

Table 2.4-1
Permit Monitoring Wells (Depth and Purpose)

Well Location	Total Depth	Purpose
MW-1	115.00	Semi-Annual Groundwater Compliance
MW-2	125.00	Semi-Annual Groundwater Compliance
MW-3	96.00	Semi-Annual Groundwater Compliance
MW-3A	95.00	Semi-Annual Groundwater Compliance
MW-4	122.00	No Longer Included In Groundwater Program
MW-5	138.50	Semi-Annual Groundwater Compliance
MW-11	135.00	Quarterly Groundwater Compliance
MW-12	129.00	Semi-Annual Groundwater Compliance
MW-14	127.00	Quarterly Groundwater Compliance
MW-15	134.00	Semi-Annual Groundwater Compliance
MW-17	110.00	Semi-Annual Groundwater Compliance
MW-18	148.50	Semi-Annual Groundwater Compliance
MW-19	149.00	Semi-Annual Groundwater Compliance
MW-20	114.50	Semi-Annual Groundwater Monitoring
MW-22	140.00	Semi-Annual Groundwater Monitoring
MW-23	129.00	Semi-Annual Groundwater Compliance
MW-24	119.90	Semi-Annual Groundwater Compliance
MW-25	115.10	Quarterly Groundwater Compliance
MW-26	121.33	Quarterly Groundwater Compliance
MW-27	91.00	Semi-Annual Groundwater Compliance
MW-28	106.00	Semi-Annual Groundwater Compliance
MW-29	125.00	Semi-Annual Groundwater Compliance

MW-30	107.00	Quarterly Groundwater Compliance
MW-31	129.00	Quarterly Groundwater Compliance
MW-32	133.70	Semi-Annual Groundwater Compliance
MW-33	103.50	Dry, Not sampled
MW-34	109.00	Water Level Monitoring only
MW-35	123.60	Quarterly Groundwater for Background
MW-36	119.90	Quarterly Groundwater for Background
MW-37	120.20	Quarterly Groundwater for Background

**Table 2.5.2.1-1
Water Quality of Groundwater in the Mill Vicinity**

Parameter	FES, Test Well (G2R) (1/27/77 - 3/23/78¹)	Well #2 6/01/99¹	Well #5 6/08/99¹
Field Specific Conductivity (umhos/cm)	310 to 400		
Field pH	6.9 to 7.6		
Temperature (°C)	11 to 22		
Estimated Flow m/hr (gpm)	109(20)		
pH	7.9 to 8.16		
Determination, mg/liter			
TDS (@180°C)	216 to 1110		
Redox Potential	211 to 220		
Alkalinity (as CaCO ₃)	180 to 224		
Hardness, total (as CaCO ₃)	177 to 208		
Bicarbonate		226	214
Carbonate (as CO ₃)	0.0	<1.0	<1.0
Aluminum		0.003	0.058
Aluminum, dissolved	<0.1		
Ammonia (as N)	0.0 to 0.16	<0.05	<0.05
Antimony		<0.001	<0.001
Arsenic, total	.007 to 0.014	0.018	<0.001
Barium, total	0.0 to 0.15	0.119	0.005
Beryllium		<0.001	<0.001
Boron, total	<0.1 to 0.11		
Cadmium, total	<0.005 to 0.0	<0.001	0.018
Calcium		50.6	39.8
Calcium, dissolved	51 to 112		
Chloride	0.0 to 50	<1.0	2.3
Sodium		7.3	9.8
Sodium, dissolved	5.3 to 23		
Silver		<0.001	<0.001
Silver, dissolved	<0.002 to 0.0		
Sulfate		28.8	23.6
Sulfate, dissolved (as SO ₄)	17 to 83		
Vanadium		0.003	0.003
Vanadium, dissolved	<.002 to 0.16		
Manganese		0.011	0.032
Manganese, dissolved	0.03 to 0.020		
Chromium, total	0.02 to 0.0	0.005	0.005
Copper, total	0.005 to 0.0	0.002	0.086
Fluoride		0.18	0.18
Fluoride, dissolved	0.1 to 0.22		
Iron, total	0.35 to 2.1	0.43	0.20
Iron, dissolved	0.30 to 2.3		
Lead, total	0.02 - 0.0	<0.001	0.018
Magnesium		20.4	21.3
Magnesium, dissolved	15 to 21		
Mercury, total	<.00002 to 0.0	<0.001	<0.001
Molybdenum		0.001	<0.001

¹ Zero values (0.0) are below detection limits.

Parameter	FES, Test Well (G2R) (1/27/77 - 3/23/78 ¹)	Well #2 6/01/99 ¹	Well #5 6/08/99 ¹
Molybdenum, dissolved	0.004 to 0.010		
Nickel		<0.001	0.004
Nitrate + Nitrate as N		<0.10	<0.10
Nitrate (as N)	<.05 to 0.12		
Phosphorus, total (as P)	<0.01 to 0.03		
Potassium		3.1	3.3
Potassium, dissolved	2.4 to 3.2		
Selenium		<0.001	<0.001
Selenium, dissolved	<.005 to 0.0		
Silica, dissolved (as SiO ₂)	5.8 to 12		
Strontium, total	0.5 to 0.67		
Thallium		<0.001	<0.001
Uranium, total (as U)	<.002 to 0.16	0.0007	0.0042
Uranium, dissolved (as U)	<.002 to 0.031		
Zinc		0.010	0.126
Zinc, dissolved	0.007 to 0.39		
Total Organic Carbon	1.1 to 16		
Chemical Oxygen Demand	<1 to 66		
Oil and Grease	1		
Total Suspended Solids	6 to 1940	<1.0	10.4
Turbidity		5.56	19.1
Determination (pCi/liter)			
Gross Alpha			<1.0
Gross Alpha ± precision	1.6±1.3 to 10.2±2.6		
Gross Beta			<2.0
Gross Beta ± precision	8±8 to 73±19		
Radium 226 ± precision			0.3±0.2
Radium 228			<1.0
Ra-226 ± precision	0.1±.3 to 0.6±0.4		
Th-230 ± precision	0.1±0.4 to 0.7±2.7		
Pb-210 ± precision	0.0±4.0 to 1.0±2.0		
Po-210 ± precision	0.0±0.3 to 0.0±0.8		

Source: Adapted from FES Table 2.25 with additional Mill sampling data

**Table 2.5.3-1
Results of Quarterly Sampling
Ruin Spring (2003-2004)**

Parameter	Ruin Spring							
	Q1-03	Q2-03	Q3-03	Q4-3	Q1-04	Q2-04	Q3-04	Q4-04
Major Ions (mg/L)								
Alkalinity	-	-	196	198	193	191	195	183
Carbon Dioxide	-	-	ND	ND	ND	ND	12	ND
Carbonate	-	-	ND	ND	ND	ND	ND	ND
Bicarbonate	-	-	239	241	235	232	238	223
Hydroxide	-	-	ND	ND	ND	ND	ND	ND
Calcium	153	156	149	158	158	162	176	186
Chloride	28.1	21.5	27.4	28.0	29.3	28.5	26	25
Fluoride	-	-	ND	0.5	0.5	0.6	0.6	0.6
Magnesium	34.8	34.2	31.7	34.2	35.8	35.1	37.1	38.6
Nitrogen, Ammonia As N	ND	ND	ND	ND	ND	0.06	ND	0.06
Nitrogen, Nitrate+Nitrite as N	1.6	1.5	1.4	1.4	1.73	1.85	1.34	1.7
Phosphorous	0.10	ND	-	ND	ND	ND	ND	ND
Potassium	2.6	3.3	3.3	3.9	3.4	3.6	4.0	3.7
Sodium	110	105	103	113	104	110	113	116
Sulfate	503	501	495	506	539	468	544	613
Physical Properties								
Conductivity (umhos/cm)	-	-	1440	1410	1390	1440	1320	1570
pH	-	-	7.91	7.98	-	-	-	-
TDS (mg/L)	-	-	1040	1000	1050	1110	1050	1070
TSS (mg/L)	-	-	13.5	ND	ND	ND	ND	ND
Turbidity (NTU)	-	-	0.16	0.13	ND	0.12	-	-
Metals-Dissolved (mg/L)								
Aluminum	ND	ND	0.40	ND	ND	ND	ND	ND
Antimony	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	0.001	ND	ND	0.001	ND	ND	ND	ND
Barium	ND	ND	ND	ND	ND	ND	ND	ND
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	ND	ND	ND	ND	ND	ND	ND	ND
Copper	ND	ND	0.082	ND	ND	ND	ND	ND
Iron	ND	ND	ND	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	ND	ND	ND	ND	ND	ND	ND	ND
Molybdenum	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	0.013	0.012	0.012	0.012	0.012	0.012	0.012	0.012
Silver	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	ND	ND	ND	ND	ND	ND	ND	ND
Uranium	0.009	0.011	0.010	0.010	0.011	0.011	0.009	0.010
Vanadium	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	0.014	ND	ND	ND	ND	ND	ND	ND
Radionuclides (pCi/L)								
Gross Alpha Minus Rn & U	-	-	-	-	ND	ND	1.4	ND
Lead 210	42	ND	ND	ND	ND	ND	ND	ND
Radium 226	0.3	ND	0.3	ND	ND	ND	1.3	ND
Thorium 230	0.3	0.2	0.5	ND	ND	ND	0.4	ND
Thorium 232	-	-	ND	ND	ND	ND	ND	-
Thorium 228	-	-	ND	ND	ND	ND	-	-

**Table 2.5.3-2
Results of Annual Sampling
Ruin Spring (2009-2011)**

Ruin Spring						
Constituent	2009	2010	2011 - May	2011 - July	Range of Average Historic Values for Monitoring Wells ¹ *	Ave 2003- 2004 ²
Major Ions (mg/l)						
Carbonate	<1	<1	<1	1	--	--
Bicarbonate	233	254	241	239	--	--
Calcium	151	136	145	148	--	--
Chloride	28	23	25	44	ND - 213	27
Fluoride	0.5	0.53	0.45	0.5	ND - 1.3	0.6
Magnesium	32.3	29.7	30.6	31.1	--	--
Nitrogen- Ammonia	0.09	<0.05	ND	<0.05	--	--
Nitrogen-Nitrate	1.4	1.7	1.7	1.6	--	--
Potassium	3.3	3.07	3.2	3.3	--	--
Sodium	104	93.4	110	111	--	--
Sulfate	528	447	486	484	ND - 3455	521
pH (s.u.)	7.85	7.51	7.66	8.14	6.7 - 8.9	7.9
TDS	1010	903	942	905	1019 - 5548	1053
Metals (ug/l)						
Arsenic	<5	<5	<5	<5	--	--
Beryllium	< 0.5	< 0.5	< 0.5	< 0.5	--	--
Cadmium	<0.5	<0.5	<0.5	<0.5	ND - 4.78	0.01
Chromium	<25	<25	<25	<25	--	--
Cobalt	<10	<10	<10	<10	--	--
Copper	<10	<10	<10	<10	--	--
Iron	<30	<30	<30	<30	ND - 7942	25
Lead	<1.0	<1.0	<1.0	<1.0	--	--
Manganese	<10	<10	<10	<10	ND - 34,550	5
Mercury	<0.5	<0.5	<0.5	<0.5	--	--
Molybdenum	17	17	16	17	--	--
Nickel	<20	<20	<20	<20	ND - 61	0.05
Selenium	12.2	10	11.8	10.2	ND - 106.5	12.1
Silver	<10	<10	<10	<10	--	--
Thallium	<0.5	<0.5	<0.5	<0.5	--	--
Tin	<100	<100	<100	<100	--	--
Uranium	9.11	8.47	9.35	8.63	ND - 59.8	10
Vanadium	<15	<15	<15	<15	--	--
Zinc	<10	<10	<10	<10	--	--

Radiologics (pCi/l)						
Gross Alpha	<0.2	<0.2	<-0.3	<-0.05	ND - 36	0.28
VOCS (ug/L)						
Acetone	<20	<20	ND	ND	--	--
Benzene	<1.0	<1.0	ND	ND	--	--
Carbon tetrachloride	<1.0	<1.0	ND	ND	--	--
Chloroform	<1.0	<1.0	ND	ND	--	--
Chloromethane	<1.0	<1.0	ND	ND	--	--
MEK	<20	<20	ND	ND	--	--
Methylene Chloride	<1.0	<1.0	ND	ND	--	--
Naphthalene	<1.0	<1.0	ND	ND	--	--
Tetrahydrofuran	<1.0	<1.0	ND	ND	--	--
Toluene	<1.0	<1.0	ND	ND	--	--
Xylenes	<1.0	<1.0	ND	ND	--	--

¹ From Figure 3, Table 10 and Appendix B of the *Revised Addendum, Background Groundwater Quality Report: New Wells for Denison Mines (USA) Corp.'s White Mesa Mill Site, San Juan County, Utah*, April 30, 2008, prepared by INTERA, Inc. and Table 16 and Appendix D of the *Revised Background Groundwater Quality Report: Existing Wells for Denison Mines (USA) Corp.'s White Mesa Uranium Mill Site, San Juan County, Utah*, October 2007, prepared by INTERA, Inc.

² From Figure 9 of the *Revised Addendum, Evaluation of Available Pre-Operational and Regional Background Data, Background Groundwater Quality Report: Existing Wells for Denison Mines (USA) Corp.'s White Mesa Mill Site, San Juan County, Utah*, November 16, 2007, prepared by INTERA, Inc.

*Range of average historic values for On-Site Monitoring Wells as reported on April 30, 2008 (MW-1, MW-2, MW-3, MW-3A, MW-4, MW-5, MW-11, MW-12, MW-14, MW-15, MW-17, MW-18, MW-19, MW-20, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-29, MW-30, MW-31 and MW-32)²

**Table 2.5.3-3
Results of Annual Sampling
Cottonwood Seep (2009-2011)**

Cottonwood Seep						
Constituent	2009	2010	2011 - May	2011 - July	Range of Average Historic Values for Monitoring Wells ^{1*}	Ave 1977 - 1982 ¹
Major Ions (mg/l)						
Carbonate	<1	<1	<1	6	--	--
Bicarbonate	316	340	330	316	--	--
Calcium	90.3	92.2	95.4	94.2	--	--
Chloride	124	112	113	134	ND - 213	31
Fluoride	0.4	0.38	0.34	0.38	ND - 1.3	0.8
Magnesium	25	24.8	25.2	25.2	--	--
Nitrogen-Ammonia	<0.05	<0.05	<0.05	<0.05	--	--
Nitrogen-Nitrate	0.1	<0.1	0.1	<0.1	--	--
Potassium	5.7	5.77	6	5.9	--	--
Sodium	205	214	229	227	--	--
Sulfate	383	389	394	389	ND - 3455	230
pH (s.u.)	7.73	7.47	7.55	8.04	6.7 - 8.9	7.6
TDS	1010	900	1030	978	1019 - 5548	811
Metals (ug/l)						
Arsenic	<5	<5	<5	<5	--	--
Beryllium	<0.5	<0.5	<0.5	<0.5	--	--
Cadmium	<0.5	<0.5	<0.5	<0.5	ND - 4.78	--
Chromium	<25	<25	<25	<25	--	--
Cobalt	<10	<10	<10	<10	--	--
Copper	<10	<10	<10	<10	--	--
Iron	<30	<30	53	<30	ND - 7942	150
Lead	<1.0	<1.0	<1.0	<1.0	--	--
Manganese	<10	<10	<10	<10	ND - 34,550	580
Mercury	<0.5	<0.5	<0.5	<0.5	--	--
Molybdenum	<10	<10	<10	<10	--	--
Nickel	<20	<20	<20	<20	ND - 61	--
Selenium	<5.0	<5.0	<5.0	<5.0	ND - 106.5	--
Silver	<10	<10	<10	<10	--	--
Thallium	<0.5	<0.5	<0.5	<0.5	--	--
Tin	<100	<100	<100	<100	--	--
Uranium	8.42	8.24	7.87	8.68	ND - 59.8	--
Vanadium	<15	<15	<15	<15	--	--
Zinc	<10	<10	<10	<10	--	--

Radiologics (pCi/l)						
Gross Alpha	<0.2	<0.2	<0.1	<-0.1	ND - 36	7.2
VOCS (ug/L)						
Acetone	<20	<20	ND	ND	--	--
Benzene	<1.0	<1.0	ND	ND	--	--
Carbon tetrachloride	<1.0	<1.0	ND	ND	--	--
Chloroform	<1.0	<1.0	ND	ND	--	--
Chloromethane	<1.0	<1.0	ND	ND	--	--
MEK	<20	<20	ND	ND	--	--
Methylene Chloride	<1.0	<1.0	ND	ND	--	--
Naphthalene	<1.0	<1.0	ND	ND	--	--
Tetrahydrofuran	<1.0	<1.0	ND	ND	--	--
Toluene	<1.0	<1.0	ND	ND	--	--
Xylenes	<1.0	<1.0	ND	ND	--	--

¹ From Figure 3, Table 10 and Appendix B of the *Revised Addendum, Background Groundwater Quality Report: New Wells for Denison Mines (USA) Corp's White Mesa Mill Site, San Juan County, Utah*, April 30, 2008, prepared by INTERA, Inc. and Table 16 and Appendix D of the *Revised Background Groundwater Quality Report: Existing Wells for Denison Mines (USA) Corp.'s White Mesa Uranium Mill Site, San Juan County, Utah*, October 2007, prepared by INTERA, Inc.

*Range of average historic values for On-Site Monitoring Wells as reported on April 30, 2008 (MW-1, MW-2, MW-3, MW-3A, MW-4, MW-5, MW-11, MW-12, MW-14, MW-15, MW-17, MW-18, MW-19, MW-20, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-29, MW-30, MW-31 and MW-32)

**Table 2.5.3-4
Results of Annual Sampling
Westwater Seep (2009-2011)**

Westwater Seep					
Constituent	2009	2010	2011 - May	2011 - July	Range of Average Historic Values for Monitoring Wells ¹ *
Major Ions (mg/l)					
Carbonate	<1	<1	<1	Not Sampled - Dry	--
Bicarbonate	465	450	371		--
Calcium	191	179	247		--
Chloride	41	40	21		ND - 213
Fluoride	0.7	0.6	0.54		ND - 1.3
Magnesium	45.9	44.7	34.7		--
Nitrogen-Ammonia	<0.05	0.5	0.06		--
Nitrogen-Nitrate	0.8	<0.1	<0.1		--
Potassium	1.19	6.57	3.9		--
Sodium	196	160	112		--
Sulfate	646	607	354		ND - 3455
pH (s.u.)	8.01	7.38	7.2		6.7 - 8.9
TDS	1370	1270	853		1019 - 5548
Metals (ug/l)					
Arsenic	<5	<5	12.3	Not Sampled - Dry	--
Beryllium	<0.5	<0.5	0.91		--
Cadmium	<0.5	<0.5	0.9		ND - 4.78
Chromium	<25	<25	<25		--
Cobalt	<10	<10	<10		--
Copper	<10	<10	16		--
Iron	89	56	4540		ND - 7942
Lead	<1.0	<1.0	41.4		--
Manganese	37	87	268		ND - 34,550
Mercury	<0.5	<0.5	<0.5		--
Molybdenum	29	29	<10		--
Nickel	<20	<20	29		ND - 61
Selenium	<5.0	<5.0	<5.0		ND - 106.5
Silver	<10	<10	<10		--
Thallium	<0.5	<0.5	<0.5		--
Tin	<100	<100	<100		--
Uranium	15.1	46.6	6.64		ND - 59.8
Vanadium	<15	<15	34		--
Zinc	<10	<10	28		--

Radiologics (pCi/l)					
Gross Alpha	< -0.1	<0.3	0.5	Not Sampled - Dry	ND - 36
VOCS (ug/L)					
Acetone	<20	<20	ND	Not Sampled - Dry	--
Benzene	<1.0	<1.0	ND		--
Carbon tetrachloride	<1.0	<1.0	ND		--
Chloroform	<1.0	<1.0	ND		--
Chloromethane	<1.0	<1.0	ND		--
MEK	<20	<20	ND		--
Methylene Chloride	<1.0	<1.0	ND		--
Naphthalene	<1.0	<1.0	ND		--
Tetrahydrofuran	<1.0	<1.0	ND		--
Toluene	<1.0	<1.0	ND		--
Xylenes	<1.0	<1.0	ND		--

¹ From Figure 3, Table 10 and Appendix B of the *Revised Addendum, Background Groundwater Quality Report: New Wells for Denison Mines (USA) Corp's White Mesa Mill Site, San Juan County, Utah*, April 30, 2008, prepared by INTERA, Inc. and Table 16 and Appendix D of the *Revised Background Groundwater Quality Report: Existing Wells for Denison Mines (USA) Corp.'s White Mesa Uranium Mill Site, San Juan County, Utah*, October 2007, prepared by INTERA, Inc.

*Range of average historic values for On-Site Monitoring Wells as reported on April 30, 2008 (MW-1, MW-2, MW-3, MW-3A, MW-4, MW-5, MW-11, MW-12, MW-14, MW-15, MW-17, MW-18, MW-19, MW-20, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-29, MW-30, MW-31 and MW-32)

**Table 2.5.3-5
Results of Annual Sampling
Entrance Spring (2009-2011)**

Entrance Spring					
Constituent	2009	2010	2011 - May	2011 - July	Range of Average Historic Values for Monitoring Wells ^{1*}
Major Ions (mg/l)					
Carbonate	<1	<1	<1	7	--
Bicarbonate	292	332	270	299	--
Calcium	90.8	96.5	88.8	96.6	--
Chloride	60	63	49	64	ND - 213
Fluoride	0.7	0.73	0.58	0.58	ND - 1.3
Magnesium	26.6	28.9	26.4	28.4	--
Nitrogen-Ammonia	0.28	<0.05	<0.05	0.32	--
Nitrogen-Nitrate	1.4	1	1.4	0.5	--
Potassium	2.4	2.74	2.6	2.9	--
Sodium	61.4	62.7	62.5	68.6	--
Sulfate	178	179	166	171	ND - 3455
pH (s.u.)	7.85	7.56	7.96	8.17	6.7 - 8.9
TDS	605	661	571	582	1019 - 5548
Metals (ug/l)					
Arsenic	<5	<5	<5	<5	--
Beryllium	<0.5	<0.5	<0.5	<0.5	--
Cadmium	<0.5	<0.5	<0.5	<0.5	ND - 4.78
Chromium	<25	<25	<25	<25	--
Cobalt	<10	<10	<10	<10	--
Copper	<10	<10	<10	<10	--
Iron	<30	<30	37	55	ND - 7942
Lead	<1.0	<1.0	<1.0	<1.0	--
Manganese	54	11	47	84	ND - 34,550
Mercury	<0.5	<0.5	<0.5	<0.5	--
Molybdenum	<10	<10	<10	<10	--
Nickel	<20	<20	<20	<20	ND - 61
Selenium	12.1	9.2	13.1	5.5	ND - 106.5
Silver	<10	<10	<10	<10	--
Thallium	<0.5	<0.5	<0.5	<0.5	--
Tin	<100	<100	<100	<100	--
Uranium	15.2	17.8	18.8	15.3	ND - 59.8
Vanadium	<15	<15	<15	<15	--
Zinc	<10	<10	<10	<10	--

Radiologics (pCi/l)					
Gross Alpha	0.9	<0.5	1.5	1.6	ND - 36
VOCS (ug/L)					
Acetone	<20	<20	ND	ND	--
Benzene	<1.0	<1.0	ND	ND	--
Carbon tetrachloride	<1.0	<1.0	ND	ND	--
Chloroform	<1.0	<1.0	ND	ND	--
Chloromethane	<1.0	<1.0	ND	ND	--
MEK	<20	<20	ND	ND	--
Methylene Chloride	<1.0	<1.0	ND	ND	--
Naphthalene	<1.0	<1.0	ND	ND	--
Tetrahydrofuran	<1.0	<1.0	ND	ND	--
Toluene	<1.0	<1.0	ND	ND	--
Xylenes	<1.0	<1.0	ND	ND	--

¹ From Figure 3, Table 10 and Appendix B of the *Revised Addendum, Background Groundwater Quality Report: New Wells for Denison Mines (USA) Corp's White Mesa Mill Site, San Juan County, Utah*, April 30, 2008, prepared by INTERA, Inc. and Table 16 and Appendix D of the *Revised Background Groundwater Quality Report: Existing Wells for Denison Mines (USA) Corp.'s White Mesa Uranium Mill Site, San Juan County, Utah*, October 2007, prepared by INTERA, Inc.

*Range of average historic values for On-Site Monitoring Wells as reported on April 30, 2008 (MW-1, MW-2, MW-3, MW-3A, MW-4, MW-5, MW-11, MW-12, MW-14, MW-15, MW-17, MW-18, MW-19, MW-20, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-29, MW-30, MW-31 and MW-32)

Table 2.9.1.3-1
Groundwater Monitoring Constituents Listed in Table 2 of the Permit

Nutrients:

Ammonia (as N)
Nitrate & Nitrite (as N)

Heavy Metals:

Arsenic
Beryllium
Cadmium
Chromium
Cobalt
Copper
Iron
Lead
Manganese
Mercury
Molybdenum
Nickel
Selenium
Silver
Thallium
Tin
Uranium
Vanadium
Zinc

Radiologics:

Gross Alpha

Volatile Organic Compounds:

Acetone
Benzene
2-Butanone (MEK)
Carbon Tetrachloride
Chloroform
Chloromethane
Dichloromethane
Naphthalene
Tetrahydrofuran
Toluene
Xylenes (total)

Others:

Field pH (S.U.)
Fluoride
Chloride
Sulfate
TDS

**Table 2.13.1-1
Drainage Areas of Mill Vicinity and Region**

Basin Description	Drainage Area	
	sq. miles	km²
Corral Creek at confluence with Recapture Creek	5.8	15.0
Westwater Creek at confluence with Cottonwood Wash	26.6	68.8
Cottonwood Wash at USGS Gauge west of project site	≈ 205	<531
Cottonwood Wash at confluence with San Juan River	≈ 332	<860
Recapture Creek at USGS gauge	3.8	9.8
Recapture Creek at confluence with San Juan River	≈ 200	<518
San Juan River at USGS gauge downstream at Bluff, Utah	≈ 23,000	<60,000

Source: Adapted from 1978 ER, Table 2.6-3