.05	0.07	< 0.1	< 0.05	< 0.001	< 0.1	0.0304	0.3	< 1.0	0.3	< 0.2	< 1.0	< 1.0
0624	Dup	7/12/2005	< 0.01	< 0.005	< 0.01	< 0.05	0.07	< 0.1	< 0.05	< 0.001	< 0.1	0.0307	0.3	< 1.0	0.3	< 0.2	< 1.0	< 1.0
0624	N	10/4/2005	< 0.01	< 0.005	< 0.01	< 0.05	0.08	< 0.1	< 0.05	< 0.001	< 0.1	0.0316	< 0.2	2.9	2.9	< 0.2	< 1.0	< 1.0
0624	Dup	10/4/2005	< 0.01	< 0.005	< 0.01	< 0.05	0.08	< 0.1	< 0.05	< 0.001	< 0.1	0.0318	< 0.2	1.7	1.7	< 0.2	< 1.0	1.4
0624	N	1/10/2006	< 0.01	< 0.005	< 0.01	< 0.05	0.07	< 0.1	< 0.05	< 0.001	< 0.1	0.0363	0.4	1.9	2.3	< 0.2	< 1.0	< 1.0
0624	Dup	1/10/2006	< 0.01	< 0.005	< 0.01	< 0.05	0.07	< 0.1	< 0.05	< 0.001	< 0.1	0.0379	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0624	N	4/4/2006	< 0.01	< 0.005	< 0.01	< 0.05	0.08	< 0.1	< 0.05	< 0.001	< 0.1	0.0338 D	< 0.2	1.6	1.6	< 0.2	< 1.0	< 1.0
0624	Dup	4/4/2006	< 0.01	< 0.005	< 0.01	< 0.05	0.08	< 0.1	< 0.05	< 0.001	< 0.1	0.0286 D	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0624	N	7/18/2006	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0326	0.3	2.8	3.1	< 0.2	< 1.0	< 1.0
0624	Dup	7/18/2006	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0324	0.6	2.9	3.5	< 0.2	< 1.0	< 1.0
0624	N	10/3/2006	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0328	0.4	< 1	0.4	< 0.2	< 1	< 1
0624	Dup	10/3/2006	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.032	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	1/9/2007	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0313	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	Dup	1/9/2007	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0314	0.4	< 1	0.4	< 0.2	< 1	< 1
0624	N	4/10/2007	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0308	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	Dup	4/10/2007	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0336	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	7/10/2007	< 0.01	< 0.005	< 0.01	< 0.05	0.08	< 0.1	< 0.05	< 0.001	< 0.1	0.0339	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	Dup	7/10/2007	< 0.01	< 0.005	< 0.01	< 0.05	0.06	< 0.1	< 0.05	< 0.001	< 0.1	0.033	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	10/2/2007	< 0.01	< 0.005	< 0.01	< 0.05	0.1	< 0.1	< 0.05	< 0.001	< 0.1	0.0341	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	1/15/2008	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0307	< 0.2	< 1	0	< 0.2	< 1	< 1
0624	N	4/8/2008	< 0.01	< 0.005	< 0.01	< 0.05	0.1	< 0.1	< 0.05	< 0.001	< 0.1	0.0325	0.2	-0.04 U	0.16	0.5	0 U	0.9 U
0624	N	7/8/2008	< 0.01	< 0.005	< 0.01	< 0.05	0.04	< 0.1	< 0.05	< 0.001	< 0.1	0.0286	0.36	0.23 U	0.59	-0.1 U	1.1 U	0.4 U
0624	N	10/7/2008	< 0.01	< 0.005	< 0.01	< 0.05	0.11	< 0.1	< 0.05	< 0.001	< 0.1	0.0306	-0.06 U	-0.2 U	-0.26	0 U	0.3 U	0.9
0624	N	1/13/2009	< 0.01	< 0.005	< 0.01	< 0.05	0.12	< 0.1	< 0.05	< 0.001	< 0.1	0.0322	0.05 U	-0.1 U	-0.05	-0.1 U	-1 U	1.7
0624	N	4/7/2009	< 0.01	< 0.005	< 0.01	< 0.05	0.1	< 0.1	< 0.05	< 0.001	< 0.1	0.0289	-0.05 U	0.75 U	0.75	0.06 U	-1 U	0.2 U

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Cl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0624	N	7/7/2009	6,848.07	6.38	6.72	5080	692 D	405	253 D	6	1440	2560 D	187	<0.05	71 D	<0.50	<0.1	<0.001
0624	N	10/5/2009	6,847.77	6.44	7.17	4950	643 D	396	245 D	6	1490	1960 D	187	<0.05	75 D	<0.50	<0.1	<0.001
0624	N	1/5/2010	6,847.57	6.55	7.11	5230 D	693 D	404	255 D	6	1520	2370 D	194	<0.05	76 D	<0.50	<0.1	<0.001
0624	N	4/6/2010	6,847.72	6.58	6.72	5220 D	725 D	433	287 D	6	1600	2230 D	198	<0.05	77 D	<0.50	<0.1	<0.001
0624	N	7/13/2010	6,847.52	6.42	7.08	5190 D	712 D	417	273 D	6	1570	2200 D	194 D	<0.05	70 D	<0.50	<0.1	0.002
0624	N	10/5/2010	6,847.37	6.53	7.6	5340 D	666	395	271	6	1570	2210 D	195 D	0.07	74 D	<0.50	<0.1	<0.001
0624	N	1/4/2011	6847.22	6.48	7.01	4970 D	720	427	273	6	1510	2190 D	206 D	<0.05	64 D	<0.50	<0.1	<0.001
0624	N	4/4/2011	6847.1	6.62	6.81	5170 D	697	412	292	6	1520	2170 D	202 D	<0.05	69 D	<0.50	<0.1	<0.001
0624	N	7/12/2011	6846.97	6.72	7.15	5100 D	691	419	282	6	1520	2180 D	200 D	<0.1	78 D	<0.50	<0.1	<0.001
0624	N	10/4/2011	6846.89	6.68	7.49	4990 D	694	408	279	6	1420	2240 D	208 D	<0.1	74 D	<0.50	<0.1	<0.001
0627	N	7/20/1989	6,846.40	7.1	6.95	4509	554	304	382	3.1	622	2429	36.7	0.06	103	< 1	< 0.1	< 0.001
0627	N	10/16/1989	6,846.80	6.9	7.36	4512	539	290	359	3.8	659	2151	36.6	0.12	112	< 1	< 0.1	< 0.001
0627	N	1/4/1990	6,846.70	6.8	7.24	4446	571	275	351	7.8	656	2277	39.7	0.07	113	< 1	< 0.1	< 0.001
0627	N	4/3/1990	6,846.40	6.8	7.32	4492	590	290	352	3.2	698	2168	40.1	0.09	90	< 1	< 0.1	< 0.001
0627	N	7/2/1990	6,846.20	6.7	7.34	4750	613	322	325	4.5	693	2265	41.5	< 0.05	109	< 1	< 0.1	< 0.001
0627	N	10/2/1990	6,846.20	6.8	7.6	4551	509	270	342	2.8	644	2404	41.6	< 0.05	78	< 1	< 0.1	< 0.001
0627	N	1/15/1991	6,846.20	6.8	7.77	4537	587	309	393	5.9	617	2480	49	< 0.05	118	< 1	0.1	< 0.001
0627	N	4/2/1991	6,846.20	6.8	7.7	4623	533	263	331	2.7	595	2407	45.9	< 0.05	94.8	< 1	< 0.1	< 0.001
0627	N	7/16/1991	6,845.90	6.8	7.44	4454	525	249	335	2.8	532	2537	45.4	0.36	97.2	< 1	< 0.1	< 0.001
0627	N	10/14/1991	6,845.60	6.7	7.37	4539	448	221	342	2.7	622	2161	55.7	< 0.05	104	< 1	< 0.1	0.001
0627	N	1/14/1992	6,845.40	6.6	7.12	4614	490	246	342	2.8	619	2317	54.7	< 0.05	101	< 1	< 0.1	< 0.001
0627	N	4/9/1992	6,845.10	6.6	7.91	4671	543	283	424	3.2	605	2346	52.3	< 0.05	68.4	< 1	< 0.1	< 0.001
0627	N	7/7/1992	6,844.90	6.5	8	4811	585	280	468	4.2	588	2403	59.2	0.13	108	< 1	< 0.1	< 0.001
0627	N	10/7/1992	6,844.60	6.8	7.45	4696	563	257	484	5	593	2402	56.3	< 0.05	125	< 1	< 0.1	< 0.001
0627	N	1/7/1993	6,844.40	6.8	7.88	4615	556	264	408	2.8	576	2324	57.4	< 0.05	116	< 1	< 0.1	< 0.001
0627	N	4/7/1993	6,844.30	6.8	7.59	4751	546	228	448	2.3	553	2341	61	< 0.05	100	< 1	< 0.1	< 0.001
0627	N	7/14/1993	6,843.80	6.9	7.21	5045	645	255	512	2.6	570	2476	72.5	< 0.05	99.3	< 1	< 0.1	< 0.001
0627	N	10/7/1993	6,843.60	6.9	7.57	5187	568	239	453	2.3	532	2548	62.4	0.05	133	< 1	< 0.1	< 0.001
0627	N	1/6/1994	6,843.40	6.9	7.51	4941	563	246	474	2.6	512	2693	63.1	< 0.05	61	< 1	< 0.1	< 0.001
0627	N	4/13/1994	6,843.20	7	7.15	4787	564	242	486	2.6	510	2428	58.5	0.12	107	< 1	< 0.1	< 0.001

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0624	N	7/7/2009	<0.01	<0.005	<0.01	<0.05	0.13	<0.1	<0.05	<0.001	<0.1	0.031	0.32	0.75 U	1.07	0.1 U	-0.9 U	1.4
0624	N	10/5/2009	<0.01	<0.005	<0.01	<0.05	0.15	<0.1	<0.05	<0.001	<0.1	0.0315	0.56	0.79 U	1.35	0.08 U	2.4 U	-0.09 U
0624	N	1/5/2010	<0.01	<0.005	<0.01	<0.05	0.12	<0.1	<0.05	<0.001	<0.1	0.0307	0.08 U	1.5	1.58	0.1 U	-1 U	0.03 U
0624	N	4/6/2010	<0.01	<0.005	<0.01	<0.05	0.13	<0.1	<0.05	<0.001	<0.1	0.0311	0.23	0.09 U	0.32	0.02 U	2.3 U	0.6
0624	N	7/13/2010	<0.01	<0.005	<0.01	<0.05	0.16	<0.1	<0.05	<0.001	<0.1	0.0358	0.2	0.47 U	0.67	0.05 U	-1 U	0.3 U
0624	N	10/5/2010	<0.01	<0.005	<0.01	<0.05	0.17	<0.1	<0.05	<0.001	<0.1	0.0355	-0.04 U	1.4	1.36	0.03 U	1.7	0.2 U
0624	N	1/4/2011	<0.01	<0.005	<0.01	<0.05	0.16	<0.1	<0.05	<0.001	<0.1	0.0345	0.06 U	0.71 U	0.77	0.02 U	0.6 U	1.1
0624	N	4/4/2011	<0.01	<0.005	<0.01	<0.05	0.19	<0.1	<0.05	<0.001	<0.1	0.0327	0.05 U	0.95 U	1	0.02 U	-0.3 U	-0.04 U
0624	N	7/12/2011	<0.01	<0.005	<0.01	<0.05	0.25	<0.1	<0.05	<0.001	<0.1	0.0351	0.05 U	0.95 U	1	0.02 U	-0.04 U	1
0624	N	10/4/2011	<0.01	<0.005	<0.01	<0.05	0.19	<0.1	<0.05	<0.001	<0.1	0.0308	0.12 U	0.71 U	0.83	0.008 U	0.04 U	0.4 U
0627	N	7/20/1989	< 0.05	< 0.01	0.02	< 0.05	0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0143	0.9	< 1	0.9	2.5	2.2	2.7
0627	N	10/16/1989	< 0.05	< 0.01	< 0.01	< 0.05	0.03	< 0.1	< 0.05	0.002	< 0.1	0.0181	0.6	< 1	0.6	3.3	1.1	3.8
0627	N	1/4/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.014	2	< 1	2	< 0.2	2.4	3.4
0627	N	4/3/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.06	< 0.1	< 0.05	0.001	< 0.1	0.015	0.4	< 1	0.4	< 0.2	< 1	1.1
0627	N	7/2/1990	< 0.05	< 0.01	< 0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.0175	0.3	< 1	0.3	< 0.2	1.9	< 1
0627	N	10/2/1990	< 0.05	< 0.01	0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.014	0.2	< 1	0.2	< 0.2	< 1	< 1
0627	N	1/15/1991	< 0.01	< 0.01	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0176	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	4/2/1991	< 0.01	< 0.01	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.049	1	3.8	4.8	< 0.2	< 1	1
0627	N	7/16/1991	< 0.01	< 0.01	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.014	< 0.2	2.8	2.8	< 0.2	< 1	< 1
0627	N	10/14/1991	< 0.01	< 0.01	0.01	< 0.05	0.05	< 0.1	< 0.05	0.002	< 0.1	0.02	< 0.2	1.5	1.5	< 0.2	< 1	< 1
0627	N	1/14/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.07	< 0.1	< 0.05	0.002	< 0.1	0.017	0.9	1.2	2.1	< 0.2	< 1	< 1
0627	N	4/9/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.03	< 0.1	< 0.05	0.003	< 0.1	0.019	< 0.2	2.9	2.9	< 0.2	1.2	< 1
0627	N	7/7/1992	< 0.1	< 0.01	< 0.01	< 0.05	0.05	< 0.1	< 0.05	0.001	< 0.1	0.02	0.7	< 1	0.7	< 0.2	< 1	< 1
0627	N	10/7/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.06	< 0.1	< 0.05	0.003	< 0.1	0.025	0.7	2.1	2.8	< 0.2	1.7	< 1
0627	N	1/7/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.06	< 0.1	< 0.05	0.014	< 0.1	0.018	0.5	1.5	2	< 0.2	< 1	< 1
0627	N	4/7/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.08	< 0.1	< 0.05	0.004	< 0.1	0.033	< 0.2	< 1	0	< 0.2	1.2	< 1
0627	N	7/14/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.08	< 0.1	< 0.05	0.018	< 0.1	0.016	0.6	2.3	2.9	< 0.2	< 1	< 1
0627	N	10/7/1993	< 0.01	< 0.01	0.02	< 0.05	0.08	< 0.1	< 0.05	0.009	< 0.1	0.012	0.6	< 1	0.6	< 0.2	< 1	< 1
0627	N	1/6/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.08	< 0.1	< 0.05	0.003	< 0.1	0.015	0.9	< 1	0.9	< 0.2	< 1	< 1
0627	N	4/13/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.09	< 0.1	< 0.05	0.002	< 0.1	0.015	0.8	< 1	0.8	< 0.2	3.2	< 1

TABLE A.1
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United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation	Field pH	Lab pH	Lab TDS	Ca	Mg	Na	K	HCO3	SO4	Cl	NH4 as N	NO3 as N	TTHMs (Chloroform)	Al	As
			ft amsl	SU	SU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0627	N	7/21/1994	6,842.90	6.9	7.53	4899	620	259	455	2.9	529	2908	54.6	< 0.05	108	< 1	< 0.1	0.001
0627	N	10/5/1994	6,842.90	6.9	7.86	5024	610	282	535	3.6	549	2719	62.6	< 0.05	137	< 1	< 0.1	< 0.001
0627	N	1/5/1995	6,842.60	6.9	7.49	5292	634	280	530	4.2	540	2650	58.9	0.15	105	< 1	< 0.1	< 0.001
0627	N	4/5/1995	6,842.50	6.9	7.22	5324	540	275	505	3.9	542	2682	66	0.24	125	< 1	< 0.1	< 0.001
0627	N	7/6/1995	6,842.00	6.9	7.91	5112	585	315	490	3.6	560	2555	61	< 0.05	90.5	< 1	< 0.1	< 0.001
0627	N	10/3/1995	6,841.80	6.9	7.65	5241	580	280	535	3.9	544	2760	58	0.48	126	< 1	< 0.1	0.001
0627	N	1/3/1996	6,841.70	7.1	7.52	5293	640	300	531	3.6	542	2995	60	< 0.05	131	< 1	< 0.1	< 0.001
0627	N	4/2/1996	6,841.50	7.1	8.06	5230	570	287	530	3.6	558	2740	65.1	< 0.05	129	< 1	< 0.1	< 0.001
0627	N	7/7/1996	6,841.20	6.8	7.56	5403	585	280	570	4.1	534	2725	64	0.13	113	< 1	< 0.1	< 0.001
0627	N	10/1/1996	6,841.00	6.8	7.23	4980	592	277	470	3.5	575	2468	54	< 0.05	119	< 1	< 0.1	< 0.001
0627	N	1/22/1997	6,840.80	6.8	7.85	5020	595	290	503	3.7	577	2673	63.3	< 0.05	121	< 1	< 0.1	< 0.001
0627	N	4/8/1997	6,840.50	6.9	7.59	5240	590	286	578	4.1	564	2524	56.6	< 0.05	153	< 1	< 0.1	< 0.001
0627	N	7/8/1997	6,840.20	7.4	7.75	5600	616	303	543	4.3	560	2570	64.1	< 0.05	190	< 1	< 0.1	< 0.001
0627	N	10/7/1997	6,840.20	6.6	7.69	4960	601	276	439	3.5	599	2440	66	< 0.05	122	< 1	< 0.1	< 0.001
0627	N	1/16/1998	6,840.00	7.3	7.91	5260	582	289	545	4.6	682	2850	70.6	1.28	107	< 1	< 0.1	< 0.001
0627	N	4/7/1998	6,840.20	6.9	7.74	5200	621	294	508	3.9	590	2400	54.6	< 0.05	141	< 1	< 0.1	< 0.001
0627	N	7/7/1998	6,840.00	7.2	7.8	5210	598	288	529	4.3	588	2500	59.6	0.05	133	< 1	< 0.1	< 0.001
0627	N	10/6/1998	6,839.80	6.97	7.85	5380	589	288	530	4.8	579	2670	61.5	0.06	109	< 1	< 0.1	< 0.001
0627	N	1/6/1999	6,839.50	7.7	8.02	5340	566	284	509	4.8	586	2740	60	0.17	142	< 1	< 0.1	< 0.001
0627	N	4/6/1999	6,839.50	7.1	7.84	5650	580	309	504	4.7	580	2660	68	0.27	131	< 1	< 0.1	< 0.001
0627	N	7/13/1999	6,839.22	7	8.21	5320	579	308	498	10.6	594	2620	67.7	0.17	126	< 1	< 0.1	< 0.001
0627	N	10/5/1999	6,839.20	7.09	7.7	5320	521	274	512	5.1	594	2320	58.5	0.38	127	< 1	< 0.1	< 0.001
0627	N	1/4/2000	6,839.10	7	8.1	5150	530	283	425	7.3	597	2430	57.2	0.14	144	< 1	< 0.1	< 0.001
0627	N	5/10/2000	6,839.00	7	7.65	5200	535	278	501	4.1	588	2370	55.3	< 0.05	144	< 1	< 0.1	< 0.001
0627	N	7/18/2000	6,838.60	6.96	7.91	5320	567	292	502	4.32	590	2390	53.3	< 0.05	149	< 1	< 0.1	< 0.001
0627	N	10/10/2000	6,838.65	7.03	7.78	5100	496	261	512	5.4	580	2160	44.8	< 0.05	150	< 1	< 0.1	< 0.001
0627	N	1/9/2001	6,838.55	7.23	8.03	5170	583	303	454	5	595	2460	57.9	< 0.05	160	< 1	< 0.1	< 0.001
0627	N	2/6/2001	6,838.50	7.53	7.48	5040	654	321	558	6.1	592	2780	52.5	< 0.05	158	< 1	< 0.1	< 0.001
0627	N	3/6/2001	6,838.30	7.31	7.69	4770	553	286	552	6.5	586	2680	53	< 0.05	156	< 1	< 0.1	0.001
0627	N	4/10/2001	6,838.60	7.52	7.47	5020	656	319	446	5.3	590	2840	57.3	< 0.05	149	< 1	< 0.1	< 0.001

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Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0627	N	7/21/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.09	< 0.1	< 0.05	0.003	< 0.1	0.017	0.8	2.4	3.2	< 0.2	< 1	4.6
0627	N	10/5/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.08	< 0.1	< 0.05	0.001	< 0.1	0.016	0.4	< 1	0.4	< 0.2	< 1	< 1
0627	N	1/5/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.016	0.3	< 1	0.3	< 0.2	< 1	< 1
0627	N	4/5/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.07	< 0.1	< 0.05	< 0.001	< 0.1	0.016	1.2	< 1	1.2	< 0.2	1.4	1.4
0627	N	7/6/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.07	< 0.1	< 0.05	0.003	< 0.1	0.0205	0.8	< 1	0.8	0.3	< 1	1.4
0627	N	10/3/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.09	< 0.1	< 0.05	0.019	< 0.1	0.0168	< 0.2	< 1	0	< 0.2	1.7	2
0627	N	1/3/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.07	< 0.1	< 0.05	0.001	< 0.1	0.018	0.7	< 1	0.7	1.2	2.4	1.2
0627	N	4/2/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.07	< 0.1	< 0.05	< 0.001	< 0.1	0.019	0.5	< 1	0.5	< 0.2	< 1	< 1
0627	N	7/7/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.13	< 0.1	< 0.05	< 0.001	< 0.1	0.024	0.3	< 1	0.3	< 0.2	< 1	< 1
0627	N	10/1/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.09	< 0.1	< 0.05	0.002	< 0.1	0.024	0.5	< 1	0.5	< 0.2	< 1	< 1
0627	N	1/22/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.11	< 0.1	< 0.05	< 0.001	< 0.1	0.018	1	< 1	1	< 0.2	< 1	< 1
0627	N	4/8/1997	< 0.01	< 0.01	0.01	< 0.05	0.1	< 0.1	< 0.05	0.195	< 0.1	0.02	0.9	< 1	0.9	< 0.2	< 1	< 1
0627	N	7/8/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.1	< 0.1	< 0.05	< 0.001	< 0.1	0.02	0.4	< 1	0.4	< 0.2	< 1	< 1
0627	N	10/7/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.12	< 0.1	< 0.05	< 0.001	< 0.1	0.023	0.8	< 1	0.8	< 0.2	< 1	< 1
0627	N	1/16/1998	< 0.01	< 0.01	0.02	< 0.05	1.47	< 0.1	< 0.05	< 0.001	< 0.1	0.0222	0.9	< 1	0.9	< 0.2	< 1	< 1
0627	N	4/7/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.12	< 0.1	< 0.05	< 0.001	< 0.1	0.0221	0.7	< 1	0.7	< 0.2	< 1	< 1
0627	N	7/7/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.1	< 0.1	< 0.05	< 0.001	< 0.1	0.0233	1.6	2.6	4.2	< 0.2	< 1	< 1
0627	N	10/6/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.14	< 0.1	< 0.05	< 0.001	< 0.1	0.0345	1.2	< 1	1.2	< 0.2	< 1	< 1
0627	N	1/6/1999	< 0.01	0.006	< 0.01	< 0.05	0.22	< 0.1	< 0.05	< 0.001	< 0.1	0.0239	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	4/6/1999	< 0.01	< 0.005	< 0.01	< 0.05	0.18	< 0.1	< 0.05	0.002	< 0.1	0.0233	1	2.5	3.5	< 0.2	< 1	< 1
0627	N	7/13/1999	< 0.01	< 0.005	0.02	< 0.05	0.08	< 0.1	< 0.05	< 0.001	< 0.1	0.002	0.8	< 1	0.8	< 0.2	3	2.9
0627	N	10/5/1999	< 0.01	< 0.005	< 0.01	< 0.05	0.73	< 0.1	< 0.05	0.002	< 0.1	0.0247	1.3	< 1	1.3	< 0.2	< 1	< 1
0627	N	1/4/2000	< 0.01	< 0.005	0.06	< 0.05	0.86	< 0.1	< 0.05	0.003	< 0.1	0.0233	4.1	2	6.1	< 0.2	< 1	5.5
0627	N	5/10/2000	< 0.01	< 0.005	< 0.01	< 0.05	0.1	< 0.1	< 0.05	< 0.001	< 0.1	0.0259	0.4	6.3	6.7	< 0.2	5.7	< 1
0627	N	7/18/2000	< 0.01	< 0.005	< 0.01	< 0.05	0.11	< 0.1	< 0.05	< 0.001	< 0.1	< 0.0003	0.6	2.5	3.1	< 0.2	< 1	< 1
0627	N	10/10/2000	< 0.01	< 0.005	< 0.01	< 0.05	0.08	< 0.1	< 0.05	< 0.001	< 0.1	0.024	0.5	< 1	0.5	< 0.2	< 1	< 1
0627	N	1/9/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.11	< 0.1	< 0.05	0.001	< 0.1	0.023	0.4	2.5	2.9	< 0.2	< 1	< 1
0627	N	2/6/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.11	< 0.1	< 0.05	0.002	< 0.1	0.0239	0.5	1.5	2	< 0.2	< 1	< 1
0627	N	3/6/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.12	< 0.1	< 0.05	0.001	< 0.1	0.024	0.4	< 1	0.4	< 0.2	< 1	< 1
0627	N	4/10/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.14	< 0.1	< 0.05	0.001	< 0.1	0.03	0.4	< 1	0.4	< 0.2	< 1	< 1

TABLE A.1
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Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Cl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0627	N	5/8/2001	6,838.10	7.08	7.68	5190	557	289	530	4.9	577	2320	60.2	0.09	154	< 1	< 0.1	< 0.001
0627	N	6/5/2001	6,838.30	7.14	7.67	4950	576	304	521	3.8	580	2660	55.1	0.09	142	< 1	< 0.1	< 0.001
0627	N	7/10/2001	6,838.05	7.48	7.45	5270	585	313	585	4.4	600	2450	55.9	0.06	149	< 1	< 0.1	< 0.001
0627	N	8/8/2001	6,838.00	7.09	7.6	5220	540	290	460	4.1	596	2300	64	0.11	140	< 1	< 0.1	< 0.001
0627	N	9/11/2001	6,838.00	6.99	7.8	4190	550	290	540	4.9	600	2380	64.4	0.08	158	< 1	< 0.1	< 0.001
0627	N	10/2/2001	6,838.05	7.08	7.7	5230	540	290	540	5.6	609	2300	74	< 0.05	152	< 1	< 0.1	< 0.001
0627	N	11/6/2001	6,838.00	7.13	7.9	5310	595	305	451	5.8	602	2600	69	0.06	142	< 1	< 0.1	< 0.001
0627	N	12/4/2001	6,838.25	7.3	7.8	5190	559	277	498	4.7	610	2290	65.2	0.07	148	< 1	< 0.1	< 0.001
0627	N	1/8/2002	6,837.90	7.27	7.7	5150	641	314	407	6.5	603	2290	73.6	< 0.05	134	< 1	< 0.1	< 0.001
0627	N	2/5/2002	6,837.80	7.34	7.7	5190	625	298	436	6.1	601	2560	70.8	< 0.05	133	< 1	< 0.1	< 0.001
0627	N	3/5/2002	6,837.80	7.17	7.8	5160	595	300	495	5.1	611	2670	64.3	0.07	133	< 1	< 0.1	< 0.001
0627	N	4/9/2002	6,837.50	7.08	7.64	5250	559	286	486	6.5	612	2440	74.1	0.09	142	< 1	< 0.1	< 0.001
0627	N	5/7/2002	6,837.73	7.09	7.84	5180	594	294	512	5.9	601	2500	59.7	0.08	137	< 1	< 0.1	< 0.001
0627	N	6/4/2002	6,837.61	7.17	7.71	5190	607	300	479	4.6	602	2550	53.8	0.12	122	< 1	< 0.1	< 0.001
0627	N	7/9/2002	6,837.42	7.13	7.9	5350	587	306	495	5.5	608	2590	76	< 0.05	133	< 1	< 0.1	< 0.001
0627	N	10/7/2002	6,837.30	7.1	7.65	4170	543	280	455	4.7	611	2160	50.1	0.06	139	< 1	< 0.1	< 0.001
0627	N	1/7/2003	6,836.79	7.49	7.78	5190	586	315	556	4.6	614	2710	71.9	0.17	128	< 1	< 0.1	< 0.001
0627	N	4/8/2003	6,836.52	6.98	7.5	5220	555	277	496	7.9	603	2280	58.1	0.11	147	< 1	< 0.1	< 0.001
0627	N	7/8/2003	6,836.50	6.82	7.7	5190	534	282	455	6	317	2530	48.7	0.09	142	< 1	< 0.1	< 0.001
0627	N	10/7/2003	6,836.43	6.9	7.74	5310	613	321	531	5	625	2700	56.7	0.13	134	< 1	< 0.1	< 0.001
0627	N	1/6/2004	6,836.28	7.04	7.68	5200	533	285	489	5.2	637	2470	57.8	0.06	142 D	< 1.0	0.1	< 0.001
0627	N	4/6/2004	6,836.24	7.38	7.3	5170	591	304	491	5.3	619	2550 D	58.1	0.17	144 D	< 1	< 0.1	< 0.001
0627	N	7/13/2004	6,835.89	6.81	7.23	5320	592	298	497	6.1	618	2480 D	57	0.15	135 D	< 1.0	< 0.1	< 0.001
0627	N	10/5/2004	6,835.97	6.92	7.5	5440	571 D	294 D	530 E	4.5	600	2470 D	54	< 0.05	125 D	< 1.0	< 0.1	< 0.001
0627	N	1/12/2005	6,836.02	7.08	7.24	5190	598 D	304 D	518 D	5.9	596	2520 D	62	0.08	112 D	< 1.0	< 0.1	< 0.001
0627	N	4/5/2005	6,835.55	7.19	7.7	5000	602	318	518	5.1	612	2590	56	< 0.05	110	< 1.0	< 0.1	< 0.001
0627	N	7/12/2005	6,835.37	7.01	7.76	4950	594 D	299 D	494	4.4	581	2570 D	52	< 0.05	108 D	< 1.0	< 0.1	< 0.001
0627	N	10/4/2005	6,835.48	7	7.6	4930	554 D	284 D	495	5.2	595	2530 D	54	< 0.05	108 D	< 1.0	< 0.1	< 0.001
0627	N	1/10/2006	6,835.12	7.06	7.79	4810	527	270	507	4.3	640	2380 D	48	< 0.05	112 D	< 1.0	< 0.1	< 0.001
0627	N	4/4/2006	6,835.02	6.98	7.3	4800	587 D	303 D	486	5.9	587	2560 D	55	< 0.05	117 D	< 1.0	< 0.1	< 0.001

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0627	N	5/8/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.13	< 0.1	< 0.05	0.001	< 0.1	0.024	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	6/5/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.12	< 0.1	< 0.05	0.003	< 0.1	0.024	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	7/10/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.12	< 0.1	< 0.05	0.001	< 0.1	0.024	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	8/8/2001	< 0.01	0.006	< 0.01	< 0.05	0.1	< 0.1	< 0.05	< 0.001	< 0.1	0.025	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	9/11/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.12	< 0.1	< 0.05	0.001	< 0.1	0.023	0.6	< 1	0.6	< 0.2	< 1	< 1
0627	N	10/2/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.1	< 0.1	< 0.05	0.001	< 0.1	0.0235	0.7	< 1	0.7	< 0.2	< 1	< 1
0627	N	11/6/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.11	< 0.1	< 0.05	0.002	< 0.1	0.0224	0.6	< 1	0.6	< 0.2	< 1	< 1
0627	N	12/4/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.08	< 0.1	< 0.05	< 0.001	< 0.1	0.0223	0.8	< 1	0.8	< 0.2	< 1	< 1
0627	N	1/8/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.11	< 0.1	< 0.05	< 0.001	< 0.1	0.0228	0.8	< 1	0.8	< 0.2	< 1	< 1
0627	N	2/5/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.11	< 0.1	< 0.05	< 0.001	< 0.1	0.014	0.5	< 1	0.5	< 0.2	< 1	< 1
0627	N	3/5/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.12	< 0.1	< 0.05	< 0.001	< 0.1	0.0251	0.4	< 1	0.4	< 0.2	< 1	< 1
0627	N	4/9/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.11	< 0.1	< 0.05	< 0.001	< 0.1	0.0244	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	5/7/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.13	< 0.1	< 0.05	0.001	< 0.1	0.0249	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	6/4/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.13	< 0.1	< 0.05	< 0.001	< 0.1	0.0246	0.7	< 1	0.7	< 0.2	< 1	< 1
0627	N	7/9/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.11	< 0.1	< 0.05	< 0.001	< 0.1	0.0228	0.3	< 1	0.3	< 0.2	< 1	< 1
0627	N	10/7/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0198	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	1/7/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.1	< 0.1	< 0.05	< 0.001	< 0.1	0.0291	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0627	N	4/8/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.08	< 0.1	< 0.05	< 0.001	< 0.1	0.0278	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0627	N	7/8/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0241	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0627	N	10/7/2003	< 0.01	< 0.005	< 0.01	< 0.05	0.06	< 0.1	< 0.05	< 0.001	< 0.1	0.0279	< 0.2	< 1	0	< 0.2	< 1	< 1.0
0627	N	1/6/2004	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	0.003	< 0.1	0.0244 D	< 0.2	6.6	6.6	< 0.2	< 1.0	< 1.0
0627	N	4/6/2004	< 0.01	< 0.005	< 0.01	< 0.05	0.04	< 0.1	< 0.05	0.02	< 0.1	0.025 D	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	7/13/2004	< 0.01	< 0.005	0.01	< 0.05	0.01	< 0.1	< 0.05	0.001	< 0.1	0.0254 D	0.5	< 1.0	0.5	< 0.2	< 1.0	< 1.0
0627	N	10/5/2004	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	0.009	< 0.1	0.0261 D	0.3	2	2.3	< 0.2	< 1.0	< 1.0
0627	N	1/12/2005	< 0.01	< 0.005	< 0.01	< 0.05	0.01	< 0.1	< 0.05	0.001	< 0.1	0.0269	0.5	< 1.0	0.5	< 0.2	< 1.0	< 1.0
0627	N	4/5/2005	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.028	1	< 1.0	1	< 0.2	< 1.0	< 1.0
0627	N	7/12/2005	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0254	0.4	< 1.0	0.4	< 0.2	< 1.0	< 1.0
0627	N	10/4/2005	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0271	0.3	1.4	1.7	< 0.2	< 1.0	< 1.0
0627	N	1/10/2006	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	0.01	< 0.1	0.0268	< 0.2	< 1.0	0	< 0.2	< 1.0	< 1.0
0627	N	4/4/2006	< 0.01	0.006	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	0.005	< 0.1	0.0251 D	< 0.2	2.7	2.7	< 0.2	< 1.0	< 1.0

TABLE A.1
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United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Cl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0627	N	7/18/2006	6,834.87	6.92	6.91	4790	554 D	279 D	538	6.4	571	2660 D	45	< 0.05	109 D	< 1.0	< 0.1	< 0.001
0627	N	10/3/2006	6,834.82	6.92	6.92	4670	528 D	261 D	460	5.7	592	2350 D	39	0.08	108 D	< 0.5	< 0.1	< 0.001
0627	N	1/9/2007	6,834.77	7.09	6.96	4870	512 D	263 D	443	5.6	580	2460 D	47	<0.05	103 D	<0.5	<0.1	<0.001
0627	N	4/10/2007	6,835.02	7.18	7.18	4740	548 D	272 D	446	7.4	573	2430 D	45	0.06	115 D	<0.5	<0.1	<0.001
0627	N	7/10/2007	6,834.67	6.97	6.81	4590	571 D	278 D	489	5.8	612	2590 D	41	0.05	117 D	<0.5	<0.1	0.01
0627	N	10/2/2007	6,834.55	6.87	7.26	4710	486 D	244 D	469 D	6.2	593	2270 D	63 D	0.18	107 D	<0.5	<0.1	<0.001
0627	N	1/15/2008	6,834.77	7.05	7.03	4750	532 D	256 D	513 D	6.7	568	2340 D	64 D	< 0.05	109 D	< 0.5	< 0.1	< 0.001
0627	N	4/8/2008	6,834.72	6.94	7.32	4600	565 D	282 D	528 D	6.4 D	546	2530 D	36	< 0.1	159 D	< 0.50	< 0.1	< 0.001
0627	N	7/8/2008	6,834.47	6.68	7.23	4610	527	250	458 D	5	578	2460 D	50	< 0.05	178 D	< 0.5	< 0.1	< 0.003
0627	N	10/7/2008	6,833.99	6.98	7.09	4510	530	253	477 D	5	560	2420 DH	36	< 0.1	167 D	< 0.5	< 0.1	< 0.001
0627	N	1/13/2009	6,834.22	6.9	7.1	4720	580	274	518	6	565	2210 D	28	<0.05	172 D	<0.5	<0.1	<0.001
0627	N	4/7/2009	6,834.02	6.82	6.99	4650	509 D	244 D	472 D	6	586	2410 D	39	<0.05	107 D	<0.50	<0.1	<0.001
0627	N	7/7/2009	6,834.02	6.76	7.23	4610	510	239	473	5	579	2310 D	44	<0.05	105 D	<0.50	<0.1	<0.001
0627	N	10/6/2009	6,834.02	6.93	7.67	4530	510	240	483	5	583	2440 D	44	<0.05	111 D	<0.50	<0.1	<0.001
0627	N	1/5/2010	6,833.82	6.9	7.48	4810 D	517 D	234	466 D	6	599	2580 D	39	<0.05	102 D	<0.50	<0.1	<0.001
0627	N	4/6/2010	6,833.67	6.91	7.12	4540 D	510 D	220	451 D	6	625	2430 D	40	<0.05	102 D	<0.50	<0.1	<0.001
0627	N	7/13/2010	6,833.57	6.72	7.29	4570 D	536	242	487	6	614	2370 D	39 D	<0.05	96 D	<0.50	0.1	<0.001
0627	N	10/5/2010	6,833.47	6.94	7.59	4550 D	524	230	478	6	618	2410 D	38 D	0.06	97 D	<0.50	<0.1	<0.001
0627	N	1/4/2011	6833.42	6.85	7.47	4300 D	526	238	456	6	601	2350 D	40 D	<0.05	85 D	<0.50	<0.1	<0.001
0627	N	4/5/2011	6833.32	6.86	7.12	4320 D	530	231	503	6	594	2390 D	38 D	<0.05	94 D	<0.50	<0.1	<0.001
0627	N	7/12/2011	6833.17	6.98	7.67	4330 D	538	239	490	6	599	2350 D	37 D	<0.1	101 D	<0.50	<0.1	<0.001
0627	N	10/4/2011	6833.11	6.99	7.7	4260 D	509	227	460	6	559	2420 D	39 D	<0.1	96 D	<0.50	<0.1	<0.001
0632	N	7/19/1989	6,874.20	6.5	6.77	6819	788	667	330	9.2	2123	2840	242	0.5	107	< 1	< 0.1	< 0.001
0632	N	10/16/1989	6,874.00	6.8	7.1	6466	781	671	408	10.7	2257	2578	246	0.47	95	< 1	< 0.1	< 0.001
0632	N	1/10/1990	6,872.30	6.4	6.54	6860	783	712	407	8.35	2111	2747	251	0.43	83	< 1	< 0.1	< 0.001
0632	N	4/10/1990	6,870.40	6.3	7.16	6977	778	688	380	7.4	2208	2677	258	0.44	107	< 1	< 0.1	< 0.001
0632	N	7/10/1990	6,871.10	6.3	6.86	7355	819	674	412	7.9	2296	3007	248	0.37	124	< 1	< 0.1	< 0.001
0632	N	10/9/1990	6,870.40	6.2	7.27	7558	839	707	433	9	2239	2945	258	0.52	106	< 1	< 0.1	< 0.001
0632	N	1/10/1991	6,869.90	6.3	7.18	7367	900	760	429	8.9	2184	3027	267	0.4	113	< 1	< 0.1	0.002
0632	N	4/11/1991	6,869.90	6.2	7.36	7346	857	663	451	9.4	2285	3053	274	0.37	146	< 1	< 0.1	0.002

TABLE A.1
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Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0627	N	7/18/2006	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0245	0.4	2.2	2.6	< 0.2	< 1.0	2
0627	N	10/3/2006	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0235	0.7	< 1	0.7	< 0.2	< 1	< 1
0627	N	1/9/2007	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0228	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	4/10/2007	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0252	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	7/10/2007	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0246	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	10/2/2007	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0243	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	1/15/2008	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0224	< 0.2	< 1	0	< 0.2	< 1	< 1
0627	N	4/8/2008	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0227	0.003 U	-0.7 U	-0.697	0.2	0 U	1 U
0627	N	7/8/2008	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0214	0.35	1.2 U	1.55	0.3	-0.2 U	0.6 U
0627	N	10/7/2008	< 0.01	< 0.005	< 0.01	< 0.05	0.04	< 0.1	< 0.05	< 0.001	< 0.1	0.0201	0.05 U	0.06 U	0.11	-0.1 U	0 U	1
0627	N	1/13/2009	< 0.01	< 0.005	< 0.01	< 0.05	0.09	< 0.1	< 0.05	< 0.001	< 0.1	0.0215	0.07 U	0.61 U	0.68	-0.2 U	-1 U	1.4
0627	N	4/7/2009	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	0.001	< 0.1	0.0196	0.16 U	0.52 U	0.68	0.02 U	0.6 U	0.4 U
0627	N	7/7/2009	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0198	0.06 U	0.89 U	0.95	0.01 U	-1 U	0.8
0627	N	10/6/2009	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0213	0.36	0.81 U	1.17	0.02 U	-1 U	0.6 U
0627	N	1/5/2010	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0188	-0.02 U	0.10 U	0.08	0.05 U	-2 U	0.7 U
0627	N	4/6/2010	< 0.01	< 0.005	< 0.01	< 0.05	< 0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0196	0.33	0.19 U	0.52	0.01 U	2.6 U	0.2 U
0627	N	7/13/2010	< 0.01	< 0.005	< 0.01	< 0.05	0.01	< 0.1	< 0.05	< 0.001	< 0.1	0.0197	0.23	0.15 U	0.38	0.04 U	0.7 U	-0.1 U
0627	N	10/5/2010	< 0.01	< 0.005	< 0.01	< 0.05	0.05	< 0.1	< 0.05	< 0.001	< 0.1	0.0209	-0.05 U	0.70 U	0.65	0.06 U	1.6 U	0.3 U
0627	N	1/4/2011	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0201	0.14 U	0.60 U	0.74	0.09 U	0.4 U	0.08 U
0627	N	4/5/2011	< 0.01	< 0.005	< 0.01	< 0.05	0.03	< 0.1	< 0.05	< 0.001	< 0.1	0.0189	0.009 U	0.34 U	0.349	0.005 U	0.2 U	0.09 U
0627	N	7/12/2011	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0198	0.16	0.28 U	0.44	0.04 U	0.7 U	0.4 U
0627	N	10/4/2011	< 0.01	< 0.005	< 0.01	< 0.05	0.02	< 0.1	< 0.05	< 0.001	< 0.1	0.0184	0.15	0.06 U	0.21	0.03 U	0.9 U	-0.009 U
0632	N	7/19/1989	< 0.05	< 0.01	< 0.01	< 0.05	0.15	< 0.1	< 0.05	0.004	< 0.1	0.111	1.7	1.7	3.4	1.1	< 1	4.1
0632	N	10/16/1989	< 0.05	< 0.01	< 0.01	< 0.05	0.12	< 0.1	< 0.05	0.003	< 0.1	0.111	1.5	1.4	2.9	< 0.2	< 1	< 1
0632	N	1/10/1990	< 0.05	< 0.01	0.04	< 0.05	0.15	< 0.1	0.07	0.003	< 0.1	0.084	1	1.6	2.6	< 0.2	< 1	1.2
0632	N	4/10/1990	< 0.05	< 0.01	0.03	< 0.05	0.24	< 0.1	< 0.05	0.003	< 0.1	0.084	1	1.6	2.6	< 0.2	< 1	1.2
0632	N	7/10/1990	< 0.05	< 0.01	0.01	< 0.05	0.27	< 0.1	< 0.05	0.004	< 0.1	0.0785	1	1.8	2.8	< 0.2	< 1	1
0632	N	10/9/1990	< 0.05	< 0.01	0.02	< 0.05	0.22	< 0.1	< 0.05	0.003	< 0.1	0.1312	0.5	2.3	2.8	< 0.2	< 1	< 1
0632	N	1/10/1991	< 0.01	< 0.01	0.02	< 0.05	0.25	< 0.1	0.05	0.005	< 0.1	0.0795	2.2	< 1	2.2	< 0.2	< 1	2.7
0632	N	4/11/1991	< 0.01	< 0.01	0.02	< 0.05	0.29	< 0.1	< 0.05	0.005	< 0.1	0.0931	1.1	< 1	1.1	< 0.2	< 1	1

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Cl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0632	N	7/9/1991	6,868.30	6.3	6.68	7472	833	636	390	6.9	2336	2964	273	0.61	117	< 1	0.14	< 0.001
0632	N	10/17/1991	6,867.50	6.1	7.08	7677	886	630	426	8.4	2510	2959	267	0.72	87.6	< 1	< 0.1	0.001
0632	N	1/21/1992	6,867.60	6.2	6.95	7030	747	758	424	7.2	2211	3200	261	0.6	76.1	< 1	< 0.1	< 0.001
0632	N	4/14/1992	6,868.30	6.1	7.56	7706	677	557	460	9.1	2184	3126	263	0.55	75.7	< 1	< 0.1	0.002
0632	N	7/14/1992	6,864.50	6	8.05	6323	815	547	451	11.3	1568	2948	265	0.36	119	< 1	< 0.1	0.001
0632	N	10/13/1992	6,863.00	6.4	7.02	6472	719	594	417	7.4	2495	2903	269	0.18	89.5	< 1	< 0.1	< 0.001
0632	N	1/12/1993	6,864.80	6.4	7.02	5933	750	571	438	11.2	1220	3037	265	0.24	92.7	< 1	< 0.1	< 0.001
0632	N	4/14/1993	6,865.60	6.4	7.11	6925	696	633	433	6.7	2113	2962	269	0.31	95.3	< 1	< 0.1	< 0.001
0632	N	7/15/1993	6,862.20	6.4	6.72	6303	701	607	426	9.1	2098	3107	264	0.19	62.1	< 1	< 0.1	< 0.001
0632	N	10/7/1993	6,860.40	6.5	7.1	5715	676	555	384	6.6	2240	2392	255	0.13	56.6	< 1	< 0.1	< 0.001
0632	N	1/6/1994	6,862.40	6.5	7.51	6091	690	549	409	6.9	1984	2705	252	0.17	36.5	1	< 0.1	< 0.001
0632	N	4/14/1994	6,862.50	6.4	6.74	5930	683	579	426	7.8	2063	2807	251	0.33	25.9	< 1	< 0.1	< 0.001
0632	N	7/21/1994	6,862.70	6.4	7.19	6160	745	632	383	7.5	2123	3080	246	0.23	30.3	< 1	< 0.1	0.002
0632	N	10/5/1994	6,861.10	6.3	7.47	6288	692	619	431	8.1	2200	2689	255	0.23	20.9	< 1	< 0.1	< 0.001
0632	N	1/10/1995	6,861.70	6.4	7.45	6458	708	655	348	8.2	2184	2857	250	0.41	21.9	< 1	< 0.1	< 0.001
0632	N	4/5/1995	6,860.90	6.5	6.93	6453	685	650	420	10.8	2119	2905	250	2.51	23.9	< 1	< 0.1	< 0.001
0632	N	7/6/1995	6,860.30	6.4	7.52	6335	696	646	393	8.5	2281	2647	285	0.43	24.1	< 1	< 0.1	< 0.001
0632	N	10/3/1995	6,860.30	6.3	7.52	6319	695	585	374	8.2	2247	2745	250	0.44	16.8	< 1	< 0.1	0.003
0632	N	1/4/1996	6,859.10	6.5	7.59	6294	760	625	378	7.9	2239	2595	250	0.22	16.4	< 1	< 0.1	< 0.001
0632	N	4/2/1996	6,859.30	6.6	7.82	5940	650	585	384	8.1	1807	2715	278	0.26	17.4	< 1	< 0.1	< 0.001
0632	N	7/7/1996	6,858.80	6.4	7.4	6258	671	589	397	8.8	2035	2749	233	0.29	10.9	1.68	< 0.1	0.014
0632	N	10/1/1996	6,859.30	6.5	6.92	6280	676	602	396	8.5	2050	2758	255	0.2	11.5	1	< 0.1	0.001
0632	N	1/22/1997	6,858.60	6.5	7.49	6120	670	590	379	8.7	2130	2740	285	0.2	10	1.1	< 0.1	< 0.001
0632	N	4/8/1997	6,858.30	6.5	7.75	6180	679	591	369	8.6	2010	2694	287	0.2	9.8	1.05	< 0.1	< 0.001
0632	N	7/8/1997	6,858.80	6.8	7.64	6330	707	613	362	8.5	2020	2560	264	0.18	8.15	1.14	< 0.1	< 0.001
0632	N	10/7/1997	6,858.40	6.4	7.63	6170	679	592	369	8.4	2020	2740	290	0.12	6.37	1.48	< 0.1	< 0.001
0632	N	1/16/1998	6,858.10	6.6	7.68	6170	660	573	383	9.3	2020	2900	288	0.27	7.24	1.9	< 0.1	< 0.001
0632	N	4/7/1998	6,857.90	6.5	7.39	5970	681	594	385	8.4	2030	2500	234	0.1	7.95	1.9	< 0.1	< 0.001
0632	N	7/7/1998	6,858.10	6.7	7.81	6250	658	594	392	8.5	1880	2600	264	0.26	5	2.3	< 0.1	< 0.001
0632	N	10/6/1998	6,859.00	6.58	7.71	6200	664	598	401	9.1	1820	2730	279	0.22	7.89	2.4	< 0.1	< 0.001

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
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Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0632	N	7/9/1991	< 0.01	< 0.01	< 0.01	< 0.05	0.25	< 0.1	< 0.05	0.003	< 0.1	0.0818	0.7	1.8	2.5	< 0.2	< 1	< 1
0632	N	10/17/1991	< 0.01	< 0.01	< 0.01	< 0.05	0.43	< 0.1	< 0.05	0.018	< 0.1	0.169	0.8	< 1	0.8	< 0.2	1.6	< 1
0632	N	1/21/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.25	< 0.1	< 0.05	0.004	< 0.1	0.072	1.2	2.6	3.8	< 0.2	< 1	1
0632	N	4/14/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.28	< 0.1	< 0.05	0.008	< 0.1	0.08	0.9	3.7	4.6	< 0.2	1.6	< 1
0632	N	7/14/1992	< 0.01	< 0.01	< 0.01	< 0.05	0.16	< 0.1	< 0.05	0.003	< 0.1	0.095	2.2	1.1	3.3	< 0.2	4.2	2.5
0632	N	10/13/1992	< 0.01	< 0.01	0.02	< 0.05	0.16	< 0.1	< 0.05	0.003	< 0.1	0.147	1.3	6.4	7.7	< 0.2	< 1	1.5
0632	N	1/12/1993	< 0.01	< 0.01	< 0.01	< 0.05	1.85	< 0.1	< 0.05	0.004	< 0.1	0.068	1.1	4.5	5.6	< 0.2	< 1	1.5
0632	N	4/14/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.32	< 0.1	< 0.05	0.002	< 0.1	0.113	6.4	2	8.4	1.3	1.2	8.1
0632	N	7/15/1993	< 0.01	< 0.01	0.01	< 0.05	0.18	< 0.1	< 0.05	0.005	< 0.1	0.082	1.2	< 1	1.2	< 0.2	< 1	1.5
0632	N	10/7/1993	< 0.01	< 0.01	< 0.01	< 0.05	0.27	< 0.1	< 0.05	0.003	< 0.1	0.093	1.8	1.1	2.9	< 0.2	1.2	1.8
0632	N	1/6/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.34	< 0.1	< 0.05	< 0.001	< 0.1	0.082	1.6	3.4	5	< 0.2	< 1	7.7
0632	N	4/14/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.37	< 0.1	< 0.05	0.001	< 0.1	0.088	1.7	2.4	4.1	< 0.2	2.4	5.5
0632	N	7/21/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.39	< 0.1	< 0.05	0.002	< 0.1	0.09	0.9	5.1	6	< 0.2	< 1	8.7
0632	N	10/5/1994	< 0.01	< 0.01	< 0.01	< 0.05	0.42	< 0.1	< 0.05	< 0.001	< 0.1	0.08	1	< 1	1	< 0.2	3.6	1.2
0632	N	1/10/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.43	< 0.1	< 0.05	< 0.001	< 0.1	0.086	2	< 1	2	< 0.2	1.7	3.7
0632	N	4/5/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.52	< 0.1	< 0.05	0.002	< 0.1	0.077	1.2	3.1	4.3	< 0.2	1.1	6
0632	N	7/6/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.5	< 0.1	< 0.05	0.002	< 0.1	0.0954	1.6	< 1	1.6	0.4	< 1	4.2
0632	N	10/3/1995	< 0.01	< 0.01	< 0.01	< 0.05	0.11	< 0.1	< 0.05	< 0.001	< 0.1	0.0899	1.1	< 1	1.1	< 0.2	3.3	2.6
0632	N	1/4/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.74	< 0.1	< 0.05	< 0.001	< 0.1	0.092	1	1.1	2.1	0.3	1.2	1.8
0632	N	4/2/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.55	< 0.1	< 0.05	< 0.001	< 0.1	0.09	1.7	< 1	1.7	< 0.2	< 1	5.8
0632	N	7/7/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.61	< 0.1	< 0.05	0.012	< 0.1	0.092	0.8	< 1	0.8	< 0.2	< 1	< 1
0632	N	10/1/1996	< 0.01	< 0.01	< 0.01	< 0.05	0.57	< 0.1	< 0.05	0.002	< 0.1	0.078	0.8	< 1	0.8	< 0.2	< 1	3.4
0632	N	1/22/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.63	< 0.1	< 0.05	< 0.001	< 0.1	0.077	1.4	< 1	1.4	< 0.2	< 1	< 1
0632	N	4/8/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.63	< 0.1	< 0.05	< 0.001	< 0.1	0.088	1	3.2	4.2	< 0.2	< 1	< 1
0632	N	7/8/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.57	< 0.1	< 0.05	< 0.001	< 0.1	0.077	0.8	5	5.8	< 0.2	< 1	< 1
0632	N	10/7/1997	< 0.01	< 0.01	< 0.01	< 0.05	0.82	< 0.1	< 0.05	< 0.001	< 0.1	0.075	0.7	< 1	0.7	< 0.2	< 1	< 1
0632	N	1/16/1998	< 0.01	< 0.01	< 0.01	< 0.05	0.75	< 0.1	< 0.05	< 0.001	< 0.1	0.089	0.9	< 1	0.9	< 0.2	< 1	2
0632	N	4/7/1998	< 0.1	< 0.005	< 0.01	< 0.05	0.71	< 0.1	< 0.05	0.005	< 0.1	0.086	1.6	< 1	1.6	< 0.2	< 1	< 1
0632	N	7/7/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.72	< 0.1	< 0.05	< 0.001	< 0.1	0.0859	1.7	3.4	5.1	< 0.2	< 1	< 1
0632	N	10/6/1998	< 0.01	< 0.005	< 0.01	< 0.05	0.74	< 0.1	< 0.05	< 0.001	< 0.1	0.144	1.3	< 1	1.3	< 0.2	< 1	< 1

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Water Elevation ft amsl	Field pH SU	Lab pH SU	Lab TDS mg/l	Ca mg/l	Mg mg/l	Na mg/l	K mg/l	HCO3 mg/l	SO4 mg/l	Cl mg/l	NH4 as N mg/l	NO3 as N mg/l	TTHMs (Chloroform) ug/l	Al mg/l	As mg/l
NRC Standard			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80	NA	0.05
EPA Standard			NA	NA	NA	4800	NA	NA	NA	NA	NA	2125	250	NA	190	NA	5	0.05
0632	N	1/5/1999	6,857.40	6.7	7.82	6200	629	559	331	8.6	1930	2440	242	0.21	5.94	1.6	< 0.1	< 0.001
0632	N	4/6/1999	6,857.30	6.6	7.9	6320	662	594	354	8.1	1890	2720	251	0.21	6.37	1.5	< 0.1	< 0.001
0632	N	7/13/1999	6,857.09	6.3	7.78	6140	651	602	336	14.3	1910	2830	244	0.21	5.72	1.8	< 0.1	< 0.001
0632	N	10/5/1999	6,858.10	6.6	7.75	6060	691	667	375	8.3	1850	3140	235	0.16	6.03	2.1	< 0.1	< 0.001
0632	N	1/4/2000	6,857.60	6.6	7.93	6210	581	555	283	10.8	1790	2610	217	0.24	4.44	2	< 0.1	< 0.001
0632	N	5/8/2000	6,856.90	6.3	7.6	6020	579	560	366	8.3	1800	2640	238	0.05	2.44	2.8	< 0.1	< 0.001
0632	N	7/12/2000	6,856.90	6.25	6.98	6070	595	580	366	8.09	1810	2510	239	0.08	2.92	2	< 0.1	< 0.001
0632	N	10/3/2000	6,856.70	6.28	7.18	6020	622	610	240	9.7	1780	2820	230	0.07	3.17	2.5	< 0.1	< 0.001
0632	N	1/8/2001	6,858.50	6.38	7.38	6180	624	612	347	8.7	1740	3020	223	0.17	2.69	3.5	< 0.1	< 0.001
0632	N	2/5/2001	6,859.80	6.55	7.04	6410	729	701	428	10.3	1660	3420	233	0.35	5.9	2.8	< 0.1	< 0.001
0632	N	3/6/2001	6,860.20	6.51	7.31	6100	630	653	450	10.3	1640	3400	199	0.34	12.7	3.2	< 0.1	< 0.001
0632	N	4/3/2001	6,860.70	6.45	7.17	6800	710	713	359	8.1	1600	3370	228	0.33	21.6	3.49	< 0.1	< 0.001
0632	N	5/7/2001	6,860.90	6.3	7.41	6860	625	650	410	8.7	1600	3000	244	0.36	26.5	1.9	< 0.1	< 0.001
0632	N	6/4/2001	6,861.20	6.36	7.22	6620	622	663	316	8.9	1580	3180	246	0.38	32.7	3.1	< 0.1	< 0.001
0632	N	7/9/2001	6,861.43	6.84	7.08	6990	682	742	348	8.5	1680	3260	253	0.33	35.9	3.1	< 0.1	< 0.001
0632	N	8/6/2001	6,861.39	6.27	7.2	7000	620	680	340	9	1670	3000	300	0.31	34.2	2.7	< 0.1	< 0.001
0632	N	9/10/2001	6,861.60	6.25	7	7020	630	700	355	9.4	1700	3100	273	0.32	45.3	2.46	< 0.1	< 0.001
0632	N	10/1/2001	6,861.65	6.35	7.4	7080	610	690	336	10.1	1730	2900	311	0.28	40.2	1.95	< 0.1	< 0.001
0632	N	11/5/2001	6,861.80	6.34	7.5	7060	669	732	360	10	1680	3390	293	0.3	43.2	2.4	< 0.1	< 0.001
0632	N	12/3/2001	6,861.90	6.37	6.8	7100	613	671	309	8.7	1740	3000	272	0.33	46	1.8	< 0.1	< 0.001
0632	N	1/8/2002	6,862.00	6.45	7	7020	719	748	289	10.5	1700	3530	294	0.33	40.2	2.4	< 0.1	< 0.001
0632	N	2/4/2002	6,862.10	6.37	7	7070	690	717	332	10.1	1720	3330	292	0.37	41.1	2.36	< 0.1	< 0.001
0632	N	3/4/2002	6,862.05	6.36	7.1	7080	649	721	376	9.4	1690	3460	278	0.32	44	2.5	< 0.1	< 0.001
0632	N	4/2/2002	6,862.31	6.32	7.04	7140	674	733	378	11.8	1730	3530	280	0.34	42.5	2.7	< 0.1	< 0.001
0632	N	5/6/2002	6,862.32	6.22	7.16	7130	649	715	388	10.7	1720	3270	260	0.34	43.7	2.4	< 0.1	< 0.001
0632	N	6/3/2002	6,862.41	6.24	7.3	7150	645	717	349	8.9	1710	3290	240	0.34	45.1	2.8	< 0.1	< 0.001
0632	N	7/8/2002	6,862.21	6.47	7.75	7200	645	761	292	11.4	1710	3490	229	0.36	43.3	2.4	< 0.1	< 0.001
0632	N	10/8/2002	6,862.08	6.61	7.29	7100	578	685	356	8.7	1700	3150	221	0.3	45.7	2.6	< 0.1	< 0.001
0632	N	1/6/2003	6,861.98	6.61	7.52	7170	637	798	424	9.7	1660	3620	232	0.44	45.2	2.2	< 0.1	< 0.001
0632	N	4/7/2003	6,862.11	6.29	7.15	7210	607	744	388	12.6	1670	3070	242	0.4	48	2.4	< 0.1	< 0.001

TABLE A.1
Southwest Alluvium Data Summary, 1989-2011
United Nuclear Corporation, Church Rock Site, Church Rock, New Mexico

Location ID	Desc	Sample Date	Be	Cd	Co	Pb	Mn	Mo	Ni	Se	V	U	Rad-226	Rad-228	Rad Total	Th-230	Pb-210	Gross Alpha
			mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	pci/l	pci/l	pci/l	pci/l	pci/l
NRC Standard			0.05	0.01	NA	0.05	NA	NA	0.05	0.01	0.1	0.3	NA	NA	5.2	5	1	15
EPA Standard			0.017	0.01	0.05	0.05	2.6	1	0.2	0.01	0.7	5	NA	NA	5	NA	NA	15
0632	N	1/5/1999	< 0.01	< 0.005	< 0.01	< 0.05	0.66	< 0.1	< 0.05	< 0.001	< 0.1	0.0817	< 0.2	< 1	0	< 0.2	< 1	< 1
0632	N	4/6/1999	< 0.01	0.008	< 0.01	< 0.05	0.7	< 0.1	< 0.05	< 0.001	< 0.1	0.124	1.7	< 1	1.7	< 0.2	< 1	< 1
0632	N	7/13/1999	< 0.01	< 0.005	< 0.01	< 0.05	0.72	< 0.1	< 0.05	< 0.001	< 0.1	0.0775	0.5	< 1	0.5	< 0.2	2.9	3.5
0632	N	10/5/1999	< 0.01	0.006	< 0.01	< 0.05	0.85	< 0.1	< 0.05	0.001	< 0.1	0.0795	2.1	< 1	2.1	< 0.2	< 1	1.6
0632	N	1/4/2000	< 0.01	< 0.005	< 0.01	< 0.05	0.87	< 0.1	0.05	0.001	< 0.1	0.0704	1.3	< 1	1.3	< 0.2	< 1	2.1
0632	N	5/8/2000	< 0.01	< 0.005	< 0.01	< 0.05	1.04	< 0.1	< 0.05	< 0.001	< 0.1	0.0774	0.5	< 1	0.5	< 0.2	< 1	< 1
0632	N	7/12/2000	< 0.01	< 0.005	< 0.01	< 0.05	0.79	< 0.1	< 0.05	< 0.001	< 0.1	0.0739	0.9	2.1	3	< 0.2	< 1	< 1
0632	N	10/3/2000	< 0.01	< 0.005	< 0.01	0.06	0.73	< 0.1	< 0.05	0.001	< 0.1	0.018	0.8	< 1	0.8	< 0.2	< 1	< 1
0632	N	1/8/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.85	< 0.1	< 0.05	0.001	< 0.1	0.064	0.7	1.9	2.6	< 0.2	< 1	< 1
0632	N	2/5/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.85	< 0.1	< 0.05	< 0.001	< 0.1	0.066	1.2	2.4	3.6	< 0.2	< 1	< 1
0632	N	3/6/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.92	< 0.1	< 0.05	< 0.001	< 0.1	0.0601	1	< 1	1	< 0.2	< 1	< 1
0632	N	4/3/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.87	< 0.1	< 0.05	< 0.001	< 0.1	0.059	1.1	< 1	1.1	< 0.2	< 1	1.7
0632	N	5/7/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.95	< 0.1	< 0.05	< 0.001	< 0.1	0.062	< 0.2	< 1	0	< 0.2	< 1	< 1
0632	N	6/4/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.98	< 0.1	< 0.05	0.004	< 0.1	0.06	1.4	3.1	4.5	< 0.2	< 1	< 1
0632	N	7/9/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.97	< 0.1	< 0.05	< 0.001	< 0.1	0.0632	1.1	< 1	1.1	< 0.2	< 1	< 1
0632	N	8/6/2001	< 0.01	< 0.005	< 0.01	< 0.05	1.1	< 0.1	< 0.05	< 0.001	< 0.1	0.072	0.7	2.2	2.9	< 0.2	< 1	< 1
0632	N	9/10/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.91	< 0.1	< 0.05	< 0.001	< 0.1	0.0582	1	2.7	3.7	< 0.2	< 1	< 1
0632	N	10/1/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.85	< 0.1	< 0.05	< 0.001	< 0.1	0.0608	1.1	< 1	1.1	< 0.2	< 1	< 1
0632	N	11/5/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.97	< 0.1	< 0.05	< 0.001	< 0.1	0.0542	1	< 1	1	< 0.2	< 1	< 1
0632	N	12/3/2001	< 0.01	< 0.005	< 0.01	< 0.05	0.87	< 0.1	< 0.05	< 0.001	< 0.1	0.0577	0.9	3.4	4.3	< 0.2	< 1	< 1
0632	N	1/8/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.95	< 0.1	< 0.05	< 0.001	< 0.1	0.0575	1.2	1.2	2.4	< 0.2	< 1	3.2
0632	N	2/4/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.92	< 0.1	< 0.05	< 0.001	< 0.1	0.051	1.3	1.8	3.1	< 0.2	< 1	< 1
0632	N	3/4/2002	< 0.01	< 0.005	< 0.01	< 0.05	1.08	< 0.1	< 0.05	< 0.001	< 0.1	0.066	0.6	< 1	0.6	< 0.2	< 1	1.8
0632	N	4/2/2002	< 0.01	< 0.005	< 0.01	< 0.05	1.13	< 0.1	< 0.05	< 0.001	< 0.1	0.059	1.3	2.9	4.2	< 0.2	< 1	< 1
0632	N	5/6/2002	< 0.01	< 0.005	< 0.01	< 0.05	1.12	< 0.1	< 0.05	< 0.001	< 0.1	0.0636	0.8	2.2	3	< 0.2	< 1	2.1
0632	N	6/3/2002	< 0.01	< 0.005	< 0.01	< 0.05	1	< 0.1	< 0.05	< 0.001	< 0.1	0.058	0.6	< 1	0.6	< 0.2	< 1	< 1
0632	N	7/8/2002	< 0.01	< 0.005	< 0.01	< 0.05	0.96	< 0.1	< 0.05	< 0.001	< 0.1	0.0708	1	< 1	1	< 0.2	< 1	< 1
0632	N	10/8/2002	< 0.01	< 0.005	< 0.01	< 0.05	1.07	< 0.1	< 0.05	< 0.001	< 0.1	0.0521	2.1	< 1	2.1	< 0.2	< 1	< 1
0632	N	1/6/2003	< 0.01	< 0.005	< 0.01	< 0.05	1.04	< 0.1	< 0.05	< 0.001	< 0.1	0.0636	1	< 1	1	< 0.2	< 1	1.8
0632	N	4/7/2003	< 0.01	< 0.005	< 0.01	< 0.05	1.22	< 0.1	< 0.05	< 0.001	< 0.1	0.0646	0.8	< 1	0.8	< 0.2	< 1	< 1.0