

TABLE 3-4
SUMMARY OF FIELD, MAJOR ION AND INDICATOR PARAMETER DATA
GROUNDWATER

Well No.	Date	Temp	Eh	pH	DO	Cond	Turb	Color	Alk	Hardness	HCO3	CO3	TDS	Cl	SO4	Br	B	Cr	NO3	NH4	TKN	COD	BOD	TOC	Phenols	CN	
Overburden Wells																											
Water Quality Standards:																											
Gray Till Triggers:																											
MW-21S	4/9/2008	5.8	182	7.19	8.54	0.809	790	22	350	698000	851.6	0.65	480	16.50	56.3	<20	<500	<0.01	6.63	<0.5	<0.5	21	<12	<3	<10	<0.01	
MW-22S	4/8/2008	6.3	133	7.47	11.91	0.454	372	7	230	300000	366.0	0.53	292	5.40	20.2	<20	<500	<0.01	1.12	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-23I	4/7/2008	9.1	-118	8.24	5.00	0.285	52	24	170	109000	133.0	1.12	202	1.61	6.66	<0.2	<500	<0.01	<0.2	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-23S	4/7/2008	4.2	-102	7.79	6.26	0.423	292	24	320	360000	439.2	0.39	475	5.02	28.3	<20	<500	<0.01	<0.2	<0.5	0.57	<20	<4	4.1	<10	<0.01	
MW-24I	4/7/2008	9.1	-92	7.80	3.84	0.423	53.7	20	200	214000	261.1	0.81	262	3.45	40.3	<0.2	<500	<0.01	<0.2	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-24S	4/7/2008	3.9	51	7.22	10.21	0.592	210	22	260	294000	358.7	0.29	398	7.37	68	<20	<500	<0.01	0.477	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-25S	4/7/2008	6.1	62	7.84	8.84	0.702	431	22	280	440000	536.8	1.82	1630	7.63	65.9	<20	<500	<0.04	0.379	<0.5	<0.5	<20	9	<3	<10	<0.01	
MW-26S	4/8/2008	9.0	90	7.61	8.57	0.562	948	21	250	340000	414.8	0.83	778	4.83	102	<20	<500	<0.04	<0.2	<0.5	<0.5	<20	9	4.4	<10	<0.01	
MW-27S	4/9/2008	8.8	201	9.06	6.98	1.280	570	72	420	893000	1089.5	55.3	820	13.30	240	<20	<500	<0.01	0.989	<0.5	<0.5	<20	<4	49	<10	<0.01	
MW-28S	4/9/2008	7.5	212	7.29	8.64	0.548	187	20	290	312000	380.6	0.37	380	7.07	43.1	<0.2	<500	<0.01	0.783	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-28S	4/9/2008	7.5	212	7.29	8.64	0.548	187	12	310	366000	446.5	0.43	384	6.98	46.8	<0.2	<500	<0.01	0.881	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-29S	4/8/2008	6.7	-61	7.14	9.58	0.530	705	19	280	419000	511.2	0.35	525	2.02	33.9	<200	<500	<0.01	<0.2	<0.5	<0.5	<20	<4	<3	<10	<0.01	
Averages:																											
		7.0	56	7.67	8.09	0.597	393.1	39	276	382231	466.3	5.03	532	6.41	62.6	N/A	N/A	N/A	1.61	N/A	0.57	21	9	19.2	N/A	N/A	
Bedrock Wells																											
Water Quality Standards:																											
Bedrock Triggers:																											
MW-20	4/8/2008	6.0	181	7.26	7.17	0.911	58.7	19	270	640000	780.8	0.70	572	7.02	215	<20	<500	<0.01	1.51	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-21D	4/9/2008	7.8	193	6.73	10.20	1.120	38.3	10	380	595000	725.9	0.19	560	26.10	130	<2	<500	<0.01	3.81	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-22D	4/8/2008	8.9	-38	7.55	8.90	0.463	9.1	25	240	240000	292.8	0.51	227	7.05	57.7	<0.2	<500	<0.01	0.383	<0.5	<0.5	<20	<4	6.2	<10	<0.01	
MW-23D	4/7/2008	8.3	-124	7.94	4.41	0.412	18.3	21	190	184000	224.5	0.96	250	2.73	30.4	<20	<500	<0.01	<0.2	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-25D	4/7/2008	9.7	-100	7.23	4.16	0.900	18.2	210	430	515000	628.3	0.53	585	21.20	73.5	<20	<500	<0.01	<0.2	<0.5	0.661	<20	<4	14.7	<10	<0.01	
MW-26D	4/8/2008	9.3	47	7.20	5.82	0.494	8.2	12	260	300000	366.0	0.29	273	3.81	31.2	<0.2	<500	<0.01	0.262	<0.5	<0.5	<20	8	<3	<10	<0.01	
MW-27D	4/9/2008	9.7	190	6.82	7.21	1.550	41	7	460	1010000	1232.2	0.40	1180	6.75	635	<0.2	<500	<0.01	1.71	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-28D	4/9/2008	9.7	209	7.07	7.75	0.707	132	13	390	453000	552.7	0.32	404	3.98	41.9	<0.2	<500	<0.01	1.11	<0.5	<0.5	<20	<4	<3	<10	<0.01	
MW-29D	4/8/2008	8.9	29	7.09	8.45	0.432	21.3	11	230	260000	317.2	0.19	312	3.16	38.1	<0.2	<500	<0.01	0.316	<0.5	<0.5	<20	11	<3	<10	<0.01	
Averages:																											
		8.7	65.22	7.21	7.12	0.777	38.3	36	317	466333	568.9	0.45	485	9.09	139.2	N/A	N/A	N/A	1.30	N/A	0.7	39.0	9.5	10.5	N/A	N/A	

Notes: Exceedances of trigger levels established for the existing facility are noted in bold. Exceedances of water quality standards are highlighted.

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GROUNDWATER

Well No.	Date	Al	Sb	As	Ba	Be	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Ni	K	Na	Se	Si	Tl	V	Zn
Overburden Wells																								
Water Quality Standards:																								
Gray Till Triggers:																								
MW-21S	4/9/2008	NA	3	25	1000	3	10	NA	50	NA	200	300	25	35000	300	2	NA	NA	20000	10	50	4	NA	300
MW-22S	4/8/2008	<100	<15	<10	<50	<3	<5	87000	15.8	<20	17.7	<60	<3	79300	888	<0.2	<30	3700	12700	<5	<10	<10	<30	86.1
MW-23I	4/7/2008	<100	<15	<10	<50	<3	<5	46600	6.51	<20	<10	<60	<3	34600	<10	<0.2	<30	<1000	2360	<5	60.6	<10	<30	13.4
MW-23S	4/7/2008	<100	<15	<10	<50	<3	<5	18900	<5	<20	<10	<60	<3	15200	10.5	<0.2	<30	2280	21600	<5	<10	<10	<30	10.7
MW-24I	4/7/2008	<100	<15	<10	187	<3	<5	77000	11.9	<20	<10	<60	<3	34200	325	<0.2	<30	1240	6250	<5	<10	<10	<30	14.6
MW-24S	4/7/2008	<100	<15	<10	166	<3	<5	41600	23.2	<20	<10	2970	<3	25400	15.1	<0.2	<30	3330	16900	<5	<10	<10	<30	12.3
MW-25S	4/7/2008	<100	<15	<10	112	7.61	7.63	57100	19.4	<20	15	6240	<3	33400	163	<0.2	<30	1270	28400	<5	57.5	<10	<30	28
MW-26S	4/8/2008	9810	<15	<10	193	<3	<5	52800	<5	<20	<10	<60	<3	50600	362	<0.2	<30	5980	21700	<5	<10	<10	<30	29.3
MW-27S	4/9/2008	<100	<15	<10	137	<3	<5	57900	15.9	<20	<10	8560	<3	47400	35.8	<0.2	<30	6990	18100	<5	<10	<10	<30	13.9
MW-28S	4/9/2008	<100	<15	<10	107	<3	<5	167000	<5	<20	<10	<60	<3	77300	391	<0.2	<30	2030	8520	<5	<10	<10	<30	84.2
MW-28S	4/9/2008	<100	<15	<10	<50	<3	<5	62400	<5	<20	13.6	<60	<3	40700	53.4	<0.2	<30	2340	5100	<5	<10	<10	<30	33.6
MW-29S	4/8/2008	8090	<15	<10	<50	<3	<5	72300	8.01	<20	<10	1770	<3	45100	21.5	<0.2	<30	2620	5790	<5	<10	<10	<30	31.1
Averages:		8282.5	N/A	N/A	130.7111111	7.61	7.63	64938	14.38857143	N/A	14.725	5615	N/A	41838	226.9	N/A	N/A	3185	12373	N/A	59.05	N/A	N/A	30.74166667
Bedrock Wells																								
Water Quality Standards:																								
Bedrock Triggers:																								
MW-20	4/8/2008	2760	<15	<10	67.4	<3	<5	107000	10.9	<20	<10	4120	<3	55100	119	<0.2	<30	1640	10300	<5	<10	<10	<30	10.5
MW-21D	4/9/2008	<100	<15	<10	73	<3	<5	132000	<5	<20	16.3	<60	<3	57400	136	<0.2	<30	2820	14200	<5	<10	<10	<30	<10
MW-22D	4/8/2008	<100	<15	<10	58.8	<3	<5	47500	33.6	<20	<10	1010	<3	28900	<10	<0.2	<30	1510	17500	<5	<10	<10	<30	<10
MW-23D	4/7/2008	223	<15	<10	131	<3	<5	40100	<5	<20	<10	<60	<3	20600	39.2	<0.2	<30	1550	7290	<5	<10	<10	<30	<10
MW-25D	4/7/2008	<100	<15	<10	242	<3	<5	113000	7.34	<20	<10	2120	<3	56400	128	<0.2	<30	2740	11400	<5	<10	<10	<30	<10
MW-26D	4/8/2008	<100	<15	<10	68.8	<3	<5	51200	12.4	<20	<10	<60	<3	32300	80.3	<0.2	<30	1640	5130	<5	<10	<10	<30	18.3
MW-27D	4/9/2008	<100	<15	<10	71.4	<3	<5	225000	<5	<20	10.9	795	<3	109000	784	0.229	<30	1530	7530	<5	<10	<10	<30	46.3
MW-28D	4/9/2008	160	<15	<10	99.6	<3	<5	96200	<5	<20	52.9	342	<3	46300	20.7	0.204	<30	1130	3170	<5	93.9	<10	<30	101
MW-29D	4/8/2008	<100	<15	<10	80.9	<3	<5	41000	15.4	<20	<10	2150	<3	27900	71.8	0.267	<30	2160	9670	<5	<10	<10	<30	14.6
Averages:		1048	N/A	N/A	99.2	N/A	N/A	94778	15.9	N/A	26.7	1756.2	N/A	48211	172.4	0.2	N/A	1858	9577	N/A	93.9	N/A	N/A	38.1

Notes: Exceedances
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