

ADDENDUM 3.4-D
SURFACE WATER QUALITY SAMPLE DATA

Uranium One - Wyoming Sampling Schedule

Ludeman 2008 & 2009

<u>2008</u>													<u>2009</u>											
<u>Location I.D.</u>	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
SW-1				4/24		6/19	7/18				11/3				3/9									
SW-2						6/17	7/31				DRY				3/9									
SW-3				DRY		6/17	DRY				DRY				3/9									
SW-4				DRY		6/17	7/23				DRY				DRY									
SW-5				DRY		DRY	DRY				DRY			DRY										
SW-6				4/21		6/20	7/24				11/10				3/17									
SW-7				4/24		6/30	7/29				DRY				DRY									
SW-8				4/21		6/30	7/23				DRY				3/5									
SW-9				4/5		6/30		8/21			11/10				3/5									
SW-10				4/5		6/30	7/23				11/10				3/2									
SW-11				DRY		6/17	7/24				DRY				DRY									
SW-12				4/5			7/24				11/5				3/16									
SW-13				DRY		6/17	7/24				DRY				3/16									
SW-14				DRY		DRY		DRY			DRY				DRY									
SW-15				DRY		6/18	DRY				DRY				DRY									

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SW-16				4/28		6/30	7/23				11/13				3/19									
SW-17				4/25		6/30		8/4			NA			2/25										
SW-18				DRY		6/18	DRY				DRY				DRY									
SW-19				4/29		6/20	7/21				11/13				3/27									
SW-20				DRY		6/18	7/21				11/20				3/27									
SW-21						6/18	7/21				11/20				3/27									
SW-22				4/5			7/21				11/13				3/19									
SW-23				4/5		6/20	7/22				11/10				3/9									
SW-24				4/21		6/19	7/18				11/3				3/9									
SW-25				4/29		6/19	7/18				11/3				3/9									
SW-26						6/18	7/22				11/10			2/24										
SW-27															DRY			DRY			DRY			DRY
SW-28															3/31			6/30			9/26			DRY
SW-29																4/20				DRY	DRY			DRY

ClientSampleID		Collection Date	A/C Balance (± 5) (DIS)	Anions (DIS)	Bicarbonate as HCO3 (DIS)	Carbonate as CO3 (DIS)	Cations (DIS)	Chloride (DIS)	Conductivity (DIS)	Fluoride (DIS)	pH (DIS)	Solids, Total Dissolved Calculated (DIS)	Solids, Total Dissolved TDS @ 180 C (DIS)	Solids, Total Suspended TSS @ 105 C	Sulfate (DIS)	Turbidity	Nitrogen, Ammonia as N (DIS)	Nitrogen, Nitrate+Nitrite as N (DIS)	Aluminum (DIS)	Arsenic (DIS)	Barium (DIS)	Boron (DIS)
			%	meq/L	mg/L	mg/L	meq/L	mg/L	umhos/cm	mg/L	s.u.	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Ludeman-SW-1		4/24/2008	3.84	41.6	507	1	38.6	77	3210	0.6	8.16	2550	2480	74	1490	50	0.05	0.05	0.1	0.007	0.1	0.3
		6/19/2008	1.65	27.5	419	7	28.5	1	2180	0.4	8.31	1730	1610	17	980	17.3	0.18	0.05	0.1	0.010	0.1	0.4
		7/18/2008	0.472	24.3	150	24	24.1	58	2060	0.4	9.04	1550	1520	16	933		0.05	0.05	0.1	0.008	0.1	0.2
		7/22/2008														11.7						
		11/3/2008	-3.48	51.9	283	6	48.4	66	3940	0.4	8.12	3300	3340	183	2170	101	0.1	0.05	0.1	0.002	0.1	0.3
		3/9/2009	-5.65	55.7	432	1	49.7	92	4330	0.7	8.34	3450	4110	68	2210	20.5	0.05	0.05	0.1	0.004	0.1	0.1
Average		-0.63	40.20	358.20	7.80	37.86	58.80	3144.00	0.50	8.30	2516.00	2612.00	71.60	1556.60	40.10	0.09	0.05	0.10	0.006	0.10	0.26	
Ludeman-SW-2		6/17/2008	31.8	2	35	1	1.03	1	73	0.1	7.35	122	383	64	68		0.47	0.05	3.5	0.007	0.1	0.1
		7/31/2008	1.16	2.2	79	1	2.15	1	143	0.2	7.74	151	548	400	43	761	0.05	0.05	0.4	0.003	0.1	0.1
		3/9/2009	1.11	1.35	43	1	1.38	4	146	0.1	7.41	272	215	628	21	254	0.23	1.17	0.1	0.003	0.1	0.1
	Average		11.36	1.85	52.33	1.00	1.52	2.00	120.67	0.13	7.47	181.67	382.00	364.00	44.00	507.50	0.25	0.42	1.33	0.004	0.10	0.10
Ludeman-SW-3		6/17/2008	22.1	1.19	36	1	0.76	1	66	0.1	6.59	74	125	62	29		0.05	0.05	1.3	0.003	0.1	0.1
		3/9/2009	6.76	0.846	47	1	0.969	1	84	0.1	7.4	71	153	90	4	36.9	0.05	0.05	0.1	0.001	0.1	0.1
	Average		14.43	1.02	41.50	1.00	0.86	1.00	75.00	0.10	6.83	72.50	139.00	76.00	16.50	36.90	0.05	0.05	0.70	0.002	0.10	0.10
Ludeman-SW-4		6/17/2008	24.1	1.3	39	1	0.796	1	68	0.1	7.18	78	169	26	32		0.08	0.05	1.6	0.003	0.1	0.1
		7/23/2008	2.74	0.977	54	1	1.03	1	96	0.1	7.63	124	270	30	4	331	0.25	0.05	0.1	0.004	0.1	0.1
	Average		13.42	1.14	46.50	1.00	0.91	1.00	82.00	0.10	7.35	101.00	219.50	28.00	18.00	331.00	0.17	0.05	0.85	0.004	0.10	0.10
Ludeman-SW-6		4/21/2008	8.72	1.62	96	1	1.93	1	163	0.1	8.7	93	159	104	2	44.1	0.05	0.05	0.1	0.005	0.1	0.1
		4/28/2008	0.429	69.8	152	19	69.2	123	5620	0.4	8.9	4690	4730	29	3030	11.2	0.07	0.05	<0.2	0.010	0.1	0.3
		6/20/2008	0.418	0.971	54	1	0.979	1	88	0.1	9.18	57	159	36	4	90.2	0.1	0.05	0.6	0.004	0.1	0.1
		7/24/2008	0.754	1.22	46	12	1.2	1	117	0.1	9.4	67	90	13	3	17.3	0.05	0.05	0.1	0.006	0.1	0.1
		11/10/2008	-2.4	2.45	129	1	2.33	1	140	0.1	7.48	156	181	35	16	73.1	3.8	0.06	0.1	0.009	0.1	0.1
		3/17/2009	5.65	0.845	50	1	0.947	1	82	0.1	9.23	53	74	30	1	34.5	0.05	0.05	0.1	0.006	0.1	0.1
	Average		2.26	12.82	87.83	5.83	12.76	21.33	1035.00	0.15	8.20	852.67	898.83	41.17	509.33	45.07	0.69	0.05	0.20	0.007	0.10	0.13
Ludeman-SW-7		4/24/2008	1.21	2.28	88	1	2.33	7	184	0.1	7.48	137	243	690	30	606	0.08	0.05	1	0.008	0.1	0.1
		6/30/2008	14.3	1.63	62	1	1.23	1	106	0.1	7.12	94	208	102	30	156	0.11	0.05	0.7	0.008	0.1	0.1
		7/29/2008	26.1	3.12	55	1	5.33	1	95	0.1	7.76	247	272	653	106	504	0.05	0.05	0.2	0.010	0.1	0.1
	Average		13.87	2.34	68.33	1.00	2.96	3.00	128.33	0.10	7.38	159.33	241.00	481.67	55.33	422.00	0.08	0.05	0.63	0.009	0.10	0.10
Ludeman-SW-8		4/21/2008	1.66	0.906	17	1	0.936	1	34	0.1	6.76	64	241	690	30	724	0.13	0.05	1.8	0.013	0.1	0.1
		6/30/2008	23.7	0.721	19	1	0.445	1	38	0.1	6.84	46	153	49	19	95.2	0.06	0.05	0.9	0.005	0.1	0.1
		7/23/2008	35.5	0.133	5	1	0.28	1	24	0.1	5.59	94	298	305	2	531	0.13	0.05	1.7	0.007	0.1	0.1
		3/5/2009	2.13	0.394	15	1	0.411	1	42	0.1	7.68	47	26	37	3	25.7	0.39	1.13	0.5	0.001	0.1	0.1
	Average		15.75	0.54	14.00	1.00	0.52	1.00	34.50	0.10	6.14	62.75	179.50	270.25	13.50	343.98	0.18	0.32	1.23	0.007	0.10	0.10
Ludeman-SW-9		4/4/2008	6.73	1.15	30	1	1.01	1	60	0.1	6.5	83	109	315	31	358	0.11	0.1	0.9	0.007	0.1	0.1
		6/30/2008	11.9	1.77	75	1	1.39	1	118	0.1	7.23	109	1300	630	26	2440	0.1	0.05	0.6	0.011	0.1	0.1
		8/21/2008	5.06	0.822	49	1	0.91	1	68	0.1	7.68	55	132	232	1	254	0.1	0.05	0.2	0.005	0.1	0.1
		11/10/2008	-8.63	0.918	37	1	0.772	1	38	0.1	6.88	191	334	346	15	478	0.1	0.05	0.3	0.005	0.1	0.1
		3/5/2009	5.55	0.868	46	1	0.97	1	86	0.1	7.92	145	96	657	5	192	1.09	0.14	0.3	0.011	0.1	0.1
	Average		4.12	1.11	47.40	1.00	1.01	1.00	74.00	0.10	6.97	116.60	394.20	436.00	15.60	744.40	0.30	0.08	0.46	0.008	0.10	0.10
Ludeman-SW-10		4/4/2008	4.89	2.84	154	1	3.13	1	249	0.2	7.41	156	180	222	14	193	0.12	0.1	0.2	0.004	0.1	0.1
		6/30/2008	6.56	2.42	114	1	2.12	1	180	0.2	7.81	127	179	56	26	130	0.05	0.05	0.1	0.003	0.1	0.1
		7/23/2008	2.28	3.61	184	1	3.78	1	319	0.3	7.64	206	191	252	28	284	1.96	0.05	0.1	0.005	0.1	0.1
		11/10/2008	5.56	3.52	174	1	3.94	1	298	0.3	7.51	286	330	592	31	337	0.4	0.06	0.1	0.005	0.1	0.1
		3/2/2009	1.92	2.78	117	1	2.89	2	279	0.2	7.36	160	147	92	25	38.9	1.					

ClientSampleID		Collection Date	Cadmium (DIS)	Calcium (DIS)	Chromium (DIS)	Copper (DIS)	Iron (DIS)	Lead (DIS)	Magnesium (DIS)	Manganese (DIS)	Mercury (DIS)	Molybdenum (DIS)	Nickel (DIS)	Potassium (DIS)	Selenium (DIS)	Silica (DIS)	Sodium (DIS)	Uranium (DIS)	Vanadium (DIS)	Zinc (DIS)	Iron (TOT)	Manganese (TOT)	Gross Alpha (DIS)	Gross Alpha MDC (DIS)
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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
Ludeman-SW-1		4/24/2008	0.005	256	0.05	0.01	0.03	0.001	145	0.02	0.001	0.1	0.05	17	0.003	5.6	308	0.1060	0.2	0.01	1.95	0.48	153	9.3
		6/19/2008	0.005	200	0.05	0.01	0.16	0.001	109	0.21	0.001	0.1	0.05	15	0.002	1	209	0.1140	0.1	0.01	0.76	0.21	178	8.3
		7/18/2008	0.005	140	0.05	0.01	0.03	0.001	91	0.08	0.001	0.1	0.05	21	0.002	<0.2	208	0.1230	0.1	0.01	0.77	0.18	248	6.2
		7/22/2008																						
		11/3/2008	0.005	319	0.05	0.01	0.03	0.001	203	0.87	0.001	0.1	0.05	24	0.001	0.9	348	0.0714	0.1	0.1	2.23	0.89	114	11.9
		3/9/2009	0.005	332	0.05	0.02	0.03	0.009	200	0.1	0.001	0.1	0.05	15	0.005	10.6	375	0.6490	0.1	0.04	0.9	0.2	1390	18
Average			0.005	249.40	0.05	0.01	0.06	0.003	149.60	0.26	0.001	0.10	0.05	18.40	0.003	4.53	289.60	0.2127	0.12	0.03	1.32	0.39	416.60	10.74
Ludeman-SW-2		6/17/2008	0.005	11	0.05	0.01	2.67	0.013	3	0.02	0.001	0.1	0.05	8	0.001	11.5	1	0.0027	0.1	0.03	17.4	0.06	17.8	1.1
		7/31/2008	0.005	26	0.05	0.01	14.1	0.001	6	0.01	0.001	0.1	0.05	13	0.001	39.9	1	0.0087	0.1	0.01	14.5	0.22	15.7	2.1
		3/9/2009	0.005	12	0.05	0.01	0.1	0.001	3	0.02	0.001	0.1	0.05	15	0.001	7.3	3	0.0005	0.1	0.01	20.2	0.26	3.5	1.4
	Average			0.005	16.33	0.05	0.01	5.62	0.005	4.00	0.02	0.001	0.10	0.05	12.00	0.001	19.57	1.67	0.0040	0.10	0.02	17.37	0.18	12.33
Ludeman-SW-3		6/17/2008	0.005	9	0.05	0.01	1.37	0.002	2	0.02	0.001	0.1	0.05	6	0.001	8.2	1	0.0003	0.1	0.01	7.15	0.04	6.5	1.1
		3/9/2009	0.005	8	0.05	0.01	0.11	0.001	2	0.01	0.001	0.1	0.05	14	0.001	8.6	1	0.0003	0.1	0.04	0.81	0.01	-0.01	1.2
	Average			0.005	8.50	0.05	0.01	0.74	0.002	2.00	0.02	0.001	0.10	0.05	10.00	0.001	8.40	1.00	0.0003	0.10	0.03	3.98	0.03	3.25
Ludeman-SW-4		6/17/2008	0.005	9	0.05	0.01	1.36	0.004	2	0.01	0.001	0.1	0.05	7	0.001	7.1	1	0.0008	0.1	0.01	7.24	0.03	6.2	1.1
		7/23/2008	0.005	12	0.05	0.01	0.35	0.001	2	0.03	0.001	0.1	0.05	8	0.001	13.1	1	0.0003	0.1	0.01	15.7	0.15	9	1.3
	Average			0.005	10.50	0.05	0.01	0.86	0.003	2.00	0.02	0.001	0.10	0.05	7.50	0.001	10.10	1.00	0.0006	0.10	0.01	11.47	0.09	7.60
Ludeman-SW-6		4/21/2008	0.005	24	0.05	0.01	0.14	0.001	5	0.02	0.001	0.1	0.05	11	0.001	3	1	0.0010	0.1	0.01	4.5	0.38	1.9	1.2
		4/28/2008	0.005	226	0.05	0.01	0.06	0.001	173	0.02	0.001	0.1	0.05	87	0.001	0.4	953	0.0145	0.1	0.01	0.11	0.08	3	16
		6/20/2008	0.005	12	0.05	0.01	1.42	0.002	2	0.04	0.001	0.1	0.05	6	0.001	4.1	1	0.0003	0.1	0.01	5.05	0.09	1.3	1.2
		7/24/2008	0.005	16	0.05	0.01	0.46	0.001	3	0.02	0.001	0.1	0.05	7	0.001	5.2	1	0.0004	0.1	0.01	2.5	0.09	3.3	1.1
		11/10/2008	0.005	25	0.05	0.01	0.08	0.001	6	0.3	0.001	0.1	0.05	14	0.001	9.8	1	0.0015	0.1	0.01	4.5	0.38	2.9	1.5
		3/17/2009	0.005	10	0.05	0.01	0.47	0.001	2	0.02	0.001	0.1	0.05	9	0.001	4	1	0.0004	0.1	0.01	2.28	0.11	-0.06	1.4
	Average			0.005	52.17	0.05	0.01	0.44	0.001	31.83	0.07	0.001	0.10	0.05	22.33	0.001	4.42	159.67	0.0030	0.10	0.01	3.16	0.19	2.06
Ludeman-SW-7		4/24/2008	0.005	20	0.05	0.06	2.47	0.063	8	0.3	0.001	0.1	0.05	14	0.001	7.9	2	0.0005	0.1	0.66	22.7	0.62	3.3	1.1
		6/30/2008	0.005	11	0.05	0.01	0.73	0.001	4	0.02	0.001	0.1	0.05	10	0.001	5.7	1	0.0003	0.1	0.01	12.5	0.25	1.5	1.2
		7/29/2008	0.005	43	0.05	0.01	0.25	0.001	14	0.01	0.001	0.1	0.05	8	0.001	10.7	41	0.0003	0.1	0.01	4.92	0.47	16.2	1.8
	Average			0.005	24.67	0.05	0.03	1.15	0.022	8.67	0.11	0.001	0.10	0.05	10.67	0.001	8.10	14.67	0.0004	0.10	0.23	13.37	0.45	7.00
Ludeman-SW-8		4/21/2008	0.005	6	0.05	0.01	4.29	0.017	1	0.19	0.001	0.1	0.05	6	0.001	6.2	1	0.0003	0.1	0.03	8.6	0.29	3	1.1
		6/30/2008	0.005	4	0.05	0.01	1.63	0.002	1	0.04	0.001	0.1	0.05	5	0.001	5.3	1	0.0003	0.1	0.01	8.65	0.17	3.2	1.1
		7/23/2008	0.005	1	0.05	0.01	1.94	0.003	1	0.02	0.001	0.1	0.05	5	0.001	25.9	1	0.0003	0.1	0.01	34.1	0.39	3.1	1
		3/5/2009	0.005	3	0.05	0.01	0.25	0.001	1	0.01	0.001	0.1	0.05	5	0.001	5.6	1	0.0003	0.1	0.01	1.83	0.04	0.5	1
	Average			0.005	3.50	0.05	0.01	2.03	0.006	1.00	0.07	0.001	0.10	0.05	5.25	0.001	10.75	1.00	0.0003	0.10	0.02	13.30	0.22	2.45

ClientSampleIDCollection Date		Gross Alpha precision (±)	Gross Beta (DIS)	Gross Beta MDC (DIS)	Gross Beta precision (±)	Lead 210 (DIS)	Lead 210 MDC (DIS)	Lead 210 precision (±)	Polonium 210 (DIS)	Polonium 210 precision (±)	Radium 226 (DIS)	Radium 226 MDC (DIS)	Radium 226 precision (±)	Radium 228 (DIS)	Radium 228 MDC (DIS)	Radium 228 precision (±)	Thorium 230 (DIS)	Thorium 230 precision (±)	Lead 210 (SUS)
		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
Ludeman-SW-1	4/24/2008		54	12.7		0			0.1		0.5	0.2		0.6	1		0.1		0
	6/19/2008	13.1	33	10.9	7.1	1.1	12	7.2	0.5	1	0.9	0.1	0.2	0.6	1.2	0.7	0	0.5	0.4
	7/18/2008	14.2	64.6	7.6	5.6	0	9.1	5.4	0	0.4	0.55	0.25	0.22	2.4	1.5	1	0.2	0.5	1.3
	7/22/2008																		
	11/3/2008	14.3	23	20	12.3	0	5.1	3	0.1	0.2	-0.02	0.25	0.14	0.7	1.1	0.7	0.2	0.4	2.4
	3/9/2009	54.5	289	28.2	21.4	1.1	3.2	1.9	0	0.2	0.19	0.19	0.14	0.5	1.1	0.7	0	0.1	3.6
Average		24.03	92.72	15.88	11.60	0.44	7.35	4.38	0.14	0.45	0.42	0.20	0.18	0.96	1.18	0.78	0.10	0.38	1.54
Ludeman-SW-2	6/17/2008		15.3	2.5		0.1	5.9		0.1		1.9	0.2		0.7	1.2		0.1		0.8
	7/31/2008	2.2	18.4	2.8	1.9	2.1	15.1	9	0.4	0.7	0.34	0.42	0.29	0	1.5	0.9	1	0.3	1
	3/9/2009	1.1	14.5	2.7	1.9	2.8	3.2	1.9	0.3	0.4	-0.1	0.23	0.11	0.3	1.3	0.8	0.07	0.1	6.1
	Average	1.65	16.07	2.67	1.90	1.67	8.07	5.45	0.27	0.55	0.71	0.28	0.20	0.33	1.33	0.85	0.39	0.20	2.63
Ludeman-SW-3	6/17/2008		7.1	2.5		2.2	5.9		0		0.4	0.2		0.4	1.2		0		3.2
	3/9/2009	0.7	9.2	2.7	1.8	2.2	3.2	1.9	2.6	1.1	-0.09	0.21	0.1	0.6	1.2	0.7	0	0.1	0.6
	Average	0.70	8.15	2.60	1.80	2.20	4.55	1.90	1.30	1.10	0.16	0.21	0.10	0.50	1.20	0.70	0.00	0.10	1.90
Ludeman-SW-4	6/17/2008		8.6	2.5		0	5.9		0		0.3	0.2		0.7	1.2		0.2		5.3
	7/23/2008	1.3	12.5	2.6	1.8	3.6	13	7.8	0.3	1	5	0.4	0.6	0.8	1.2	0.7	0.3	0.3	0.1
	Average	1.30	10.55	2.55	1.80	1.80	9.45	7.80	0.15	1.00	2.65	0.30	0.60	0.75	1.20	0.70	0.25	0.30	2.70
Ludeman-SW-6	4/21/2008		10.2	2.6		0			0.8		-0.12	0.42		0.5	1.9		0		0
	4/28/2008		60	25.1		0			1.2		-0.21	0.29		0.2	1.1		0		0
	6/20/2008	0.8	5.4	2.8	1.7	0	12	7.1	0	0.6	1.3	0.3	0.3	0.4	1.1	0.7	0.3	0.3	0
	7/24/2008	0.9	9.7	3.1	2	0	15.1	8.9	0.1	0.5	0.06	0.2	0.12	0	1	0.6	0.1	0.3	0
	11/10/2008	1.1	11.7	2.8	1.9	1.1	4.7	2.8	0.5	0.5	-0.3	0.38	0.17	0	1.1	0.7	0.4	0.4	0
	3/17/2009	0.8	4.6	2.6	1.6	6	8.6	5.2	0.3	0.5	-0.2	0.28	0.12	0.3	2.1	1.3	0.1	0.2	0
	Average	0.90	16.93	6.50	1.80	1.18	10.10	6.00	0.48	0.53	0.09	0.31	0.18	0.23	1.38	0.83	0.15	0.30	0.00
Ludeman-SW-7	4/24/2008		16.2	2.3		0			0.4		0	0.2		2.3	1		0		0
	6/30/2008	0.8	8.7	3.2	2.1	0	8.4	5	0.2	0.5	0.2	0.3	0.2	0.8	1.3	0.8	0.2	0.2	3.4
	7/29/2008	2.1	25.8	3.2	2.3	0	15.1	8.9	0.7	1	0.32	0.23	0.18	0.4	0.9	0.6	0.2	0.2	1.8
	Average	1.45	16.90	2.90	2.20	0.00	11.75	6.95	0.43	0.75	0.17	0.24	0.19	1.17	1.07	0.70	0.13	0.20	1.73
Ludeman-SW-8	4/21/2008		4.9	2.6		0			2.9		0.04	0.41		0	1.9		0.4		0
	6/30/2008	0.9	8.6	3.2	2.1	0	8.4	5	0.1	0.3	0.3	0.3	0.2	0	1.3	0.8	0	0.2	4.6
	7/23/2008	0.8	6.8	2.6	1.7	1	13	7.8	0.7	1	1.1	0.3	0.3	0.5	1.2	0.7	0.1	0.1	7.6
	3/5/2009	0.7	3.7	2.6	1.6	5.5	3.2	2	0.2	0.4	0.25	0.08	0.08	0.6	0.9	0.6	0.1	0.1	4.5
	Average	0.80	6.00	2.75	1.80	1.63	8.20	4.93	0.98	0.57	0.42	0.27	0.19	0.28	1.33	0.70	0.15	0.13	4.18
Ludeman-SW-9	4/4/2008		8	2.3		0			0.5		0.38	0.22		0	0.9		0.1		0
	6/30/2008	1.4	20.8	3.3	2.3	2.6	8.4	5	0.3	0.6	1	0.3	0.3	0.7	1.3	0.8	0.3	0.2	6.9
	8/21/2008	1.1	10.7	2.6	1.7	0	10.7	6.4	0.1	0.5	0.43	0.25	0.21	1.3	1.1	0.7	0.2	0.3	0
	11/10/2008	2.2	19.7	2.9	2	0	7.4	4.4	0.2	0.4	-0.02	0.23	0.13	0.3	1.1	0.7	0.5	1	3.3
	3/5/2009	0.8	9	2.6	1.7	4.7	3.2	2	0.1	0.3	0.37	0.09	0.11	0.4	1.1	0.7	0.02	0.1	6.6
	Average	1.38	13.64	2.74	1.93	1.46	7.43	4.45	0.24	0.45	0.43	0.22	0.19	0.54	1.10	0.73	0.22	0.40	3.36
Ludeman-SW-10	4/4/2008		3.1	2.3		0			0.5		0.17	0.25		0.4	0.9		0		0
	6/30/2008	1.2	5.8	3.3	2.1	0	8.4	5	0.1	0.5	0.06	0.3	0.2	0.3	1.3	0.8	0	0.1	5.3
	7/23/2008	1.4	9.9	2.7	1.8	4.6	13	7.8	0	0.8	0.3	0.4	0.3	0.4	1.2	0.7	0.1	0.1	1.7
	11/10/2008	2	16.1	2.8	2	0	4.7	2.8	1.2	0.8	-0.1	0.38	0.2	0	1.1	0.7	0	1.6	0.5
	3/2/2009	1.3	7.1	2.7	1.8	0	3.8	2.3	0.3	0.4	0.17	0.18	0.13	0.7	1.3	0.8	0.07	0.1	0
Average		1.48	8.40	2.76	1.93	0.92	7.48	4.48	0.42	0.63	0.12	0.30	0.21	0.36	1.16	0.75	0.03	0.48	1.50
Ludeman-SW-11	6/17/2008		8.5	2.5		1.1	5.9		0		0.7	0.7		0.3	1.2		0		0
	7/24/2008	1.6	19.5	3.1	2.2	3.1	15.1	9	0.6	0.7	0.62	0.2	0.2	0.01	1	0.6	0.1	0.2	1.5
	Average	1.60	14.00	2.80	2.20	2.10	10.50	9.00	0.30	0.70	0.66	0.45	0.20	0.16	1.10	0.60	0.05	0.20	0.75
Ludeman-SW-12	4/4/2008		11.6	5		0			0.7		0.33	0.27		0.4	0.9		0		0
	7/24/2008	5.4	16.9	5	3.3	0	15.1	8.9	0	0.4	0.52	0.24	0.21	0	1	0.6	0.1	0.2	0
	11/5/2008	4.3	12.6	5	3.2	0	5.1	3	0.1	0.2	0.29	0.23	0.17	0.4	1.1	0.7	0.3	0.4	0
	3/16/2009	5.4	9.7	3.9	2.5	0.5	8.6	5.1	0.2	0.4	-0.2	0.28	0.12	0.6	2.1	1.3	0.09	0.1	0
Average		5.03	12.70	4.73	3.00	0.13	9.60	5.67	0.25	0.33	0.24	0.26	0.17	0.35	1.28	0.87	0.12	0.23	0.00
Ludeman-SW-13	6/17/2008		11	2.5		1.4	5.9		0		1.5	0.6		0.2	1.2		0.1		5.4
	7/24/2008	1.2	11.6	3.1	2.1	0	13	7.7	0.4	0.6	0.69	0.21	0.21	0	1	0.6	0.1	0.2	3.8
	3/16/2009	2	12.4	2.6	1.8	0	13.8	8.2	0.5	0.5	0.09	0.18	0.12	0	1.3	0.8	0	0.05	4
	Average	1.60	11.67	2.73	1.95	0.47	10.90	7.95	0.30	0.55	0.76	0.33	0.17	0.07	1.17	0.70	0.07	0.13	4.40
Ludeman-SW-15	6/18/2008	1.3	21.3	2.7	1.9	7.9	12	7.3	0	0.6	2.8	0.1	0.3	1	1.2	0.7	0.2	0.2	0
Ludeman-SW-16	4/28/2008		60	25.1		0			1.2		-0.21	0.29		0.2	1.1		0		0
	6/30/2008	10.7	65.4	22.4	14.5	1	8.4	5	0.2	0.4	0.8	0.3	0.3	0.4	1.3	0.8	0	0.2	5.7
	7/23/2008	13.3	91.2	12.8	12.8	1.3	13	7.8	0.7	0.8	1.3	0.3	0.3	2.8	1.2	0.8	0.1	0.2	3.1
	11/13/2008	26.5	112	50.3	31.9	0.3	4	2.4	0.2	0.5	0.63	0.56	0.43	0.3	3.4	2	0.5	0.9	1.8
	3/19/2009	11.5	19.7	17.8	11	0	4.1	2.4	0.08	0.4	0.09	0.2	0.13	0.008	1.4	0.8	0	0.3	0
	Average	15.50	69.66	26.88	17.55	0.52	7.38	4.40	0.48	0.53	0.52	0.33	0.29	0.74	1.68	1.10	0.12	0.40	2.12
Ludeman-SW-17	4/25/2008		25.8	6.4		0			1.2		-0.1	0.2		1	1		0		0
	6/30/2008	1.6	16.4	3.4	2.3	0	8.4	4.9	0.5	0.6	-0.05	0.3	0.1	0	1.3	0.8	0.1	0.2	3.1
	8/4/2008	2.7	3.8	3.6	2.2	0	10.7	6.3	0.3	0.8	0.01	0.35	0.2	0.6	1	0.6	0	0.3	2.4

1. A "0" value represents below minimum detectable concentration

ClientSampleID	Collection Date	Lead 210 MDC (SUS)	Lead 210 precision (±)	Polonium 210 (SUS)	Polonium 210 precision (±)	Radium 226 (SUS)	Radium 226 MDC (SUS)	Radium 226 precision (±)	Radium 228 (SUS)	Radium 228 MDC (SUS)	Radium 228 precision (±)	Thorium 230 (SUS)	Thorium 230 precision (±)	Uranium (SUS)	TDS Balance (0.80 - 1.20)
		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mg/L	dec. %
Ludeman-SW-1	4/24/2008			0.9		0.2	0.4		NOT ANALYZED			0.1		0.0011	0.97
	6/19/2008	20.1	12	0.2	0.3	0	0.6	0.2				0	0.2	0.0003	
	7/18/2008	12.4	7.4	0.4	0.5	0.1	0.6	0.3				0.2	0.2	0.0007	
	7/22/2008														
	11/9/2008	8.2	4.9	0.7	0.7	0.2	0.4	0.3				0	0.3	0.0018	
	3/9/2009	4.7	2.8	0.3	0.4	0	0.4	0.2				0.1	0.2	0.0009	
	Average	11.35	6.78	0.50	0.48	0.10	0.48	0.25				0.08	0.23	0.0010	0.97
Ludeman-SW-2	6/17/2008	11.5		0.8		0.3	0.4		NOT ANALYZED			0.5		0.0003	
	7/31/2008	12.8	7.6	0.8	0.8	0	0.6	0.3				0.2	0.2	0.0032	
	3/9/2009	4.7	2.8	4.2	1.3	1.2	0.4	0.4				1	0.4	0.0030	
	Average	9.67	5.20	1.93	1.05	0.50	0.47	0.35				0.57	0.30	0.0022	
Ludeman-SW-3	6/17/2008	11.4		0.2		0	0.4		NOT ANALYZED			0.2		0.0003	
	3/9/2009	4.7	2.8	0.6	0.4	0	0.4	0.2				0.2	0.2	0.0004	
	Average	8.05	2.80	0.40	0.40	0.00	0.40	0.20				0.20	0.20	0.0004	
Ludeman-SW-4	6/17/2008	11.4		0		0	0.4		NOT ANALYZED			0.2		0.0003	
	7/23/2008	12.5	7.5	1.2	0.8	0.9	0.7	0.5				0.3	1.4	0.0003	
	Average	11.95	7.50	0.60	0.80	0.45	0.55	0.50				0.25	1.40	0.0003	
Ludeman-SW-6	4/21/2008			0.8		1.3	0.4		NOT ANALYZED			0.1		0.0003	1.71
	4/28/2008			0		0.7	0.3					0.9		0.0003	1.01
	6/20/2008	15.1	9	0.4	0.5	0	0.6	0.2	0.5	2.5	1.5	0.1	0.1	0.0003	
	7/24/2008	24.1	14.4	0.3	0.4	0	0.6	0.2				0.1	0.2	0.0003	
	11/10/2008	8.2	4.9	0.3	0.5	0.5	0.3	0.3	NOT ANALYZED			0	0.05	0.0003	
	3/17/2009	3.1	1.9	0.4	0.3	0.004	0.1	0.07				0	0.1	0.0003	
	Average	12.63	7.55	0.37	0.43	0.42	0.38	0.19	0.50	2.50	1.50	0.20	0.11	0.0003	1.36
Ludeman-SW-7	4/24/2008			3.5		0.7	0.4		NOT ANALYZED			0.9		0.0010	1.77
	6/30/2008	7.3	4.4	0.9	0.6	0	0.5	0.2				0.2	0.2	0.0003	2.21
	7/29/2008	12.7	7.6	2.6	1.4	1.2	0.7	0.6				0.2	0.2	0.0007	
	Average	10.00	6.00	2.33	1.00	0.63	0.53	0.40				0.43	0.20	0.0007	1.99
Ludeman-SW-8	4/21/2008			4.4		1.8	0.4		NOT ANALYZED			0.3		0.0008	3.77
	6/30/2008	7.1	4.3	1.6	0.8	0	0.5	0.2				0.1	0.2	0.0003	3.33
	7/23/2008	13.2	8	6.6	2.4	0.2	0.7	0.4				0.3	0.3	0.0005	
	3/5/2009	5	3	1.1	0.6	0	0.4	0.2				0.0002	0.1	0.0003	
	Average	8.43	5.10	3.43	1.27	0.50	0.50	0.27				0.18	0.20	0.0005	3.55
Ludeman-SW-9	4/4/2008			3.3		0.4	0.5		NOT ANALYZED			0.3		0.0006	1.31
	6/30/2008	7.8	4.7	2.3	1.2	0.9	0.5	0.4				0.9	0.3	0.0013	11.9
	8/21/2008	20.8	12.3	2.8	1.1	0.1	0.7	0.4				0.7	0.5	0.0009	
	11/10/2008	8.5	5.1	2.6	1.2	0.8	0.3	0.3				0.4	0.7	0.0010	
	3/5/2009	4.8	2.9	2.7	0.9	0.1	0.4	0.2				0.4	0.3	0.0009	
	Average	10.48	6.25	2.74	1.10	0.46	0.48	0.33				0.54	0.45	0.0009	6.61
Ludeman-SW-10	4/4/2008			1.8		0.2	0.5		NOT ANALYZED			0.7		0.0003	1.15
	6/30/2008	7.2	4.4	0.2	0.3	0	0.5	0.2				0.1	0.3	0.0003	1.41
	7/23/2008	12.5	7.5	1	0.7	0	0.6	0.3				0.5	0.3	0.0003	
	11/10/2008	8.4	5	1.5	0.8	1.2	0.3	0.4				0.4	0.4	0.0012	
	3/2/2009	4.1	2.4	0.5	0.4	0.02	0.2	0.1				0.4	0.2	0.0004	
	Average	8.05	4.83	1.00	0.55	0.28	0.42	0.25				0.42	0.30	0.0005	1.28
Ludeman-SW-11	6/17/2008	11.3		0.3		0	0.4		NOT ANALYZED			0.3		0.0003	
	7/24/2008	24.9	14.9	7.1	2.4	0.4	0.6	0.4				1.2	0.4	0.0017	
	Average	18.10	14.90	3.70	2.40	0.20	0.50	0.40				0.75	0.40	0.0010	
Ludeman-SW-12	4/4/2008			1.3		0	0.5		NOT ANALYZED			0.1		0.0003	1.06
	7/24/2008	24.4	14.3	0.6	0.7	0	0.6	0.3				0.1	0.1	0.0016	
	11/5/2008	16.1	9.5	1.5	1.4	1.3	0.7	0.6				0	0.1	0.0005	
	3/16/2009	3.1	1.8	0.1	0.2	0.05	0.1	0.08				0.09	0.3	0.0003	
	Average	14.53	8.53	0.88	0.77	0.34	0.48	0.33				0.07	0.17	0.0007	1.06
Ludeman-SW-13	6/17/2008	11.4		0.2		0	0.4		NOT ANALYZED			0.1		0.0003	
	7/24/2008	23.1	13.8	1.2	0.8	0	0.7	0.3				0.4	0.2	0.0003	
	3/16/2009	3.2	1.9	4.5	1.4	0.6	0.05	0.08				1	0.4	0.0030	
	Average	12.57	7.85	1.97	1.10	0.20	0.38	0.19				0.50	0.30	0.00	
Ludeman-SW-15	6/18/2008	20.4	12.1	1.5	1	0.2	0.6	0.4	NOT ANALYZED			0.6	0.3	0.0003	
Ludeman-SW-16	4/28/2008			0		0.7	0.3		NOT ANALYZED			0.9		0.0003	1.01
	6/30/2008	7.4	4.5	1.4	0.8	0	0.5	0.3				0.1	0.2	0.0079	
	7/23/2008	12.7	7.6	0.1	0.4	0	0.7	0.3				0.1	0.3	0.0005	
	11/13/2008	9.9	5.9	0.6	0.5	0.2	0.4	0.2				0	0.3	0.0010	
	3/19/2009	4.1	2.4	0.2	0.3	0.5	0.2	0.2				0.1	0.2	0.0003	
	Average	8.53	5.10	0.46	0.50	0.28	0.42	0.25				0.24	0.25	0.0020	1.01
Ludeman-SW-17	4/25/2008			2.8		0.9	0.4		NOT ANALYZED			0.7		0.0007	1.1
	6/30/2008	7.2	4.3	0.1	0.3	0	0.5	0.2				0.1	0.2	0.0003	
	8/4/2008	15	8.9	0.2	0.4	0.1	0.4	0.2				0.1	0.2	0.0003	

1. A "0" value represents below minimum detectable concentration

ClientSampleID	Collection Date	A/C Balance (± 5) (DIS)	Anions (DIS)	Bicarbonate as HCO3 (DIS)	Carbonate as CO3 (DIS)	Cations (DIS)	Chloride (DIS)	Conductivity (DIS)	Fluoride (DIS)	pH (DIS)	Solids, Total Dissolved Calculated (DIS)	Solids, Total Dissolved TDS @ 180 C (DIS)	Solids, Total Suspended TSS @ 105 C	Sulfate (DIS)	Turbidity	Nitrogen, Ammonia as N (DIS)	Nitrogen, Nitrate+Nitrite as N (DIS)	Aluminum (DIS)	Arsenic (DIS)	Barium (DIS)	Boron (DIS)
		%	meq/L	mg/L	mg/L	meq/L	mg/L	umhos/cm	mg/L	s.u.	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
	2/25/2009	-0.0645	16.1	296	1	16.1	34	1590	0.2	7.91	1000	1030	84	493	45.4	1.08	0.05	0.1	0.015	0.1	0.1
	Average	1.46	13.17	162.75	12.75	13.64	30.25	1264.25	0.23	8.32	841.25	879.25	195.25	443.75	132.18	0.33	0.05	0.10	0.008	0.10	0.10
Ludeman-SW-18	6/18/2008	14.5	2.1	81	1	1.57	1	152	0.2	6.99	118	254	128	37	321	1.42	0.05	1.9	0.008	0.1	0.1
	4/29/2008	3.63	3.3	175	1	3.55	2	309	0.4	7.69	179	212	291	17	193	0.06	0.05	0.1	0.006	0.1	0.1
	6/20/2008	1.42	0.993	46	3	1.02	1	79	0.1	7.35	61	437	97	6	615	0.4	0.05	2.5	0.006	0.1	0.1
	7/21/2008	38.3	2.83	71	1	1.26	1	122	0.1	7.54	145	423	190	80	563	1.17	0.08	0.2	0.003	0.1	0.1
	11/13/2008	5.73	1.78	106	1	2	1	166	0.2	7.81	102	289	110	1	350	0.05	0.44	0.1	0.002	0.1	0.1
	3/27/2009	-4.12	1.74	76	4	1.6	1	221	0.2	8.9	93	125	14	18	51.9	0.05	0.05	0.1	0.001	0.1	0.1
	Average	8.99	2.13	94.80	2.00	1.89	1.20	179.40	0.20	7.65	116.00	297.20	140.40	24.40	354.58	0.35	0.13	0.60	0.004	0.10	0.10
	6/18/2008	10	1.26	50	1	1.54	1	124	0.1	7.87	90	414	56	21	515	0.2	0.05	3.9	0.003	0.1	0.1
	7/21/2008	2.05	1.05	54	1	1.09	1	101	0.1	7.77	64	686	146	6	1150	0.14	0.46	0.4	0.003	0.1	0.1
	11/20/2008	1.92	2.31	104	1	2.4	1	158	0.1	8.83	130	133	54	29	34.8	0.05	0.05	0.1	0.002	0.1	0.1
	3/27/2009	-3.81	2.53	87	5	2.34	1	124	0.2	8.83	145	154	13	45	25.9	0.05	0.05	0.1	0.001	0.1	0.1
	Average	2.54	1.79	73.75	2.00	1.84	1.00	126.75	0.13	8.08	107.25	346.75	67.25	25.25	431.43	0.11	0.15	1.13	0.002	0.10	0.10
	6/18/2008	11.6	1.07	43	1	1.35	1	83	0.1	7.14	84	589	103	17	1140	0.72	0.05	6.1	0.004	0.1	0.1
	7/21/2008	18.8	2.45	59	6	1.68	1	153	0.1	9.1	134	273	130	61	368	0.05	0.12	0.2	0.003	0.1	0.1
	11/20/2008	-16.3	2.49	88	1	1.79	1	112	0.2	8.32	135	389	84	48	419	0.05	0.26	0.2	0.002	0.1	0.1
	3/27/2009	-23.1	1.12	44	1	0.699	1	64	0.1	7.76	100	118	52	19	105	0.08	0.05	0.2	0.001	0.1	0.1
	Average	-2.25	1.78	58.50	2.25	1.38	1.00	103.00	0.13	7.62	113.25	342.25	92.25	36.25	508.00	0.23	0.12	1.68	0.00	0.10	0.10
	4/4/2008	3.79	2.78	116	1	3	1	246	0.2	7.25	176	211	172	42	182	0.23	0.1	0.2	0.005	0.1	0.1
	6/30/2008	14.6	2.93	121	1	2.18	1	204	0.2	7.65	156	312	26	45	187	1.69	0.05	0.3	0.004	0.1	0.1
	7/21/2008	5.33	2.5	141	1	2.79	1	230	0.2	8.4	144	208	70	9	74.3	0.3	0.05	0.1	0.006	0.1	0.1
	11/13/2008	4.73	4.13	211	4	4.54	11	406	0.3	8.06	237	304	58	9	137	1.29	0.61	0.1	0.003	0.1	0.1
	3/19/2009	6.25	2.78	136	5	3.15	6	258	0.2	8.83	166	217	136	10	141	0.06	0.05	0.1	0.002	0.1	0.1
	Average	6.94	3.02	145.00	2.40	3.13	4.00	268.80	0.22	7.73	175.80	250.40	92.40	23.00	144.26	0.71	0.17	0.16	0.004	0.10	0.10
	4/21/2008	21.8	1.66	87	1	2.58	1	154	0.1	7.63	114	868	880	11	2740	0.56	0.1	1.3	0.006	0.1	0.1
	6/18/2008	12.2	1.34	54	1	1.71	1	105	0.1	7.35	110	809	70	22	1140	0.81	0.05	7.7	0.007	0.1	0.1
	7/18/2008	2.9	2.26	112	1	2.14	1	192	0.2	7.93	126	868	146	20		2.3	0.06	0.5	0.005	0.1	0.1
	7/22/2008														948						
	11/3/2008	2.84	4.76	160	7	5.04	4	401	0.3	8.55	300	290	170	85	75.8	0.1	0.15	0.1	0.002	0.1	0.1
	3/9/2009	2.81	1.28	59	1	1.35	1	112	0.1	7.73	125	212	64	14	150	0.05	0.05	0.9	0.003	0.1	0.1
	Average	8.51	2.26	94.40	2.20	2.56	1.60	192.80	0.16	7.69	155.00	609.40	266.00	30.40	1010.76	0.76	0.08	2.10	0.005	0.10	0.10
	4/29/2008	4.66	39.5	238	3	36	35	2840	0.4	8.44	2480	2480	20	1650	6.1	0.05	0.05	0.1	0.004	0.1	0.2
	6/19/2008	8.14	0.713	28	1	0.839	1	53	0.1	6.58	62	466	55	12	701	0.32	0.05	4.1	0.004	0.1	0.1
	7/18/2008	12.2	1.41	58	1	1.1	1	106	0.1	7.21	77	884	92	22		2.88	0.05	0.4	0.003	0.1	0.1
	7/22/2008														1300						
	11/3/2008	-0.627	1.21	47	1	1.2	1	79	0.1	7.51	94	1650	508	11	1860	0.1	2.69	0.3	0.001	0.1	0.1
	3/9/2009	41.1	1.5	44	1	3.61	1	88	0.1	7.79	210	265	78	37	214	0.05	0.19	1	0.001	0.1	0.1
	Average	13.09	8.87	83.00	1.40	8.55	7.80	633.20	0.16	7.12	584.60	1149.00	150.60	346.40	816.22	0.68	0.61	1.18	0.003	0.10	0.12
	6/18/2008	9.4	0.807	26	1	0.974	1	59	0.1	7.07	68	651	71	18	1030	0.2	0.05	4.7	0.005	0.1	0.1
	7/22/2008	5.79	0.966	41	1	0.861	1	82	0.1	7.4	127	1020	126	14	1410	0.5	0.11	0.2	0.006	0.2	0.1
	11/10/2008	-9.61	1.35	45	1	1.12	1	61	0.1	7.33	98	1690	122	25	2010	0.1	0.72	0.5	0.004	0.1	0.1
	2/24/2009	-21.3	1.43	34	1	0.93	1	87	0.1	8	148	165	50	38	126	0.05	0.74	0.1	0.001	0.1	0.1
	Average	-3.93	1.14	36.50	1.00	0.97	1.00	72.25	0.10	7.34	110.25	881.50	92.25	23.75	1144.00	0.21	0.41	1.38	0.004	0.13	0.10

1. A "0" value represents below minimum detectable concentration

ClientSampleID	Collection Date	Cadmium (DIS)	Calcium (DIS)	Chromium (DIS)	Copper (DIS)	Iron (DIS)	Lead (DIS)	Magnesium (DIS)	Manganese (DIS)	Mercury (DIS)	Molybdenum (DIS)	Nickel (DIS)	Potassium (DIS)	Selenium (DIS)	Silica (DIS)	Sodium (DIS)	Uranium (DIS)	Vanadium (DIS)	Zinc (DIS)	Iron (TOT)	Manganese (TOT)	Gross Alpha (DIS)	Gross Alpha MDC (DIS)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	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
	2/25/2009	0.005	96	0.05	0.01	<0.03	0.001	50	0.57	0.001	0.1	0.05	18	0.001	9.7	153	0.0214	0.1	0.01	2.4	1	24.3	4.6
	Average	0.005	82.00	0.05	0.01	0.07	0.013	40.00	0.20	0.001	0.10	0.05	16.00	0.001	7.90	133.75	0.0177	0.10	0.06	6.63	0.50	20.45	3.40
Ludeman-SW-18	6/18/2008	0.005	14	0.05	0.01	5.54	0.005	5	0.06	0.001	0.1	0.05	13	0.001	6.6	1	0.0025	0.1	0.02	13.5	0.24	14.7	1.3
Ludeman-SW-19	4/29/2008	0.005	42	0.05	0.01	0.16	0.001	11	0.01	0.001	0.1	0.05	16	0.001	0.6	3	0.0036	0.1	0.01	4.1	0.32	3.1	1.4
	6/20/2008	0.005	12	0.05	0.01	2.42	0.015	3	0.03	0.001	0.1	0.05	5	0.004	6.6	1	0.0044	0.1	0.02	13.9	0.07	3.3	1.1
	7/21/2008	0.005	15	0.05	0.01	0.26	0.001	3	0.01	0.001	0.1	0.05	6	0.001	9.7	1	0.0003	0.1	0.01	23	0.22	5.7	1.1
	11/13/2008	0.005	25	0.05	0.01	0.08	0.001	6	0.01	0.001	0.1	0.05	8	0.001	5.6	2	0.0003	0.1	0.01	15.2	0.08	6.8	2.1
	3/27/2009	0.005	19	0.05	0.01	0.04	0.001	5	0.01	0.001	0.1	0.05	8	0.002	0.7	2	0.0006	0.1	0.01	2.12	0.02	3.6	1.3
	Average	0.005	22.60	0.05	0.01	0.59	0.004	5.60	0.01	0.001	0.10	0.05	8.60	0.002	4.64	1.80	0.0018	0.10	0.01	11.66	0.14	4.50	1.40
Ludeman-SW-20	6/18/2008	0.005	18	0.05	0.01	3.1	0.005	4	0.04	0.001	0.1	0.05	5	0.001	10.6	3	0.0011	0.1	0.02	14.4	0.09	4	1.3
	7/21/2008	0.020	12	0.05	0.03	0.2	0.003	3	0.02	0.001	0.1	0.05	7	0.001	9.7	1	0.0003	0.1	0.03	35.2	0.23	5.9	1.1
	11/20/2008	0.005	29	0.05	0.01	0.03	0.001	7	0.01	0.001	0.1	0.05	6	0.001	2	6	0.0008	0.1	0.02	0.64	0.01	1.4	1.1
	3/27/2009	0.005	24	0.05	0.01	<0.03	0.001	8	0.01	0.001	0.1	0.05	6	0.001	0.2	8	0.0011	0.1	0.03	0.83	0.02	1.7	1.4
	Average	0.009	20.75	0.05	0.02	1.11	0.003	5.50	0.02	0.001	0.10	0.05	6.00	0.001	5.63	4.50	0.0008	0.10	0.03	12.77	0.09	3.25	1.23
Ludeman-SW-21	6/18/2008	0.005	14	0.05	0.01	6.05	0.009	5	0.1	0.001	0.1	0.05	7	0.001	15.2	1	0.0009	0.1	0.04	21.7	0.19	4.4	1.3
	7/21/2008	0.005	21	0.05	0.02	0.07	0.001	4	0.01	0.001	0.1	0.05	5	0.001	5.3	4	0.0004	0.1	0.01	11.2	0.11	3.6	1.1
	11/20/2008	0.005	21	0.05	0.01	0.07	0.001	5	0.01	0.001	0.1	0.05	9	0.001	3.9	2	0.0006	0.1	0.01	16.5	0.08	21.3	2.4
	3/27/2009	0.005	7	0.05	0.01	0.17	0.001	2	0.01	0.001	0.1	0.05	6	0.001	3.2	<1	0.0003	0.1	0.02	4.8	0.02	3.5	1.2
	Average	0.01	15.75	0.05	0.01	1.59	0.00	4.00	0.03	0.00	0.10	0.05	6.75	0.00	6.90	2.33	0.00	0.10	0.02	13.55	0.10	8.20	1.50
Ludeman-SW-22	4/4/2008	0.005	21	0.05	0.01	1.21	0.001	5	0.47	0.001	0.1	0.05	16	0.001	10.4	23	0.0003	0.1	0.01	5.2	0.58	0.7	1.2
	6/30/2008	0.005	23	0.05	0.01	0.42	0.001	5	0.03	0.001	0.1	0.05	12	0.001	5.3	5	0.0004	0.1	0.01	13.8	0.39	1.3	1.4
	7/21/2008	0.020	32	0.05	0.04	0.13	0.003	6	0.07	0.001	0.1	0.05	14	0.001	10.7	6	0.0005	0.1	0.01	3.79	0.26	3	1.2
	11/13/2008	0.005	40	0.05	0.01	0.04	0.001	11	0.01	0.001	0.1	0.05	33	0.001	5.8	15	0.0019	0.1	0.08	4.27	0.1	7.5	2
	3/19/2009	0.005	25	0.05	0.01	0.08	0.002	8	0.01	0.001	0.1	0.05	22	0.001	5.8	15	0.0015	0.1	0.01	4	0.43	1.5	1.9
	Average	0.008	28.20	0.05	0.02	0.38	0.002	7.00	0.12	0.001	0.10	0.05	19.40	0.001	7.60	12.80	0.0009	0.10	0.02	6.21	0.35	2.80	1.54
Ludeman-SW-24	4/21/2008	0.005	22	0.05	0.01	2.37	0.004	6	0.23	0.001	0.1	0.05	11	0.001	8.5	9	0.0033	0.1	0.03	10.6	0.98	2.3	1.3
	6/18/2008	0.005	18	0.05	0.02	5.87	0.012	6	0.08	0.001	0.1	0.05	9	<0.002	19.8	1	0.0035	0.1	0.06	23.2	0.17	7.6	1.4
	7/18/2008	0.005	21	0.05	0.01	0.32	0.001	6	0.01	0.001	0.1	0.05	12	0.001	15.5	2	0.0039	0.1	0.01	32.1	0.36	13.7	1.4
	7/22/2008																						
	11/3/2008	0.005	48	0.05	0.01	0.03	0.001	19	0.02	0.001	0.1	0.05	17	0.001	0.9	16	0.0153	0.1	0.01	2.4	0.11	13.6	1.5
	3/9/2009	0.005	12	0.05	0.01	0.37	0.001	4	0.01	0.001	0.1	0.05	8	0.001	6	5	0.0028	0.1	0.03	4.65	0.03	5.4	1.4
Ludeman-SW-25	4/29/2008	0.005	284	0.05	0.01	0.06	0.001	140	0.24	0.001	0.1	0.05	16	0.001	6.8	226	0.0430	0.1	0.01	0.15	0.24	73.1	8
	6/19/2008	0.005	9	0.05	0.01	3.29	0.007	3	0.02	0.001	0.1	0.05	6	<0.002	9.3	1	0.0011	0.1	0.04	11.8	0.06	7.7	1.3
	7/18/2008	0.005	9	0.05	0.01	0.31	0.001	2	0.04	0.001	0.1	0.05	8	0.001	10.8	1	0.0003	0.1	0.01	33.3	0.31	10.2	1.3
	7/22/2008																						
	11/3/2008	0.005	11	0.05	0.01	0.67	0.002	3	0.03	0.001	0.1	0.05	11	0.001	15.9	2	0.0004	0.1	0.06	61	0.18	9.2	1.4
	3/9/2009	0.005	12	0.05	0.04	0.44	0.017	4	0.01	0.001	0.1	0.05	11	0.006	4.4	55	0.0091	0.1	0.07	7.6	0.03	6.1	1.5
Ludeman-SW-26	6/18/2008	0.005	12	0.05	0.01	3.22	0.009	3	0.02	0.001	0.1	0.05	5	<0.002	13.6	1	0.0010	0.1	0.04	16.6	0.04	3.8	1.3
	7/22/2008	0.005	9	0.05	0.01	0.3	0.001	2	0.03	0.001	0.1	0.05	5	0.001	13.8	1	0.0003	0.1	0.01	29.7	0.09	14.9	1.3
	11/10/2008	0.005	13	0.05	0.01	0.58	0.001	3	0.01	0.001	0.1	0.05	7	0.004	17.4	1	0.0003	0.1	0.01	32.8	0.08	82.4	7.9
	2/24/2009	0.005	10	0.05	0.01	0.23	0.001	2	0.01	0.001	0.1	0.05	5	0.001	8.2	1	0.0003	0.1	0.01	5.52	0.04	2.1	1.2
	Average	0.005	11.00	0.05	0.01	1.08	0.003	2.50	0.02	0.001	0.10	0.05	5.50	0.002	13.25	1.00	0.0005	0.10	0.02	21.16	0.06	25.80	2.93

1. A "0" value represents below minimum detectable concentration

ClientSampleID	Collection Date	Gross Alpha precision (±)	Gross Beta (DIS)	Gross Beta MDC (DIS)	Gross Beta precision (±)	Lead 210 (DIS)	Lead 210 MDC (DIS)	Lead 210 precision (±)	Polonium 210 (DIS)	Polonium 210 precision (±)	Radium 226 (DIS)	Radium 226 MDC (DIS)	Radium 226 precision (±)	Radium 228 (DIS)	Radium 228 MDC (DIS)	Radium 228 precision (±)	Thorium 230 (DIS)	Thorium 230 precision (±)	Lead 210 (SUS)
		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L
	2/25/2009	4.6	27.9	7.3	4.8	0	2.8	1.6	0.2	0.3	1.2	0.24	0.28	0.7	1.7	1	0	0.1	1.1
	Average	2.97	18.48	5.18	3.10	0.00	7.30	4.27	0.55	0.57	0.27	0.27	0.19	0.58	1.25	0.80	0.03	0.20	1.65
Ludeman-SW-18	6/18/2008	1.6	12.6	2.6	1.8	0.9	12	7.2	0.2	0.7	3.6	0.2	0.4	0.7	1.2	0.7	0.2	0.2	1.4
	4/29/2008		5.3	2.7		0			0.2		0	0.22		0	1.1		0		0
	6/20/2008	0.9	5.9	2.8	1.8	3.4	12	7.2	0	0.6	0.3	0.3	0.2	0	1.1	0.6	0	0.2	2.1
	7/21/2008	1.1	10.2	2.7	1.8	0	13.2	7.8	0.4	0.7	1.5	0.24	0.37	0	1.3	0.7	0.1	0.2	0
	11/13/2008	1.8	15.8	2.6	1.8	0	4	2.4	0.6	0.9	0.58	0.51	0.4	2	3.5	2.2	0.1	0.2	3.7
	3/27/2009	1.1	5.8	2.8	1.8	0.8	2.7	1.6	0.1	0.3	0.05	0.21	0.13	0	1	0.6	0	0.1	2.4
	Average	1.23	8.60	2.72	1.80	0.84	7.98	4.75	0.26	0.63	0.49	0.30	0.28	0.40	1.60	1.03	0.04	0.18	1.64
	6/18/2008	1.1	4.3	2.6	1.6	10.1	12	7.3	0	0.4	1.2	0.2	0.2	0.7	1.2	0.7	0	0.08	5.9
	7/21/2008	1.2	11.6	2.7	1.8	7.7	15.6	9.5	0.9	1.2	1.3	0.22	0.34	0.5	1.3	0.8	0.2	0.2	0
	11/20/2008	0.8	2.7	2.7	1.7	0	9.4	5.6	0.1	0.3	-0.2	0.26	0.12	2.9	1	0.7	0	0.09	0
	3/27/2009	1	3.7	2.8	1.7	2	2.7	1.6	0.3	0.5	0.38	0.24	0.19	1.1	1.1	0.7	0.04	0.1	2.5
	Average	1.03	5.58	2.70	1.70	4.95	9.93	6.00	0.33	0.60	0.67	0.23	0.21	1.30	1.15	0.73	0.06	0.12	2.10
	6/18/2008	1.1	6.5	2.6	1.7	10.8	12	7.3	0.5	1.7	0.9	0.1	0.2	0.7	1.2	0.7	0	0.07	0
	7/21/2008	1	0.8	2.7	1.6	0.9	13	7.8	1.1	1.2	1.1	0.26	0.33	0.4	1.3	0.8	0.1	0.07	0
	11/20/2008	2.9	25.8	3.2	2.3	2.4	4.7	2.8	0.5	0.5	0.3	0.34	0.24	1	1	0.6	0.1	0.2	0
	3/27/2009	1	6.3	2.8	1.8	2.7	2.7	1.6	0.02	0.4	0.48	0.19	0.18	0.6	0.9	0.5	0.06	0.1	1.5
	Average	1.50	9.85	2.83	1.85	4.20	8.10	4.88	0.53	0.95	0.70	0.22	0.24	0.68	1.10	0.65	0.07	0.11	0.38
	4/4/2008		10.9	2.4		0			0.4		0.24	0.24		0.6	0.9		0		0
	6/30/2008	0.9	13.5	3.3	2.2	1.6	8.4	5	0.3	0.9	0.2	0.3	0.2	0.7	1.3	0.8	0.1	0.1	2.2
	7/21/2008	1	13.1	2.7	1.9	1.9	13	7.8	0.4	1.2	0.84	0.22	0.27	0.007	1.3	0.8	0	0.07	42.1
	11/13/2008	1.8	36.1	2.6	2.1	1.3	4	2.4	0.4	0.7	0.37	0.45	0.32	0	3.5	2	0.1	0.2	1.9
	3/19/2009	1.2	20.6	2.6	1.9	0	4.1	2.4	0.3	0.4	0.05	0.18	0.11	0	1.2	0.7	0	0.2	0.2
	Average	1.23	18.84	2.72	2.03	0.96	7.38	4.40	0.36	0.80	0.34	0.28	0.23	0.26	1.64	1.08	0.04	0.14	9.28
	4/21/2008		9.5	2.7		0			0.6		1.9	0.52		0.1	1.9		0.1		0
	6/18/2008	1.3	9.6	2.6	1.7	9.2	12	7.3	0.1	0.7	1.3	0.2	0.3	0.6	1.2	0.7	0.1	0.1	13.7
	7/18/2008	1.8	19.6	2.9	2.1	3.3	9.1	5.5	0.6	0.7	1	0.23	0.25	1.4	1.5	0.9	0	0.07	0
	7/22/2008																		
	11/3/2008	1.8	21.8	3	2.1	0	5.1	3	0.2	0.3	-0.03	0.21	0.11	0.5	1.1	0.7	0.1	0.2	0
	3/9/2009	1.2	8.9	2.7	1.8	4.2	6.4	3.9	0.8	0.7	0.1	0.19	0.12	0.2	1.1	0.6	0.2	0.2	1.1
	Average	1.53	13.88	2.78	1.93	3.34	8.15	4.93	0.46	0.60	0.85	0.27	0.20	0.56	1.36	0.73	0.10	0.14	2.96
	4/29/2008		16.1	13.5		0			0		-0.06	0.15		0	1.1		0		0
	6/19/2008	1.3	10.1	2.6	1.7	2.8	12	7.2	0	0.7	1.8	0.2	0.3	0.8	1.2	0.7	0	0.1	0
	7/18/2008	1.5	17.8	2.9	2	4.3	9.1	5.5	0.3	0.6	1.5	0.2	0.26	1.6	1.5	0.9	0.1	0.1	0
	7/22/2008																		
	11/3/2008	1.4	23.9	2.9	2.1	4.9	5.3	3.2	0.3	0.4	2.5	0.19	0.32	1.3	1.1	0.7	0.3	0.4	6.3
	3/9/2009	1.3	15.5	2.7	1.9	2.8	3.2	1.9	0.6	0.6	0.14	0.17	0.12	0	1	0.6	0.1	0.1	1.1
	Average	1.38	16.68	4.92	1.93	2.96	7.40	4.45	0.24	0.58	1.18	0.18	0.25	0.74	1.18	0.73	0.10	0.18	1.48
	6/18/2008	1	5.1	2.6	1.6	6.2	12	7.3	0	0.5	1	0.2	0.2	0.7	1.2	0.7	0	0.1	10.4
	7/22/2008	1.8	16.5	2.7	1.9	6	13	7.8	0.5	0.8	1.9	0.22	0.39	0	1.3	0.7	0.1	0.07	11.6
	11/10/2008	9.8	76.6	16.2	11	4	6.6	4	0.4	0.4	1.7	0.21	0.28	1.4	1.1	0.7	0.1	0.2	0
	2/24/2009	0.9	5.6	2.5	1.6	0.9	2.8	1.7	0.1	0.3	0.17	0.2	0.14	0.2	1.4	0.8	0.06	0.3	0.9
	Average	3.38	25.95	6.00	4.03	4.28	8.60	5.20	0.25	0.50	1.19	0.21	0.25	0.58	1.25	0.73	0.07	0.17	5.73

1. A "0" value represents below minimum detectable concentration

ClientSampleID	Collection Date	Lead 210 MDC (SUS)	Lead 210 precision (±)	Polonium 210 (SUS)	Polonium 210 precision (±)	Radium 226 (SUS)	Radium 226 MDC (SUS)	Radium 226 precision (±)	Radium 228 (SUS)	Radium 228 MDC (SUS)	Radium 228 precision (±)	Thorium 230 (SUS)	Thorium 230 precision (±)	Uranium (SUS)	TDS Balance (0.80 - 1.20)
		pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	pCi/L	mg/L	dec. %
	2/25/2009	6.7	4	0.4	0.4	0.07	0.2	0.1				0.1	0.2	0.0004	
	Average	9.63	5.73	0.88	0.37	0.27	0.38	0.17				0.25	0.20	0.0004	1.10
Ludeman-SW-18	6/18/2008	20.1	12	0.9	0.7	0	0.6	0.2	NOT ANALYZED			0	0.1	0.0003	
	4/29/2008			1.9		1.4	0.3		NOT ANALYZED			0.1		0.0003	1.18
	6/20/2008	15.9	9.5	0.5	0.5	0	0.6	0.3	0.07	2.7	1.6	0.2	0.2	0.0003	
	7/21/2008	11.8	7	0.4	0.4	0	0.6	0.3	NOT ANALYZED			0.1	0.2	0.0003	
	11/13/2008	9.8	5.9	1.2	0.7	0.3	0.4	0.3				0	0.7	0.0005	
	3/27/2009	4.1	2.5	0.1	0.3	0	0.09	0.04				0.1	0.1	0.0003	
	Average	10.40	6.23	0.82	0.48	0.34	0.40	0.24	0.07	2.70	1.60	0.10	0.30	0.0003	1.18
	6/18/2008	20.7	12.5	0.3	0.5	0	0.5	0.2	NOT ANALYZED			0	0.1	0.0003	
	7/21/2008	11.8	6.9	0.5	0.4	0	0.6	0.3				0.3	0.2	0.0003	
	11/20/2008	8.7	5.1	0	0.7	0	0.5	0.3				0.1	0.2	0.0003	
	3/27/2009	4.1	2.4	0.3	0.3	0.08	0.08	0.06				0.09	0.2	0.0003	
	Average	11.33	6.73	0.28	0.48	0.02	0.42	0.22				0.12	0.18	0.0003	
	6/18/2008	19.6	11.6	0.9	0.8	0	0.6	0.3	NOT ANALYZED			0.5	0.3	0.0003	
	7/21/2008	11.8	7	0.3	0.4	0	0.6	0.3				0.3	0.2	0.0003	
	11/20/2008	8.4	5	2.9	2.3	0	0.4	0.2				0.1	0.2	0.0003	
	3/27/2009	4.2	2.5	0.2	0.3	0.6	0.08	0.09				0.05	0.2	0.0003	
	Average	11.00	6.53	1.08	0.95	0.15	0.42	0.22				0.24	0.23	0.00	
	4/4/2008			1.5		0.3	0.5		NOT ANALYZED			0.4		0.0003	1.2
	6/30/2008	7.4	4.5	0.2	0.4	0	0.5	0.2				0	0.02	0.0003	2
	7/21/2008	11.8	7.6	0.1	0.3	0	0.7	0.3				0	0.1	0.0003	
	11/13/2008	10.6	6.4	1.8	0.9	0	0.4	0.2				0.4	0.08	0.0011	
	3/19/2009	4.2	2.5	0.9	0.6	0.6	0.2	0.2				0.1	0.9	0.0003	
	Average	8.50	5.25	0.90	0.55	0.18	0.46	0.23				0.18	0.28	0.0005	1.60
	4/21/2008			3.4		5.2	0.4		NOT ANALYZED			1.6		0.0070	7.61
	6/18/2008	20.8	12.7	0.7	0.6	0	0.6	0.3				0.2	0.1	0.0003	
	7/18/2008	12.4	7.3	0.3	0.4	0.2	0.6	0.4				0.2	0.3	0.0005	
	7/22/2008														
	11/3/2008	8.1	4.8	1	0.6	0.2	0.4	0.3				0.1	0.3	0.0011	
	3/9/2009	4.7	2.8	0.3	0.3	0.4	0.4	0.3				0.2	0.2	0.0007	
	Average	11.50	6.90	1.14	0.48	1.20	0.48	0.33				0.46	0.23	0.0019	7.61
	4/29/2008			0.6		0.5	0.3		NOT ANALYZED			0.4		0.0003	1
	6/19/2008	22.1	13	0.6	0.5	0	0.6	0.3				0	0.2	0.0003	
	7/18/2008	12.4	7.4	0.4	0.4	0	0.7	0.3				0.1	0.2	0.0003	
	7/22/2008														
	11/3/2008	8	4.9	3.3	1.4	1.4	0.4	0.4				0.6	0.4	0.0017	
	3/9/2009	4.7	2.8	0.7	0.5	0	0.3	0.1				0.3	0.2	0.0005	
	Average	11.80	7.03	1.12	0.70	0.38	0.46	0.28				0.28	0.25	0.0006	1.00
	6/18/2008	19.6	11.9	0.5	0.5	0	0.5	0.2	NOT ANALYZED			0.1	0.2	0.0003	
	7/22/2008	25.3	15.2	1.6	1.1	0	0.6	0.3				0.4	0.3	0.0004	
	11/10/2008	9.7	5.8	1.2	0.9	0	0.4	0.2				0.4	0.3	0.0007	
	2/24/2009	6.8	4	0.04	0.2	0	0.2	0.08				0.08	0.2	0.0005	
	Average	15.35	9.23	0.84	0.68	0.00	0.43	0.20				0.25	0.25	0.0005	

1. A "0" value represents below minimum detectable concentration

Uranium One - Wyoming Sampling Schedule

Ludeman 2008 & 2009

2008													2009											
Location I.D.	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
M-2				4/24			7/29				11/6				3/17									
M-3				4/28			7/30				11/6				3/17									
M-4				4/29			7/30				11/6				3/17									
M-5				4/30			7/14				11/7				3/5									
M-6					5/7			8/6				12/2			3/25									
M-7				4/25				8/13			11/5				3/12									
M-8					5/5			8/12			11/18			2/12										
M-9						6/19		8/12			11/3				3/12									
M-10			3/28				7/17				11/11				3/5									
M-11				4/16			7/15				11/7				3/4									
M-12				4/18			7/18				11/17				3/30									
M-13						6/20		8/14			11/18				3/30									
M-14				4/17			7/24				11/5				3/16									
M-15			3/28			6/30	7/17				11/12				3/19									
M-16				4/16			7/16				11/12				3/19									
M-17				4/18			7/15				11/11				3/30									
M-18						6/17	7/23				11/5			2/24										
M-19						6/20	7/22				11/13				3/20									
M-20			3/29			6/30	7/22				11/12				3/20									
M-21			3/27				7/18				11/13				3/20									
M-23								8/15			11/17			2/24			6/22							
M-24			3/30				7/23				11/19				3/20									
M-26				4/21			7/28				11/10				3/16									

Uranium One - Wyoming Sampling Schedule

Ludeman 2008 & 2009

<u>2008</u>													<u>2009</u>												
<u>Location I.D.</u>	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	
OW-1								8/18			11/14				3/18			6/24							
OW-9			3/27					8/5			11/14				3/18										
LPW-1												12/4		2/10				6/17		8/24					
LMU-1												12/4		2/10				6/17		8/24					
LMO-1												12/5		2/12				6/17		8/24					
LPW-2												12/5		2/11				6/17		8/24					
LPW-3A												12/18			3/2			6/22		8/26					
LMU-2A												12/12			3/4			6/24		8/27					
LMO-2A												12/10			3/2			6/22		8/26					
LPW-4												12/22			3/18			6/18		8/31					
LMU-3												12/22			3/18			6/18		8/31					

Well	Collection Date	A/C Balance (± 5) (%)	Anions (meq/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Cations (meq/L)	Chloride (mg/L)	Conductivity (umhos/cm)	Fluoride (mg/L)	pH (s.u.)	Solids, Total Dissolved Calculated (me/L)	Solids, Total Dissolved TDS @ 180 C (mg/L)	TDS Balance (0.80 - 1.20) (dec. %)	Sulfate (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+Nitrite as N (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS
OW-9	60 3/26/2008	0.911	5.44	219	2	5.54	2	511	0.6	8.28	324	261	0.81	82	0.11	0.1	0.1	0.006	0.1	0.1	0.005	13	0.05	0.01	0.04	0.001
	8/5/2008	4.31	5.39	220	1	5.88	5	504	0.6	7.76	327	302		77	0.1	0.05	0.1	0.006	0.1	0.1	0.005	15	0.05	0.01	0.03	0.004
	11/14/2008	2.75	5.19	215		5.48	5	505	0.6	7.99	316	284	0.9	72	0.09	0.1	0.1	0.006	0.1	0.1	0.005	14	0.05	0.01	0.03	0.001
	3/18/2009	-1.72	5.3	217	1	5.12	4	511	0.6	7.96	311	327	1.05	76	0.12	0.05	0.1	0.005	0.1	0.1	0.005	11	0.05	0.01	0.03	0.001
	Average	1.56	5.33	217.75	1.33	5.51	4.00	507.75	0.60	7.96	319.50	293.50	0.92	76.75	0.11	0.08	0.10	0.006	0.10	0.10	0.005	13.25	0.05	0.01	0.03	0.002
LMU-2A	60 12/12/2008	-2.98	5.96	205	1	5.61	5	468	0.7	8.74	360	315	0.88	115	0.35	0.05	0.1	0.001	0.1	0.1	0.005	17	0.05	0.01	0.03	0.001
	3/4/2009	-0.527	6.43	230	1	6.37	6	564	0.6	8.66	411	336	0.82	119	0.35	0.05	0.1	0.001	0.1	0.1	0.005	18	0.05	0.01	0.03	0.001
	6/24/2009	-2.87	6.13	215	6	5.79	5	604	0.6	8.49	362	385	1.06	109	0.53	0.1	0.1	0.001	0.1	0.1	0.005	18	0.05	0.01	0.03	0.001
	Average	-2.13	6.17	216.67	2.67	5.92	5.33	545.33	0.63	8.62	377.67	345.33	0.92	114.33	0.41	0.07	0.10	0.001	0.10	0.10	0.005	17.67	0.05	0.01	0.03	0.001
AVERAGE	60 SAND	-0.28	5.75	217.21	2.00	5.71	4.67	526.54	0.62	8.17	348.58	319.42	0.92	95.54	0.26	0.07	0.10	0.003	0.10	0.10	0.01	15.46	0.05	0.01	0.03	0.001

*Sand OW-9 sand location is an estimated on surrounding logs and drill depths.

Well	Collection Date	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silica (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Iron (mg/L)	Manganese (mg/L)	Gross Alpha (pCi/L)	Gross Alpha MDC (pCi/L)	Gross Alpha precision (±) (pCi/L)	Gross Beta (pCi/L)	Gross Beta MDC (pCi/L)	Gross Beta precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	TOT	TOT	DIS	DIS		DIS	DIS		DIS			DIS
OW-9	60	3/26/2008	5	0.06	0.001	0.1	0.05	3	0.001	8	100	0.0070	0.1	0.01	0.07	0.06	14.7	1.5		1.5	2.5		0			2.5
		8/5/2008	5	0.06	0.001	0.1	0.05	4	0.001	64	106	0.0141	0.1	0.01	0.1	0.06	26.5	1.9	2.6	7	2.4	1.5	89.1	10.7	7.6	0
		11/14/2008	5	0.06	0.001	0.1	0.05	3	0.001	9.8	98	0.0073	0.1	0.01	0.08	0.06	21.1	1.4	2.2	5.2	2.6	1.7	2.8	4	2.4	0.2
		3/18/2009	4	0.05	0.001	0.1	0.05	3	0.001	7.8	95	0.0076	0.1	0.01	0.08	0.06	19.9	2.2	2.5	3.5	2.6	1.6	0.5	4.1	2.4	0
		Average	4.75	0.06	0.001	0.10	0.05	3.25	0.001	22.40	99.75	0.0090	0.10	0.01	0.08	0.06	20.55	1.75	2.43	4.30	2.53	1.60	23.10	6.27	4.13	0.68
LMU-2A	60	12/12/2008	6	0.02	0.001	0.1	0.05	6	0.001	11.8	93	0.0003	0.1	0.02	1.17	0.04	5.7	1.7	1.5	3.2	2.8	1.7	0	4.6	2.7	0.2
		3/4/2009	7	0.03	0.001	0.1	0.05	6	0.001	7.6	109	0.0007	0.1	0.01	3.64	0.07	7.5	1.9	1.7	4.2	2.7	1.7	4.1	3.2	2	0.3
		6/24/2009	7	0.03	0.001	0.1	0.05	5	0.001	8.4	96	0.0011	0.1	0.01	2.14	0.06	9.9	2.1	1.9	5.5	2.7	1.7	0	2.6	1.5	0.2
		Average	6.67	0.03	0.001	0.10	0.05	5.67	0.001	9.27	99.33	0.0007	0.10	0.01	2.32	0.06	7.70	1.90	1.70	4.30	2.73	1.70	1.37	3.47	2.07	0.23
	AVERAGE	60 SAND	5.71	0.04	0.001	0.10	0.05	4.46	0.001	15.83	99.54	0.0049	0.10	0.01	1.20	0.06	14.13	1.83	2.07	4.30	2.63	1.65	12.23	4.87	3.10	0.45

*Sand OW-9 sand location is an estimated on surrounding logs and drill depths.

Well	Collection Date	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Uranium (mg/L)
OW-9			DIS	DIS		DIS	DIS		DIS		SUS			SUS		SUS	SUS					SUS		SUS
	3/26/2008		0.34	0.09		0.4	0.8		0.6		7.2			0.6		0.3	0.3				0.1		0.0003	
	8/5/2008	0.6	0.56	0.28	0.24	1.2	1	0.7	0.1	0.1	0	15	8.9	0	0.2	0	0.4	0.2			0.1	0.2	0.0003	
	11/14/2008	0.3	0.34	0.18	0.15	0.2	1.2	0.7	0.1	0.2	5.9	8.3	5.1	2.1	1.8	1.4	0.4	0.4			0.1	0.2	0.0003	
	3/18/2009	0.2	0.33	0.18	0.15	0	1.2	0.7	0.1	0.1	0	3.1	1.8	0.09	0.2	0.09	0.1	0.09			0	0.1	0.0003	
	Average	0.37	0.39	0.18	0.18	0.45	1.05	0.70	0.23	0.13	3.28	8.80	5.27	0.70	0.73	0.45	0.30	0.23			0.08	0.17	0.0003	
LMU-2A																								
	12/12/2008	0.4	0.73	0.21	0.21	1.1	1.7	1.1	0.2	0.2	0	14.5	8.5	0.3	0.4	0.9	0.5	0.4			0.7	0.4	0.0019	
	3/4/2009	0.4	0.8	0.09	0.14	1.1	1.3	0.8	0.1	0.1	5.9	4.7	2.9	1	0.6	0.1	0.4	0.2			1.2	0.4	0.0015	
	6/24/2009	0.4	1.1	0.19	0.24	1.5	1.1	0.7	0.1	0.1	0	3.6	2.2	0.4	0.3	0.4	0.05	0.07			0.8	0.2	0.0013	
	Average	0.40	0.88	0.16	0.20	1.23	1.37	0.87	0.13	0.13	1.97	7.60	4.53	0.57	0.43	0.47	0.32	0.22			0.90	0.33	0.0016	
AVERAGE	60 SAND	0.38	0.63	0.17	0.19	0.84	1.21	0.78	0.18	0.13	2.62	8.20	4.90	0.63	0.58	0.46	0.31	0.23			0.49	0.25	0.0009	

*Sand OW-9 sand location is an estimated on surrounding logs and drill depths.

Well	Collection Date	A/C Balance (± 5) (%)	Anions (meq/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Cations (meq/L)	Chloride (mg/L)	Conductivity (umhos/cm)	Fluoride (mg/L)	pH (s.u.)	Solids, Total Dissolved Calculated (mg/L)	Solids, Total Dissolved TDS @ 180 C (mg/L)	TDS Balance (0.80 - 1.20) (dec. %)	Sulfate (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+Nitrite as N (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS
M-9	70	6/19/2008	4	5.2	175	9	5.64	2	502	0.6	8.49	317	338	1.07	93	0.25	0.05	0.1	0.002	0.1	0.1	0.005	48	0.05	0.01	0.03	0.001	11	0.01	0.001
		8/12/2008	1.11	5.24	199	1	5.36	2	501	0.6	8.17	309	319		91	0.2	0.05	0.1	0.002	0.1	0.1	0.005	48	0.05	0.01	0.03	0.001	10	0.01	0.001
		11/3/2008	3.18	5.32	194	6	5.67	2	464	0.6	8.08	324	300		89	0.2	0.05	0.1	0.001	0.1	0.1	0.005	49	0.05	0.01	0.03	0.001	13	0.02	0.001
		3/12/2009	2.06	5.26	203	1	5.48	4	499	0.5	8.19	312	305	0.98	86	0.11	0.05	0.1	0.001	0.1	0.1	0.005	45	0.05	0.01	0.03	0.001	13	0.02	0.001
		Average	2.59	5.26	192.75	4.25	5.54	2.50	491.50	0.58	8.21	315.50	315.50	1.03	89.75	0.19	0.05	0.10	0.002	0.10	0.10	0.005	47.50	0.05	0.01	0.03	0.001	11.75	0.02	0.001
M-10	70	3/28/2008	1.54	6.06	161	11	5.88	6	566	0.6	8.94	370	326	0.88	138	0.17	0.1	0.1	0.009	0.1	0.1	0.005	22	0.05	0.01	0.03	0.003	7	0.01	0.001
		7/17/2008	0.075	6.05	177	2	6.06	3	576	0.6	8.28	373	330		143	0.06	0.05	0.1	0.004	0.1	0.1	0.005	24	0.05	0.01	0.03	0.001	7	0.01	0.001
		11/11/2008	4.02	5.58	171	1	6.05	5	547	0.6	8.25	362	343		125	0.08	0.05	0.1	0.006	0.1	0.1	0.005	24	0.05	0.01	0.03	0.001	6	0.01	0.001
		3/5/2009	-4.35	5.68	172	1	5.21	4.2	550	0.6	8.39	343	312	0.91	130	0.07	0.05	0.1	0.005	0.1	0.1	0.005	18	0.05	0.01	0.03	0.001	6	0.01	0.001
		Average	0.32	5.84	170.25	3.75	5.80	4.55	559.75	0.60	8.40	362.00	327.75	0.90	134.00	0.10	0.06	0.10	0.006	0.10	0.10	0.005	22.00	0.05	0.01	0.03	0.002	6.50	0.01	0.001
M-11	70	4/16/2008	4.13	5.62	166	1	6.1	5	561	0.6	8.4	354	333	0.94	129	0.15	0.05	0.1	0.002	0.1	0.1	0.005	23	0.05	0.01	0.03	0.001	7	0.01	0.001
		7/15/2008	0.9	5.57	172	1	5.67	5	563	0.6	8.02	339	366	1.08	123	0.16	0.05	0.1	0.001	0.1	0.1	0.005	19	0.05	0.01	0.03	0.001	7	0.01	0.001
		11/7/2008	-1.63	6.16	193	1	5.96	5	524	0.6	8.37	379	349		136	0.1	0.05	0.1	0.001	0.1	0.1	0.005	19	0.05	0.01	0.03	0.001	8	0.01	0.001
		3/4/2009	-1.77	5.62	168	1	5.43	4.2	530	0.6	8.45	348	292	0.84	131	0.14	0.05	0.1	0.001	0.1	0.1	0.005	15	0.05	0.01	0.03	0.001	6	0.01	0.001
		Average	0.41	5.74	174.75	1.00	5.79	4.80	544.50	0.60	8.27	355.00	335.00	0.95	129.75	0.14	0.05	0.10	0.001	0.10	0.10	0.005	19.00	0.05	0.01	0.03	0.001	7.00	0.01	0.001
M-14	70	4/17/2008	1.2	6.18	240	3	6.04	5	597	0.6	7.86	357	285	0.8	96	0.21	0.05	0.1	0.001	0.1	0.1	0.005	23	0.05	0.01	0.03	0.001	8	0.02	0.001
		7/24/2008	2.33	6.17	247	2	5.89	5	602	0.7	7.99	352	370	1.05	91	0.24	0.05	0.1	0.001	0.1	0.1	0.005	23	0.05	0.01	0.03	0.001	9	0.03	0.001
		11/5/2008	5.54	6.01	242	1	6.72	1	542	0.6	8.06	374	400		95	0.2	0.05	0.1	0.001	0.1	0.1	0.005	26	0.05	0.01	0.03	0.001	10	0.03	0.001
		3/16/2009	0.27	6.07	240	1	6.1	5	572	0.6	8.19	360	316	0.88	94	0.17	0.05	0.1	0.001	0.1	0.1	0.005	22	0.05	0.01	0.03	0.001	9	0.03	0.001
		Average	2.34	6.11	242.25	1.75	6.19	4.00	578.25	0.63	8.01	360.75	342.75	0.91	94.00	0.21	0.05	0.10	0.001	0.10	0.10	0.005	23.50	0.05	0.01	0.03	0.001	9.00	0.03	0.001
M-15	70	3/28/2008	0.362	4.93	192	9	4.97	3	459	0.7	8.83	290	252	0.87	66	0.08	0.1	0.1	0.001	0.1	0.1	0.005	20	0.05	0.01	0.03	0.001	5	0.01	0.001
		6/30/2008	1.73	4.8	198	4	4.97	4	450	0.7	8.28	282	271	0.96	60	0.13	0.05	0.1	0.001	0.1	0.1	0.005	19	0.05	0.01	0.03	0.001	6	0.02	0.001
		7/17/2008	3.1	4.93	199	3	5.24	3	466	0.7	8.27	294	274		71	0.09	0.05	0.1	0.001	0.1	0.1	0.005	21	0.05	0.01	0.03	0.001	7	0.01	0.001
		11/13/2008	1.11	4.74	189	6	4.85	2	441	0.7	8.35	282	274		64	0.08	0.05	0.1	0.001	0.1	0.1	0.005	17	0.05	0.01	0.03	0.001	6	0.01	0.001
		3/18/2009	1.89	4.6	190	4	4.78	3	443	0.7	8.25	276	281	1.02	60	0.1	0.05	0.1	0.001	0.1	0.1	0.005	15	0.05	0.01	0.03	0.001	6	0.02	0.001
M-16	70	Average	1.64	4.80	193.6	5.20	4.96	3.00	451.80	0.70	8.29	284.80	270.40	0.95	64.20	0.10	0.06	0.10	0.001	0.10	0.10	0.005	18.40	0.05	0.01	0.03	0.001	6.00	0.01	0.001
		4/16/2008	7.93	5.98	189	1	7.02	5	524	0.6	8.31	384	322	0.84	130	0.19	0.05	0.1	0.002	0.1	0.1	0.005	30	0.05	0.01	0.03	0.001	11	0.03	0.001
		7/16/2008	0.742	5.48	185	1	5.56	3	532	0.6	8.19	331	331		110	0.17	0.05	0.1	0.001	0.1	0.1	0.005	21	0.05	0.01	0.03	0.001	8	0.01	0.001
		11/13/2008	-1.55	5.39	177	3																								

Well	Collection Date	A/C Balance (± 5) (%)	Anions (meq/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Cations (meq/L)	Chloride (mg/L)	Conductivity (umhos/cm)	Fluoride (mg/L)	pH (s.u.)	Solids, Total Dissolved Calculated (me/l)	Solids, Total Dissolved TDS @ 180 C (mg/L)	TDS Balance (0.80 - 1.20) (dec. %)	Sulfate (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+Nitrite as N (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS
	Average	-0.63	5.41	167	2.67	5.35	4.67	509.33	0.60	8.30	335.00	332.00	0.99	118.67	0.17	0.07	0.10	0.001	0.10	0.10	0.005	17.00	0.05	0.01	0.03	0.001	6.33	0.01	0.001
AVERAGE	70 SAND	0.74	5.33	193.43	3.14	5.35	3.50	497.54	0.62	8.22	319.58	305.60	0.95	93.01	0.16	0.06	0.10	0.003	0.10	0.10	0.01	23.09	0.05	0.01	0.03	0.001	7.39	0.02	0.001

1. A "0" value represents below the minimum detectable concentration.

Well	Collection Date	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silica (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Iron (mg/L)	Manganese (mg/L)	Gross Alpha (pCi/L)	Gross Alpha MDC (pCi/L)	Gross Alpha precision (±) (pCi/L)	Gross Beta (pCi/L)	Gross Beta MDC (pCi/L)	Gross Beta precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	TOT	TOT	TOT	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS		
M-9	70	6/19/2008	0.1	0.05	12	0.001	5.6	47	0.0302	0.1	0.01	0.05	0.01	277	1.9	7.4	76.6	2.7	2.7	14.2	12	7.4	1.2	1.1	124	0.1	1.8	1
	8/12/2008	0.1	0.05	10	0.001	12	43	0.0258	0.1	0.01	0.03	0.01	284	2.1	7.8	77.2	2.6	2.6	12.2	9.9	6.1	0.5	0.9	141	0.24	2.6	1.6	
	11/3/2008	0.1	0.05	8	0.001	12	46	0.0249	0.1	0.01	0.04	0.02	355	1.6	8.1	148	3	3.6	5.2	5.1	3.1	0.4	0.4	134	0.21	2.4	1.1	
	3/12/2009	0.1	0.05	7	0.001	11.6	45	0.0146	0.1	0.01	0.04	0.02	220	1.8	6.9	84.8	2.7	2.8	12.2	5.6	3.4	0.4	0.6	71	0.2	1.7	1.1	
	Average	0.10	0.05	9.25	0.001	10.30	45.25	0.0239	0.10	0.01	0.04	0.02	284.00	1.85	7.55	96.65	2.75	2.93	10.95	8.15	5.00	0.63	0.75	117.50	0.19	2.13	1.20	
M-10	70	3/28/2008	0.1	0.05	6	0.001	8.3	93	0.0076	0.1	0.01	0.15	0.01	30.4	1.8	2.7	12.2	2.7	1.8	0.2		0.3	0.9	1	2.3	0.1	0.2	1.8
	7/17/2008	0.1	0.05	5	0.001	11.9	95	0.0062	0.1	0.01	0.03	0.01	34.6	1.7	2.9	11.3	3	2	2.1	9.1	5.4	0.4	0.6	5.2	0.3	0.6	1	
	11/11/2008	0.1	0.05	5	0.001	12.1	96	0.0050	0.1	0.01	0.03	0.01	18.3	1.4	2	6.6	2.6	1.7	0	4.7	2.8	0	0.3	3.3	0.22	0.37	2.2	
	3/5/2009	0.1	0.05	5	0.001	7.8	86	0.0055	0.1	0.01	0.03	0.01	28.6	1.7	2.6	11.6	2.7	1.8	4.3	3.2	2	0	0.2	3.1	0.18	0.33	0.6	
	Average	0.10	0.05	5.25	0.001	10.03	92.50	0.0061	0.10	0.01	0.06	0.01	27.98	1.65	2.55	10.43	2.75	1.83	1.65	5.67	2.63	0.33	0.53	3.48	0.20	0.38	1.40	
M-11	70	4/16/2008	0.1	0.05	5	0.001	5	97	0.0123	0.1	0.01	0.03	0.01	356	1.7		147	3.8		20.6			3.2		144	0.2		0.8
	7/15/2008	0.1	0.05	5	0.001	4.4	93	0.0075	0.1	0.01	0.03	0.01	457	1.7	9.8	133	2.7	3.3	24	9.1	5.8	3	1.9	145	0.2	2.3	0.2	
	11/7/2008	0.1	0.05	5	0.001	10.9	98	0.0093	0.1	0.01	0.03	0.01	465	1.9	10	168	2.9	3.7	76.7	5	4.1	3	1.3	152	0.21	2.5	2.1	
	3/4/2009	0.1	0.05	5	0.001	7.5	93	0.0074	0.1	0.01	0.04	0.01	643	1.7	11.4	218	2.7	4	40.2	3.2	2.3	1.8	0.9	148	0.08	1.7	1.3	
	Average	0.10	0.05	5.00	0.001	6.95	95.25	0.0091	0.10	0.01	0.03	0.01	480.25	1.75	10.40	166.50	3.03	3.67	40.38	5.77	4.07	2.75	1.37	147.25	0.17	2.17	1.10	
M-14	70	4/17/2008	0.1	0.05	5	0.001	4.7	94	0.0010	0.1	0.01	0.03	0.03	180	1.7		71.2	3.1		20.7			2.9		61.6	0.22		0.05
	7/24/2008	0.1	0.05	5	0.001	9.6	89	0.0177	0.1	0.01	0.03	0.03	182	1.8	6.2	44.6	3.2	2.6	2.3	15.1	9	1.1	1	60	0.2	1.6	0.8	
	11/5/2008	0.1	0.05	6	0.001	10.8	103	0.0178	0.1	0.01	0.03	0.03	301	1.6	7.6	128	3	3.4	10.4	5.9	3.7	0.4	0.4	65	0.22	1.7	0.5	
	3/16/2009	0.1	0.05	5	0.001	8.8	95	0.0168	0.1	0.01	0.03	0.03	392	2.4	10	109	2.7	3	23.2	8.6	5.4	0.3	0.4	63	0.19	1.6	0	
	Average	0.10	0.05	5.25	0.001	8.48	95.25	0.0133	0.10	0.01	0.03	0.03	263.75	1.88	7.93	88.20	3.00	3.00	14.15	9.87	6.03	1.18	0.60	62.40	0.21	1.63	0.34	
M-15	70	3/28/2008	0.1	0.05	6	0.001	7.6	78	0.0003	0.1	0.01	0.1	0.01	44	2.1	3.2	18.7	2.6	1.9	0		0	0.7	11	0.1	0.5	1	
	6/30/2008	0.1	0.05	6	0.001	4.7	78	0.0048	0.1	0.01	0.03	0.02	34	1.7	2.6	12.7	3.3	2.2	1.4	8.4	5	0	0.5	14.3	0.3	1	0.5	
	7/17/2008	0.1	0.05	5	0.001	11	81	0.0047	0.1	0.01	0.04	0.02	41.3	1.5	2.9	11.9	2.9	2	3	9.1	5.5	0.8	0.9	14.5	0.3	0.9	0.3	
	11/13/2008	0.1	0.05	5	0.001	8.3	77	0.0041	0.1	0.01	0.03	0.01	47.2	1.7	3.2	16.7	2.5	1.8	2.8	4	2.4	0.3	0.4	9.3	0.48	1.1	0	
	3/18/2009	0.1	0.05	5	0.001	8.5	78	0.0039	0.1	0.01	0.03	0.02	62.2	2	3.9	16.9	2.6	1.9	1.6	4.1	2.4	0.2	0.3	12	0.18	0.73	0.7	
	Average	0.10	0.05	5.40	0.001	8.02	78.40	0.0036	0.10	0.01	0.05	0.02	45.74	1.80	3.16	15.38	2.78	1.96	1.76	6.40	3.22	0.26	0.56	12.22	0.27	0.85	0.50	
M-16	70	4/16/2008	0.1	0.05	6	0.001	4.9	103	0.0217	0.1	0.01	0.12	0.02	13	1.5		6.9	3.1		0			0.5		3.9	0.22		0.7
	7/16/2008	0.1	0.05	5	0.001	10.3	86	0.0008	0.1	0.01	0.03	0.02	18.9	1.6	2.1	2	2.9	1.8	2.1	9.1	5.4	0.4	0.8	4.6	0.3	0.5	0.3	
	11/13/2008	0.1	0.05	5	0.001	8	83	0.0006	0.1	0.02	0.03	0.02	4.3	1.8	1.4	4.1	2.5	1.6	0.6	4	2.4	0	0.3	0.57	0.48	0.38	0	
	3/19/2009	0.1	0.05	4	0.001	8	84	0.0007	0.1	0.01	0.03	0.02	3.7	2.1	1.6	3.4	2.6	1.6	0.4	4.1	2.4	0	0.2	0.8	0.2	0.22	0.8	
	Average	0.10	0.05	5.00	0.001	7.80	89.00	0.0060	0.10	0.01	0.05	0.02	9.98	1.75	1.70	4.10	2.78	1.67	0.78	5.73	3.40	0.23	0.43	2.47	0.30	0.37	0.45	
M-18	70	6/18/2008	0.1	0.05	7	0.001	5.2	64	0.0605	0.1	0.01	0.03	0.01	448	1.8	9.2	145	2.7	3.4	44.2	12	7.9	2.3	1.4	263	0.1	2.9	2.6
	7/23/2008	0.1	0.05	6	0.001	11.7	62	0.0448																				

Well	Collection Date	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silica (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Iron (mg/L)	Manganese (mg/L)	Gross Alpha (pCi/L)	Gross Alpha MDC (pCi/L)	Gross Alpha precision (±) (pCi/L)	Gross Beta (pCi/L)	Gross Beta MDC (pCi/L)	Gross Beta precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	TOT	TOT	DIS	DIS		DIS	DIS		DIS			DIS		DIS	DIS		DIS
	Average	0.10	0.05	4.00	0.001	8.90	88.33	0.0069	0.10	0.01	0.03	0.01	188.33	1.87	6.30	69.43	2.73	2.60	27.93	3.47	2.37	1.47	1.00	36.67	0.16	1.13	0.57
AVERAGE	70 SAND	0.10	0.05	5.63	0.001	8.69	79.09	0.01	0.10	0.01	0.05	0.02	193.60	1.80	5.39	65.72	2.77	2.48	11.02	6.24	3.66	0.86	0.70	59.36	0.23	1.33	0.84

1. A "0" value represents below the minimum detectable concentration.

Well	Collection Date	Radium 228	Radium 228	Thorium 230	Thorium 230	Lead 210	Lead 210 MDC	Lead 210	Polonium 210	Polonium 210	Radium 226	Radium 226	Radium 226	Radium 228	Radium 228	Radium 228	Thorium 230	Thorium 230	Uranium
		MDC (pCi/L)	precision (±) (pCi/L)	(pCi/L)	precision (±) (pCi/L)	(pCi/L)	(pCi/L)	precision (±) (pCi/L)	(pCi/L)	precision (±) (pCi/L)	(pCi/L)	MDC (pCi/L)	precision (±) (pCi/L)	(pCi/L)	MDC (pCi/L)	precision (±) (pCi/L)	(pCi/L)	precision (±) (pCi/L)	(mg/L)
M-9	70	DIS		DIS		SUS			SUS		SUS	SUS					SUS		SUS
		6/19/2008	1.2	0.7	0	0.08	14.2	20.6	12.6	1.3	0.8	0.8	0.5	0.4	NOT ANALYZED		0.4	0.3	0.0003
		8/12/2008	1.2	0.8	0	0.09	0.2	9.9	5.9	0.6	0.6	2.9	0.5	0.7		0	0.9	0.0003	
		11/3/2008	1.1	0.7	0	0.07	3.5	8	4.8	0.3	0.5	0.7	0.4	0.3		0.2	0.3	0.0003	
		3/12/2009	1.2	0.8	0.03	0.08	6.1	4.1	2.5	0.5	0.4	1.4	0.3	0.4		0.07	0.2	0.0003	
	Average	1.18	0.75	0.01	0.08	6.00	10.65	6.45	0.68	0.58	1.45	0.43	0.45			0.17	0.43	0.0003	
M-10	70	3/28/2008	1.1	0.8	0	0.1	0		19.7	6.4	6.4	1	3	1.9	NOT ANALYZED		0.3	1.2	0.0011
		7/17/2008	1.1	0.7	0	0.09	0	11.8	7	0	0.2	0	0.6	0.2		0	0.2	0.0003	
		11/11/2008	1.3	0.9	0	0.06	0.1	9.8	5.9	0.1	0.4	0	0.4	0.2		0	0.3	0.0003	
		3/5/2009	0.9	0.6	0.03	0.1	5	4.7	2.8	0.02	0.2	0	0.4	0.2		0.3	0.2	0.0003	
		Average	1.10	0.75	0.01	0.09	1.28	8.77	8.85	1.63	1.80	0.25	1.10	0.63			0.15	0.48	0.0005
	M-11	70	4/16/2008	1		0		0		0.6		1	0.4		NOT ANALYZED		0.1		0.0003
7/15/2008			1.1	0.7	0.1	0.1	0	23.3	13.8	0.1	0.3	0	0.7	0.4		0	0.2	0.0003	
11/7/2008			1.2	0.8	0.1	0.1	0.5	8.2	4.9	0.2	0.4	0.6	0.3	0.3		0	0.05	0.0003	
3/4/2009			1	0.6	0.01	0.2	8.2	4.7	2.9	0.5	0.5	0.07	0.4	0.2		0	0.2	0.0003	
Average			1.08	0.70	0.05	0.13	2.18	12.07	7.20	0.35	0.40	0.42	0.45	0.30			0.03	0.15	0.0003
M-14		70	4/17/2008	1		0		0		0.1		0.3	0.4		NOT ANALYZED		0.1		0.0003
	7/24/2008		1	0.7	0	0.1	4.8	25	14.9	0.1	0.3	0.007	0.6	0.3		0.4	0.2	0.0003	
	11/5/2008		1.1	0.7	0.1	0.2	0	8.4	5	0.1	0.3	0.4	0.3	0.3		0.2	0.05	0.0003	
	3/16/2009		1.4	0.8	0.04	0.1	4.3	3.1	1.9	0.3	0.3	0.2	0.1	0.1		0	0.1	0.0003	
	Average		1.13	0.73	0.04	0.13	2.28	12.17	7.27	0.15	0.30	0.23	0.35	0.23			0.18	0.12	0.0003
	M-15	70	3/28/2008	1.1	0.7	0.1	0.1	0		18.5	13.8	8.5	3.4	3	2.3	NOT ANALYZED		4.7	2.9
6/30/2008			1.3	0.8	0	0.04	2.4	7.6	4.5	0.2	0.3	0	0.5	0.2	0.1		0.1	0.0003	
7/17/2008			1.1	0.7	0.1	0.1	0	11.8	6.9	0.2	0.4	0	0.5	0.2	0		0.2	0.0003	
11/13/2008			3.5	2.1	0	0.07	3.2	9.9	5.9	0.2	0.3	0.09	0.5	0.3	0		0.2	0.0003	
3/18/2009			1.2	0.7	0.05	0.08	0	3.1	1.9	0	0.1	0	0.1	0.07	0.07	0.1	0.0003		
Average		1.64	1.00	0.05	0.08	1.12	8.10	7.54	2.88	1.92	0.70	0.92	0.61			0.97	0.70	0.0023	
M-16	70	4/16/2008	1		0		0		0.6		0.1	0.4		NOT ANALYZED		0		0.0004	
		7/16/2008	1.1	0.6	0	0.07	0	11.8	7	0	0.4	0	0.5		0.2	0	0.07	0.0003	
		11/13/2008	3.5	2.1	0.1	0.08	0.3	9.7	5.8	0	0.2	0.07	0.4		0.2	0.1	0.2	0.0003	
		3/19/2009	1.3	0.8	0.05	0.08	0	3.2	1.9	0.05	0.2	0	0.1		0.05	0	0.1	0.0003	
		Average	1.73	1.17	0.04	0.08	0.08	8.23	4.90	0.16	0.27	0.04	0.35	0.15			0.03	0.12	0.0003
	M-18	70	6/18/2008	1.2	0.8	0.1	0.1	0.5	21.5	12.8	0.5	0.5	0.5	0.4	NOT ANALYZED		0	0.2	0.0003
7/23/2008			1.2	0.8	0.1	0.1	0	12.6	7.5	0.9	0.6	0.5	0.6	0.5		0.2	0.2	0.0003	
11/5/2008			1.1	0.7	0.3	0.1	0	8.5	5	0.5	0.5	0.7	0.4	0.3		0	0.05	0.0003	
2/24/2009			1.2	0.8	0.09	0.1	12.6	6.4	3.9	0.4	0.3	1.3	0.2	0.2		0.009	0.1	0.0003	
Average			1.18	0.78	0.15	0.10	3.28	12.25	7.30	0.58	0.48	0.75	0.43	0.35			0.05	0.14	0.0003
M-20		70	3/29/2008	1.10	0.70	0.00	0.10	0.00		16.50	10.50	6.60	3.10	3.00	2.30	NOT ANALYZED		3.90	2.70
	6/30/2008		1.3	0.8	0	0.05	4	7.5	4.5	0.9	0.6	0	0.5	0.2	0.1		0.1	0.0004	
	7/22/2008		1.3	0.8	0.1	0.1	0	25.8	15.2	0	0.3	0	0.6	0.3	0.2		0.2	0.2	0.0003
	11/12/2008		3.5	2.1	0.1	0.09	1.5	9.8	5.8	0.4	0.5	0	0.4	0.2	0		0.3	0.0003	
	3/20/2009		1.5	0.9	0	0.05	2.2	5	3	0.1	0.3	1.2	0.2	0.3	0.2	0.2	0.2	0.0003	
	Average	1.74	1.06	0.04	0.08	1.54	12.03	9.00	2.38	1.66	0.86	0.94	0.66			0.88	0.70	0.0024	
M-21	70	3/27/2008	1.1	0.7	0.7	0.3	0		4.8	9.6	4.2	2.2	1	0.9	NOT ANALYZED		1	1	0.0029
		7/18/2008	1.5	0.9	0	0.09	0	12.4	7.4	0.5	0.5	0	0.6	0.2		0	0.2	0.0003	
		11/13/2008	5.2	3	0	0.09	2.8	8.1	4.9	1	1.6	0	0.5	0.2		0.2	0.2	0.0003	
		3/20/2009	1.3	0.8	0.08	0.1	4.5	5	3.1	0.3	0.3	0.3	0.2	0.1		0	0.2	0.0003	
		Average	2.28	1.35	0.20	0.15	1.83	8.50	5.05	2.85	1.65	0.63	0.58	0.35			0.30	0.40	0.0010
	M-23	70	8/15/2008	1.2	0.7	0	0.1	4.5	9.8	6	0.1	0.3	0.9	0.5	0.4	NOT ANALYZED		0	0.1
11/17/2008			2.3	1.3	0	0.1	0	8.2	4.7	2.6	2.3	0	0.5	0.2	0		0.2	0.0003	
2/24/2009			1.2	0.8	0.006	0.08	3.4	6.7	4.1	0.1	0.3	0	0.2	0.1	0.2		0.2	0.0003	
6/22/2009			1.1	0.7	0.07	0.1	1.6	3.6	2.2	0.04	0.1	0.002	0.05	0.03					
Average			1.45	0.88	0.02	0.10	2.38	7.08	4.25	0.71	0.75	0.23	0.31	0.18			0.07	0.17	0.0003
LMU-1		70	12/4/2008	1.1	0.7	0.2	0.3	0	9.9	5.9	0	0.3	0	0.5	0.2	NOT ANALYZED		0	0.05
	2/10/2009		1.2	0.7	0.006	0.1	0	6.2	3.7	0	0.1	0	0.4	0.2	0		0.2	0.0003	
	6/17/2009		1.4	0.9	0	0.06	0	3.4	2	0	0.1	0.05	0.2	0.1	0		0.2	0.0003	
	8/24/2009		1.1	0.7	0	0.1	0.8	3.4	2	0.04	0.1	0.03	0.2	0.1	0		0.09	0.0003	
	Average		1.20	0.75	0.05	0.14	0.20	5.73	3.40	0.01	0.15	0.02	0.33	0.15			0.00	0.14	0.0003
	LPW-3A	70	12/18/2008	1.3	0.8	0	0.1	17.8	8.9	5.6	1.6	0.7	0	0.4	0.2	NOT ANALYZED		0	0.1
3/2/2009			1.1	0.6	0.001	0.07	2.7	4.1	2.5	0.7	0.5	0.2	0.2	0.2	0.04		0.2	0.0003	
6/22/2009			1	0.7	0	0.05	2.1	3.6	2.2	0.3	0.3	0	0.05	0.03	0		0.04	0.0003	

1. A "0" value represents below the minimum detectable concentration.

Well	Collection Date	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Uranium (mg/L)
		DIS		DIS		SUS			SUS		SUS	SUS					SUS		SUS
	Average	1.13	0.70	0.00	0.07	7.53	5.53	3.43	0.87	0.50	0.07	0.22	0.14				0.01	0.11	0.0003
AVERAGE	70 SAND	1.40	0.88	0.05	0.10	2.47	9.26	6.22	1.10	0.87	0.47	0.53	0.35				0.24	0.30	0.0007

1. A "0" value represents below the minimum detectable concentration.

Well	Collection Date	A/C Balance (± 5) (%)	Anions (meq/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Cations (meq/L)	Chloride (mg/L)	Conductivity (umhos/cm)	Fluoride (mg/L)	pH (s.u.)	Solids, Total Dissolved Calculated (me/L)	Solids, Total Dissolved TDS @ 180 C (mg/L)	TDS Balance (0.80 - 1.20) (dec. %)	Sulfate (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+Nitrite as N (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	
M-5	80	4/30/2008	0.306	4.84	187	9	4.87	2	473	0.5	8.71	283	300	1.06	67	0.28	0.05	0.1	0.001	0.1	0.1	0.005	21	0.05	0.01	0.03	0.001
		7/14/2008	2.58	4.8	209	1	5.05	1	468	0.5	7.95	280	303	1.08	64	0.27	0.05	0.1	0.001	0.1	0.1	0.005	20	0.05	0.01	0.03	0.001
		11/7/2008	2.77	4.71	197	1	4.97	1	404	0.5	8.35	292	286		69	0.3	0.05	0.1	0.001	0.1	0.1	0.005	19	0.05	0.01	0.03	0.001
		3/5/2009	-3.95	4.75	202	1	4.39	1.4	424	0.5	8.44	274	230	0.84	66	0.25	0.05	0.1	0.001	0.1	0.1	0.005	15	0.05	0.01	0.03	0.001
		Average	0.43	4.78	198.75	3.00	4.82	1.35	442.25	0.50	8.27	282.25	279.75	0.99	66.50	0.28	0.05	0.10	0.001	0.10	0.10	0.005	18.75	0.05	0.01	0.03	0.001
M-8	80	5/5/2008	0.692	4.97	161	3	5.04	2	476	0.6	8.6	296	316	1.07	105	0.05	0.05	0.1	0.001	0.1	0.1	0.005	50	0.05	0.01	0.03	0.001
		8/12/2008	4.59	5.15	184	1	5.65	1	506	0.4	7.98	313	323		101	0.1	0.05	0.1	0.007	0.1	0.1	0.005	62	0.05	0.01	0.03	0.001
		11/18/2008	1.33	5.37	192	1	5.51	2	467	0.4	8.1	325	322	0.99	103	0.05	0.05	0.1	0.004	0.1	0.1	0.005	58	0.05	0.01	0.03	0.001
		2/12/2009	-4.93	5.33	193	1	4.83	2	399	0.4	7.93	306	320	1.05	101	0.05	0.05	0.1	0.004	0.1	0.1	0.005	48	0.05	0.01	0.03	0.001
		Average	0.42	5.21	182.5	1.50	5.26	1.75	462.00	0.45	8.09	310.00	320.25	1.04	102.50	0.06	0.05	0.10	0.004	0.10	0.10	0.005	54.50	0.05	0.01	0.03	0.001
M-12	80	4/18/2008	1.2	5.02	158	12	4.9	3	490	0.6	8.92	302	316	1.05	91	0.22	0.05	0.1	0.001	0.1	0.1	0.005	15	0.05	0.01	0.03	0.001
		7/18/2008	0.128	5.28	172	5	5.26	1	498	0.6	8.44	321	279		108	0.16	0.05	0.1	0.001	0.1	0.1	0.005	16	0.05	0.01	0.03	0.001
		11/17/2008	5	4.78	174	1	5.28	3	473	0.7	8.54	304	274		85	0.15	0.1	0.1	0.001	0.1	0.1	0.005	14	0.05	0.01	0.03	0.001
		3/30/2009	0.457	4.5	150	8	4.54	1	437	0.7	8.75	277	265	0.96	82	0.16	0.05	0.1	0.002	0.1	0.1	0.005	10	0.05	0.01	0.03	0.001
		Average	1.70	4.90	163.5	6.50	5.00	2.00	474.50	0.65	8.62	301.00	283.50	1.01	91.50	0.17	0.06	0.10	0.001	0.10	0.10	0.005	13.75	0.05	0.01	0.03	0.001
M-17	80	4/18/2008	3.14	4.97	184	1	5.29	3	478	0.7	8.14	305	283	0.93	88	0.07	0.05	0.1	0.004	0.1	0.1	0.005	16	0.05	0.01	0.05	0.001
		7/15/2008	1.23	4.9	188	1	5.02	2	486	0.7	7.74	290	308	1.06	84	0.06	0.05	0.1	0.005	0.1	0.1	0.005	15	0.05	0.01	0.03	0.001
		11/11/2008	6.23	4.85	183	1	5.5	3	469	0.7	7.91	311	287		84	0.06	0.05	0.1	0.005	0.1	0.1	0.005	18	0.05	0.01	0.03	0.001
		3/30/2009	-1.93	4.96	185	4	4.78	2	529	0.7	7.96	294	303	1.03	82	0.11	0.05	0.1	0.005	0.1	0.1	0.005	14	0.05	0.01	0.03	0.001
		Average	2.17	4.92	185	1.75	5.15	2.50	490.50	0.70	7.91	300.00	295.25	1.01	84.50	0.08	0.05	0.10	0.005	0.10	0.10	0.005	15.75	0.05	0.01	0.04	0.001
M-19	80	6/20/2008	1.15	6.72	230	7	6.88	5	632	0.5	8.6	406	404	1	124	0.2	0.05	0.1	0.008	0.1	0.1	0.005	32	0.05	0.01	0.03	0.001
		7/22/2008	0.761	6.6	228	6	6.5	4	630	0.5	8.6	390	378		121	0.61	0.05	0.1	0.006	0.1	0.1	0.005	32	0.05	0.01	0.03	0.001
		11/13/2008	-7.9	6.25	215	1	5.34	4	594	0.6	8.39	363	367		125	0.18	0.05	0.1	0.006	0.1	0.1	0.005	27	0.05	0.01	0.03	0.001
		3/20/2009	-1.23	6.24	212	6	6.09	4	592	0.6	8.37	375	348	0.93	115	0.2	0.05	0.1	0.007	0.1	0.1	0.005	28	0.05	0.01	0.03	0.001
		Average	-1.80	6.45	221.25	5.00	6.20	4.25	612.00	0.55	8.48	383.50	374.25	0.97	121.25	0.30	0.05	0.10	0.007	0.10	0.10	0.005	29.75	0.05	0.01	0.03	0.001
M-26	80	4/21/2008	2.23	5.99	201	1	6.26	2	531	0.4	8.4	358	335	0.94	125	0.09	0.05	0.1	0.006	0.1	0.1	0.005	52	0.05	0.01	0.03	0.001
		7/28/2008	2.9	5.74	209	1	6.08	2	547	0.4	7.93	340	318		106	0.08	0.05	0.1	0.005	0.1	0.1	0.005	49	0.05	0.01	0.03	0.001
		11/10/2008	2.2	5.62	196	2	5.87	1	479	0.4	7.82	340	326		109	0.1	0.05	0.1	0.004	0.1	0.1	0.005	47	0.05	0.01	0.03	0.001
		3/16/2009	-1.62	5.66	206	1	5.48	2	529	0.4	7.98	331	308	0.93	106	0.06	0.05	0.1	0.003	0.1	0.1	0.005	42	0.05	0.01	0.03	0.001
		Average	1.43	5.75	203	1.25	5.92	1.75	521.50	0.40	7.99	342.25	321.75	0.94	111.50	0.08	0.05	0.10	0.005	0.10	0.10	0.005	47.50	0.05	0.01	0.03	0.001
OW-1	80	8/18/2008	2.34	7.18	234	1	7.53	9	677	0.3	7.67	432	405		148	0.5	0.05	0.1	0.002	0.1	0.1	0.005	40	0.05	0.01	0.03	0.001
		11/14/2008	5.83	7.03	235	1	7.9	9	681	0.3	7.85	438	396	0.9	140	0.59	0.1	0.1	0.002	0.1	0.1	0.005	43	0.05	0.01	0.03	0.001
		3/18/2009	6.29	7.24	236	1	8.21	9	685	0.3	7.74	451	425	0.94	150	0.5	0.05	0.1	0.001	0.1	0.1	0.005	46	0.05	0.01	0.03	0.006
		6/24/2009	-2.64	7.09	242	1	6.73	8	672	0.3	7.7	413	433	1.05	138	0.8	0.1	0.1	0.001	0.1	0.1	0.005	35	0.05	0.01	0.03	0.001
		Average	2.96	7.14	236.75	1.00	7.59	8.75	678.75	0.30	7.73	433.50	414.75	0.96	144.00	0.60	0.08	0.10	0.002	0.10	0.10	0.005	41.00	0.05	0.01	0.03	0.002
LMU-3	80	12/22/2008	4.84	5.08	170	13	5.6	4	401	0.6	9.17	329	334	1.02	82	0.13	0.05	0.1	0.025	0.1	0.1	0.005	16	0.05	0.01	0.03	0.001
		3/18/2009	1.08	5.15	187	7	5.26	4	509	0.6	8.51	317	319	1.01	84	0.15	0.05	0.1	0.011	0.1	0.1	0.005	14	0.05	0.01	0.03	0.001
		6/18/2009	-2.19	5.26	203	5	5.04	4	508	0.5	8.32	313	321	1.03	78	0.11	0.05	0.1	0.009	0.1	0.1	0.005	13	0.05	0.01	0.03	0.001
		Average	1.24	5.16	186.67	8.33	5.30	4.00	472.67																		

*Sand OW-1 sand location is an estimated on surrounding logs and drill depths.

Well	Collection Date	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silica (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Iron (mg/L)	Manganese (mg/L)	Gross Alpha (pCi/L)	Gross Alpha MDC (pCi/L)	Gross Alpha precision (±) (pCi/L)	Gross Beta (pCi/L)	Gross Beta MDC (pCi/L)	Gross Beta precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	TOT	TOT	DIS	DIS		DIS	DIS		DIS			DIS
M-5	4/30/2008	5	0.01	0.001	0.1	0.05	5	0.001	6.1	76	0.0003	0.1	0.01	0.03	0.01	1.5	1.4		2.7	2.7		0			0
	7/14/2008	7	0.01	0.001	0.1	0.05	5	0.001	6.2	77	0.0003	0.1	0.01	0.03	0.01	3.2	1.6	1.2	3.8	2.7	1.7	1.2	9.1	5.4	0.7
	11/7/2008	7	0.01	0.001	0.1	0.05	5	0.001	14.6	77	0.0003	0.1	0.01	0.03	0.01	2	1.7	1.2	1.7	2.8	1.7	0	5.9	3.5	0
	3/5/2009	6	0.02	0.001	0.1	0.05	4	0.001	9.3	70	0.0003	0.1	0.01	0.03	0.02	2.2	1.6	1.1	3.1	2.7	1.7	3.8	3.2	2	0.06
	Average	6.25	0.01	0.001	0.10	0.05	4.75	0.001	9.05	75.00	0.0003	0.10	0.01	0.03	0.01	2.23	1.58	1.17	2.83	2.73	1.70	1.25	6.07	3.63	0.19
M-8	5/5/2008	13	0.01	0.001	0.1	0.05	11	0.003	6.4	28	0.0623	0.1	0.01	0.03	0.01	121	1.8		45.3	2.7		0			0.5
	8/12/2008	13	0.01	0.001	0.1	0.05	9	0.001	12.8	27	0.0406	0.1	0.01	0.03	0.01	113	2.1	5	33.8	2.6	2.1	15.3	9.9	6.1	0.9
	11/18/2008	15	0.01	0.001	0.1	0.05	9	0.001	13	27	0.0401	0.1	0.01	0.03	0.01	109	1.6	4.9	50.2	2.8	2.4	8.2	4.7	2.9	0.7
	2/12/2009	14	0.01	0.001	0.1	0.05	7	0.001	9.3	25	0.0359	0.1	0.02	0.03	0.02	118	1.7	4.9	45.5	2.7	2.3	22	7.9	5	0.3
	Average	13.75	0.01	0.001	0.10	0.05	9.00	0.002	10.38	26.75	0.0447	0.10	0.01	0.03	0.01	115.25	1.80	4.93	43.70	2.70	2.27	11.38	7.50	4.67	0.60
M-12	4/18/2008	5	0.02	0.001	0.1	0.05	6	0.001	8.4	82	0.0062	0.1	0.01	0.03	0.02	425	1.4		138	2.4		58.1			1.1
	7/18/2008	6	0.02	0.001	0.1	0.05	5	0.001	10.9	89	0.0047	0.1	0.01	0.03	0.02	593	1.6	10.8	284	2.9	4.6	42.6	9.1	6	2.4
	11/17/2008	5	0.02	0.001	0.1	0.05	5	0.001	10	92	0.0049	0.1	0.01	0.04	0.02	838	1.3	12.3	337	2.6	4.7	76.1	4.4	3.6	2.2
	3/30/2009	4	0.01	0.001	0.1	0.05	5	0.001	8	83	0.0058	0.1	0.01	0.03	0.01	436	1.7	8.7	182	2.7	3.7	70.8	2.8	2.4	2.1
	Average	5.00	0.02	0.001	0.10	0.05	5.25	0.001	9.33	86.50	0.0054	0.10	0.01	0.03	0.02	573.00	1.50	10.60	235.25	2.65	4.33	61.90	5.43	4.00	1.95
M-17	4/18/2008	7	0.03	0.001	0.1	0.05	4	0.001	8.1	87	0.0046	0.1	0.01	0.11	0.02	52.3	1.4		18.6	2.4		0.7			0.6
	7/15/2008	6	0.02	0.001	0.1	0.05	4	0.001	4.4	84	0.0053	0.1	0.01	0.05	0.02	52.9	1.6	3.3	16.9	2.7	1.9	8.3	9.1	5.5	0.9
	11/11/2008	7	0.02	0.001	0.1	0.05	4	0.001	11.6	90	0.0069	0.1	0.01	0.06	0.02	49.5	1.5	3.2	16.7	2.6	1.9	0	9.4	5.6	0.1
	3/30/2009	6	0.02	0.001	0.1	0.05	4	0.001	8.3	81	0.0072	0.1	0.01	0.07	0.02	40.6	2	3.1	14.1	3.4	2.2	4.1	2.7	1.7	0.1
	Average	6.50	0.02	0.001	0.10	0.05	4.00	0.001	8.10	85.50	0.0060	0.10	0.01	0.07	0.02	48.83	1.63	3.20	16.58	2.78	2.00	3.28	7.07	4.27	0.43
M-19	6/20/2008	7	0.02	0.001	0.1	0.05	11	0.001	5.2	101	0.0230	0.1	0.01	0.05	0.02	381	1.8	9.3	99.3	2.7	2.9	7.7	12	7.3	7.8
	7/22/2008	8	0.02	0.001	0.1	0.05	9	0.001	11.1	92	0.0204	0.1	0.01	0.03	0.02	378	1.7	9.3	125	2.8	3.3	13.7	13	8	3.1
	11/13/2008	7	0.01	0.001	0.1	0.05	10	0.001	8.8	73	0.0205	0.1	0.01	0.03	0.02	463	2	10.2	131	2.5	3.1	13.7	4	2.6	0.6
	3/20/2009	6	0.02	0.001	0.1	0.05	9	0.001	8.1	91	0.0200	0.1	0.01	0.03	0.02	666	2.4	13.1	195	2.7	3.8	7.4	2.7	1.7	0.7
	Average	7.00	0.02	0.001	0.10	0.05	9.75	0.001	8.30	89.25	0.0210	0.10	0.01	0.04	0.02	472.00	1.98	10.48	137.58	2.68	3.28	10.63	7.93	4.90	3.05
M-26	4/21/2008	15	0.03	0.001	0.1	0.05	9	0.003	5	50	0.0137	0.1	0.01	0.1	0.03	38.8	1.8		10.6	2.7		0			0.2
	7/28/2008	16	0.03	0.001	0.1	0.05	8	0.001	10.4	49	0.0121	0.1	0.01	0.21	0.02	39.8	1.8	3	13.7	3.2	2.1	0	15.1	8.9	0
	11/10/2008	16	0.02	0.001	0.1	0.05	7	0.001	10.7	46	0.0102	0.1	0.01	0.07	0.03	37.9	1.9	3.1	17.1	2.9	2	1.2	10.7	6.4	0.1
	3/16/2009	14	0.03	0.001	0.1	0.05	7	0.001	8.3	48	0.0099	0.1	0.01	0.08	0.03	32.2	2.3	3.2	11.4	2.7	1.8	8.6	13.8	8.3	0.03
	Average	15.25	0.03	0.001	0.10	0.05	7.75	0.002	8.60	48.25	0.0115	0.10	0.01	0.12	0.03	37.18	1.95	3.10	13.20	2.88	1.97	2.45	13.20	7.87	0.08
OW-1	8/18/2008	18	0.08	0.001	0.1	0.05	7	0.001	10.4	89	0.0103	0.1	0.01	0.26	0.09	176	2.5	6.8	64.3	2.9	2.7	4.1	9.9	6	0.1
	11/14/2008	19	0.08	0.001	0.1	0.05	7	0.001	10.9	90	0.0099	0.1	0.01	0.28	0.08	228	1.7	7.4	80.9	3	2.9	6	8	4.9	0.1
	3/18/2009	22	0.07	0.001	0.1	0.05	6	0.001	8.8	91	0.0096	0.1	0.07	0.27	0.07	258	2.7	8.8	81.9	3	3	8.3	4.1	2.5	0.1
	6/24/2009	15	0.08	0.001	0.1	0.05	6	0.001	8.3	80	0.0100	0.1	0.01	0.33	0.08	141	2.4	6	48.4	2.9	2.5	2.9	2.6	1.6	0.4
	Average	18.50	0.08	0.001	0.10	0.05	6.50	0.001	9.60	87.50	0.0100	0.10	0.03	0.29	0.08	200.75	2.33	7.25	68.88	2.95	2.78	5.33	6.15	3.75	0.18
LMU-3	12/22/2008	2	0.01	0.001	0.1	0.05	7	0.001	14.4	102	0.0111	0.1	0.01	0.03	0.01	18.6	1.6	2.1	8.2	2.7	1.7	2.7	4	2.4	0.1
	3/18/2009	2	0.01	0.001	0.1	0.05	6	0.001	9.1	98	0.0090	0.1	0.01	0.03	0.01	22.9	2.1	2.6	5.6	2.6	1.7	0	4.1	2.4	0
	6/18/2009	3	0.01	0.001	0.1	0.05	5	0.001	9.8	92	0.0095	0.1	0.01	0.03	0.01	27.6	1.6	2.4	9.9	2.6	1.8	1	2.8	1.7	0.3
	Average	2.33	0.01	0.001	0.10	0.05	6.00	0.001	11.10	97.33	0.0099	0.10	0.01	0.03	0.01	23.03	1.77	2.37	7.90	2.63	1.73	1.23	3.63	2.17	0.13
LPW-1	12/4/2008	17	0.03	0.001	0.1	0.05	7	0.001	12.4	25	0.0066	0.1	0.01	0.21	0.03	60.4	1.8	3.8	24.1	2.7	2	0	4.1	2.4	0
	2/10/2009	16	0.03	0.001	0.1	0.05	8	0.001	10.5	23	0.0065	0.1	0.01	0.22	0.04	28.9	1.8	2.6	12.9	2.7	1.8	0.7	7.9	4.7	0.5
	6/17/2009	15	0.03	0.001	0.1	0.05	7	0.001	10.8	23	0.0058	0.1	0.01	0.18	0.04	31.3	2.9	3.3	10.8	2.7	1.8	0	6.3	3.7	0.4
	8/24/2009	15	0.04	0.001	0.1	0.05	7	0.001	10.3	24	0.0058	0.1	0.01	0.2	0.04	22.5	2.2	2.6	18.2	2.9	2	0	2.6	1.6	0
	Average	15.75	0.03	0.001	0.10	0.05	7.25	0.001	11.00	23.75	0.0062	0.10	0.01	0.20	0.04	35.78	2.18	3.08	16.50	2.75	1.90	0.18	5.23	3.10	0.23
AVERAGE	80 SAND	10.04	0.03	0.00	0.10	0.05	6.69	0.00	9.49	68.87	0.01	0.10	0.01	0.09	0.03	167.56	1.85	5.13	60.27	2.75	2.44	10.85	6.91	4.26	0.76

*Sand OW-1 sand location is an estimated on surrounding logs and drill depths.

Well	Collection Date	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Uranium (mg/L)	
			DIS	DIS		DIS	DIS		DIS		SUS			SUS		SUS	SUS					SUS		SUS	
M-5	80	4/30/2008		0.28	0.19		0.3	0.8	0		0			0		0.7	0.3					0.9		0.0003	
		7/14/2008	1.1	1.1	0.18	0.22	0.07	1.1	0	0.09	0	23.4	13.9	0.3	0.3	0	0.6	0.3				0.1	0.1	0.0003	
		11/7/2008	0.2	0.33	0.22	0.17	2	1.2	0	0.06	0	8.6	5.1	0.2	0.4	0.2	0.3	0.2				0	0.03	0.0003	
		3/5/2009	0.2	1.3	0.08	0.17	1	1	0.6	0.2	0.1	2.2	4.8	2.9	0	0.1	0	0.4	0.2				0.04	0.2	0.0003
		Average	0.50	0.75	0.17	0.19	0.84	1.03	0.70	0.05	0.08	0.55	12.27	7.30	0.13	0.27	0.23	0.40	0.23				0.26	0.11	0.0003
M-8	80	5/5/2008		25.3	0.2		1.3	1	0		0			0.5		0.4	0.3					0.1		0.0003	
		8/12/2008	1	33	0.27	1.3	0.2	1.2	0.1	0.1	1	9.8	5.9	0	0.3	0.9	0.5	0.4				0.2	0.2	0.0003	
		11/18/2008	0.8	37	0.29	1.4	1.8	1	0	0.08	0	8.4	5	1.9	1.9	0	0.4	0.2				0.1	0.2	0.0003	
		2/12/2009	0.4	29	0.18	1.1	1.2	1.1	0.06	0.1	0.2	6.1	3.6	0.1	0.3	0	0.4	0.2				0.02	0.2	0.0003	
		Average	0.73	31.08	0.24	1.27	1.13	1.08	0.70	0.04	0.09	0.30	8.10	4.83	0.63	0.83	0.33	0.40	0.27				0.11	0.20	0.0003
M-12	80	4/18/2008		167	0.22		0.5	1	0.2		41.5			1.5		2	0.3					0.2		0.0003	
		7/18/2008	1.6	138	0.19	2.3	1.3	1.5	0.1	0.1	17	12.4	7.7	2.4	1.1	0.6	0.6	0.4				0.1	0.2	0.0003	
		11/17/2008	0.9	157	0.46	3.7	0	2.3	0	0.1	1.2	8.3	4.9	1.1	1.6	0.3	0.4	0.3				0.1	0.2	0.0003	
		3/30/2009	0.9	175	0.2	2.8	1	1	0.6	0.01	0.06	6.9	5.6	3.4	0.9	0.5	8.9	0.3	0.8				0	0.1	0.0003
		Average	1.13	159.25	0.27	2.93	0.70	1.45	0.93	0.08	0.09	16.65	8.77	5.33	1.48	1.07	2.95	0.40	0.50				0.10	0.17	0.0003
M-17	80	4/18/2008		12.4	0.21		0.04	1	0		0			1		0.6	0.3					0.1		0.0003	
		7/15/2008	1.3	12	0.2	0.66	0.3	1.1	0	0.1	0	23.5	13.8	0	0.2	0	0.7	0.3				0	0.1	0.0003	
		11/11/2008	0.3	12	0.21	0.68	0.6	1.2	0	0.09	0	9.8	5.8	0	0.3	0	0.3	0.1				0	0.4	0.0003	
		3/30/2009	0.3	14	0.2	0.8	0.7	1	0.6	0	0.05	0	5.6	3.3	0.1	0.3	0	0.3	0.2				0	0.1	0.0003
		Average	0.63	12.60	0.21	0.71	0.41	1.08	0.70	0.00	0.08	0.00	12.97	7.63	0.28	0.27	0.15	0.40	0.20				0.03	0.20	0.0003
M-19	80	6/20/2008	3.1	125	0.2	2.3	1	1.1	0	0.2	5.3	15.4	9.3	0.9	0.6	1	0.6	0.5	0	2.6	1.5	0.2	0.2	0.0003	
		7/22/2008	1.8	106	0.34	3.8	0.04	1.3	0	0.09	9.3	24.2	14.6	0.6	0.7	0	0.6	0.2				0	0.2	0.0003	
		11/13/2008	0.5	95	0.45	3.4	1.7	3.5	0.2	0.2	5.5	8.2	5	1.4	1.6	0.02	0.4	0.3				0	0.2	0.0003	
		3/20/2009	0.6	104	0.18	1.9	1	1.3	0.8	0	0.09	2.2	5	3	0.1	0.3	0.7	0.2	0.2				0.06	0.2	0.0003
		Average	1.50	107.50	0.29	2.85	0.94	1.80	1.10	0.05	0.15	5.58	13.20	7.98	0.75	0.80	0.43	0.45	0.30	0.00	2.60	1.50	0.07	0.20	0.0003
M-26	80	4/21/2008		4.8	0.37		0.4	1.9	0		0			0.5		0.6	0.4					0.2		0.0003	
		7/28/2008	0.6	3.7	0.26	0.46	1.3	0.9	0	0.1	0	12.6	7.4	0.1	0.3	0	0.7	0.3				0	0.2	0.0003	
		11/10/2008	0.3	3.5	0.2	0.37	0.4	1.1	0.7	0.1	0.08	0	8.2	4.8	0.2	0.6	0.3	0.3	0.2				0.2	0.05	0.0003
		3/16/2009	0.3	2.5	0.2	0.34	0.4	1.5	0.9	0.02	0.1	0	3.1	1.8	0.05	0.2	0	0.1	0.06				0	0.08	0.0003
		Average	0.40	3.63	0.26	0.39	0.63	1.35	0.73	0.03	0.09	0.00	7.97	4.67	0.21	0.37	0.23	0.38	0.19				0.10	0.11	0.0003
OW-1	80	8/18/2008	0.4	51	0.34	1.8	0.9	1.2	0	0.1	5.6	10	6.1	0.2	0.3	1.6	0.5	0.6				0.1	0.2	0.0003	
		11/14/2008	0.3	41	0.18	1.2	0.7	1.2	0	0.1	0	8.3	4.9	0.3	1.3	0	0.4	0.2				0.1	0.2	0.0003	
		3/18/2009	0.3	49	0.22	1.8	1.2	1.2	0.8	0.07	0.1	2.9	4.1	2.5	0.1	0.3	1	0.2	0.2				0	0.1	0.0003
		6/24/2009	0.4	46	0.19	1.4	1.8	1.1	0.7	0.09	0.1	2.3	3.6	2.1	1.2	0.5	1.6	0.05	0.1				0	0.06	0.0003
		Average	0.35	46.75	0.23	1.55	1.15	1.18	0.75	0.04	0.10	2.70	6.50	3.90	0.45	0.60	1.05	0.29	0.28				0.05	0.14	0.0003
LMU-3	80	12/22/2008	0.3	0.43	0.17	0.16	0.2	1.3	0	0.1	0	8.9	5.3	0	0.2	1.5	0.4	0.4				0	0.2	0.0003	
		3/18/2009	0.2	0.49	0.2	0.19	0	1.3	0.02	0.09	0.4	3.2	1.9	0.02	0.1	0.2	0.1	0.1				0	0.1	0.0003	
		6/18/2009	0.4	0.29	0.18	0.15	0.7	1.1	0.7	0.07	0	3.4	2	0	0.1	0	0.2	0.1				0.1	0.2	0.0003	
		Average	0.30	0.40	0.18	0.17	0.30	1.23	0.77	0.03	0.09	0.13	5.17	3.07	0.01	0.13	0.57	0.23	0.20				0.03	0.17	0.0003
LPW-1	80	12/4/2008	0.2	11	0.08	0.53	1.2	1.2	0.1	0.1	1.2	9.9	5.9	0	0.2	1	0.5	0.4				0	0.05	0.0003	
		2/10/2009	0.5	12	0.19	0.74	0.9	1.2	0.05	0.1	3	6.2	3.8	0.08	0.2	0	0.4	0.2				0.05	0.4	0.0003	
		6/17/2009	0.5	14	0.26	0.85	1	1.4	0.8	0.05	0.09	0	3.4	2	0	0.1	0.007	0.2	0.1				0.1	0.2	0.0003
		8/24/2009	0.2	12	0.18	0.67	1	1.1	0.7	0.04	0.08	0	3.4	2	0.06	0.2	0	0.2	0.09				0.04	0.1	0.0003
		Average	0.35	12.25	0.18	0.70	1.03	1.23	0.73	0.06	0.09	1.05	5.73	3.43	0.04	0.18	0.25	0.33	0.20				0.05	0.19	0.0003
AVERAGE	80 SAND	0.66	41.58	0.22	1.19	0.79	1.27	0.79	0.04	0.10	3.00	8.96	5.35	0.44	0.50	0.69	0.36	0.26	0.00	2.60	1.50	0.09	0.16	0.00	

*Sand OW-1 sand location is an
estimated on surrounding logs and
drill depths.

Well	Collection Date	A/C Balance (± 5) (%)	Anions (meq/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Cations (meq/L)	Chloride (mg/L)	Conductivity (umhos/cm)	Fluoride (mg/L)	pH (s.u.)	Solids, Total Dissolved Calculated (mg/L)	Solids, Total Dissolved TDS @ 180 C (mg/L)	TDS Balance (0.80 - 1.20) (dec. %)	Sulfate (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+Nitrite as N (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	
M-2	90	4/24/2008	3.86	5.53	205	1	5.98	3	525	0.2	8.32	333	329	0.99	100	0.05	0.05	0.1	0.001	0.1	0.1	0.005	62
		7/29/2008	2.99	5.08	169	1	5.39	2	503	0.3	8.16	314	303		108	0.05	0.05	0.1	0.003	0.1	0.1	0.005	46
		11/6/2008	-2.1	5.47	176	6	5.24	1	469	0.3	8.17	334	316		112	0.1	0.05	0.1	0.002	0.1	0.1	0.005	43
		3/17/2009	-2.05	5.44	187	1	5.22	3	512	0.3	8.14	326	287	0.88	109	0.05	0.05	0.1	0.002	0.1	0.1	0.005	47
		Average	0.68	5.38	184.25	2.25	5.46	2.25	502.25	0.28	8.19	326.75	308.75	0.94	107.25	0.06	0.05	0.10	0.002	0.10	0.10	0.005	49.50
M-3	90	4/28/2008	4.12	7.05	158	14	6.49	1	595	0.2	8.83	422	410	0.97	190	0.05	0.05	0.2	0.001	0.1	0.1	0.005	71
		7/30/2008	2.45	7.38	170	1	7.75	1	691	0.3	7.65	467	452		220	0.05	0.05	0.1	0.001	0.1	0.1	0.005	93
		11/6/2008	2.96	7.47	171	1	7.93	1	671	0.3	7.55	488	476		223	0.1	0.05	0.1	0.001	0.1	0.1	0.005	96
		3/17/2009	-3.11	7.44	168	1	6.99	1	690	0.3	7.85	465	430	0.92	223	0.05	0.05	0.1	0.001	0.1	0.1	0.005	81
		Average	1.61	7.34	166.75	4.25	7.29	1.00	661.75	0.28	7.78	460.50	442.00	0.95	214.00	0.06	0.05	0.13	0.001	0.10	0.10	0.005	85.25
M-4	90	4/29/2008	1.03	5.34	145	9	5.45	3	497	0.2	8.75	327	321	0.98	124	0.05	0.05	0.1	0.001	0.1	0.1	0.005	40
		7/30/2008	2.73	5.36	180	1	5.66	2	522	0.2	8.35	328	306		112	0.05	0.05	0.1	0.001	0.1	0.1	0.005	46
		11/6/2008	4.09	5.36	171	6	5.82	1	473	0.2	8.23	339	316		110	0.1	0.05	0.1	0.001	0.1	0.1	0.005	47
		3/17/2009	-0.571	5.33	179	1	5.27	3	508	0.2	8.17	325	272	0.84	111	0.05	0.05	0.1	0.001	0.1	0.1	0.005	37
		Average	1.82	5.35	168.75	4.25	5.55	2.25	500.00	0.20	8.33	329.75	303.75	0.91	114.25	0.06	0.05	0.10	0.001	0.10	0.10	0.005	42.50
M-24	90	3/30/2008	0.105	7.7	191	11	7.72	6	731	0.5	8.82	481	462	0.96	192	0.32	0.1	0.1	0.002	0.1	0.1	0.005	25
		7/23/2008	-5.76	9.02	200	4	8.03	5	742	0.5	8.18	556	297		261	0.42	0.05	0.1	0.001	0.1	0.1	0.005	23
		11/18/2008	2.68	7.41	200	1	7.81	5	704	0.5	8.26	476	446	0.94	190	0.41	0.05	0.1	0.001	0.1	0.1	0.005	20
		3/20/2009	-3.17	7.46	205	1	7	6	733	0.5	8.07	456	428	0.94	187	0.4	0.05	0.1	0.001	0.1	0.1	0.005	20
		Average	-1.54	7.90	199	4.25	7.64	5.50	727.50	0.50	8.16	492.25	408.25	0.95	207.50	0.39	0.06	0.10	0.001	0.10	0.10	0.005	22.00
LPW-2	90	12/5/2008	0.0389	8.69	182	1	8.7	1	723	0.4	7.89	544	525		274	0.05	0.05	0.1	0.001	0.1	0.1	0.005	100
		2/11/2009	-4.39	8.28	184	1	7.58	1	709	0.4	7.72	501	532	1.06	251	0.05	0.05	0.1	0.001	0.1	0.1	0.005	83
		6/17/2009	-2	8.29	183	1	7.97	2	758	0.5	7.67	508	515	1.01	251	0.05	0.05	0.1	0.001	0.1	0.1	0.005	92
		8/24/2009	-1.88	8.1	190	1	7.8	1	747	0.4	7.84	492	548	1.08	237	0.1	0.1	0.1	0.001	0.1	0.1	0.005	88
		Average	-2.06	8.34	184.75	1.00	8.01	1.25	734.25	0.43	7.75	511.25	530.00	1.05	253.25	0.06	0.06	0.10	0.001	0.10	0.10	0.005	90.75
LPW-4	90	12/22/2008	1.78	16.5	351	1	17.1	14	1550	0.3	8.05	1050	1040	0.99	496	0.16	0.05	0.1	0.001	0.1	0.1	0.005	95
		3/18/2009	1.65	16.5	357	1	17.1	15	1510	0.3	7.83	1030	1030	1.00	494	0.15	0.05	0.1	0.001	0.1	0.1	0.005	90
		6/18/2009	-1.21	16.4	359	1	16	14	1470	0.3	7.85	1010	1000	0.99	484	0.12	0.05	0.1	0.001	0.1	0.1	0.005	90
		Average	0.74	16.47	355.7	1.00	16.73	14.33	1510.00	0.30	7.90	1030.00	1023.33	0.99	491.33	0.14	0.05	0.10	0.001	0.10	0.10	0.005	91.67
AVERAGE	90 SAND	0.21	8.46	209.86	2.83	8.45	4.43	772.63	0.33	7.97	525.08	502.68	0.96	231.26	0.13	0.05	0.10	0.001	0.10	0.10	0.01	63.61	

Well	Collection Date	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silica (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Iron (mg/L)	Manganese (mg/L)	Gross Alpha (pCi/L)	Gross Alpha MDC (pCi/L)	Gross Alpha precision (±) (pCi/L)	Gross Beta (pCi/L)	Gross Beta MDC (pCi/L)	Gross Beta precision (±) (pCi/L)	Lead 210 (pCi/L)	
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	TOT	TOT	DIS	DIS		DIS	DIS		DIS	
M-2	90	4/24/2008	0.05	0.32	0.04	1.070	12	0.02	0.001	0.1	0.06	9	0.001	7.7	38	0.0131	0.1	7.87	0.06	0.01	26.1	1.6		11.2	2.5		0
		7/29/2008	0.05	0.01	0.03	0.001	12	0.01	0.001	0.1	0.05	13	0.001	15.8	42	0.0020	0.1	0.01	0.05	0.01	10.9	1.6	1.7	14.8	3.2	2.2	0
		11/6/2008	0.05	0.01	0.03	0.001	12	0.02	0.001	0.1	0.05	10	0.001	16.5	42	0.0008	0.1	0.01	0.06	0.02	10.2	1.7	1.7	11	2.9	1.9	0
		3/17/2009	0.05	0.01	0.03	0.001	12	0.02	0.001	0.1	0.05	8	0.001	12.5	39	0.0008	0.1	0.01	0.06	0.02	2.9	2.3	1.6	8.1	2.7	1.7	0
		Average	0.05	0.09	0.03	0.268	12.00	0.02	0.001	0.10	0.05	10.00	0.001	13.13	40.25	0.0042	0.10	1.98	0.06	0.02	12.53	1.80	1.67	11.28	2.83	1.93	0.00
M-3	90	4/28/2008	0.05	0.01	0.13	0.001	13	0.01	0.001	0.1	0.05	10	0.001	8	36	0.0123	0.1	0.01	0.24	0.04	20.4	1.7		10.8	2.5		0
		7/30/2008	0.05	0.01	0.03	0.001	17	0.08	0.001	0.1	0.05	9	0.001	18.7	33	0.0049	0.1	0.01	0.03	0.1	28.5	2.6	3.1	34	3.1	2.4	0
		11/6/2008	0.05	0.01	0.03	0.001	18	0.1	0.001	0.1	0.05	8	0.001	19.8	33	0.0048	0.1	0.01	0.03	0.11	27.4	1.8	2.6	10.8	2.8	1.9	0
		3/17/2009	0.05	0.01	0.03	0.001	16	0.1	0.001	0.1	0.05	8	0.001	15.7	34	0.0047	0.1	0.01	0.03	0.1	22.9	2.8	3.1	11.1	3	2	1
		Average	0.05	0.01	0.06	0.001	16.00	0.07	0.001	0.10	0.05	8.75	0.001	15.55	34.00	0.0067	0.10	0.01	0.08	0.09	24.80	2.23	2.93	16.68	2.85	2.10	0.25
M-4	90	4/29/2008	0.05	0.01	0.03	0.001	11	0.01	0.001	0.1	0.05	7	0.001	6.6	55	0.0335	0.1	0.01	0.03	0.01	63.7	1.5		22.8	2.5		0
		7/30/2008	0.05	0.01	0.03	0.001	10	0.01	0.001	0.1	0.05	7	0.001	13.9	54	0.0266	0.1	0.01	0.03	0.01	76.1	2.2	4.3	15.3	2.8	1.9	0
		11/6/2008	0.05	0.01	0.03	0.001	12	0.01	0.001	0.1	0.05	7	0.001	14.5	52	0.0242	0.1	0.01	0.03	0.01	75.6	1.5	3.6	23.8	2.8	2.1	0.6
		3/17/2009	0.05	0.01	0.03	0.001	11	0.01	0.001	0.1	0.05	7	0.001	11.5	54	0.0228	0.1	0.01	0.03	0.01	99	2.2	5	28.7	2.7	2.1	5.3
		Average	0.05	0.01	0.03	0.001	11.00	0.01	0.001	0.10	0.05	7.00	0.001	11.63	53.75	0.0268	0.10	0.01	0.03	0.01	78.60	1.85	4.30	22.65	2.70	2.03	1.48
M-24	90	3/30/2008	0.05	0.01	0.03	0.001	7	0.01	0.001	0.1	0.05	6	0.001	7.7	130	0.0574	0.1	0.01	0.03	0.01	435	2.7	10.8	126	2.7	3.2	0
		7/23/2008	0.05	0.01	0.03	0.001	10	0.01	0.001	0.1	0.05	5	0.001	10.6	136	0.0190	0.1	0.01	0.03	0.01	296	2.1	8.4	88.5	3	3	10.2
		11/18/2008	0.05	0.01	0.03	0.001	10	0.02	0.001	0.1	0.05	5	0.001	9.9	135	0.0177	0.1	0.01	0.03	0.02	387	2	10.2	110	3.2	3.3	18.4
		3/20/2009	0.05	0.01	0.03	0.001	8	0.02	0.001	0.1	0.05	4	0.001	7.1	119	0.0136	0.1	0.01	0.03	0.02	658	2.7	14	171	2.7	3.6	17.5
		Average	0.05	0.01	0.03	0.001	8.75	0.02	0.001	0.10	0.05	5.00	0.001	8.83	130.00	0.0269	0.10	0.01	0.03	0.02	444.00	2.38	10.85	123.88	2.90	3.28	11.53
LPW-2	90	12/5/2008	0.05	0.01	0.03	0.001	24	0.04	0.001	0.1	0.05	10	0.001	9.3	35	0.0099	0.1	0.01	0.27	0.04	46.7	2.3	3.9	18.9	3.1	2.1	0
		2/11/2009	0.05	0.01	0.03	0.001	21	0.04	0.001	0.1	0.05	10	0.001	7.8	32	0.0111	0.1	0.01	0.4	0.05	29.7	2.2	3	13	3	2	0.4
		6/17/2009	0.05	0.01	0.03	0.001	22	0.04	0.001	0.1	0.05	9	0.001	9.2	30	0.0103	0.1	0.01	0.33	0.05	42.6	3.5	4.3	12.5	3.2	2.1	0.4
		8/24/2009	0.05	0.01	0.04	0.001	22	0.05	0.001	0.1	0.05	8	0.001	8	32	0.0104	0.1	0.01	0.38	0.05	33.4	2.6	3.3	12.9	3.4	2.3	0.1
		Average	0.05	0.01	0.03	0.001	22.25	0.04	0.001	0.10	0.05	9.25	0.001	8.58	32.25	0.0104	0.10	0.01	0.35	0.05	38.10	2.65	3.63	14.33	3.18	2.13	0.23
LPW-4	90	12/22/2008	0.05	0.01	0.03	0.001	37	0.09	0.001	0.1	0.05	10	0.001	9.5	208	0.1000	0.1	0.01	0.25	0.1	679	4.4	19.4	188	5.5	5.8	19.5
		3/18/2009	0.05	0.01	0.03	0.001	37	0.09	0.001	0.1	0.05	10	0.001	8.8	213	0.1020	0.1	0.01	0.24	0.09	796	5.7	22.2	182	5.4	5.7	30.2
		6/18/2009	0.05	0.01	0.03	0.001	34	0.08	0.001	0.1	0.05	10	0.001	9.1	195	0.1050	0.1	0.01	0.25	0.09	695	4.5	18.5	204	6.6	6.9	29.2
		Average	0.05	0.01	0.03	0.001	36.00	0.09	0.001	0.10	0.05	10.00	0.001	9.13	205.33	0.1023	0.10	0.01	0.25	0.09	723.33	4.87	20.03	191.33	5.83	6.13	26.30
AVERAGE	90 SAND	0.05	0.02	0.04	0.05	17.67	0.04	0.001	0.10	0.05	8.33	0.001	11.14	82.60	0.030	0.10	0.34	0.13	0.045	220.23	2.63	7.23	63.36	3.38	2.93	6.63	

1. A "0" value represents below the minimum detectable concentration.

Well	Collection Date	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)
				DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	SUS	SUS	SUS	SUS	SUS	SUS	SUS	SUS	SUS	SUS	SUS
M-2	90	4/24/2008		0.9		0.6	0.2		0.8	1		0		0			0.5		0	0.4		NOT ANALYZED		
		7/29/2008	15.1	8.9	0.1	0.6	0.25	0.25	1.4	0.9	0.6	0	0.1	0	12.8	7.5	0	0.4	0	0.8	0.3			
		11/6/2008	6.9	4	0.3	0.5	2.1	0.33	0.49	0.5	2.5	1.5	0	0.09	0	8.5	5	0	0.2	0.2	0.4			
		3/17/2009	8.6	5.1	0.1	0.3	0.25	0.17	0.13	0	1.1	0.7	0	0.08	0	3.1	1.8	0	0.1	0	0.1			
		Average	10.20	6.00	0.35	0.47	0.95	0.24	0.29	0.68	1.38	0.93	0.00	0.09	0.00	8.13	4.77	0.13	0.23	0.05	0.43			
M-3	90	4/28/2008		0.4		0.44	0.25		1.2	1.1		0.1		0			0.1		0.8	0.3		NOT ANALYZED		
		7/30/2008	15.1	8.9	0	0.5	0.77	0.27	0.26	0.9	1.5	0.9	0	0.09	5.2	12.5	7.6	0.4	0	0.7	0.3			
		11/6/2008	5.1	3	0.3	0.4	1.4	0.33	0.41	2	2.5	1.6	0	0.1	0	8.6	5.1	0	0.3	0.1	0.4			
		3/17/2009	8.6	5.1	0.07	0.3	0.67	0.23	0.22	2	1.5	1	0.1	0.1	0	3.1	1.9	0	0.1	0	0.1			
		Average	9.60	5.67	0.19	0.40	0.82	0.27	0.30	1.53	1.65	1.17	0.05	0.10	1.30	8.07	4.87	0.13	0.27	0.23	0.38			
M-4	90	4/29/2008		0.4		5	0.16		0.6	1.1		0		0			0		0.5	0.3		NOT ANALYZED		
		7/30/2008	15.1	8.9	0	0.6	6.5	0.31	0.66	0	1.5	0.9	0	0.06	0	12.9	7.7	0	0.4	1.1	0.6			
		11/6/2008	10.2	6.1	0.3	0.4	8	0.33	0.91	0.007	2.5	1.5	0.1	0.1	0	8.6	5.1	0.1	0.4	0.2	0.4			
		3/17/2009	8.6	5.2	0	0.2	8.9	0.2	0.62	0	1.5	0.9	0.02	0.08	0	3.1	1.9	0	0.1	0	0.1			
		Average	11.30	6.73	0.18	0.40	7.10	0.25	0.73	0.15	1.65	1.10	0.03	0.08	0.00	8.20	4.90	0.03	0.30	0.45	0.35			
M-24	90	3/30/2008		1.3	2.8	1.7	63.2	0.1	1.2	0.8	1.1	0.7	0.1	0.1	0		17	1.9	4	2.2	3.2	2.2	NOT ANALYZED	
		7/23/2008	13	7.9	1.2	1.1	82.4	0.4	3	1.4	1.2	0.8	0	0.1	2.9	12.7	7.6	0.3	0.5	0	0.7	0.3		
		11/18/2008	4.7	3.1	0.9	0.7	86	0.28	2.1	1.8	1	0.7	0	0.1	0	9.8	5.8	0.5	0.5	0	0.5	0.3		
		3/20/2009	2.7	1.8	0.8	0.5	93	0.18	1.9	0.8	1.4	0.9	0	0.04	0	4.9	2.9	0.2	0.3	0.3	0.2	0.2		
		Average	6.80	3.53	1.43	1.00	81.15	0.24	2.05	1.20	1.18	0.78	0.03	0.09	0.73	9.13	8.33	0.73	1.33	0.63	1.15	0.75		
LPW-2	90	12/5/2008	4.6	2.7	0.1	0.3	5.1	0.17	0.41	1.5	1.1	0.7	0.1	0.1	0.7	9.7	5.8	0.2	0.4	0	0.4	0.2	NOT ANALYZED	
		2/11/2009	7.9	4.7	0	0.3	4.1	0.18	0.43	0.6	1.1	0.7	0.03	0.09	2.2	6.3	3.8	0.06	0.2	0	0.5	0.2		
		6/17/2009	2.8	1.7	0.4	0.5	4.7	0.27	0.53	1.6	1.4	0.9	0.002	0.06	0	6.7	4	0	0.2	0	0.1	0.06		
		8/24/2009	2.6	1.6	0.2	0.3	3.7	0.17	0.37	1.3	1.1	0.7	0.06	0.1	0.5	3.5	2.1	0.02	0.2	0.03	0.2	0.1		
		Average	4.48	2.68	0.18	0.35	4.40	0.20	0.44	1.25	1.18	0.75	0.05	0.09	0.85	6.55	3.93	0.07	0.25	0.01	0.30	0.14		
LPW-4	90	12/22/2008	4	2.7	0.8	0.6	77	0.29	2.8	1.1	1.3	0.8	0	0.1	3.8	8.8	5.3	0.7	0.6	3.8	0.4	0.6	NOT ANALYZED	
		3/18/2009	4.1	2.7	0.6	0.6	79	0.3	2.8	1.1	1.2	0.8	0	0.06	14.6	3.1	2	0.4	0.3	0.2	0.1	0.1		
		6/18/2009	2.8	2	1.3	0.7	79	0.21	1.9	2.3	1.3	0.9	0.008	0.06	5.8	3.4	2.1	0.6	0.4	1.2	0.2	0.3		
		Average	3.63	2.47	0.90	0.63	78.33	0.27	2.50	1.50	1.27	0.83	0.00	0.07	8.07	5.10	3.13	0.57	0.43	1.73	0.23	0.33		
AVERAGE	90 SAND		7.67	4.51	0.54	0.54	28.79	0.24	1.05	1.05	1.38	0.93	0.026	0.085	1.82	7.53	4.99	0.27	0.47	0.52	0.47	0.31		

Well	Collection Date	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Uranium (mg/L)
		SUS		SUS
M-2	90	4/24/2008	0.1	0.0003
		7/29/2008	0	0.0003
		11/6/2008	0.1	0.0003
		3/17/2009	0	0.0003
		Average	0.05	0.0003
M-3	90	4/28/2008	0.2	0.0003
		7/30/2008	0.1	0.0003
		11/6/2008	0.1	0.0003
		3/17/2009	0	0.0003
		Average	0.10	0.0003
M-4	90	4/29/2008	0	0.0003
		7/30/2008	0.1	0.0004
		11/6/2008	0.1	0.0003
		3/17/2009	0	0.0003
		Average	0.05	0.0003
M-24	90	3/30/2008	0.3	0.0005
		7/23/2008	0	0.0003
		11/18/2008	0.1	0.0003
		3/20/2009	0	0.0003
		Average	0.10	0.0004
LPW-2	90	12/5/2008	0	0.0003
		2/11/2009	0.1	0.0003
		6/17/2009	0	0.0003
		8/24/2009	0.02	0.0003
		Average	0.03	0.0003
LPW-4	90	12/22/2008	0	0.0003
		3/18/2009	0.005	0.1
		6/18/2009	0	0.0003
		Average	0.00	0.17
AVERAGE	90 SAND		0.06	0.20
				0.0003

1. A "0" value represents below the minimum detectable concentration.

Well	Collection Date	A/C Balance (± 5) (%)	Anions (meq/L)	Bicarbonate as HCO3 (mq/L)	Carbonate as CO3 (mg/L)	Cations (meq/L)	Chloride (mg/L)	Conductivity (umhos/cm)	Fluoride (mg/L)	pH (s.u.)	Solids, Total Dissolved Calculated (mg/L)	Solids, Total Dissolved TDS @ 180 C (mg/L)	TDS Balance (0.80 - 1.20) (dec. %)	Sulfate (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+Nitrite as N (me/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	
M-6	100	5/7/2008	2.65	7.45	171	3	7.06	1	672	0.7	8.42	453	434	0.96	215	0.28	0.05	0.1	0.005	0.1	0.1	0.005	79
		8/6/2008	3.32	7.45	180	1	7.96	1	673	0.4	7.74	471	455		210	0.2	0.05	0.1	0.003	0.1	0.1	0.005	92
		12/2/2008	1.84	7.38	190	1	7.66	1	642	0.4	7.81	472	482	1.02	204	0.07	0.05	0.1	0.001	0.1	0.1	0.005	88
		3/25/2009	-2.96	7.3	188	1	6.88	1	687	0.4	7.65	451	474	1.05	201	0.09	0.05	0.1	0.001	0.1	0.1	0.005	75
		Average	1.21	7.40	182.25	1.50	7.39	1.00	668.50	0.48	7.82	461.75	461.25	1.01	207.50	0.16	0.05	0.10	0.003	0.10	0.10	0.005	83.50
M-13	100	6/20/2008	0.526	9.93	345	1	10	8	888	0.3	7.75	577	589	1.02	194	0.2	0.05	0.1	0.013	0.1	0.1	0.005	114
		8/14/2008	0.841	10.2	370	1	10	7	898	0.3	7.47	576	589		188	0.1	0.05	0.1	0.004	0.1	0.1	0.005	120
		11/18/2008	4.1	10.2	376	1	11.1	7	891	0.3	7.64	602	580	0.96	183	0.1	0.05	0.1	0.002	0.1	0.1	0.005	132
		3/30/2009	-3.2	9.91	358	1	9.29	8	795	0.3	7.59	559	544	0.97	183	0.12	0.05	0.1	0.002	0.1	0.1	0.005	104
		Average	0.57	10.06	362.25	1.00	10.10	7.50	868.00	0.30	7.60	578.50	575.50	0.98	187.00	0.13	0.05	0.10	0.005	0.10	0.10	0.005	117.50
LMO-2A	100	12/10/2008	1.31	12.6	250	1	13	4	1090	0.3	8.11	807	752	0.93	404	0.21	0.05	0.1	0.002	0.1	0.1	0.005	132
		3/2/2009	-1.51	13.5	262	1	13.1	5	1180	0.2	7.81	846	820	0.97	435	0.16	0.05	0.1	0.001	0.1	0.1	0.005	128
		6/22/2009	-3	12.3	266	1	11.6	3	1090	0.3	7.88	755	780	1.03	378	0.29	0.1	0.1	0.001	0.1	0.1	0.005	113
		Average	-1.07	12.80	259.33	1.00	12.57	4.00	1120.00	0.27	7.92	802.67	784.00	0.98	405.67	0.22	0.07	0.10	0.001	0.10	0.10	0.005	124.33
AVERAGE	100 SAND	0.24	10.09	267.94	1.17	10.02	4.17	885.50	0.35	7.76	614.31	606.92	0.99	266.72	0.17	0.06	0.10	0.00	0.10	0.10	0.01	108.44	

1. A "0" value represents below the miniumum detectable concentration.

Well	Collection Date	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silica (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Iron (mg/L)	Manganese (mg/L)	Gross Alpha (pCi/L)	Gross Alpha MDC (pCi/L)	Gross Alpha precision (±) (pCi/L)	Gross Beta (pCi/L)	Gross Beta MDC (pCi/L)	Gross Beta precision (±) (pCi/L)	Lead 210 (pCi/L)
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	TOT	TOT	DIS	DIS		DIS	DIS		DIS
M-6	5/7/2008	0.05	0.01	0.05	0.001	16	0.01	0.001	0.1	0.05	12	0.001	8.4	33	0.0997	0.1	0.01	0.09	0.01	1070	1.8		335	2.5		213
	8/6/2008	0.05	0.01	0.03	0.001	18	0.01	0.001	0.1	0.05	13	0.001	20.1	35	0.1320	0.1	0.01	0.12	0.01	1370	2.2	18.6	406	3.3	5.8	1.1
	12/2/2008	0.05	0.01	0.03	0.001	19	0.02	0.001	0.1	0.05	10	0.001	18.9	33	0.0500	0.1	0.02	0.18	0.02	3290	2.1	28.9	1380	2.8	9.3	53.3
	3/25/2009	0.05	0.01	0.03	0.001	18	0.01	0.001	0.1	0.05	10	0.001	16.4	33	0.0546	0.1	0.01	0.17	0.02	1490	2.3	19.6	457	3.2	5.9	85.4
	Average	0.05	0.01	0.04	0.001	17.75	0.01	0.001	0.10	0.05	11.25	0.001	15.95	33.50	0.0841	0.10	0.01	0.14	0.02	1805.00	2.10	22.37	644.50	2.95	7.00	88.20
M-13	6/20/2008	0.05	0.01	0.03	0.001	29	0.03	0.001	0.1	0.05	25	0.002	5.3	29	0.2670	0.1	0.01	0.23	0.02	3320	3.1	35.6	627	2.8	6.6	50.4
	8/14/2008	0.05	0.01	0.03	0.001	31	0.03	0.001	0.1	0.05	17	0.001	10.5	24	0.1420	0.1	0.01	0.54	0.04	2450	3.7	30.4	482	3.7	6.8	63.7
	11/18/2008	0.05	0.01	0.03	0.001	34	0.03	0.001	0.1	0.05	18	0.001	11.2	27	0.1270	0.1	0.01	0.49	0.04	3120	2.8	34.4	848	4.1	9	75.8
	3/30/2009	0.05	0.01	0.03	0.001	29	0.03	0.001	0.1	0.05	18	0.001	10.2	28	0.1390	0.1	0.01	0.37	0.03	2390	3.2	27.8	543	2.9	6.1	118
	Average	0.05	0.01	0.03	0.001	30.75	0.03	0.001	0.10	0.05	19.50	0.001	9.30	27.00	0.1688	0.10	0.01	0.41	0.03	2820.00	3.20	32.05	625.00	3.38	7.13	76.98
LMO-2A	12/10/2008	0.05	0.01	0.03	0.001	35	0.04	0.001	0.1	0.05	16	0.001	17.2	71	0.0006	0.1	0.01	0.23	0.04	4.7	3.1	2.3	8.2	4.7	3	0.2
	3/2/2009	0.05	0.01	0.04	0.001	37	0.06	0.001	0.1	0.05	15	0.001	16.9	72	0.0004	0.1	0.01	0.3	0.05	7.1	4.3	3.1	15.5	4.2	2.7	0
	6/22/2009	0.05	0.01	0.03	0.001	34	0.04	0.001	0.1	0.05	15	0.001	13.5	64	0.0004	0.1	0.01	0.2	0.04	4.6	3.9	2.6	16.1	4.3	2.8	0
	Average	0.05	0.01	0.03	0.001	35.33	0.05	0.001	0.10	0.05	15.33	0.001	15.87	69.00	0.0005	0.10	0.01	0.24	0.04	5.47	3.77	2.67	13.27	4.40	2.83	0.07
AVERAGE	100 SAND	0.05	0.01	0.03	0.00	27.94	0.03	0.00	0.10	0.05	15.36	0.00	13.71	43.17	0.08	0.10	0.01	0.26	0.03	1543.49	3.02	19.03	427.59	3.58	5.65	55.08

1. A "0" value represents below the minimum detectable concentration.

Well	Collection Date	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)
				DIS		DIS	DIS		DIS	DIS		DIS		SUS			SUS		SUS	SUS				
M-6	5/7/2008			12.4		551	1.4		4	1.1		0		33.7			5		5.9	0.3				
	8/6/2008	10.7	6.4	6	2.7	650	0.29	6.2	1.6	1	0.7	0.1	0.1	2	14.8	8.8	0.7	0.6	2	0.4	0.4	NOT ANALYZED		
	12/2/2008	4.1	3.2	5.1	1.7	866	0.08	4.6	5.8	1.2	0.9	0.1	0.2	56.9	10.3	6.9	9.1	2.9	8.7	0.5	1			
	3/25/2009	2.7	2.4	0.8	0.6	963	0.2	6.3	5.4	0.9	0.7	0	0.07	69.8	13.8	9	7.1	1.8	18.3	0.09	0.5			
	Average	5.83	4.00	6.08	1.67	757.50	0.49	5.70	4.20	1.05	0.77	0.05	0.12	40.60	12.97	8.23	5.48	1.77	8.73	0.32	0.63			
M-13	6/20/2008	12	8	1.9	1.5	1490	0.3	8.8	7.2	1.1	0.9	0.1	0.2	52.7	15.4	10.4	15.1	3.6	12.3	0.5	1.2	0.4	2.5	1.5
	8/14/2008	9.9	6.8	1.2	1.1	1430	0.26	8.4	3.6	1.2	0.9	0	0.09	25	9.9	6.3	4.4	1.2	75.8	0.5	3.3			
	11/18/2008	9.4	6.7	1.4	0.7	1330	0.3	8.5	9.7	1	0.9	0.1	0.1	59.8	8.1	5.7	38	10	44	0.5	2			
	3/30/2009	2.7	2.6	5	1.9	1510	0.19	7.9	3.9	0.9	0.7	0.03	0.07	19	5.6	3.5	1.5	0.7	17.8	0.3	1.2			
	Average	8.50	6.03	2.38	1.30	1440.00	0.26	8.40	6.10	1.05	0.85	0.06	0.12	39.13	9.75	6.48	14.75	3.88	37.48	0.45	1.93			
LMD-2A	12/10/2008	4.6	2.7	0	0.2	0.57	0.2	0.18	2.4	1.7	1.1	0	0.1	0	14.9	8.7	0.2	0.4	0	0.6	0.3			
	3/2/2009	3.8	2.3	0.2	0.3	1.3	0.16	0.23	2.5	1.2	0.8	0	0.05	0.2	4.2	2.5	0.1	0.3	0	0.2	0.1			
	6/22/2009	2.6	1.5	0.2	0.3	0.94	0.17	0.21	2.6	1	0.7	0.005	0.07	0.9	3.6	2.2	0.03	0.2	0	0.06	0.02			
	Average	3.67	2.17	0.13	0.27	0.94	0.18	0.21	2.50	1.30	0.87	0.00	0.07	0.37	7.57	4.47	0.11	0.30	0.00	0.29	0.14			
AVERAGE	100 SAND	6.00	4.06	2.86	1.08	732.81	0.31	4.77	4.27	1.13	0.83	0.04	0.10	26.70	10.09	6.39	6.78	1.98	15.40	0.35	0.90			

1. A "0" value represents below the miniumum detectable concentration.

Well	Collection Date	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Uranium (mg/L)	
		SUS		SUS	
M-6	100	5/7/2008	1.8	0.0003	
		8/6/2008	0.1	0.0003	
		12/2/2008	0	0.0003	
		3/25/2009	0.1	0.0003	
		Average	0.50	0.18	0.0003
M-13	100	6/20/2008	0.2	0.2	0.0003
		8/14/2008	0.2	0.2	0.0003
		11/18/2008	0.2	0.2	0.0003
		3/30/2009	0.04	0.2	0.0003
		Average	0.16	0.20	0.0003
LMO-2A	100	12/10/2008	0	0.3	0.0003
		3/2/2009	0.2	0.2	0.0003
		6/22/2009	0.006	0.06	0.0003
		Average	0.07	0.19	0.0003
AVERAGE	100 SAND	0.24	0.19	0.00	

1. A "0" value represents below the miniumum detectable concentration.

Well	Collection Date	A/C Balance (± 5) (%)	Anions (meq/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Cations (meq/L)	Chloride (mg/L)	Conductivity (umhos/cm)	Fluoride (mg/L)	pH (s.u.)	Solids, Total Dissolved Calculated (mg/L)	Solids, Total Dissolved TDS @ 180 C (mg/L)	TDS Balance (0.80 - 1.20) (dec. %)	Sulfate (mg/L)	Nitrogen, Ammonia as N (mg/L)	Nitrogen, Nitrate+Nitrite as N (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	
M-7	110	4/25/2008	2.08	5.57	202	1	5.81	6	536	0.7	8.21	330	331	1	94	0.05	1.61	0.1	0.002	0.1	0.1	0.005	71
		8/13/2008	2.8	5.49	198	1	5.8	4	526	0.7	7.5	330	341		95	0.1	1.68	0.1	0.001	0.1	0.1	0.005	71
		11/5/2008	5.13	5.59	200	1	6.2	6	481	0.8	7.5	355	371		96	0.1	1.69	0.1	0.002	0.1	0.1	0.005	76
		3/12/2009	0.164	5.47	199	1	5.49	6	514	0.7	7.67	327	322	0.98	91	0.05	1.61	0.1	0.002	0.1	0.1	0.005	67
		Average	2.54	5.53	199.75	1.00	5.83	5.50	514.25	0.73	7.64	335.50	341.25	0.99	94.00	0.08	1.65	0.10	0.002	0.10	0.10	0.005	71.25
LMO-1	110	12/5/2008	1.7	10.8	216	1	11.2	1	918	0.6	7.77	693	679		348	0.05	0.05	0.1	0.003	0.1	0.1	0.005	144
		2/11/2009	-4.12	10.8	224	1	9.95	1	926	0.6	7.62	662	689	1.04	341	0.05	0.05	0.1	0.003	0.1	0.1	0.005	122
		6/17/2009	-0.585	10.5	222	1	10.4	2	937	0.6	7.54	658	699	1.06	328	0.05	0.05	0.1	0.003	0.1	0.1	0.005	131
		8/24/2009	-1.83	10.6	235	1	10.2	1	932	0.6	7.73	653	692	1.06	322	0.05	0.1	0.1	0.003	0.1	0.1	0.005	129
		Average	-1.21	10.68	224.25	1.00	10.44	1.25	928.25	0.60	7.63	666.50	689.75	1.05	334.75	0.05	0.06	0.10	0.003	0.10	0.10	0.005	131.50
AVERAGE	110 SAND	0.67	8.10	212.00	1.00	8.13	3.38	721.25	0.66	7.64	501.00	515.50	1.02	214.38	0.06	0.86	0.10	0.002	0.10	0.10	0.005	101.38	

1. A "0" value represents below the minimum detectable concentration.

Well	Collection Date	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silica (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Iron (mg/L)	Manganese (mg/L)	Gross Alpha (pCi/L)	Gross Alpha MDC (pCi/L)	Gross Alpha precision (±) (pCi/L)	Gross Beta (pCi/L)	Gross Beta MDC (pCi/L)	Gross Beta precision (±) (pCi/L)	Lead 210 (pCi/L)		
		DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	TOT	TOT	TOT	DIS	DIS		DIS	DIS		DIS	
M-7	110	4/25/2008	0.05	0.02	0.03	0.003	14	0.01	0.001	0.1	0.05	8	0.015	9.4	20	0.0062	0.1	0.07	0.03	0.01		1.7		9.9	2.5	0		
		8/13/2008	0.05	0.01	0.03	0.001	15	0.01	0.001	0.1	0.05	8	0.016	20.2	19	0.0058	0.1	0.01	0.03	0.01		2.2		12	2.6	8.2		
		11/5/2008	0.05	0.01	0.03	0.001	16	0.01	0.001	0.1	0.05	8	0.018	20.8	21	0.0055	0.1	0.01	0.03	0.01		1.6		12.4	3	0		
		3/12/2009	0.05	0.01	0.03	0.001	15	0.01	0.001	0.1	0.05	7	0.016	19.1	17	0.0052	0.1	0.01	0.03	0.02		2.1		9	2.8	0		
		Average	0.05	0.01	0.03	0.002	15.00	0.01	0.001	0.10	0.05	7.75	0.016	17.38	19.25	0.0057	0.10	0.03	0.03	0.01		22.60	1.90	2.43	10.83	2.73	1.83	2.05
LMO-1	110	12/5/2008	0.05	0.01	0.03	0.001	28	0.06	0.001	0.1	0.05	11	0.001	14.8	32	0.0297	0.1	0.01	0.03	0.07		5.2		26.2	3.9	0.7		
		2/11/2009	0.05	0.01	0.03	0.001	27	0.07	0.001	0.1	0.05	12	0.001	13.7	30	0.0360	0.1	0.04	0.05	0.08		2.9		17.6	3.4	2.8		
		6/17/2009	0.05	0.01	0.03	0.001	27	0.07	0.001	0.1	0.05	10	0.001	15.6	31	0.0321	0.1	0.01	0.05	0.07		2.7		24.8	3.8	1.3		
		8/24/2009	0.05	0.01	0.03	0.001	27	0.08	0.001	0.1	0.05	10	0.001	13.8	29	0.0338	0.1	0.01	0.05	0.08		3.4		19.9	4.2	0.8		
		Average	0.05	0.01	0.03	0.001	27.25	0.07	0.001	0.10	0.05	10.75	0.001	14.48	30.50	0.0329	0.10	0.02	0.05	0.08		71.08	2.98	5.18	22.13	3.83	2.65	1.40
AVERAGE	110 SAND	0.05	0.01	0.03	0.001	21.13	0.040	0.001	0.100	0.05	9.25	0.009	15.93	24.88	0.019	0.10	0.02	0.04	0.04		46.84	2.44	3.80	16.48	3.28	2.24	1.73	

1. A "0" value represents below the miniumum detectable concentration.

Well	Collection Date	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)	Lead 210 precision (±) (pCi/L)	Polonium 210 (pCi/L)	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)
				DIS		DIS	DIS		DIS	DIS		DIS		SUS			SUS		SUS	SUS				
M-7	4/25/2008			1.3		0.8	0.2		1.4	1		0		0			0.6		0	0.4	NOT ANALYZED			
	8/13/2008	9.9	6	0.5	0.8	2	0.24	0.33	2.2	1.2	0.8	0	0.1	1.3	9.8	5.9	0	0.4	0.6	0.5				0.4
	11/5/2008	5.8	3.4	0	0.2	0.87	0.21	0.22	1.5	1.1	0.7	0	0.3	0	8.2	4.8	0.2	0.4	0.3	0.2				
	3/12/2009	2.8	1.6	0.3	0.5	0.19	0.19	0.14	1.6	1.2	0.8	0.1	0.1	0.07	4.1	2.4	0.1	0.3	0	0.4				0.2
	Average	6.17	3.67	0.53	0.50	0.97	0.21	0.23	1.68	1.13	0.77	0.03	0.17	0.34	7.37	4.37	0.23	0.37	0.23	0.40				0.27
LMO-1	12/5/2008	9.2	5.5	0.1	0.3	2.8	0.16	0.31	0.7	1.1	0.7	0.1	0.2	0.08	9.9	5.9	0.1	0.3	0.08	0.4	0.2	NOT ANALYZED		
	2/11/2009	7.9	4.8	0	0.2	2.5	0.18	0.34	1.7	1.1	0.7	0.04	0.08	1.1	6.4	3.8	0.2	0.3	0	0.5	0.2			
	6/17/2009	2.8	1.7	0	0.2	1.7	0.23	0.32	2.4	1.4	1	0.008	0.1	0	3.4	2	0.2	0.2	0	0.2	0.1			
	8/24/2009	2.6	1.6	0	0.3	2.4	0.17	0.31	1.1	1.1	0.7	0.0005	0.08	0	3.4	2	0.09	0.2	0.04	0.2	0.1			
	Average	5.63	3.40	0.03	0.25	2.35	0.19	0.32	1.48	1.18	0.78	0.04	0.12	0.30	5.78	3.43	0.15	0.25	0.03	0.33	0.15			
AVERAGE	110 SAND	5.90	3.53	0.28	0.38	1.66	0.20	0.28	1.58	1.15	0.77	0.03	0.14	0.32	6.57	3.90	0.19	0.31	0.13	0.36	0.21			

1. A "0" value represents below the minimum detectable concentration.

Well	Collection Date	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Uranium (mg/L)	
		SUS		SUS	
M-7	110	4/25/2008	0.3	0.0003	
		8/13/2008	1.8	0.0003	
		11/5/2008	0.6	0.0003	
		3/12/2009	0	0.0003	
		Average	0.68	0.45	0.0003
LMO-1	110	12/5/2008	0	0.0003	
		2/11/2009	0.001	0.1	0.0003
		6/17/2009	0	0.2	0.0003
		8/24/2009	0.01	0.1	0.0003
		Average	0.00	0.11	0.0003
AVERAGE	110 SAND	0.34	0.28	0.0003	

1. A "0" value represents below the miniumum detectable concentration.

Uranium One - Wyoming Sampling Schedule

Ludeman 2008 & 2009

<u>2008</u>													<u>2009</u>											
<u>Location I.D.</u>	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Stock. Well - 1																		NR			9/22			NR
Stock. Well - 2																		NR			9/22			NR
Stock. Well - 3																		6/30			9/24			NR
Stock. Well - 4																		NR			9/24			NR
Stock. Well - 5																		NR			9/24			NR
Stock. Well - 6																		NR			9/24			NR
Stock. Well - 7																		6/30			9/24			NR
Stock. Well - 8																		6/29			9/22			NR
Stock. Well - 9																								
Stock. Well - 10																		6/30			NR			NR
Stock. Well - 11																		6/29			NR			NR
Stock. Well - 12																		6/29			9/22			NR
Stock. Well - 13																		6/29			9/24			NR
Stock. Well - 14																		"NR			NR			NR
Stock. Well - 15																		6/30			9/22			NR
Stock. Well - 16																		6/30			9/24			NR

Well	Collection Date	Analyte	A/C Balance (± 5) (%)	Anions (meq/L)	Bicarbonate as HCO3 (mg/L)	Carbonate as CO3 (mg/L)	Cations (meq/L)	Chloride (mg/L)	Conductivity (umhos/cm)	Fluoride (mg/L)	pH (s.u.)	Solids, Total Dissolved Calculated (mg/L) DIS	Solids, Total Dissolved TDS @ 180 C (mg/L) DIS	Sulfate (mg/L) DIS	Nitrogen, Ammonia as N (mg/L) DIS	Nitrogen, Nitrate+Nitrite as N (mg/L) DIS	Aluminum (mg/L) DIS
			DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS
Stock Well #1	11/6/2008		2.51	6.13	215	1	6.44	4	529	0.6	7.79	381	356	116	0.1	0.94	0.1
	Average		2.51	6.13	215	1.00	6.44	4.00	529	0.60	7.79	381.00	356.00	116.00	0.10	0.94	0.10
Stock Well #2	11/6/2008		2.72	7.09	200	1	7.49	5	630	0.5	8	441	416	175	0.1	0.05	0.1
	Average		2.72	7.09	200	1.00	7.49	5.00	630.00	0.50	8.00	441.00	416.00	175.00	0.10	0.05	0.10
Stock Well #3	11/10/2008		2.83	5.45	184	1	5.78	4	469	0.2	7.83	343	316	112	0.1	0.05	0.1
	6/30/2009		-0.934	5.28	187	1	5.18	3	519	0.2	8.07	319	357	102	0.05	0.01	0.1
	Average		0.95	5.37	185.5	1.00	5.48	3.50	494.00	0.20	7.93	331.00	336.50	107.00	0.08	0.03	0.10
Stock Well #7	6/30/2009		0.34	20.7	362	1	20.9	23	1790	0.4	7.66	1310	1390	680	0.05	0.04	0.1
	Average		0.34	20.70	362	1.00	20.90	23.00	1790.00	0.40	7.66	1310.00	1390.00	680.00	0.05	0.04	0.10
Stock Well #8	6/29/2009		-4.79	5.8	262	1	5.27	4	520	0.2	7.6	326	326	60	0.1	1.78	0.1
	Average		-4.79	5.80	262	1.00	5.27	4.00	520.00	0.20	7.60	326.00	326.00	60.00	0.10	1.78	0.10
Stock Well #9	11/20/2008		2.27	7.65	273	1	8.01	5	679	0.6	8.15	456	435	142	0.05	0.72	0.1
	Average		2.27	7.65	273	1.00	8.01	5.00	679.00	0.60	8.15	456.00	435.00	142.00	0.05	0.72	0.10
Stock Well #10	6/30/2009		0.865	5.42	200	3	5.51	5	535	0.7	8.2	326	359	90	0.05	0.09	0.1
	Average		0.87	5.42	200	3.00	5.51	5.00	535.00	0.70	8.20	326.00	359.00	90.00	0.05	0.09	0.10
Stock Well #11	6/29/2009		-4.09	4.96	221	1	4.57	3	470	0.5	7.9	274	276	59	0.07	0.05	0.1
	Average		-4.09	4.96	221	1.00	4.57	3.00	470.00	0.50	7.90	274.00	276.00	59.00	0.07	0.05	0.10
Stock Well #12	6/29/2009		-4.22	20.3	404	1	18.7	29	1700	0.5	7.3	1230	1300	616	0.05	0.56	0.1
	Average		-4.22	20.30	404	1.00	18.70	29.00	1700.00	0.50	7.30	1230.00	1300.00	616.00	0.05	0.56	0.10
Stock Well #13	6/29/2009		-1.8	5.79	214	1	5.59	2	550	0.4	7.9	337	335	106	0.05	0.05	0.1
	Average		-1.80	5.79	214	1.00	5.59	2.00	550.00	0.40	7.90	337.00	335.00	106.00	0.05	0.05	0.10
Stock Well #15	6/30/2009		-1.88	6.33	209	1	6.09	5	600	0.2	8.03	385	421	129	0.05	1.23	0.1
	Average		-1.88	6.33	209	1.00	6.09	5.00	600.00	0.20	8.03	385.00	421.00	129.00	0.05	1.23	0.10
Stock Well #16	6/30/2009		-4.74	14.1	327	1	12.8	9	1170	0.2	7.51	840	866	404	0.05	0.55	0.1
	Average		-4.74	14.10	327	1.00	12.80	9.00	1170.00	0.20	7.51	840.00	866.00	404.00	0.05	0.55	0.10

Well	Collection Date	Analyte	Arsenic (mg/L)	Barium (mg/L)	Boron (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Nickel (mg/L)	Potassium (mg/L)	Selenium (mg/L)
			DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS	DIS
Stock Well #1	11/6/2008		0.002	0.1	0.1	0.005	80	0.05	0.01	0.03	0.001	14	0.02	0.001	0.1	0.05	8	0.013
	Average		0.002	0.10	0.10	0.005	80.00	0.05	0.01	0.03	0.001	14.00	0.02	0.001	0.10	0.05	8.00	0.013
Stock Well #2	11/6/2008		0.001	0.1	0.1	0.005	69	0.05	0.01	0.03	0.001	17	0.03	0.001	0.1	0.05	7	0.001
	Average		0.001	0.10	0.10	0.005	69.00	0.05	0.01	0.03	0.001	17.00	0.03	0.001	0.10	0.05	7.00	0.001
Stock Well #3	11/10/2008		0.001	0.1	0.1	0.005	45	0.05	0.01	0.03	0.001	12	0.02	0.001	0.1	0.05	6	0.001
	6/30/2009		0.001	0.1	0.1	0.005	38	0.05	0.01	0.03	0.001	10	0.02	0.001	0.1	0.05	6	0.001
	Average		0.001	0.10	0.10	0.005	41.50	0.05	0.01	0.03	0.001	11.00	0.02	0.001	0.10	0.05	6.00	0.001
Stock Well #7	6/30/2009		0.001	0.1	0.1	0.005	126	0.05	0.01	0.03	0.001	61	0.01	0.001	0.1	0.05	5	0.001
	Average		0.001	0.10	0.10	0.005	126.00	0.05	0.01	0.03	0.001	61.00	0.01	0.001	0.10	0.05	5.00	0.001
Stock Well #8	6/29/2009		0.001	0.1	0.1	0.005	69	0.05	0.01	0.03	0.001	9	0.01	0.001	0.1	0.05	7	0.015
	Average		0.001	0.10	0.10	0.005	69.00	0.05	0.01	0.03	0.001	9.00	0.01	0.001	0.10	0.05	7.00	0.015
Stock Well #9	11/20/2008		0.002	0.1	0.1	0.005	73	0.05	0.01	0.03	0.001	20	0.01	0.001	0.1	0.05	7	0.010
	Average		0.002	0.10	0.10	0.005	73.00	0.05	0.01	0.03	0.001	20.00	0.01	0.001	0.10	0.05	7.00	0.010
Stock Well #10	6/30/2009		0.001	0.1	0.1	0.005	20	0.05	0.01	0.03	0.001	8	0.13	0.001	0.1	0.05	5	0.002
	Average		0.001	0.10	0.10	0.005	20.00	0.05	0.01	0.03	0.001	8.00	0.13	0.001	0.10	0.05	5.00	0.002
Stock Well #11	6/29/2009		0.001	0.1	0.1	0.005	40	0.05	0.01	0.03	0.001	12	0.05	0.001	0.1	0.05	6	0.001
	Average		0.001	0.10	0.10	0.005	40.00	0.05	0.01	0.03	0.001	12.00	0.05	0.001	0.10	0.05	6.00	0.001
Stock Well #12	6/29/2009		0.001	0.1	0.2	0.005	199	0.05	0.01	0.03	0.001	48	0.54	0.001	0.1	0.05	10	0.004
	Average		0.001	0.10	0.20	0.005	199.00	0.05	0.01	0.03	0.001	48.00	0.54	0.001	0.10	0.05	10.00	0.004
Stock Well #13	6/29/2009		0.004	0.1	0.1	0.005	43	0.05	0.01	0.03	0.001	14	0.02	0.001	0.1	0.05	7	0.001
	Average		0.004	0.10	0.10	0.005	43.00	0.05	0.01	0.03	0.001	14.00	0.02	0.001	0.10	0.05	7.00	0.001
Stock Well #15	6/30/2009		0.001	0.1	0.1	0.005	71	0.05	0.01	0.03	0.001	12	0.03	0.001	0.1	0.05	8	0.034
	Average		0.001	0.10	0.10	0.005	71.00	0.05	0.01	0.03	0.001	12.00	0.03	0.001	0.10	0.05	8.00	0.034
Stock Well #16	6/30/2009		0.001	0.1	0.1	0.005	94	0.05	0.01	0.03	0.001	40	0.01	0.001	0.1	0.05	5	0.001
	Average		0.001	0.10	0.10	0.005	94.00	0.05	0.01	0.03	0.001	40.00	0.01	0.001	0.10	0.05	5.00	0.001

1. A "0" value represents below minimum detectable limits.

Well	Collection Date	Analyte	Silica (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Iron (mg/L)	Manganese (mg/L)	Gross Alpha (pCi/L)	Gross Alpha MDC (pCi/L)	Gross Alpha precision (±) (pCi/L)	Gross Beta (pCi/L)	Gross Beta MDC (pCi/L)	Gross Beta precision (±) (pCi/L)	Lead 210 (pCi/L)	Lead 210 MDC (pCi/L)
			DIS	DIS	DIS	DIS	DIS	TOT	TOT	DIS	DIS		DIS	DIS		DIS	
Stock Well #1	11/6/2008		18.7	25	0.0054	0.1	0.02	0.89	0.02	25.4	1.7	2.3	10.3	2.8	1.8	0	5.1
	Average		18.70	25.00	0.0054	0.10	0.02	0.89	0.02	25.40	1.70	2.30	10.30	2.80	1.80	0.00	5.10
Stock Well #2	11/6/2008		9.6	57	0.0013	0.1	0.58	0.26	0.03	6.5	1.8	1.5	3.3	2.8	1.7	0	10.2
	Average		9.60	57.00	0.0013	0.10	0.58	0.26	0.03	6.69	0.33	0.00	3.30	2.80	1.70	0.00	10.20
Stock Well #3	11/10/2008		15.3	55	0.0064	0.1	0.01	0.12	0.03	25.3	1.8	2.5	12.6	2.9	1.9	0	4.7
	6/30/2009		13.4	53	0.0063	0.1	0.01	0.12	0.02	27.3	2	2.6	7.2	2.6	1.7	0	2.1
	Average		14.35	54.00	0.0064	0.10	0.01	0.12	0.03	26.30	1.90	2.55	9.90	2.75	1.80	0.00	3.40
Stock Well #7	6/30/2009		14	218	0.0129	0.1	0.16	0.03	0.01	8.2	7.1	4.8	-20	8.8	5	0	2.1
	Average		14.00	218.00	0.0129	0.10	0.16	0.03	0.01	8.20	7.10	4.80	-20.00	8.80	5.00	0.00	2.10
Stock Well #8	6/29/2009		15.1	19	0.0183	0.1	0.01	0.03	0.01	52.9	2.4	3.9	13.4	2.7	1.8	0	2.1
	Average		15.10	19.00	0.0183	0.10	0.01	0.03	0.01	52.90	2.40	3.90	13.40	2.70	1.80	0.00	2.10
Stock Well #9	11/20/2008		10.6	58	0.0365	0.1	0.01	0.03	0.01	49.5	2	3.8	13.3	3.1	2.1	1.8	4.7
	Average		10.60	58.00	0.0365	0.10	0.01	0.03	0.01	49.50	2.00	3.80	13.30	3.10	2.10	1.80	4.70
Stock Well #10	6/30/2009		8.9	86	0.0144	0.1	0.01	0.15	0.14	27.2	2.1	2.7	6.9	2.6	1.7	0	2.1
	Average		8.90	86.00	0.0144	0.10	0.01	0.15	0.14	27.20	2.10	2.70	6.90	2.60	1.70	0.00	2.10
Stock Well #11	6/29/2009		9.3	34	0.0003	0.1	0.02	0.15	0.05	2.2	2.1	1.4	5.3	2.6	1.7	0	2.1
	Average		9.30	34.00	0.0003	0.10	0.02	0.15	0.05	2.20	2.10	1.40	5.30	2.60	1.70	0.00	2.10
Stock Well #12	6/29/2009		16.1	103	0.2030	0.1	0.01	0.03	0.55	315	6.7	15.1	58.1	7.6	5.5	0	2.1
	Average		16.10	103.00	0.2030	0.10	0.01	0.03	0.55	315.00	6.70	15.10	58.10	7.60	5.50	0.00	2.10
Stock Well #13	6/29/2009		8.1	49	0.0104	0.1	0.01	0.4	0.02	21.4	2.1	2.5	10.6	2.7	1.8	0	2.1
	Average		8.10	49.00	0.0104	0.10	0.01	0.40	0.02	21.40	2.10	2.50	10.60	2.70	1.80	0.00	2.10
Stock Well #15	6/30/2009		16.4	32	0.0133	0.1	0.09	0.22	0.03	41.6	2.4	3.5	11.7	2.7	1.8	0	2.1
	Average		16.40	32.00	0.0133	0.10	0.09	0.22	0.03	41.60	2.40	3.50	11.70	2.70	1.80	0.00	2.10
Stock Well #16	6/30/2009		14.3	108	0.0118	0.1	0.01	0.03	0.01	11	4.2	3.3	3.4	4.2	2.5	0	2.1
	Average		14.30	108.00	0.0118	0.10	0.01	0.03	0.01	11.00	4.20	3.30	3.40	4.20	2.50	0.00	2.10

Well	Collection Date	Analyte	Lead 210	Polonium	Polonium 210	Radium	Radium 226	Radium 226	Radium	Radium	Radium 228	Thorium 230	Thorium 230	Lead 210	Lead 210	Lead 210	Polonium 210
			precision (±) (pCi/L)	210 (pCi/L)	precision (±) (pCi/L)	226 (pCi/L)	MDC (pCi/L)	precision (±) (pCi/L)	228 (pCi/L)	228 MDC (pCi/L)	precision (±) (pCi/L)	(pCi/L)	precision (±) (pCi/L)	(pCi/L)	MDC (pCi/L)	precision (±) (pCi/L)	(pCi/L)
				DIS		DIS	DIS		DIS	DIS		DIS		SUS			SUS
Stock Well #1	11/6/2008		3	0	0.3	0.56	0.33	0.29	2	2.5	1.6	0	0.3	0	8.5	5	0
	Average		3.00	0.00	0.30	0.56	0.33	0.29	2.00	2.50	1.60	0.00	0.30	0.00	8.50	5.00	0.00
Stock Well #2	11/6/2008		6.1	0.2	0.5	0.69	0.33	0.32	0	2.5	1.5	0.2	0.4	0	8.3	4.9	0.2
	Average		6.10	0.20	0.50	0.69	0.33	0.32	0.00	2.50	1.50	0.20	0.40	0.00	8.30	4.90	0.20
Stock Well #3	11/10/2008		2.8	0	0.2	3.6	0.2	0.37	0	1.1	0.7	0	0.05	0	8.2	4.9	0
	6/30/2009		1.2	0	0.2	3.3	0.18	0.36	1	1.2	0.8	0.01	0.06	0.2	2.8	1.7	0.1
	Average		2.00	0.00	0.20	3.45	0.19	0.37	0.50	1.15	0.75	0.01	0.06	0.10	5.50	3.30	0.05
Stock Well #7	6/30/2009		1.2	0.08	0.3	0.35	0.17	0.15	0.8	1.2	0.7	0.1	0.1	0	2.9	1.7	0
	Average		1.20	0.08	0.30	0.35	0.17	0.15	0.80	1.20	0.70	0.10	0.10	0.00	2.90	1.70	0.00
Stock Well #8	6/29/2009		1.2	0.03	0.3	0.33	0.2	0.16	2.3	1	0.7	0	0.07	0	2.8	1.7	0.2
	Average		1.20	0.03	0.30	0.33	0.20	0.16	2.30	1.00	0.70	0.00	0.07	0.00	2.80	1.70	0.20
Stock Well #9	11/20/2008		2.8	0.1	0.2	0.06	0.31	0.19	0.8	1	0.6	0.1	0.1	0	8.2	4.9	0.1
	Average		2.80	0.10	0.20	0.06	0.31	0.19	0.80	1.00	0.60	0.10	0.10	0.00	8.20	4.90	0.10
Stock Well #10	6/30/2009		1.2	0.07	0.2	0.19	0.18	0.13	0.6	1.2	0.7	0	0.1	0	2.8	1.7	0.1
	Average		1.20	0.07	0.20	0.19	0.18	0.13	0.60	1.20	0.70	0.00	0.10	0.00	2.80	1.70	0.10
Stock Well #11	6/29/2009		1.2	0	0.2	0.94	0.17	0.21	1.1	1.2	0.8	0.04	0.1	0	2.8	1.7	0
	Average		1.20	0.00	0.20	0.94	0.17	0.21	1.10	1.20	0.80	0.04	0.10	0.00	2.80	1.70	0.00
Stock Well #12	6/29/2009		1.2	0	0.2	0.13	0.19	0.13	1.1	1	0.6	0	0.09	0	2.8	1.7	0.03
	Average		1.20	0.00	0.20	0.13	0.19	0.13	1.10	1.00	0.60	0.00	0.09	0.00	2.80	1.70	0.03
Stock Well #13	6/29/2009		1.2	0.2	0.3	2	0.2	0.3	0.1	1	0.6	0.003		0.08	0	1.7	0
	Average		1.20	0.20	0.30	2.00	0.20	0.30	0.10	1.00	0.60	0.00	#DIV/0!	0.08	0.00	1.70	0.00
Stock Well #15	6/30/2009		1.2	0.04	0.2	0.28	0.17	0.14	0.9	1.2	0.7	0.01	0.06	0	5.9	3.5	0.2
	Average		1.20	0.04	0.20	0.28	0.17	0.14	0.90	1.20	0.70	0.01	0.06	0.00	5.90	3.50	0.20
Stock Well #16	6/30/2009		1.2	0.3	0.5	0.13	0.18	0.12	0.6	1.2	0.7	0.002	0.1	0	2.8	1.7	0
	Average		1.20	0.30	0.50	0.13	0.18	0.12	0.60	1.20	0.70	0.00	0.10	0.00	2.80	1.70	0.00

1. A "0" value represents below minimum detectable limits.

Well	Collection Date	Analyte	Polonium 210 precision (±) (pCi/L)	Radium 226 (pCi/L)	Radium 226 MDC (pCi/L)	Radium 226 precision (±) (pCi/L)	Radium 228 (pCi/L)	Radium 228 MDC (pCi/L)	Radium 228 precision (±) (pCi/L)	Thorium 230 (pCi/L)	Thorium 230 precision (±) (pCi/L)	Uranium (mg/L)
				SUS	SUS					SUS		SUS
Stock Well #1	11/6/2008		0.3	0.1	0.3	0.2	NOT ANALYZED			0	0.03	0.0003
	Average		0.30	0.10	0.30	0.20				0.00	0.03	0.0003
Stock Well #2	11/6/2008		0.4	0.3	0.3	0.2	NOT ANALYZED			0	0.05	0.0003
	Average		0.40	0.30	0.30	0.20				0.00	0.05	0.0003
Stock Well #3	11/10/2008		0.3	0.2	0.3	0.2	NOT ANALYZED			0	0.05	0.0003
	6/30/2009		0.2	0	0.04	0.02				0.06	0.04	0.0003
	Average		0.25	0.10	0.17	0.11				0.03	0.05	0.0003
Stock Well #7	6/30/2009		0.1	0	0.04	0.02	NOT ANALYZED			0.5	0.2	0.0003
	Average		0.10	0.00	0.04	0.02				0.50	0.20	0.0003
Stock Well #8	6/29/2009		0.2	0	0.04	0.02	NOT ANALYZED			0	0.2	0.0003
	Average		0.20	0.00	0.04	0.02				0.00	0.20	0.0003
Stock Well #9	11/20/2008		1	0	0.4	0.2	NOT ANALYZED			0.1	0.2	0.0003
	Average		1.00	0.00	0.40	0.20				0.10	0.20	0.0003
Stock Well #10	6/30/2009		0.2	0.03	0.04	0.02	NOT ANALYZED			0.01	0.06	0.0003
	Average		0.20	0.03	0.04	0.02				0.01	0.06	0.0003
Stock Well #11	6/29/2009		0.4	0	0.04	0.2	NOT ANALYZED			0	0.05	0.0003
	Average		0.40	0.00	0.04	0.20				0.00	0.05	0.0003
Stock Well #12	6/29/2009		0.2	0	0.04	0.02	NOT ANALYZED			0	0.03	0.0003
	Average		0.20	0.00	0.04	0.02				0.00	0.03	0.0003
Stock Well #13	6/29/2009		0.1	0.03	0.04	0.03	NOT ANALYZED			0	0.05	0.0003
	Average		0.10	0.03	0.00	0.03				0.00	0.05	0.0003
Stock Well #15	6/30/2009		0.4	0	0.08	0.04	NOT ANALYZED			0	0.08	0.0003
	Average		0.40	0.00	0.08	0.04				0.00	0.08	0.0003
Stock Well #16	6/30/2009		0.1	0.008	0.04	0.02	NOT ANALYZED			0	0.04	0.0003
	Average		0.10	0.01	0.04	0.02				0.00	0.04	0.0003

Uranium One - Wyoming Sampling Schedule

Ludeman 2008 & 2009

<u>2008</u>													<u>2009</u>												
<u>Location I.D.</u>	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	
N-1															3/20			6/24			9/16				
N-2															3/19			6/22			9/16				
N-3											11/15				3/14			6/24			9/15				
N-4											11/15				3/14			6/25			9/16				
N-5											11/15				3/14			6/25			9/16				
N-6											11/15				3/14			6/25			9/15				
N-7											11/15				3/14			6/26			9/16				
N-8															3/21			6/25			9/23				
N-9															3/19			WD			9/22				
N-10															3/19			WD			9/22				
N-11											11/10				3/16			6/18			9/22				
N-12											11/12				3/17			6/22			9/25				
N-13											11/21				3/25			6/19			9/16				
N-14																					9/23				
N-15											11/7				3/18			6/19			9/23				
N-16											11/11				3/20			6/24			9/14				
N-17											11/10				3/20			6/19			9/14				
N-18															3/25			6/17			9/23				
N-19											11/13				3/16			6/17			9/15				
N-20															3/17			WD			WD				
N-21											11/10				3/20			6/17			9/23				
N-22											11/21				3/31				8/4		9/23				
N-23											11/7				3/17			6/18			9/22				

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-1				Average
	3/20/2009	6/24/2009	9/16/2009		
Bicarbonate as HCO ₃ , mg/L	247	241	248		245
Carbonate as CO ₃ , mg/L	<1	<1	<5		<3
Chloride, mg/L	<1	1	2		1
Conductivity, umhos/cm	835	819	800		818
Fluoride, mg/L	0.9	0.9	0.9		0.9
pH, s.u.	7.59	7.65	7.60		7.61
Solids, Total Dissolved TDS @ 180 C, mg/L	595	567	561		574
Sulfate, mg/L	251	237	237		242
Gross Alpha, pci/L (dissolved)	29.9	33.9	29.3		31.0
Gross Beta, pci/L (dissolved)	13.8	15.3	12.9		14.0
Lead 210, pci/L (dissolved)	<6.9	<2.2	<0.8		<3.3
Polonium 210, pci/L (dissolved)	<0.4	<0.9	<0.6		<0.7
Radium 226, pci/L (dissolved)	0.36	0.37	0.83		0.52
Radium 228, pci/L (dissolved)	2.0	2.2	1.9		2.0
Thorium 230, pci/L (dissolved)	<0.2	<0.2	<0.09		<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05		<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	<0.05	<0.05	<0.05		<0.05
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Arsenic, mg/L (dissolved)	0.001	<0.001	<0.001		<0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Boron, mg/L (dissolved)	0.1	<0.1	<0.1		<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005		<0.005
Calcium, mg/L	123	102	108		111
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05		<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01		<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03		<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Magnesium, mg/L	21	22	23		22
Manganese, mg/L (dissolved)	0.09	<0.01	0.07		0.06
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05		<0.05
Potassium, mg/L	8	9	9		9
Selenium, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Silica, mg/L	16.2	15.8	18.8		16.9
Sodium, mg/L	28	24	24		25
Uranium, mg/L (dissolved)	0.0108	0.0114	0.0118		0.0113
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Zinc, mg/L (dissolved)	<0.01	0.01	<0.01		<0.01
Iron, TOTAL mg/L	0.16	0.12	0.18		0.15
Manganese, TOTAL mg/L	0.10	0.09	0.09		0.09
Lead 210, suspended pci/L	<7.4	<3.3	<4.3		<5.1
Polonium 210 suspended, pci/L	<0.6	<0.4	0.4		<0.5
Radium 226 suspended, pci/L	0.6	<0.05	<0.2		<0.3
Thorium 230 suspended, pci/L	<0.3	0.08	<0.1		<0.2
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003		<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-2				Average
	3/19/2009	6/22/2009	9/16/2009		
Bicarbonate as HCO ₃ , mg/L	248	248	259		252
Carbonate as CO ₃ , mg/L	<1	<1	<5		<3
Chloride, mg/L	1	2	2		2
Conductivity, umhos/cm	852	831	820		834
Fluoride, mg/L	0.7	0.7	0.7		0.7
pH, s.u.	7.81	7.77	7.70		7.76
Solids, Total Dissolved TDS @ 180 C, mg/L	609	563	590		587
Sulfate, mg/L	256	247	245		249
Gross Alpha, pci/L (dissolved)	52	51.7	54.8		52.8
Gross Beta, pci/L (dissolved)	17.9	19.3	14.3		17.2
Lead 210, pci/L (dissolved)	<9.9	<2.2	<0.8		<4.3
Polonium 210, pci/L (dissolved)	<0.9	<0.8	<0.8		<0.9
Radium 226, pci/L (dissolved)	0.35	0.36	<0.23		0.31
Radium 228, pci/L (dissolved)	1.8	1.3	2.5		1.9
Thorium 230, pci/L (dissolved)	<0.1	<0.1	<0.2		<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05		<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	0.10	0.09	0.1		0.10
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Arsenic, mg/L (dissolved)	0.001	0.001	0.001		0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005		<0.005
Calcium, mg/L	124	108	111		114
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05		<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01		<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03		<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Magnesium, mg/L	21	22	23		22
Manganese, mg/L (dissolved)	<0.01	<0.01	<0.01		<0.01
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05		<0.05
Potassium, mg/L	8	8	8		8
Selenium, mg/L (dissolved)	0.002	0.003	0.003		0.003
Silica, mg/L	16.8	17.1	20.0		18.0
Sodium, mg/L	30	30	29		30
Uranium, mg/L (dissolved)	0.0198	0.0200	0.0211		0.0203
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Zinc, mg/L (dissolved)	0.01	0.02	0.01		0.01
Iron, TOTAL mg/L	<0.03	<0.03	<0.03		<0.03
Manganese, TOTAL mg/L	<0.01	<0.01	<0.01		<0.01
Lead 210, suspended pci/L	<7.5	<3.3	<4.3		<5.1
Polonium 210 suspended, pci/L	<0.8	<0.6	<0.5		<0.7
Radium 226 suspended, pci/L	0.3	<0.05	<0.2		<0.2
Thorium 230 suspended, pci/L	<0.5	<0.1	<0.08		<0.3
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003		<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-3				
	11/15/2008	3/14/2009	6/24/2009	9/15/2009	Average
Bicarbonate as HCO ₃ , mg/L	193	136	135	142	152
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	78	119	131	130	115
Conductivity, umhos/cm	1380	1650	1610	1600	1560
Fluoride, mg/L	0.3	0.2	0.2	0.3	0.3
pH, s.u.	7.72	7.52	7.68	7.80	7.68
Solids, Total Dissolved TDS @ 180 C, mg/L	980	1260	1400	1310	1238
Sulfate, mg/L	456	608	626	622	578
Gross Alpha, pci/L (dissolved)	87.6	78.6	224.0	109.0	124.8
Gross Beta, pci/L (dissolved)	25.9	19.9	64.2	25.7	33.9
Lead 210, pci/L (dissolved)	<4.0	8.3	<2.2	2.5	4.3
Polonium 210, pci/L (dissolved)	<1.0	<0.5	<0.5	<0.8	<0.7
Radium 226, pci/L (dissolved)	<0.4	0.47	0.49	0.86	0.56
Radium 228, pci/L (dissolved)	<2.3	2.4	1.4	4.2	2.6
Thorium 230, pci/L (dissolved)	<0.2	<0.2	<0.1	<0.2	<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	3.73	3.16	3.05	3.2	3.29
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.001	0.002	0.001	0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	221	264	252	257	249
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	33	40	37	38	37
Manganese, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	11	14	13	13	13
Selenium, mg/L (dissolved)	0.097	0.120	0.111	0.113	0.110
Silica, mg/L	16.3	12.9	13.6	14.2	14.3
Sodium, mg/L	34	42	35	37	37
Uranium, mg/L (dissolved)	0.0450	0.0389	0.0362	0.0377	0.0395
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	0.01	0.01	0.01	<0.01	0.01
Iron, TOTAL mg/L	0.73	0.39	<0.03	0.03	0.30
Manganese, TOTAL mg/L	0.01	<0.01	<0.01	<0.01	<0.01
Lead 210, suspended pci/L	<8.4	<6.0	<4.8	<4.3	<5.9
Polonium 210 suspended, pci/L	<1.0	1.1	<0.7	<0.4	<0.8
Radium 226 suspended, pci/L	<0.4	<0.5	<0.1	<0.2	<0.3
Thorium 230 suspended, pci/L	<0.2	<0.4	<0.1	<0.06	<0.2
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-4				
	11/15/2008	3/14/2009	6/25/2009	9/16/2009	Average
Bicarbonate as HCO ₃ , mg/L	315	318	321	335	322
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	8	7	7	8	8
Conductivity, umhos/cm	881	880	855	860	869
Fluoride, mg/L	0.2	0.1	0.1	0.2	0.2
pH, s.u.	7.41	7.27	7.50	7.70	7.47
Solids, Total Dissolved TDS @ 180 C, mg/L	582	574	593	601	588
Sulfate, mg/L	186	210	183	183	191
Gross Alpha, pci/L (dissolved)	91	133	38.7	130.0	98.3
Gross Beta, pci/L (dissolved)	43.2	29.6	19.3	35.8	32.0
Lead 210, pci/L (dissolved)	<4.0	4.8	<2.2	<0.8	<3.0
Polonium 210, pci/L (dissolved)	<1.0	<0.7	<0.5	<0.7	<0.8
Radium 226, pci/L (dissolved)	0.53	0.69	0.72	0.53	0.62
Radium 228, pci/L (dissolved)	3.0	2.9	2.0	4.4	3.1
Thorium 230, pci/L (dissolved)	<0.2	<0.2	<0.2	<0.1	<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	3.00	3.60	3.06	3.3	3.24
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	135	111	122	117	121
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	22	19	20	19	20
Manganese, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	10	10	10	10	10
Selenium, mg/L (dissolved)	0.031	0.028	0.024	0.027	0.028
Silica, mg/L	20.1	15.9	17.1	17.6	17.7
Sodium, mg/L	36	36	33	33	35
Uranium, mg/L (dissolved)	0.0725	0.0723	0.0741	0.0737	0.0732
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	0.01	<0.01	<0.01	<0.01	<0.01
Iron, TOTAL mg/L	1.3	3.85	0.48	0.07	1.43
Manganese, TOTAL mg/L	0.02	0.04	<0.01	<0.01	0.002
Lead 210, suspended pci/L	<8.5	<6.2	<3.3	<4.3	<5.6
Polonium 210 suspended, pci/L	1.2	1.0	<0.6	<0.5	0.9
Radium 226 suspended, pci/L	<0.5	<0.4	0.06	<0.2	<0.3
Thorium 230 suspended, pci/L	0.2	0.4	<0.9	<0.09	0.4
Uranium suspended, pci/L	0.0003	0.0011	<0.0003	<0.0003	0.0005

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-5				
	11/15/2008	3/14/2009	6/25/2009	9/16/2009	Average
Bicarbonate as HCO ₃ , mg/L	337	344	345	355	345
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	5	6	5	5	5
Conductivity, umhos/cm	908	906	884	890	897
Fluoride, mg/L	0.2	0.1	0.1	0.2	0.2
pH, s.u.	7.55	7.36	7.52	7.70	7.53
Solids, Total Dissolved TDS @ 180 C, mg/L	593	583	609	612	599
Sulfate, mg/L	196	219	186	186	197
Gross Alpha, pci/L (dissolved)	106	136	37.5	105.0	96.1
Gross Beta, pci/L (dissolved)	36.6	25.8	8.9	40.8	28.0
Lead 210, pci/L (dissolved)	<4.0	4.2	<2.2	<0.8	<2.8
Polonium 210, pci/L (dissolved)	<1.0	<0.7	<0.7	<0.7	<0.8
Radium 226, pci/L (dissolved)	<0.38	0.85	1.0	0.76	0.75
Radium 228, pci/L (dissolved)	<2.3	1.9	2.2	3.7	2.5
Thorium 230, pci/L (dissolved)	<0.2	<0.2	<0.2	<0.1	<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	3.13	3.80	3.58	3.7	3.55
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.002	0.006	0.001	0.001	0.003
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	0.1	<0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	131	124	58	122	109
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	23	22	21	21	22
Manganese, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	10	10	10	10	10
Selenium, mg/L (dissolved)	0.026	0.027	0.029	0.024	0.027
Silica, mg/L	17.2	14.7	16.8	16.0	16.2
Sodium, mg/L	29	32	30	29	30
Uranium, mg/L (dissolved)	0.0771	0.0806	0.0797	0.0838	0.0803
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	0.02	0.07	<0.01	0.01	0.03
Iron, TOTAL mg/L	33.7	13.9	2.11	0.71	12.61
Manganese, TOTAL mg/L	0.17	0.07	0.01	<0.01	0.07
Lead 210, suspended pci/L	<8.3	<6.2	<3.4	<4.3	<5.6
Polonium 210 suspended, pci/L	17.3	1.6	<0.7	0.8	5.1
Radium 226 suspended, pci/L	4.5	1.6	0.4	0.6	1.8
Thorium 230 suspended, pci/L	2.5	0.9	0.3	1.2	1.2
Uranium suspended, pci/L	0.0073	0.0039	0.0008	0.0049	0.0042

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-6				
	11/15/2008	3/14/2009	6/25/2009	9/15/2009	Average
Bicarbonate as HCO ₃ , mg/L	233	239	237	243	238
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	<1	<1	1	2	1
Conductivity, umhos/cm	817	814	799	800	808
Fluoride, mg/L	0.9	0.8	0.9	0.9	0.9
pH, s.u.	7.74	7.49	7.68	7.90	7.70
Solids, Total Dissolved TDS @ 180 C, mg/L	541	546	565	568	555
Sulfate, mg/L	240	259	238	242	245
Gross Alpha, pci/L (dissolved)	44.7	41.9	79.8	27.1	48.4
Gross Beta, pci/L (dissolved)	24.4	15.4	21.4	13.3	18.6
Lead 210, pci/L (dissolved)	<4.0	5.3	<2.2	<0.8	<3.1
Polonium 210, pci/L (dissolved)	<1.0	<0.6	<0.7	<0.5	<0.7
Radium 226, pci/L (dissolved)	0.54	0.63	0.51	1.0	0.67
Radium 228, pci/L (dissolved)	<2.3	3.0	3.3	5.4	3.5
Thorium 230, pci/L (dissolved)	<0.2	<0.3	<0.1	<0.2	<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.001	<0.001	<0.001	0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1	0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	124	107	104	108	111
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	25	22	21	22	23
Manganese, mg/L (dissolved)	0.15	0.15	0.16	0.15	0.15
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	8	8	8	8	8
Selenium, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Silica, mg/L	22.0	17.2	16.5	19.1	18.7
Sodium, mg/L	27	29	25	26	27
Uranium, mg/L (dissolved)	0.0090	0.0100	0.0094	0.0099	0.0096
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	0.01	0.08	<0.01	<0.01	0.03
Iron, TOTAL mg/L	0.03	0.09	<0.03	0.03	0.05
Manganese, TOTAL mg/L	0.17	0.16	0.15	0.16	0.16
Lead 210, suspended pci/L	<8.5	<6.1	<3.3	<4.3	<5.6
Polonium 210 suspended, pci/L	<1.0	<0.6	<0.4	<0.4	<0.6
Radium 226 suspended, pci/L	<0.4	<0.4	0.08	<0.2	<0.3
Thorium 230 suspended, pci/L	<0.2	<0.4	<0.09	<0.08	<0.2
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-7				
	11/15/2008	3/14/2009	6/26/2009	9/16/2009	Average
Bicarbonate as HCO ₃ , mg/L	334	336	335	346	338
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	7	7	6	8	7
Conductivity, umhos/cm	1010	1000	978	980	992
Fluoride, mg/L	0.1	0.1	0.1	0.1	0.1
pH, s.u.	7.55	7.25	7.62	7.80	7.56
Solids, Total Dissolved TDS @ 180 C, mg/L	665	688	686	713	688
Sulfate, mg/L	257	261	249	246	253
Gross Alpha, pci/L (dissolved)	166.0	160	174.0	191.0	172.8
Gross Beta, pci/L (dissolved)	52	40.7	43.1	50.8	46.7
Lead 210, pci/L (dissolved)	<8.0	12	<2.2	<0.8	<5.8
Polonium 210, pci/L (dissolved)	<1.0	<0.7	<0.6	<0.8	<0.6
Radium 226, pci/L (dissolved)	0.56	0.73	1.10	1.1	0.87
Radium 228, pci/L (dissolved)	4.6	4.3	4.9	8.2	5.5
Thorium 230, pci/L (dissolved)	<0.2	<0.3	<0.1	<0.2	<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	3.71	3.92	3.8	3.9	3.83
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.001	<0.001	0.001	<0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1	0.01	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	155	147	140	139	145
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	26	24	23	23	24
Manganese, mg/L (dissolved)	<0.01	0.01	<0.01	<0.01	<0.01
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	10	10	11	10	10
Selenium, mg/L (dissolved)	0.038	0.037	0.034	0.035	0.036
Silica, mg/L	18.1	15.1	17.1	17.6	17.0
Sodium, mg/L	35	33	34	33	34
Uranium, mg/L (dissolved)	0.0970	0.1010	0.0986	0.1020	0.0997
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	0.02	0.08	0.02	0.01	0.03
Iron, TOTAL mg/L	0.17	<0.03	<0.03	<0.03	<0.07
Manganese, TOTAL mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Lead 210, suspended pci/L	<8.4	<6.3	<3.3	<4.4	<5.6
Polonium 210 suspended, pci/L	<1.0	<0.6	<0.6	<0.4	<0.7
Radium 226 suspended, pci/L	<0.5	<0.5	<0.05	<0.2	<0.4
Thorium 230 suspended, pci/L	<0.2	<0.3	<0.07	<0.1	<0.2
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-8				Average
	3/21/2009	6/25/2009	9/23/2009		
Bicarbonate as HCO ₃ , mg/L	258	257	267		261
Carbonate as CO ₃ , mg/L	<1	<1	<5		<3
Chloride, mg/L	2	3	3		3
Conductivity, umhos/cm	550	553	516		540
Fluoride, mg/L	0.6	0.5	0.5		0.5
pH, s.u.	7.62	7.80	7.84		7.75
Solids, Total Dissolved TDS @ 180 C, mg/L	353	330	310		331
Sulfate, mg/L	83	76	77		79
Gross Alpha, pci/L (dissolved)	<2.1	6.8	<3.0		<4.0
Gross Beta, pci/L (dissolved)	6.2	6.2	7.2		6.5
Lead 210, pci/L (dissolved)	<8.6	<2.2	<3.7		<4.9
Polonium 210, pci/L (dissolved)	<0.6	<0.5	<0.5		<0.6
Radium 226, pci/L (dissolved)	0.45	0.51	0.81		0.59
Radium 228, pci/L (dissolved)	<1.1	<1.1	1.5		<1.3
Thorium 230, pci/L (dissolved)	<0.2	<0.2	<0.4		<0.3
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05		<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	<0.05	<0.05	<0.05		<0.05
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Arsenic, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Boron, mg/L (dissolved)	0.1	<0.1	<0.1		<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005		<0.005
Calcium, mg/L	76	65	68		70
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05		<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01		<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03		<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Magnesium, mg/L	14	15	15		15
Manganese, mg/L (dissolved)	0.03	0.03	0.03		0.03
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05		<0.05
Potassium, mg/L	7	7	7		7
Selenium, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Silica, mg/L	7.3	8.5	6.7		7.5
Sodium, mg/L	22	20	21		21
Uranium, mg/L (dissolved)	0.0006	0.0005	0.0004		0.0005
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Zinc, mg/L (dissolved)	<0.01	<0.01	<0.01		<0.01
Iron, TOTAL mg/L	0.20	0.23	0.31		0.25
Manganese, TOTAL mg/L	0.03	0.03	0.03		0.03
Lead 210, suspended pci/L	<8.6	<3.3	<1.7		<4.6
Polonium 210 suspended, pci/L	<0.6	<0.5	<0.5		<0.6
Radium 226 suspended, pci/L	0.45	0.09	<0.2		0.25
Thorium 230 suspended, pci/L	<0.2	<0.5	<0.06		<0.26
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003		<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-9				Average
	3/19/2009	6/18/2009	9/22/2009		
Bicarbonate as HCO ₃ , mg/L	307	Well not working	316		312
Carbonate as CO ₃ , mg/L	<1		<5		<3
Chloride, mg/L	13		12		13
Conductivity, umhos/cm	1170		1150		1160
Fluoride, mg/L	0.1		0.1		0.1
pH, s.u.	7.73		7.70		7.72
Solids, Total Dissolved TDS @ 180 C, mg/L	862		845		854
Sulfate, mg/L	346		350		348
Gross Alpha, pci/L (dissolved)	145		218		182
Gross Beta, pci/L (dissolved)	34.9		41.0		38.0
Lead 210, pci/L (dissolved)	<9.9		<3.7		<6.8
Polonium 210, pci/L (dissolved)	<0.5		<0.5		<0.5
Radium 226, pci/L (dissolved)	0.23		0.31		0.27
Radium 228, pci/L (dissolved)	1.1		2.1		1.6
Thorium 230, pci/L (dissolved)	<0.2		<0.6		<0.4
Nitrogen, Ammonia as N, mg/L	<0.05		<0.05		<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	7.09		6.3		6.7
Aluminum, mg/L (dissolved)	<0.1		<0.1		<0.1
Arsenic, mg/L (dissolved)	<0.001		<0.001		<0.001
Barium, mg/L (dissolved)	<0.1		<0.1		<0.1
Boron, mg/L (dissolved)	0.1		<0.1		0.1
Cadmium, mg/L (dissolved)	<0.005		<0.005		<0.005
Calcium, mg/L	199		183		191
Chromium, mg/L (dissolved)	<0.05		<0.05		<0.05
Copper, mg/L (dissolved)	<0.01		<0.01		<0.01
Iron, mg/L (dissolved)	<0.03		<0.03		<0.03
Lead, mg/L (dissolved)	<0.001		<0.001		<0.001
Magnesium, mg/L	24		26		25
Manganese, mg/L (dissolved)	<0.01		0.01		0.01
Mercury, mg/L (dissolved)	<0.001		<0.001		<0.001
Molybdenum, mg/L (dissolved)	<0.1		<0.1		<0.1
Nickel, mg/L (dissolved)	<0.05		<0.05		<0.05
Potassium, mg/L	12		12		12
Selenium, mg/L (dissolved)	0.048		0.048		0.048
Silica, mg/L	16.0		14.3		15.2
Sodium, mg/L	41		37		39
Uranium, mg/L (dissolved)	0.0750		0.0880		0.0815
Vanadium, mg/L (dissolved)	<0.1		<0.1		<0.1
Zinc, mg/L (dissolved)	0.14		0.07		0.11
Iron, TOTAL mg/L	0.90		0.87		0.89
Manganese, TOTAL mg/L	<0.01		0.01		0.01
Lead 210, suspended pci/L	<7.4		<1.7		<4.6
Polonium 210 suspended, pci/L	<0.9		<0.4		<0.7
Radium 226 suspended, pci/L	0.5		<0.2		0.4
Thorium 230 suspended, pci/L	<0.4		<0.1		<0.3
Uranium suspended, pci/L	<0.0003		0.0004		0.0004

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-10				Average
	3/19/2009	6/18/2009	9/22/2009		
Bicarbonate as HCO ₃ , mg/L	366	Well not working	374		370
Carbonate as CO ₃ , mg/L	<1		<5		<3
Chloride, mg/L	6		6		6
Conductivity, umhos/cm	961		908		935
Fluoride, mg/L	0.5		0.5		0.5
pH, s.u.	7.77		7.78		7.78
Solids, Total Dissolved TDS @ 180 C, mg/L	670		648		659
Sulfate, mg/L	218		193		206
Gross Alpha, pci/L (dissolved)	175		161		168
Gross Beta, pci/L (dissolved)	40.9		37.5		39.2
Lead 210, pci/L (dissolved)	<8.6		<3.7		<6.2
Polonium 210, pci/L (dissolved)	<0.4		<0.6		<0.5
Radium 226, pci/L (dissolved)	0.36		0.27		0.32
Radium 228, pci/L (dissolved)	1.4		1.8		1.6
Thorium 230, pci/L (dissolved)	<0.2		<0.3		<0.3
Nitrogen, Ammonia as N, mg/L	<0.05		<0.05		<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	3.04		2.9		3.0
Aluminum, mg/L (dissolved)	<0.1		<0.1		<0.1
Arsenic, mg/L (dissolved)	<0.001		<0.001		<0.001
Barium, mg/L (dissolved)	<0.1		<0.1		<0.1
Boron, mg/L (dissolved)	0.1		<0.1		0.1
Cadmium, mg/L (dissolved)	<0.005		<0.005		<0.005
Calcium, mg/L	148		126		137
Chromium, mg/L (dissolved)	<0.05		<0.05		<0.05
Copper, mg/L (dissolved)	0.02		<0.01		0.02
Iron, mg/L (dissolved)	<0.03		<0.03		<0.03
Lead, mg/L (dissolved)	<0.001		<0.001		<0.001
Magnesium, mg/L	25		26		26
Manganese, mg/L (dissolved)	<0.01		0.01		0.01
Mercury, mg/L (dissolved)	<0.001		<0.001		<0.001
Molybdenum, mg/L (dissolved)	<0.1		<0.1		<0.1
Nickel, mg/L (dissolved)	<0.05		<0.05		<0.05
Potassium, mg/L	8		9		9
Selenium, mg/L (dissolved)	0.014		0.014		0.014
Silica, mg/L	15.1		13.0		14.1
Sodium, mg/L	31		29		30
Uranium, mg/L (dissolved)	0.0913		0.1030		0.0972
Vanadium, mg/L (dissolved)	<0.1		<0.1		<0.1
Zinc, mg/L (dissolved)	0.1		0.16		0.14
Iron, TOTAL mg/L	0.37		0.41		0.39
Manganese, TOTAL mg/L	<0.01		0.01		0.01
Lead 210, suspended pci/L	<7.5		<1.7		<4.6
Polonium 210 suspended, pci/L	<0.7		<0.3		<.05
Radium 226 suspended, pci/L	0.3		<0.2		0.3
Thorium 230 suspended, pci/L	<0.4		<0.08		<0.3
Uranium suspended, pci/L	<0.0003		<0.0003		<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-11				
	11/10/2008	3/16/2009	6/18/2009	9/22/2009	Average
Bicarbonate as HCO ₃ , mg/L	279	280	306	293	290
Carbonate as CO ₃ , mg/L	<1	<1	<1	<1	<1
Chloride, mg/L	41	35	20	43	35
Conductivity, umhos/cm	1060	1070	1030	1050	1053
Fluoride, mg/L	0.2	0.2	0.2	0.2	0.2
pH, s.u.	7.96	7.54	7.56	7.66	7.68
Solids, Total Dissolved TDS @ 180 C, mg/L	709	717	725	698	712
Sulfate, mg/L	207	208	238	186	210
Gross Alpha, pci/L (dissolved)	113	118	156	99.1	122
Gross Beta, pci/L (dissolved)	36.9	22.8	29.0	35.3	31.0
Lead 210, pci/L (dissolved)	<4.7	<3.2	<2.8	<3.8	<3.7
Polonium 210, pci/L (dissolved)	<1.0	<0.7	<0.9	<0.6	<0.8
Radium 226, pci/L (dissolved)	0.73	0.27	1.60	0.88	0.87
Radium 228, pci/L (dissolved)	4.4	<1.6	5.8	5.6	4.4
Thorium 230, pci/L (dissolved)	<0.2	<0.2	0.1	<0.2	<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	22	24.2	9.5	19.2	18.7
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.001	<0.001	0.001	<0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	0.1	<0.1	<0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	166	153	135	158	153
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	0.02	<0.01	<0.01	<0.02
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	26	24	23	24	24
Manganese, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	11	10	10	11	11
Selenium, mg/L (dissolved)	0.043	0.042	0.043	0.038	0.042
Silica, mg/L	19.0	17.2	17.9	13.4	16.9
Sodium, mg/L	26	25	28	25	26
Uranium, mg/L (dissolved)	0.0598	0.0547	0.0826	0.0605	0.0644
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	0.02	0.02	0.02	0.02	0.02
Iron, TOTAL mg/L	<0.03	<0.03	<0.03	<0.03	<0.03
Manganese, TOTAL mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Lead 210, suspended pci/L	<9.9	<6.3	<4.8	<1.8	<5.7
Polonium 210 suspended, pci/L	<1.0	<0.5	<0.5	<0.5	<0.7
Radium 226 suspended, pci/L	<0.4	<0.5	<0.07	<0.2	<0.3
Thorium 230 suspended, pci/L	0.3	<0.8	<0.1	<0.1	<0.4
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-12				
	11/12/2008	3/17/2009	6/22/2009	9/25/2009	Average
Bicarbonate as HCO ₃ , mg/L	244	244	244	254	247
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	<1	<1	1	1	1
Conductivity, umhos/cm	860	857	845	841	851
Fluoride, mg/L	0.8	0.8	0.8	0.8	0.8
pH, s.u.	7.95	7.37	7.80	7.59	7.68
Solids, Total Dissolved TDS @ 180 C, mg/L	592	610	610	589	600
Sulfate, mg/L	276	261	254	254	261
Gross Alpha, pci/L (dissolved)	35.6	46.1	37.4	39.6	39.7
Gross Beta, pci/L (dissolved)	15.1	12.7	12.3	15.8	14.0
Lead 210, pci/L (dissolved)	<9.4	<2.7	<2.2	<2.0	<4.1
Polonium 210, pci/L (dissolved)	<1.0	<0.6	<0.5	<0.6	<0.7
Radium 226, pci/L (dissolved)	<0.46	0.28	0.21	0.35	0.32
Radium 228, pci/L (dissolved)	<1.9	1.6	<1.1	1.7	1.6
Thorium 230, pci/L (dissolved)	<0.2	<0.4	<0.1	<0.6	<0.4
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	0.28	0.39	0.27	0.2	0.29
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.001	0.001	0.001	0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	132	111	109	116	117
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	28	25	23	24	25
Manganese, mg/L (dissolved)	0.02	0.02	0.02	0.02	0.02
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	9	9	9	8	9
Selenium, mg/L (dissolved)	<0.001	0.001	<0.001	<0.001	<0.001
Silica, mg/L	22.3	18.6	16.9	15.3	18.3
Sodium, mg/L	30	33	27	26	29
Uranium, mg/L (dissolved)	0.0128	0.0136	0.0129	0.0127	0.0130
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	<0.01	<0.01	0.01	<0.01	<0.01
Iron, TOTAL mg/L	<0.03	<0.03	<0.03	<0.03	<0.03
Manganese, TOTAL mg/L	0.04	0.04	0.03	0.03	0.04
Lead 210, suspended pci/L	<10	<6.2	<3.3	<1.8	<5.4
Polonium 210 suspended, pci/L	<1.0	<0.7	<0.6	<0.4	<0.7
Radium 226 suspended, pci/L	<0.4	<0.5	0.2	<0.2	<0.4
Thorium 230 suspended, pci/L	<0.2	<0.4	<0.09	<0.07	<0.2
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-13				
	11/21/2008	3/25/2009	6/19/2009	9/16/2009	Average
Bicarbonate as HCO ₃ , mg/L	229	241	234	240	236
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	13	8	8	7	9
Conductivity, umhos/cm	824	842	821	810	824
Fluoride, mg/L	0.8	0.8	0.8	0.9	0.8
pH, s.u.	7.61	7.66	7.64	7.80	7.68
Solids, Total Dissolved TDS @ 180 C, mg/L	592	568	563	581	576
Sulfate, mg/L	243	234	229	233	235
Gross Alpha, pci/L (dissolved)	44.0	39.6	58.8	44.1	46.6
Gross Beta, pci/L (dissolved)	29.3	16.1	15.8	17.0	19.6
Lead 210, pci/L (dissolved)	<4.4	<2.7	<2.8	<0.8	<2.7
Polonium 210, pci/L (dissolved)	<1.0	<0.7	<0.8	<0.8	<0.9
Radium 226, pci/L (dissolved)	0.7	1.4	1.3	0.67	1.0
Radium 228, pci/L (dissolved)	4.1	4.2	3.8	4.7	4.2
Thorium 230, pci/L (dissolved)	<0.2	<0.2	<0.1	<0.1	<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	0.7	0.4	0.4	0.4	0.5
Aluminum, mg/L (dissolved)	<0.1	3.4	<0.1	<0.1	<1.0
Arsenic, mg/L (dissolved)	0.003	0.001	0.001	0.001	0.002
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	0.1	<0.1	0.1	<0.1	0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	114	106	110	105	109
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	0.08	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	0.36	<0.03	<0.03	<0.12
Lead, mg/L (dissolved)	<0.001	0.005	<0.001	<0.001	<0.002
Magnesium, mg/L	23	22	23	22	23
Manganese, mg/L (dissolved)	<0.01	0.01	<0.01	<0.01	<0.01
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	8	8	9	8	8
Selenium, mg/L (dissolved)	0.009	0.006	0.005	0.004	0.006
Silica, mg/L	19.3	18.4	19.4	19.0	19.0
Sodium, mg/L	28	29	28	26	28
Uranium, mg/L (dissolved)	0.0179	0.0149	0.0141	0.0133	0.0151
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	<0.01	0.26	<0.01	<0.01	<0.008
Iron, TOTAL mg/L	<0.03	<0.03	<0.03	<0.03	<0.03
Manganese, TOTAL mg/L	<0.01	<0.01	<0.01	0.01	<0.01
Lead 210, suspended pci/L	<9.6	4.1	<4.8	<4.4	<5.8
Polonium 210 suspended, pci/L	<0.3	<0.3	<0.5	<0.5	<0.4
Radium 226 suspended, pci/L	<0.5	<0.08	<0.07	<0.2	<0.22
Thorium 230 suspended, pci/L	<0.2	<0.3	<0.1	<0.06	<0.17
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-14			
	9/23/2009			Average
Bicarbonate as HCO ₃ , mg/L	250			250
Carbonate as CO ₃ , mg/L	<5			<5
Chloride, mg/L	71			71
Conductivity, umhos/cm	722			722
Fluoride, mg/L	0.3			0.3
pH, s.u.	7.74			7.74
Solids, Total Dissolved TDS @ 180 C, mg/L	455			455
Sulfate, mg/L	59			59
Gross Alpha, pci/L (dissolved)	66.5			66.5
Gross Beta, pci/L (dissolved)	17.4			17.4
Lead 210, pci/L (dissolved)	<3.7			<3.7
Polonium 210, pci/L (dissolved)	<0.6			<0.6
Radium 226, pci/L (dissolved)	0.90			0.90
Radium 228, pci/L (dissolved)	2.1			2.1
Thorium 230, pci/L (dissolved)	<0.4			<0.4
Nitrogen, Ammonia as N, mg/L	<0.05			<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	4.2			4.2
Aluminum, mg/L (dissolved)	<0.1			<0.1
Arsenic, mg/L (dissolved)	<0.001			<0.001
Barium, mg/L (dissolved)	<0.1			<0.1
Boron, mg/L (dissolved)	<0.1			<0.1
Cadmium, mg/L (dissolved)	<0.005			<0.005
Calcium, mg/L	98			98
Chromium, mg/L (dissolved)	<0.05			<0.05
Copper, mg/L (dissolved)	<0.01			<0.01
Iron, mg/L (dissolved)	<0.03			<0.03
Lead, mg/L (dissolved)	<0.001			<0.001
Magnesium, mg/L	16			16
Manganese, mg/L (dissolved)	<0.01			<0.01
Mercury, mg/L (dissolved)	<0.001			<0.001
Molybdenum, mg/L (dissolved)	<0.1			<0.1
Nickel, mg/L (dissolved)	<0.05			<0.05
Potassium, mg/L	9			9
Selenium, mg/L (dissolved)	0.007			0.007
Silica, mg/L	12.2			12.2
Sodium, mg/L	26			26
Uranium, mg/L (dissolved)	0.0368			0.0368
Vanadium, mg/L (dissolved)	<0.1			<0.1
Zinc, mg/L (dissolved)	<0.01			<0.01
Iron, TOTAL mg/L	0.36			0.36
Manganese, TOTAL mg/L	<0.01			<0.01
Lead 210, suspended pci/L	<1.7			<1.7
Polonium 210 suspended, pci/L	<0.5			<0.5
Radium 226 suspended, pci/L	<0.2			<0.2
Thorium 230 suspended, pci/L	<0.1			<0.1
Uranium suspended, pci/L	<0.0003			<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-15				
	11/7/2008	3/18/2009	6/19/2009	9/23/2009	Average
Bicarbonate as HCO ₃ , mg/L	240	240	244	259	246
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	<1	<1	2	2	2
Conductivity, umhos/cm	839	840	824	809	828
Fluoride, mg/L	0.9	0.8	0.8	0.8	0.8
pH, s.u.	8.07	7.46	7.62	7.82	7.74
Solids, Total Dissolved TDS @ 180 C, mg/L	583	584	602	601	593
Sulfate, mg/L	266	252	240	242	250
Gross Alpha, pci/L (dissolved)	51.5	33.9	43.2	38.0	41.7
Gross Beta, pci/L (dissolved)	24.7	14.5	6.0	12.4	14.4
Lead 210, pci/L (dissolved)	<4.7	<2.7	<2.8	<3.7	<3.5
Polonium 210, pci/L (dissolved)	<1.0	<0.7	<0.8	<0.7	<0.8
Radium 226, pci/L (dissolved)	<0.48	0.59	1.2	0.47	0.69
Radium 228, pci/L (dissolved)	3.4	2.2	2.3	2.9	2.7
Thorium 230, pci/L (dissolved)	<0.2	<0.3	<0.2	<0.3	<0.3
Nitrogen, Ammonia as N, mg/L	<0.1	<0.05	<0.05	<0.05	<0.07
Nitrogen, Nitrate+Nitrite as N, mg/L	0.16	0.15	<0.1	0.1	<0.13
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.001	0.001	0.001	<0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	134	104	115	114	117
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	28	23	25	23	25
Manganese, mg/L (dissolved)	0.13	0.12	0.13	0.13	0.13
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	9	8	9	9	9
Selenium, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Silica, mg/L	22.5	17.3	19.2	14.7	18.4
Sodium, mg/L	28	29	27	26	28
Uranium, mg/L (dissolved)	0.0146	0.0138	0.0154	0.0152	0.0148
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	<0.01	0.01	<0.01	<0.01	<0.01
Iron, TOTAL mg/L	<0.03	<0.03	<0.03	<0.03	<0.03
Manganese, TOTAL mg/L	0.15	0.13	0.13	0.13	0.14
Lead 210, suspended pci/L	<9.9	<6.2	<4.8	<1.7	<5.7
Polonium 210 suspended, pci/L	<1.0	<0.8	<0.6	<0.5	<0.8
Radium 226 suspended, pci/L	<0.4	<0.4	<0.09	<0.2	<0.3
Thorium 230 suspended, pci/L	<0.2	<0.4	<0.1	<0.1	<0.2
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-16				
	11/11/2008	3/20/2009	6/24/2009	9/14/2009	Average
Bicarbonate as HCO ₃ , mg/L	250	247	242	250	247
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	11	8	6	6	8
Conductivity, umhos/cm	962	916	893	870	910
Fluoride, mg/L	0.6	0.7	0.7	0.7	0.7
pH, s.u.	7.73	7.40	7.62	7.70	7.61
Solids, Total Dissolved TDS @ 180 C, mg/L	660	670	616	626	643
Sulfate, mg/L	317	289	269	269	286
Gross Alpha, pci/L (dissolved)	55.4	44.7	34.0	43.2	44.3
Gross Beta, pci/L (dissolved)	25.2	16.3	16.6	21.5	19.9
Lead 210, pci/L (dissolved)	<4.7	<7.7	<2.2	<0.8	<3.9
Polonium 210, pci/L (dissolved)	<1.0	<0.7	<0.4	<0.5	<0.7
Radium 226, pci/L (dissolved)	0.93	0.95	0.8	1.4	1.0
Radium 228, pci/L (dissolved)	<1.9	1.6	3.1	2.8	2.4
Thorium 230, pci/L (dissolved)	<0.2	<0.2	<0.2	<0.1	<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	0.06	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	<0.05	0.05	<0.05	<0.1	<0.07
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.001	0.001	<0.001	<0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	143	140	116	120	130
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	28	22	22	23	24
Manganese, mg/L (dissolved)	0.08	0.08	0.07	0.05	0.07
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	10	9	10	9	10
Selenium, mg/L (dissolved)	0.003	0.004	0.003	0.003	0.003
Silica, mg/L	18.4	14.7	14.4	17.1	16.2
Sodium, mg/L	36	33	30	29	32
Uranium, mg/L (dissolved)	0.0331	0.0279	0.0272	0.0266	0.0287
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	0.01	0.02	0.04	0.02	0.02
Iron, TOTAL mg/L	0.15	0.21	0.09	0.08	0.13
Manganese, TOTAL mg/L	0.08	0.08	0.07	0.07	0.08
Lead 210, suspended pci/L	<9.8	<7.5	<3.3	<4.3	<6.3
Polonium 210 suspended, pci/L	<1.0	<0.8	<0.5	<0.7	<0.8
Radium 226 suspended, pci/L	<0.4	0.7	<0.6	<0.2	<0.5
Thorium 230 suspended, pci/L	<0.2	<0.4	<0.07	<0.07	<0.2
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-17				
	11/10/2008	3/20/2009	6/19/2009	9/14/2009	Average
Bicarbonate as HCO ₃ , mg/L	240	246	239	247	243
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	1	1	4	3	2
Conductivity, umhos/cm	876	879	854	850	865
Fluoride, mg/L	0.9	0.8	0.8	0.9	0.9
pH, s.u.	8.03	7.58	7.54	8.00	7.79
Solids, Total Dissolved TDS @ 180 C, mg/L	600	639	595	612	612
Sulfate, mg/L	293	285	260	267	276
Gross Alpha, pci/L (dissolved)	50.1	36.8	47.2	36.0	42.5
Gross Beta, pci/L (dissolved)	16.4	12.6	14.3	13.9	14.3
Lead 210, pci/L (dissolved)	<5.4	<8.6	<2.8	<0.8	<4.4
Polonium 210, pci/L (dissolved)	<1.0	<0.7	<0.4	<0.6	<0.7
Radium 226, pci/L (dissolved)	<0.48	0.49	1.0	0.65	0.66
Radium 228, pci/L (dissolved)	<1.9	1.1	2.7	2.7	2.1
Thorium 230, pci/L (dissolved)	<0.2	<0.2	<0.1	<0.1	<0.2
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	0.08	0.08	<0.1	<0.1	0.09
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.001	0.001	0.001	0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	129	135	118	117	125
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	26	22	24	23	24
Manganese, mg/L (dissolved)	0.12	0.12	0.12	0.12	0.12
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	9	8	9	9	9
Selenium, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Silica, mg/L	20.0	16.2	18.5	18.8	18.4
Sodium, mg/L	29	29	28	26	28
Uranium, mg/L (dissolved)	0.0123	0.0121	0.0129	0.0129	0.0126
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	0.01	<0.01	<0.01	<0.01	<0.01
Iron, TOTAL mg/L	<0.03	<0.03	<0.03	<0.03	<0.03
Manganese, TOTAL mg/L	0.15	0.13	0.13	0.13	0.14
Lead 210, suspended pci/L	<9.9	<7.5	<4.9	<4.3	<6.7
Polonium 210 suspended, pci/L	<1.0	<0.5	<0.5	<0.7	<0.7
Radium 226 suspended, pci/L	<0.4	0.3	<0.09	<0.2	<0.3
Thorium 230 suspended, pci/L	<0.2	<0.5	<0.09	<0.08	<0.3
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-18				Average
	3/25/2009	6/17/2009	9/23/2009		
Bicarbonate as HCO ₃ , mg/L	317	318	339		325
Carbonate as CO ₃ , mg/L	<1	<1	<5		<3
Chloride, mg/L	117	126	123		122
Conductivity, umhos/cm	1960	1860	1860		1893
Fluoride, mg/L	0.4	0.3	0.3		0.3
pH, s.u.	7.48	7.32	7.59		7.46
Solids, Total Dissolved TDS @ 180 C, mg/L	1460	1410	1380		1417
Sulfate, mg/L	609	589	560		586
Gross Alpha, pci/L (dissolved)	244	317	292		284
Gross Beta, pci/L (dissolved)	39.5	56.8	57.3		51.2
Lead 210, pci/L (dissolved)	<2.7	<2.8	<3.7		<3.1
Polonium 210, pci/L (dissolved)	<0.9	<0.7	<0.5		<0.7
Radium 226, pci/L (dissolved)	0.73	0.44	0.20		0.46
Radium 228, pci/L (dissolved)	1.4	<1.3	<1.2		<1.3
Thorium 230, pci/L (dissolved)	<0.3	<0.2	<0.4		<0.3
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05		<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	12	16	14.4		14
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Arsenic, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005		<0.005
Calcium, mg/L	287	272	270		276
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05		<0.05
Copper, mg/L (dissolved)	0.03	0.03	0.03		0.03
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03		<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Magnesium, mg/L	52	47	46		48
Manganese, mg/L (dissolved)	<0.01	<0.01	<0.01		<0.01
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001		<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05		<0.05
Potassium, mg/L	8	8	7		8
Selenium, mg/L (dissolved)	0.125	0.125	0.112		0.121
Silica, mg/L	17.9	17.6	13.7		16.4
Sodium, mg/L	83	73	66		74
Uranium, mg/L (dissolved)	0.1700	0.1680	0.1960		0.1780
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1		<0.1
Zinc, mg/L (dissolved)	0.02	0.02	0.02		0.02
Iron, TOTAL mg/L	0.46	0.53	0.10		0.36
Manganese, TOTAL mg/L	0.01	0.03	<0.01		0.02
Lead 210, suspended pci/L	<4.2	<4.5	<1.7		<3.5
Polonium 210 suspended, pci/L	<0.5	<0.6	<0.5		<0.6
Radium 226 suspended, pci/L	<0.09	0.1	<0.2		<0.2
Thorium 230 suspended, pci/L	<0.2	<0.3	<0.05		<0.2
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003		<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-19				
	11/13/2008	3/16/2009	6/17/2009	9/15/2009	Average
Bicarbonate as HCO ₃ , mg/L	248	250	251	257	252
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	5	4	5	4	5
Conductivity, umhos/cm	737	739	736	720	733
Fluoride, mg/L	0.7	0.7	0.7	0.8	0.7
pH, s.u.	7.64	7.44	7.59	8.00	7.67
Solids, Total Dissolved TDS @ 180 C, mg/L	464	465	498	516	486
Sulfate, mg/L	181	187	186	184	185
Gross Alpha, pci/L (dissolved)	69.7	58.1	43.6	54.3	56.4
Gross Beta, pci/L (dissolved)	34.2	16.8	17.5	22.1	22.7
Lead 210, pci/L (dissolved)	<4.7	5.3	<2.8	<0.8	<3.4
Polonium 210, pci/L (dissolved)	<1.0	<0.5	0.7	<0.7	<0.8
Radium 226, pci/L (dissolved)	<0.39	0.79	1.3	0.46	0.74
Radium 228, pci/L (dissolved)	3.7	3.4	4.8	4.7	4.2
Thorium 230, pci/L (dissolved)	<0.2	<0.5	<0.2	<0.2	<0.4
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	0.25	0.28	0.26	0.2	0.25
Aluminum, mg/L (dissolved)	<0.1	0.2	<0.1	<0.1	<0.2
Arsenic, mg/L (dissolved)	0.001	0.002	0.001	0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1	0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	111	94	99	95	100
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	0.03	<0.01	<0.01	<0.02
Iron, mg/L (dissolved)	<0.03	0.04	<0.03	<0.03	<0.04
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	23	20	20	20	21
Manganese, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	8	8	8	8	8
Selenium, mg/L (dissolved)	0.007	0.007	0.007	0.008	0.007
Silica, mg/L	19.7	16.2	18.4	18.1	18.1
Sodium, mg/L	26	27	26	24	26
Uranium, mg/L (dissolved)	0.0330	0.0354	0.0337	0.0328	0.0337
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	<0.01	0.08	<0.01	<0.01	<0.03
Iron, TOTAL mg/L	<0.03	<0.03	<0.03	<0.03	<0.03
Manganese, TOTAL mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Lead 210, suspended pci/L	<8.6	<6.1	<4.5	<4.3	<5.9
Polonium 210 suspended, pci/L	1.2	<1	<0.6	<0.4	<0.8
Radium 226 suspended, pci/L	<0.4	<0.5	<0.1	<0.2	<0.3
Thorium 230 suspended, pci/L	<0.2	<0.3	<0.3	<0.1	<0.3
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-20				Average
	3/17/2009	6/17/2009	9/17/2009		
Bicarbonate as HCO ₃ , mg/L	238	Well not working	Well not working		238
Carbonate as CO ₃ , mg/L	<1				<1
Chloride, mg/L	<1				<1
Conductivity, umhos/cm	842				842
Fluoride, mg/L	0.9				0.9
pH, s.u.	7.45				7.45
Solids, Total Dissolved TDS @ 180 C, mg/L	582				582
Sulfate, mg/L	260				260
Gross Alpha, pci/L (dissolved)	27.8				27.8
Gross Beta, pci/L (dissolved)	14.4				14.4
Lead 210, pci/L (dissolved)	<2.7				<2.7
Polonium 210, pci/L (dissolved)	<0.6				<0.6
Radium 226, pci/L (dissolved)	0.52				0.52
Radium 228, pci/L (dissolved)	4.3				4.3
Thorium 230, pci/L (dissolved)	<0.4				<0.4
Nitrogen, Ammonia as N, mg/L	<0.05				<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	<0.05				<0.05
Aluminum, mg/L (dissolved)	<0.1				<0.1
Arsenic, mg/L (dissolved)	0.001				0.001
Barium, mg/L (dissolved)	<0.1				<0.1
Boron, mg/L (dissolved)	<0.1				<0.1
Cadmium, mg/L (dissolved)	<0.005				<0.005
Calcium, mg/L	104				104
Chromium, mg/L (dissolved)	<0.05				<0.05
Copper, mg/L (dissolved)	<0.01				<0.01
Iron, mg/L (dissolved)	<0.03				<0.03
Lead, mg/L (dissolved)	<0.001				<0.001
Magnesium, mg/L	23				23
Manganese, mg/L (dissolved)	0.11				0.11
Mercury, mg/L (dissolved)	<0.001				<0.001
Molybdenum, mg/L (dissolved)	<0.1				<0.1
Nickel, mg/L (dissolved)	<0.05				<0.05
Potassium, mg/L	8				8
Selenium, mg/L (dissolved)	<0.001				<0.001
Silica, mg/L	18.1				18.1
Sodium, mg/L	29				29
Uranium, mg/L (dissolved)	0.0102				0.0102
Vanadium, mg/L (dissolved)	<0.1				<0.1
Zinc, mg/L (dissolved)	<0.01				<0.01
Iron, TOTAL mg/L	<0.03				<0.03
Manganese, TOTAL mg/L	0.12				0.12
Lead 210, suspended pci/L	<6.3				<6.3
Polonium 210 suspended, pci/L	<0.7				<0.7
Radium 226 suspended, pci/L	<0.2				<0.2
Thorium 230 suspended, pci/L	<0.4				<0.4
Uranium suspended, pci/L	<0.0003				<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-21				
	11/10/2008	3/20/2009	6/17/2009	9/23/2009	Average
Bicarbonate as HCO ₃ , mg/L	236	232	238	255	240
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	<1	<1	1	1	<1
Conductivity, umhos/cm	837	828	824	808	824
Fluoride, mg/L	0.9	0.9	0.9	0.8	0.9
pH, s.u.	7.83	7.48	7.62	7.76	7.67
Solids, Total Dissolved TDS @ 180 C, mg/L	576	612	601	609	600
Sulfate, mg/L	268	260	250	246	256
Gross Alpha, pci/L (dissolved)	26.1	30.1	77.4	32.0	41.4
Gross Beta, pci/L (dissolved)	15.3	14.1	24.0	15.8	17.3
Lead 210, pci/L (dissolved)	<4.7	<8.6	<2.8	<4.0	<5.1
Polonium 210, pci/L (dissolved)	<0.2	<0.6	<0.5	<0.6	<0.5
Radium 226, pci/L (dissolved)	<0.49	0.57	1.1	0.90	<0.77
Radium 228, pci/L (dissolved)	<1.9	1.9	3.9	3.9	2.9
Thorium 230, pci/L (dissolved)	<0.2	<0.2	<0.2	<0.3	<0.2
Nitrogen, Ammonia as N, mg/L	<0.1	<0.05	<0.05	<0.05	<0.07
Nitrogen, Nitrate+Nitrite as N, mg/L	<0.05	<0.05	<0.05	<0.1	<0.07
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	<0.001	<0.001	0.001	0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	0.1	0.1	<0.1	0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	129	123	112	114	120
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	26	21	23	23	23
Manganese, mg/L (dissolved)	0.20	0.24	0.13	0.12	0.17
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	9	8	9	8	9
Selenium, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Silica, mg/L	22.5	15.9	19.6	14.6	18.2
Sodium, mg/L	29	28	27	26	28
Uranium, mg/L (dissolved)	0.0097	0.0098	0.0104	0.0111	0.0103
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	0.01	<0.01	0.02	0.01	0.01
Iron, TOTAL mg/L	0.19	12.1	<0.03	<0.03	3.10
Manganese, TOTAL mg/L	0.23	0.30	0.12	0.12	0.19
Lead 210, suspended pci/L	<9.7	<7.4	<4.6	<1.7	<5.9
Polonium 210 suspended, pci/L	<1.0	<0.7	<0.6	<0.4	<0.5
Radium 226 suspended, pci/L	<0.4	<0.3	<0.1	<0.2	<0.3
Thorium 230 suspended, pci/L	<0.2	<0.4	<1.1	0.7	<0.6
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	0.0024	<0.0009

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-22				
	11/21/2008	3/31/2009	8/4/2009	9/23/2009	Average
Bicarbonate as HCO ₃ , mg/L	239	249	242	249	245
Carbonate as CO ₃ , mg/L	<1	<1	<1	<5	<2
Chloride, mg/L	1	1	2	2	2
Conductivity, umhos/cm	801	824	814	797	809
Fluoride, mg/L	0.9	0.9	0.9	0.9	0.9
pH, s.u.	7.76	7.70	7.59	7.75	7.70
Solids, Total Dissolved TDS @ 180 C, mg/L	580	569	561	556	567
Sulfate, mg/L	248	251	239	243	245
Gross Alpha, pci/L (dissolved)	39.8	40.7	30.8	37.8	37.3
Gross Beta, pci/L (dissolved)	23.1	16.8	36.9	19.4	24.1
Lead 210, pci/L (dissolved)	<4.4	<2.7	<2.2	<3.7	<3.3
Polonium 210, pci/L (dissolved)	<1.0	<0.6	<0.9	<0.4	<0.8
Radium 226, pci/L (dissolved)	<0.2	0.81	0.57	0.78	0.59
Radium 228, pci/L (dissolved)	3.5	4.7	5	5.6	4.7
Thorium 230, pci/L (dissolved)	0.02	<0.3	<0.1	<0.5	<0.3
Nitrogen, Ammonia as N, mg/L	<0.05	0.07	<0.05	<0.05	<0.06
Nitrogen, Nitrate+Nitrite as N, mg/L	0.1	0.1	0.08	<0.1	<0.1
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	<0.001	0.001	0.001	0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	0.1	<0.1	0.1	<0.1	0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	112	111	105	113	110
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	23	23	22	22	23
Manganese, mg/L (dissolved)	0.15	0.17	0.14	0.16	0.16
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	8	8	8	8	8
Selenium, mg/L (dissolved)	0.001	<0.001	<0.001	<0.001	<0.001
Silica, mg/L	19.8	17.5	16.2	14.8	17.1
Sodium, mg/L	28	28	26	26	27
Uranium, mg/L (dissolved)	0.0115	0.0110	0.0105	0.0114	0.0111
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, TOTAL mg/L	<0.03	<0.03	<0.03	<0.03	<0.03
Manganese, TOTAL mg/L	0.16	0.16	0.15	0.16	0.16
Lead 210, suspended pci/L	<9.6	<5.7	<3.2	<1.8	<5.1
Polonium 210 suspended, pci/L	<0.2	<0.4	<0.3	<0.4	<0.4
Radium 226 suspended, pci/L	<0.5	<0.4	<0.06	<0.2	<0.3
Thorium 230 suspended, pci/L	1.4	0.2	<0.1	<0.07	<0.5
Uranium suspended, pci/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003

Addendum 3.4-E Water Quality Data from Negley Subdivision

Parameters	N-23				
	11/7/2008	3/17/2009	6/18/2009	9/22/2009	Average
Bicarbonate as HCO ₃ , mg/L	226	216	222	241	226
Carbonate as CO ₃ , mg/L	<1.0	<1.0	<1.0	<5.0	<2.0
Chloride, mg/L	5	12	11	5	8
Conductivity, umhos/cm	932	1150	1130	925	1034
Fluoride, mg/L	0.9	0.8	0.8	0.8	0.8
pH, s.u.	8.00	7.06	7.28	7.63	7.49
Solids, Total Dissolved TDS @ 180 C, mg/L	675	1000	890	704	817
Sulfate, mg/L	325	398	370	289	346
Gross Alpha, pci/L (dissolved)	29.4	47.9	41.4	42.5	40.3
Gross Beta, pci/L (dissolved)	17.5	14.2	17	16.8	16.4
Lead 210, pci/L (dissolved)	<4.7	<2.7	<2.8	<3.7	<3.5
Polonium 210, pci/L (dissolved)	<1.0	<0.7	<0.8	<0.7	<0.6
Radium 226, pci/L (dissolved)	0.62	1.1	1.9	0.37	1.00
Radium 228, pci/L (dissolved)	1.9	2.3	2.3	3.3	2.5
Thorium 230, pci/L (dissolved)	<0.2	<0.4	<0.2	<0.3	<0.3
Nitrogen, Ammonia as N, mg/L	<0.1	<0.05	0.17	<0.05	<0.09
Nitrogen, Nitrate+Nitrite as N, mg/L	5.39	14.3	12.1	4.6	9.10
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.002	0.002	0.002	0.002	0.002
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	0.1	0.1	0.2	<0.1	<0.2
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	140	155	163	131	147
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	0.06	0.05	<0.03	<0.05
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	30	31	34	26	30
Manganese, mg/L (dissolved)	0.014	0.15	0.18	0.15	0.12
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	9	10	11	9	10
Selenium, mg/L (dissolved)	0.014	0.032	0.039	0.012	0.024
Silica, mg/L	22.2	18.8	23.1	15.7	20.0
Sodium, mg/L	34	36	40	30	35
Uranium, mg/L (dissolved)	0.0110	0.0108	0.0116	0.0129	0.0116
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	<0.01	0.01	0.03	<0.01	<0.02
Iron, TOTAL mg/L	0.03	0.06	0.11	<0.03	<0.06
Manganese, TOTAL mg/L	0.15	0.16	0.17	0.15	0.16
Lead 210, suspended pci/L	<9.9	<6.1	<4.9	<1.9	<5.7
Polonium 210 suspended, pci/L	<1.0	<0.6	<0.5	<0.5	<0.7
Radium 226 suspended, pci/L	<0.4	<0.5	<0.07	<0.2	<0.29
Thorium 230 suspended, pci/L	<0.2	<0.4	0.2	<0.09	<0.23
Uranium suspended, pci/L	<0.0003	<0.0003	0.0007	<0.0003	<0.0004

Uranium One - Wyoming Sampling Schedule

Ludeman 2008 & 2009

<u>2008</u>												<u>2009</u>												
<u>Location I.D.</u>	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
JS													1/16					6/29			9/22			12/21

Addendum 3.4-E Water Quality Data from only Domestic Well in Project Area

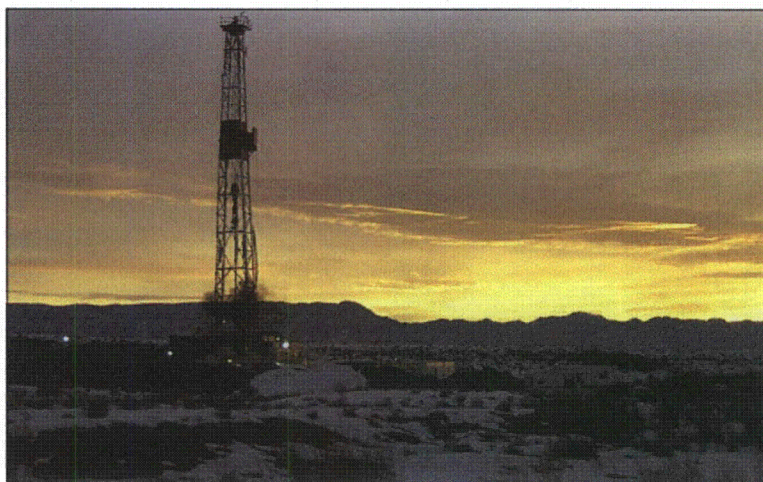
Parameters	JS Well			
	1/16/2009	6/29/2009	9/22/2009	Average
Bicarbonate as HCO ₃ , mg/L	222	224	238	228
Carbonate as CO ₃ , mg/L	<1	<1	<5	<2
Chloride, mg/L	2	2	2	2
Conductivity, umhos/cm	457	450	415	441
Fluoride, mg/L	0.6	0.6	0.6	0.6
pH, s.u.	7.87	7.80	7.88	7.85
Solids, Total Dissolved TDS @ 180 C, mg/L	252	274	255	260
Sulfate, mg/L	51	45	47	48
Gross Alpha, pci/L (dissolved)	22.8	14.9	13.9	17.2
Gross Beta, pci/L (dissolved)	11.7	6.7	11.4	9.9
Lead 210, pci/L (dissolved)	0	0	10.1	3.4
Polonium 210, pci/L (dissolved)	0	0.04	0	0.01
Radium 226, pci/L (dissolved)	0.67	0.6	0.84	0.70
Radium 228, pci/L (dissolved)	3.5	2.4	2.9	2.9
Thorium 230, pci/L (dissolved)	0.0	0.02	0.09	0.04
Nitrogen, Ammonia as N, mg/L	<0.05	<0.05	<0.05	<0.05
Nitrogen, Nitrate+Nitrite as N, mg/L	1.0	1.08	1.15	1.08
Aluminum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1
Arsenic, mg/L (dissolved)	0.002	0.001	0.001	0.001
Barium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1
Boron, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1
Cadmium, mg/L (dissolved)	<0.005	<0.005	<0.005	<0.005
Calcium, mg/L	66	62	63	64
Chromium, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05
Copper, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01
Iron, mg/L (dissolved)	<0.03	<0.03	<0.03	<0.03
Lead, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001
Magnesium, mg/L	13	12	12	12.3
Manganese, mg/L (dissolved)	<0.01	<0.01	<0.01	<0.01
Mercury, mg/L (dissolved)	<0.001	<0.001	<0.001	<0.001
Molybdenum, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1
Nickel, mg/L (dissolved)	<0.05	<0.05	<0.05	<0.05
Potassium, mg/L	5	7	6	6
Selenium, mg/L (dissolved)	0.007	0.006	0.005	0.006
Silica, mg/L	14.5	14.1	12.4	13.7
Sodium, mg/L	12	11	9	10.7
Uranium, mg/L (dissolved)	0.0087	0.0079	0.0081	0.0082
Vanadium, mg/L (dissolved)	<0.1	<0.1	<0.1	<0.1
Zinc, mg/L (dissolved)	0.03	0.02	0.02	0.023
Iron, TOTAL mg/L	<0.03	<0.03	<0.03	<0.03
Manganese, TOTAL mg/L	<0.01	<0.01	<0.01	<0.01
Lead 210, TOTAL pci/L	1.8	0	0	0.6
Polonium 210 TOTAL, pci/L	0.1	0	0.03	0.04
Radium 226 suspended, pci/L	0.2	0	0	0.07
Thorium 230 suspended, pci/L	0	0	0	0
Uranium suspended, pci/L	<0.0003	<0.003	<0.003	<0.003

ADDENDUM 3.4-F

NEGLEY REPORT



ASSESSMENT OF THE HYDRAULIC RELATIONSHIP OF THE NEGLEY SUBDIVISION TO THE LUDEMAN ISR URANIUM PROJECT



CONVERSE COUNTY, WY

February 2011

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**ASSESSMENT OF THE HYDRAULIC RELATIONSHIP OF THE NEGLEY
SUBDIVISION TO THE LUDEMAN ISR URANIUM PROJECT
CONVERSE COUNTY, WYOMING**

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- A. Negley Cross Sections
- B. Negley Subdivision Well Completion Reports

ASSESSMENT OF THE HYDRAULIC RELATIONSHIP OF THE NEGLEY SUBDIVISION TO THE LUDEMAN ISR URANIUM PROJECT CONVERSE COUNTY, WYOMING

Executive Summary

Uranium One intends to develop and extract uranium from the Fort Union Formation at the Ludeman Project in Converse County, Wyoming using ISR mining. The target ore-bodies are located within the designated 80 and 90 Sands. Teton conducted an ISR uranium pilot project in the northwest portion of the current Ludeman License Amendment Area from 1979 to 1982. The pilot was called the Leuenberger Project. The Negley subdivision is located adjacent to the northwest portion of License Amendment Area and includes twenty two private water wells.

An assessment was conducted to evaluate the hydraulic relationship between the Negley water wells and the target ore bearing aquifers. Based on a review of available well records, well inspections, and geologic data, none of the Negley wells are completed within the 90 Sand, the primary target ore-bearing aquifer for planned uranium mining in the northwest portion of the Ludeman License Amendment Area. The deepest well in the Negley subdivision is 210 feet. The depth to the top of the 90 Sand in that area based on numerous geologic cross-sections is 250 to 300 feet. Most of the Negley wells are completed in the 110 and 120 Sands and one appears to be completed within the 100 Sand. The 100 Sand is the overlying aquifer to the target production zone 90 Sand in the area. One well, located one mile west of the License Amendment Area may be completed in either the 80 or 70 Sand, but the water quality in that well does not exceed any Wyoming or U.S. Environmental Protection Agency (EPA) standards. Structure maps of the top of 110 through 70 Sands and cross-sections showing the stratigraphic position of these units, were prepared to illustrate the relationship between the production zone and the completion intervals of the Negley wells.

Aquifer testing conducted by Teton within the 90 Sand indicated negligible response in the overlying aquifer. Reported drawdown in the overlying aquifer was less than 0.1 feet during a 36 hour, 43.5 gpm test in which over 30 feet of drawdown was recorded in 90 Sand observation wells at a distance of 300 feet from the pumping well. Hydrologic testing conducted by Uranium One in 2008 in the 90 Sand showed no response in the overlying aquifer after 3.2 days of pumping at a rate of 32.2 gpm. Results of these tests demonstrate that the overlying shale provides adequate confinement between the production zone aquifer and the overlying aquifers.

Baseline water quality conducted by Uranium One in 2008-2009 indicates elevated levels of uranium, sulfate, TDS, gross alpha and manganese in many of the Negley

subdivision wells. Isoconcentration maps show that uranium, gross alpha and bicarbonate generally increase to the northwest, away from the License Amendment Area.

Sampling conducted by Teton as part of the baseline monitoring for the Leuenberger Project indicated that water quality in the Negley wells, prior to the pilot test, was generally similar to recent sampling results. One well (N-18) completed in the 110 Sand shows a significant increase in a number of constituents since the 1979 sampling. However, several Negley wells that also appear to be completed in the 110 Sand are located between N-18 and the License Amendment Area boundary. Those wells did not show similar increases in parameter concentrations, making it unlikely that the changes in water quality at N-18 are related to the Leuenberger pilot project.

Uranium One, in accordance with its standard operating procedure, will conduct adequate aquifer testing to characterize the degree of hydraulic communication between the target production zone aquifer and the overlying and underlying aquifers and include that data in the Wellfield Data Package prior to development of any Mine Unit, including those near the Negley subdivision. For the Mine Unit(s) near the Negley subdivision, the aquifer testing will include sufficient monitoring to demonstrate if hydraulic communication exists between the 90 Sand and the aquifers that the Negley subdivision wells are completed in. Based on the results of that aquifer testing, Uranium One will, if necessary, implement appropriate engineering controls to ensure there will be no negative impacts to the Negley subdivision wells as a result of ISR operations. However, as noted above, currently available data do not indicate hydraulic communication between the 90 Sand and the overlying 100 and 110 Sands. Therefore, no additional hydrologic testing is proposed for the application for an NRC License Amendment for the Ludeman Uranium Project.

Introduction

Uranium One, USA, Inc. (Uranium One) plans to develop and extract uranium from in-situ recovery (ISR) wellfields within the Fort Union Formation at the Ludeman Project in Converse County, Wyoming. The target ore-bodies are located within the designated 80 and 90 Sands. From 1979 to 1982, UNC-Teton Drilling Exploration, Inc (Teton) conducted an ISR uranium pilot project (then identified as the Leuenberger Project) in the NE $\frac{1}{4}$, NE $\frac{1}{4}$ of Section 14, T34N, R74W. The former Leuenberger Project area is within the northwest portion of the Ludeman License Amendment Area.

North and west of the Ludeman License Amendment Area is the Negley subdivision. Figure 1 shows the location of the Negley subdivision relative to the Ludeman License Amendment Area. Twenty two private water wells (used for domestic, stock and irrigation purposes) have been identified within the subdivision and many of these wells are used for domestic water supply. An additional private well one mile west of the License Amendment Area was also included in the area of investigation. An assessment was performed to

- 1) determine if private wells within the Negley subdivision are completed within the target ore bearing aquifers (80 and 90 sands), or are hydraulically connected to them; and
- 2) identify if water quality in the Negley subdivision private wells was impacted by the Teton ISR pilot project.

The assessment includes a review of existing well records, published reports and permit applications, available site specific geologic and hydrologic data, and historic and recent water quality sampling results. Detailed structure maps and cross-sections were developed to examine the stratigraphic relationship of the proposed production zone and the well completion intervals of the Negley subdivision wells. Results of the assessment are summarized within this document.

Conclusions developed from this assessment are that none of the Negley wells are completed deep enough to intercept the target ore-bearing aquifers and that the ISR pilot project did not impact water quality in any of the Negley wells. However baseline water quality data from several of the Negley wells indicate elevated levels of uranium and total dissolved solids existed prior to 1980. A single well outside of the Negley subdivision and located one mile west of the License Amendment Area is completed within the 70 or 80 Sand. That well is hydraulically cross-gradient to upgradient of the Ludeman License Amendment Area and has not been impacted from historic ISR activities.

Luenberger Pilot Project

Teton recognized that the Negley development in Section 11 posed potential water quality issues for the ISR pilot and eventual commercial operation. Accordingly, up to eleven landowner wells were tested weekly for excursion parameters prior to, and during, pilot operations. Monitoring data from these wells demonstrated that no solution migration to the subdivision occurred during or after termination of the pilot operation. In addition, the following edited document prepared for the USNRC by Oak Ridge National Laboratory and the University of Idaho (NUREG/CR-3967 ORNL/TM-9956 "An Analysis of Excursions at Selected In Situ Uranium Mines in Wyoming and Texas", July 1986) substantiates that there was no effect on the subdivision wells by the Teton pilot project.

"Description of the Site

Teton Exploration Drilling Company (TEDC) operated the Leuenberger in situ uranium mine in Converse County, Wyoming, about 12 km (7.5 mi) northeast of Glenrock. Solution mining research and development operations began on January 22, 1980, with two well fields. The N and M (equivalent to the 90 and 80 Sands designation used by Uranium One) ore zones were mined separately in each of the two well fields. The N (90 sand) and M (80 sand) ore bodies are located in Section 14, T34N, R74W. All mining, processing, and restoration were concluded at the Leuenberger mine as of January, 1982. Post-restoration monitoring continued through 1982.

History of Mining Operations

Research and development testing began January 22, 1980, in two separate five-spot well patterns. One pattern was designated for each of the N and M ore zones. Each test pattern consisted of four injection wells placed approximately 15 m (50 ft) apart surrounding a central pumping well. Two additional five-spot patterns contiguous to the original M zone pattern were drilled and operated.

The pilot testing operation utilized a sodium carbonate/bicarbonate lixiviate at a concentration ranging from 0.5 to 2 g/L (as HCO_3) with a hydrogen peroxide oxidant at a concentration of 0.5 g/L. Leaching was terminated in the N well field area on June 1, 1980, after about 47 aquifer pore volumes of lixiviate were circulated through the test pattern. Approximately 29 aquifer pore volumes of lixiviate were circulated through the three M zone test patterns by the completion of mining on February 17, 1981.....

Monitoring Well System and Well Construction

Monitoring wells were placed in the N and M sandstones (ore zones) and in the aquifers above and below both ore zones (O (100 & 110 sands) and Basal sandstones (70 sand), respectively). Monitoring wells utilized during the research and development operations were sampled every two weeks for excursion indicators chloride, alkalinity, sodium, sulfate, uranium, and conductivity.

Monitoring wells at the research and development test site were completed in the N and M sandstones at a distance of about 60 m (200 ft) from the well field boundary. One Basal Sandstone monitoring well and two O Sandstone monitoring wells were used at the test site.

Analysis of Excursions

No excursions were reported during TEDC's 13 month research and development operations from January, 1980, through February, 1981. TEDC was never required to proceed with corrective measures to control possible leachate migrations.

Monitoring well 309 which is completed in the N Sandstone (ore zone) slightly exceeded its UCL's for conductivity, sulfate, and alkalinity on February 6, 1980. Subsequent samples from this well indicated that the three excursion indicators declined below their UCL's and remained there.

Basal Sandstone monitoring well 314 and M Sandstone (ore zone) monitoring well MM-2 exceeded UCL's on one or more sampling dates in April and May, 1980. Well 314 exceeded UCL's for chloride, sulfate, and/or alkalinity for three nonconsecutive sampling dates. Well MM-2 exceeded UCL's for sulfate and sodium on one sampling date only. No corrective actions were initiated for these apparent excursions.

The report goes on to describe the restoration of the two research and development areas. Restoration was conducted at the N (90 Sand) research and development area from June 1980 through November 1990. The report stated that the N (90 Sand) wellfield was considered to have been restored successfully to the highest potential pre-mining use citing a 1983 NRC document. Restoration of the M (80 sand) wellfield was conducted from February through December 1981. The M (80 Sand) wellfield was also considered to have been restored successfully to the highest potential pre-mining use and Teton was issued a permit to mine uranium commercially at the Leuenberger site. However, the Leuenberger Project was never commercially mined because of unfavorable economic conditions for uranium production.

Negley Subdivision Wells

The Negley development is an unplatted "subdivision" consisting of approximately thirty individual land owners located in Section 11, Township 34N, Range 74W, Converse County, Wyoming. Search of the State Engineers Office (SEO) records and physical inspection of the area indicate that there are twenty two private wells located within the Negley subdivision. Another well included in this assessment is located approximately one mile west of the License Amendment Area. Well records were reviewed to determine SEO permit numbers, drilling date, total depth, completion interval and other construction details of the Negley subdivision wells. Well completion reports, where available, are included in Attachment B. In some cases, the well permit applications

were the only documents available and those are also included. Initial review of the well records indicated that insufficient data were available to determine the drilling depth of three of the Negley subdivision wells, N-14, N-18 and N-19. A field survey was conducted to verify the total depth of those three wells. Subsequent records search turned up well files for those three wells. The well depths determined in the field were slightly shallower than indicated on the records, most likely because of sediment settling within the wells. Table 1 presents a summary of the well records search and also includes the permitted use and rate of the well. Figure 2 indicates the location of the Negley subdivision wells.

A survey of the Negley Subdivision well owners indicated the following: eleven of the twenty two Negley Subdivision wells are used for domestic purposes, one well is a shop supply well, three wells are used for livestock watering (noncommercial), and seven are not used (and have no downhole pumps). Well N-8, which is one mile to the west and actually not within the Negley Subdivision and is the only well that may be deep enough to penetrate the production zone targets, does not supply enough water for its intended use (irrigation), does not have a downhole pump and is not used.

As shown on Table 1, with the exception of the single well located west of the License Amendment Area (outside of the Negley subdivision in Section 10 and identified as well N-8), the deepest well in the Negley subdivision is recorded as 210 feet below ground surface (ft bgs).

Based on the geologic data described in the following section, none of Negley subdivision wells (except for N-8) are completed in the target ore-bearing aquifers (the 80 and 90 Sands). Well N-8 appears to be completed in the 80 Sand, or possibly the deeper 70 Sand. The well was drilled to provide irrigation water but has not been used for any purposes because the well has insufficient yield for the landowners needs. The majority of the Negley wells are completed in the 110 or 120 Sands. One of the wells appears to be completed within the 100 Sand which is the overlying aquifer to the 90 Sand, the primary production zone for this portion of the License Amendment Area.

All of these wells have been sampled by Uranium One to establish baseline water quality. Uranium One has designated the Negley wells as N-1 through N-23 (Figure 2). Many of these wells existed at the time of the Teton pilot project and were sampled for baseline and post-mining water quality under the prescribed monitoring program although some of the wells have changed ownership. In fact, a number of the current Negley wells were installed by Teton to provide monitoring of potential impacts to the overlying aquifers from the ISR activities and were subsequently turned over to the private landowners for use as water supply wells following restoration and termination of the project. Results of the water sampling are discussed under the water quality section of this document.

Geology

The Ludeman Project is located in the southwestern part of the Powder River Basin. The Fort Union Formation underlies the surgical Wasatch formation in the area, and consists of a series of mudstones, siltstones and clays with minor cross-bedded sandstone channels and occasional thin limestone and lignite beds. The Fort Union Formation sandstones were deposited in a fluvial paleo-drainage system which flowed generally in a north-northeasterly direction. The sandstones of the Lebo member of the Fort Union Formation are the host rocks for the uranium ore deposits at Ludeman. The channel deposits are confined by mudstones that serve as aquitards to the sand-dominated aquifers.

The subsurface geology (to depths of 600 to 700 ft bgs) of the License Amendment Area and extending beneath the Negley subdivision is well characterized as a result of extensive exploratory and delineation drilling conducted by previous uranium mining ventures and by Uranium One. Detailed structure maps of the top of the 110 through 70 Sands in the vicinity of the Negley subdivision were developed and are included as Figures 3 through 7. Several structural cross-sections were developed to correlate these units across the Negley subdivision. A generalized map of the locations of the cross-sections is provided as Figure 8. Cross Sections AA-AA' through FF-FF' and a detailed location map (showing all of the boreholes used to construct the cross-sections) are provided in Attachment A.

The Teton nomenclature for the stratigraphic units was alphanumeric. Correlation of these units is summarized in Table 2

A brief summary of the geologic units of interest from shallowest to deepest is provided below. The Negley wells that are completed in each unit based on reported completion intervals, the structure maps and the cross-sections, is also noted. Table 1 includes the projected top of the production zone (90 Sand) and the location of each Negley well and the distance between the total depth of the well and the top of the 90 Sand. The discussion is primarily focused on the northwest portion of the License Amendment Area, identified as the Leuenberger Area. Uranium One nomenclature for the stratigraphy in the area includes numbering the sand units, decreasing with depth. Figure 2.6-1 from the Ludeman Project License Amendment Application, Technical Report (Uranium One 2010) presents the local stratigraphy.

The 120 Sand is the uppermost sand unit in the Leuenberger Area. This sand has been eroded in various locations in the Leuenberger Area and throughout the Ludeman License Amendment Area. The 120 Sand ranges from 29 to 147 feet thick across the License Amendment Area. The top of the 120 Sand generally occurs at elevations above 5,200 ft amsl. The 120 Sand is absent in the southwestern portion of the Negley subdivision as shown on Cross-sections AA-AA' through FF-FF' (Attachment A). Based on reported total depths, Negley wells N-4, N-5, N-7, N-9, N-11 and N-20 are completed

in the 120 Sand. Those wells are located in the northeast portion of the Negley subdivision. Negley wells N-3, N-12, N-14, N-16, N-17, N-21 and N-22 are completed across the 120 and/or 110 Sands based on reported completion intervals. Although no completion interval is reported for N-23, the well is completed in either the 110 or 120 Sand or both, based on the reported total depth.

The 110 Sand is an overlying aquifer in the Leuenberger area in areas where the 100 Sand is not present. It is separated from the 120 Sand by the 120/110 Shale, which ranges from 2 to 82 feet thick across the License Amendment Area. The 110 Sand ranges in thickness from 5 to 139 feet across the License Amendment Area. The 110 Sand has been eroded in various locations throughout the License Amendment Area but is continuous in the Leuenberger Area. The top of the 110 Sand generally occurs between 5,200 and 5,100 ft amsl across the Negley subdivision and dips to the north at approximately 1 degree (Figure 3). Negley wells that are completed in the 110 Sand based on reported completion intervals (and field surveys) include N-1, N-2, N-6, N-10, N-13, N-18 and N-19. Cross-section EE-EE' (Attachment A), that well is also completed in either the 110 or 120 Sand. Cross-section FF-FF' passes through Negley well N-6 and N-1 and shows that the total depth of both wells is just below the base of the 110 Sand (Attachment A).

Well N-4 was reported by Teton to be an O1 completion (100 Sand). Well N-4 is located approximately 875 feet northwest of N-6. Well N-4 is drilled to approximately the same total depth elevation as N-6. As previously noted, N-6 intercepts the base of the 110 Sand but does not reach the 100 Sand. Both the 110 and 100 Sands dip to the north. The projected top of the 100 Sand at the N-4 location is 5,035 ft amsl, below the total depth of the well at 5,060 ft amsl. Therefore, well N-4 does not appear to intercept the 100 Sand.

The 100 Sand is the overlying aquifer to the 90 Sand. The 100 Sand pinches out in various locations in the Leuenberger area. In the locations where the 100 Sand is not present, the 110 Sand is the overlying aquifer. Across the License Amendment Area, approximately 4 to 119 feet of the 110/100 Shale separate the 110 and 100 Sands. The 100 Sand ranges in thickness from 0 to 176 feet across the License Amendment Area. The top of the 100 Sand generally occurs between 5,130 and 4,990 ft amsl across the Negley subdivision and dips to the north at approximately 1.5 degrees (Figure 4). Well N-15 is located approximately 1,200 ft southwest of N-6 and 600 ft northeast of N-1 as shown on Cross-section FF-FF' (Attachment A). N-15 has approximately the same surface elevation as N-6 and was drilled to near the same total elevation (5,063 ft amsl). Projection of N-15 onto Cross-section FF-FF' indicates that N-15 may intercept the top portion of the 100 Sand at a elevation of approximately 5,078 ft amsl. The 100 Sand is projected to be approximately 40 ft thick at this location so well N-15 would not penetrate the full thickness of the sand.

A thin coal seam provides a consistent and correlative marker bed throughout the Leuenberger Area. This unit is present between the 100 and 90 Sands and is identified as the 'D' Coal on the cross-sections provided in Attachment A. The D Coal is used by Uranium One geologists to clearly differentiate the 100 Sand from the 90 Sand throughout the Leuenberger Area.

The 90 Sand is the shallowest proposed production zone. The 90 Sand is separated from the 100 Sand by the 100/90 Shale. The 100/90 Shale ranges from 3 to 145 feet thick across the License Amendment Area. The 90 Sand pinches out in various locations within the License Amendment Area, but is continuous in the Leuenberger Area. Its thickness ranges from 0 to 181 feet. The top of the 90 sand ranges from 5,000 to 4,820 ft amsl across the Negley subdivision, dipping to the north at almost 2 degrees as shown on the structure map (Figure 5) and cross-sections (Attachment A). Based on well records and field surveys, the deepest penetration of any of the Negley wells, other than N-8, is approximately 5,060 ft amsl, which is 60 feet above the shallowest occurrence of the 90 Sand.

The 80 Sand is beneath the 90 Sand and is also a proposed production zone. The 80 Sand is separated from the 90 Sand by the 90/80 Shale which ranges from 2 to 156 feet thick. The 80 Sand ranges from 0 to 161 feet thick across the License Amendment Area. Although pinch-outs are present within the License Amendment Area, the 80 Sand is continuous in the Leuenberger Area. The top of the 80 sand ranges from 4,860 to 4,720 ft amsl across the Negley subdivision, dipping to the north at approximately 1.5 degrees as shown on the structure map (Figure 6) and cross-sections (Attachment A). As previously described, well N-8 which is located approximately 1 mile west of the Negley subdivision, may intercept this unit or even the deeper 70 Sand. There is insufficient data density to reliably estimate the completion interval of well N-8. However, water quality from this well does not exceed Wyoming Class I Standards or any EPA MCLs and does not indicate any impacts from the historic Teton pilot project.

The 70 Sand is the underlying aquifer in the Leuenberger Area and is separated from the 80 Sand by 4 to 128 feet of 80/70 Shale. The 70 Sand ranges from 0 to 164 feet thick, pinching out in various locations within the License Amendment Area although this unit is continuous within the Leuenberger Area. Figure 7 is a structure map that shows the top of the 70 Sand ranges from 4,770 to 4,620 ft amsl with a north dip of approximately 1.5 degrees. Other than well N-8, none of the Negley wells penetrate deep enough to intercept the 70 Sand.

Sands beneath the 70 Sand include the 60, 50, 40 etc, but these units have no consequence to the Negley wells with respect to ISR mining as they are several hundreds of feet deeper than any of the private water well depths.

Hydrogeology

Potentiometric surface maps and pumping tests were reviewed to evaluate the extent of hydraulic communication that exists between the ore bearing target zones (80 and 90 Sands) and the overlying 100 through 120 Sands. Figures cited in this section refer to the Ludeman Project NRC License Amendment Application, Technical Report prepared by Uranium One in 2010.

The potentiometric surface maps provided in the Ludeman Project License Amendment Application Technical Report (Uranium One 2010) indicate a generally northeast hydraulic gradient in the proposed production zone 80 and 90 Sands in the vicinity of the Negley subdivision (Figures 2.7-14 and 2.7-15, respectively of the Uranium One Technical Report). The potentiometric surface of the 100 Sand appears to have a more northerly hydraulic gradient. The water level elevation in the nearest 110 Sand monitor well is significantly higher (> 30 ft) than in the 80, 90 or 100 Sands, clearly indicating hydraulic separation. The original Teton License Application for Leuenberger also indicated a large difference in water levels (> 35 ft) between the 90 Sand (the N Sand) and the overlying aquifer (identified as the O Sand but not differentiated between the O1 [100] or O2 [110] Sand).

Pumping tests conducted in the 90 Sand by Teton showed minimal response in the monitor well completed in overlying aquifer, less than 0.1 ft compared to more than 30 feet in the 90 Sand at distances of 300 feet from the pumped well. No barometric corrections were reported so it is unclear if the "observed" drawdown of less than 0.1 ft during the test was related to barometric changes or was a response to pumping of the 90 Sand. The test was run for 36.5 hours at 43.1 gpm. The negligible drawdown observed in the overlying monitor well suggests that hydraulic communication between the 90 Sand and the overlying aquifer is minimal.

Uranium One conducted a series of aquifer tests in the 80 and 90 Sands in 2008 in the Leuenberger portion of the License Area. A 90 Sand test was conducted at well LWP-2 (shown on Figure 1) for a period of 3.2 days at a rate of 32.2 gpm. Drawdown in the pumping well was over 71 feet. An observation well completed in the overlying 100 Sand (LMO-1) and located 10 feet from the pumping well showed no drawdown response during the test. Results of this pump test demonstrate that the overlying shale unit provides adequate confinement for ISR operations.

The water level and pumping test data demonstrate that there is adequate hydraulic separation between the 90 Sand and the overlying aquifer. Additional aquifer testing will be conducted and submitted as part of a Wellfield Data Package to further demonstrate the degree of hydraulic communication between the 90 Sand and the overlying aquifers.

The Wyoming Water Development Office states in its Wyoming State Water Plan that the typical quantity of water withdrawn for domestic use in the western United States is

158 gallons per person per day (0.11 gpm) or 505 gallons per day per residence (0.35 gpm). This includes both indoor (78 gallons per person per day) and outdoor uses (80 gallons per person per day). If that rate of consumption is applied to the Negley subdivision wells, based on the completion intervals of the wells and assuming that all twenty two of the wells are active (six of the wells are actually inactive), the anticipated total consumptive use by aquifer is as follows.

Aquifer	Number of Residences	Total Extraction Rate	
		(gpm)	(AF/yr)
120 Sand	6	2.1	3.40
120/110 Sand	8	2.81	4.53
110 Sand	7	2.45	3.96
100 Sand	1	0.35	0.57

Water Quality

As previously described, each of the twenty two Negley subdivision wells and the single well located west of the License Amendment Area have been sampled by Uranium One for baseline water quality. The samples were collected by a third party contractor and submitted to an independent analytical laboratory for analysis. The analytical results were sent directly to each well owner. Additionally, many of those wells existed at the time of the Teton Leuenberger pilot project and were sampled for baseline and post mining water quality to assess potential impacts of ISR mining. Results of the water quality sampling are described herein.

Analytical results from four quarters of groundwater samples collected from the Negley wells under the current Uranium One baseline monitoring program are included the Ludeman Project License Amendment Application Technical Report (2010) in Addendum 2.7E. Table 3 of this report provides an average of the major ion concentration for each of the wells. All but three of the wells exceed the Wyoming Class I standard for TDS (500 mg/l) and ten of the twenty three wells exceed the Class I standard for sulfate (250 mg/l). With respect to radionuclides, shown on Table 4, nine of the Negley wells exceed the EPA Maximum Contaminant Level (MCL) for uranium (0.035 mg/l), four exceed the EPA MCL for radium 226+288 (5.0 pCi/l) and twenty two of the well averages exceed the Wyoming Class I standard for gross alpha. Average concentration of trace metals are shown on Table 5. With the exception of manganese, most samples were below detection limits and standards for trace constituents. Two wells exceeded the selenium Class I standard of 0.05 mg/l. Nine wells exceeded the Wyoming Class I standard for manganese (0.05 mg/l).

Isoconcentration maps were developed for several of the analytes. Figures 9, 10 and 11 show the distribution of dissolved uranium, bicarbonate and gross alpha in the Negley subdivision. The pattern that is exhibited for each of these maps is that the overall trend

shows an increase to the northwest, away from the Leuenberger Area except that one well (N-18) is consistently elevated.

The depth of well N-18 was recently measured and found to be 106.8 ft which is at an elevation of 5,145 ft amsl. Well N-14 and N-19 were also measured in the field and found to be shallower than the reported total depth. Based on Cross-Section FF-FF' (Attachment A) and the top of 110 Sand structure map (Figure 3), well N-18 is completed in the 110 Sand and does not penetrate deep enough to intercept the 100 Sand. Well N-18 has the highest average concentration of TDS, sulfate, chloride, uranium, gross alpha and selenium of any of the Negley wells. Other Negley wells located to the south (and closer to the area where the pilot test was conducted) have much lower values of those constituents.

The increasing trend in uranium to the northwest away from the License Amendment Area, and the generally low uranium values directly north of the License Amendment Area, make it unlikely that the pilot test negatively impacted water quality in the Negley wells even though many of the wells exceed Class I standards for uranium, gross alpha, sulfate, TDS, and manganese. Uranium ore has been identified in borings drilled into the 100 Sand in areas near the Negley subdivision and may be the cause of the elevated levels observed.

Baseline data collected during the Teton pilot project confirm that the water quality in many of the Negley wells exceeded Wyoming Class I standards for a number of constituents prior to mining and are essentially the same quality today as pre-mining. Table 6 compares the 1979 and 2008/2009 water quality data for wells that were sampled over both time periods. Most values are similar with the exception being N-18. In N-18, the concentration of most major ions, as well as TDS, nitrate (as N) and uranium showed sharp increases from 1979 to 2008/2009. No explanation is readily apparent; however the dramatic increase in nitrate suggests that this well may have received some form of surface contamination or infiltration. Field investigations identified that the well was in poor condition and may be prone to surface infiltration.

A series of stiff diagrams were developed from the average water quality data collected as part of the Uranium One Ludeman baseline monitoring program. The stiff diagrams show a general change in water quality with depth (Figures 12 and 13). Wells completed in the 120 and 110 Sands have higher TDS and are predominately calcium-sulfate type water. Wells completed in the 80 Sand are predominately calcium-carbonate waters with much lower TDS. Wells completed within the 100 and 90 Sands are generally transitional between the calcium-carbonate and calcium-sulfate water types and intermediate TDS levels.

It should be noted that at the request of the EPA, WDEQ conducted a followup evaluation of the Leuenberger Project to determine if groundwater in the area could be

impacted from uranium recovery activities. The conclusions presented in the WDEQ memorandum (dated August 7, 2000 from R. Hoy to R. Chancellor) state that

...“Based on the interpretations of the site data, adverse impacts due to site activities were limited (e.g pond leaks, hot spots in the M Wellfield) and there is no indication in the records that those impacts extended beyond the site boundary. Also, mitigation efforts were undertaken to address those impacts”

and

“...based on available site information and data interpretations, and the limited duration and magnitude of mining activities, it appears there were no impacts to the shallow aquifer in which most of domestic wells in the area were completed.”

The WDEQ agreed with earlier assessment from the NRC that groundwater in the wellfields associated with the Leuenberger Project had been adequately restored and there were no impacts to groundwater outside of the Project boundary.

Summary

Uranium One intends to develop and extract uranium from the Fort Union Formation at the Ludeman Project in Converse County, Wyoming using ISR mining. The target ore-bodies are located within the designated 80 and 90 Sands. Teton conducted an ISR uranium pilot project in the northwest portion of the current Ludeman License Amendment Area from 1979 to 1982. The pilot was called the Leuenberger Project. The Negley subdivision is located adjacent to the northwest portion of License Amendment Area and includes twenty two private water wells.

Based on a review of available SEO well records, well inspections, and geologic data, none of the Negley wells are completed within the 90 Sand, the primary target ore-bearing aquifer for planned uranium mining in the northwest portion of the Ludeman License Amendment Area. The deepest well in the Negley subdivision is 210 feet. The depth to the top of the 90 Sand in that area is 250 to 300 feet. All of the Negley wells are completed in the 110 and/or 120 Sands except one that appears to be completed within the 100 Sand. The 100 Sand is the overlying aquifer to the target production zone 90 Sand in the area. One well, located one mile west of the License Amendment Area, may be completed in either the 80 or 70 Sand, but the water quality in that well does not exceed any Wyoming or EPA standards.

A survey of the Negley Subdivision well owners indicated that eleven of the Negley Subdivision wells are used for domestic purposes, one well is a shop supply well, three wells are used for livestock watering (noncommercial), and seven are not used (and have no downhole pumps). The well located one mile west of the License Amendment Area is also not used.

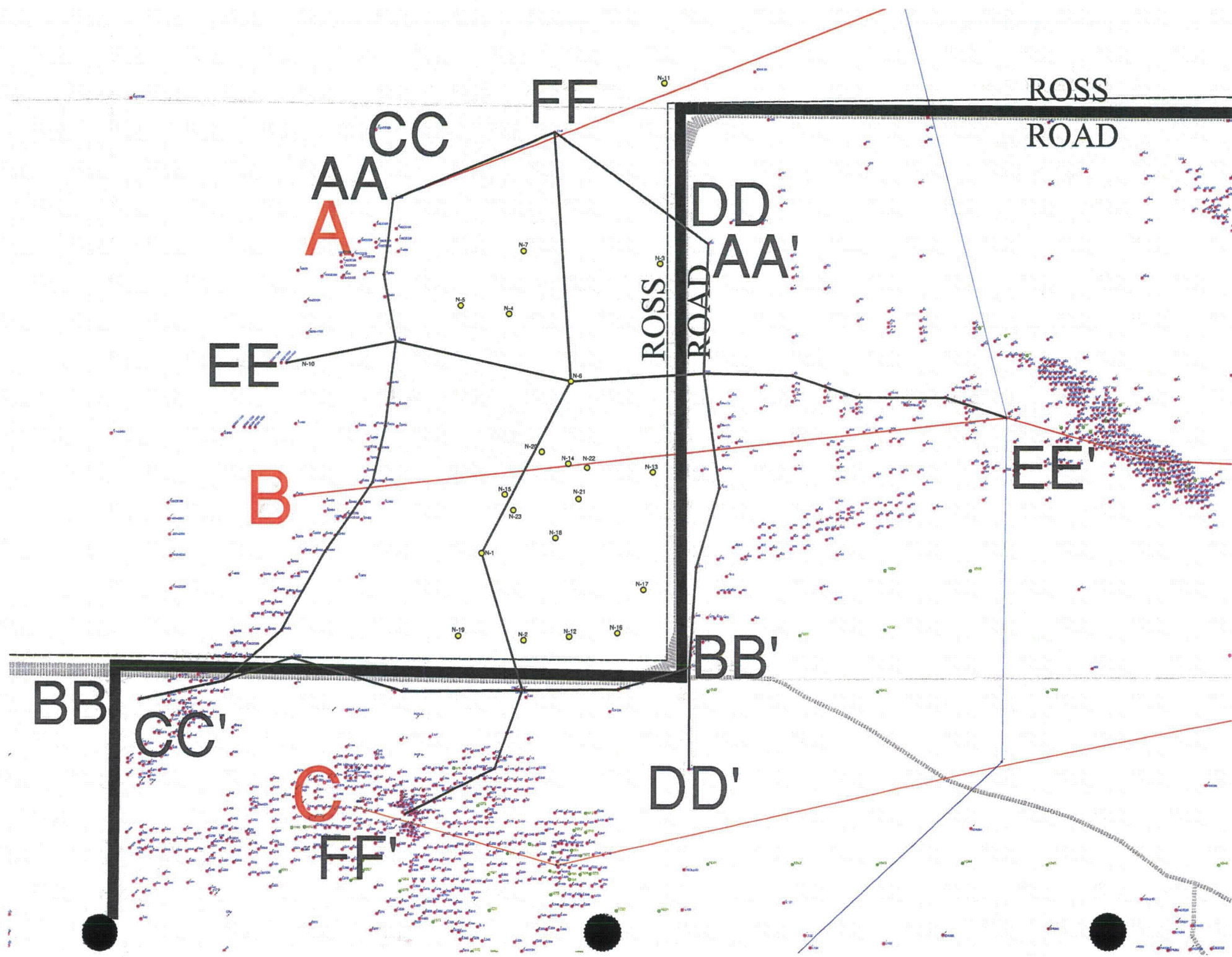
Aquifer testing conducted by Teton within the 90 Sand indicated negligible response in the overlying aquifer. Reported drawdown in the overlying aquifer was less than 0.1 feet during a 36.5 hour, 43.1 gpm test in which over 30 feet of drawdown was recorded in 90 Sand observation wells at 300 feet from the pumping well. Aquifer testing of the 90 Sand conducted by Uranium One in the Leuenberger area in 2008 indicated no response in the overlying aquifer after 3.2 days of pumping at 32.2 gpm. Results of these tests demonstrate adequate confinement between the 90 Sand and the overlying aquifers in the area.

Baseline water quality conducted by Uranium One in 2008-2009 indicates elevated levels of uranium, sulfate, TDS, gross alpha and manganese in many of the wells. Isoconcentration maps show that uranium, gross alpha and bicarbonate increase to the northwest, away from the License Amendment Area.

Sampling conducted by Teton as part of the baseline monitoring for the Leuenberger Project indicated that similar water quality existed prior to the pilot test in most wells. One well (N-18) completed in the 110 Sand, has significant increases in a number of constituents since the 1979 sampling. However, several wells that are also completed in the 110 Sand are located between N-18 and the Amendment Area boundary. Those wells did not show increases in parameter concentrations, making it unlikely that the changes in water quality at N-18 are related to the Leuenberger pilot project.

Uranium One will conduct adequate aquifer testing, in accordance with normal procedures, to characterize the degree of hydraulic communication (if any) between the target production zone aquifer and the overlying and underlying aquifers at Ludeman. As required under the Permit to Mine, the testing results will be submitted as part of the Wellfield Data Package. That aquifer testing will also further characterize the hydraulic relationship between the production zone aquifer and the Negley subdivision wells, although based on currently available data, no hydraulic communication between the aquifers is anticipated.

The additional data provided in this technical Memorandum supports the conclusion that 1) none of the Negley wells are completed in the production zones; 2) adequate confinement exists between the production zone and the overlying zones; and 3) the existing water quality in the Negley wells is similar to the water quality noted during preoperational testing for the Leuenberger Pilot Project. Adequate information is available to allow NRC to evaluate potential impacts on groundwater in the Negley subdivision from the proposed facility under both normal operating conditions and accidents. This information meets the acceptance criteria in NUREG-1569, section 2.2.3 and additional hydrologic testing is not necessary at this time for the technical review of the amendment application for the Ludeman Uranium Project to proceed.

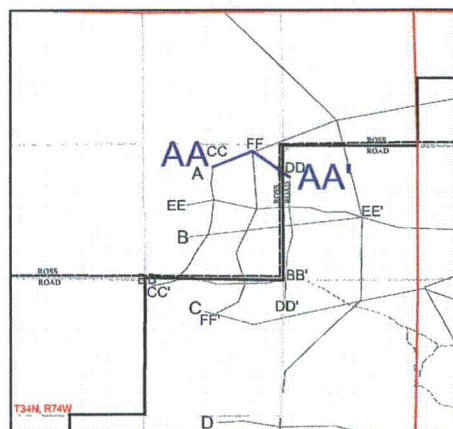
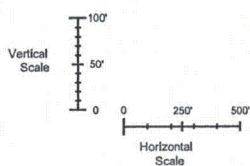
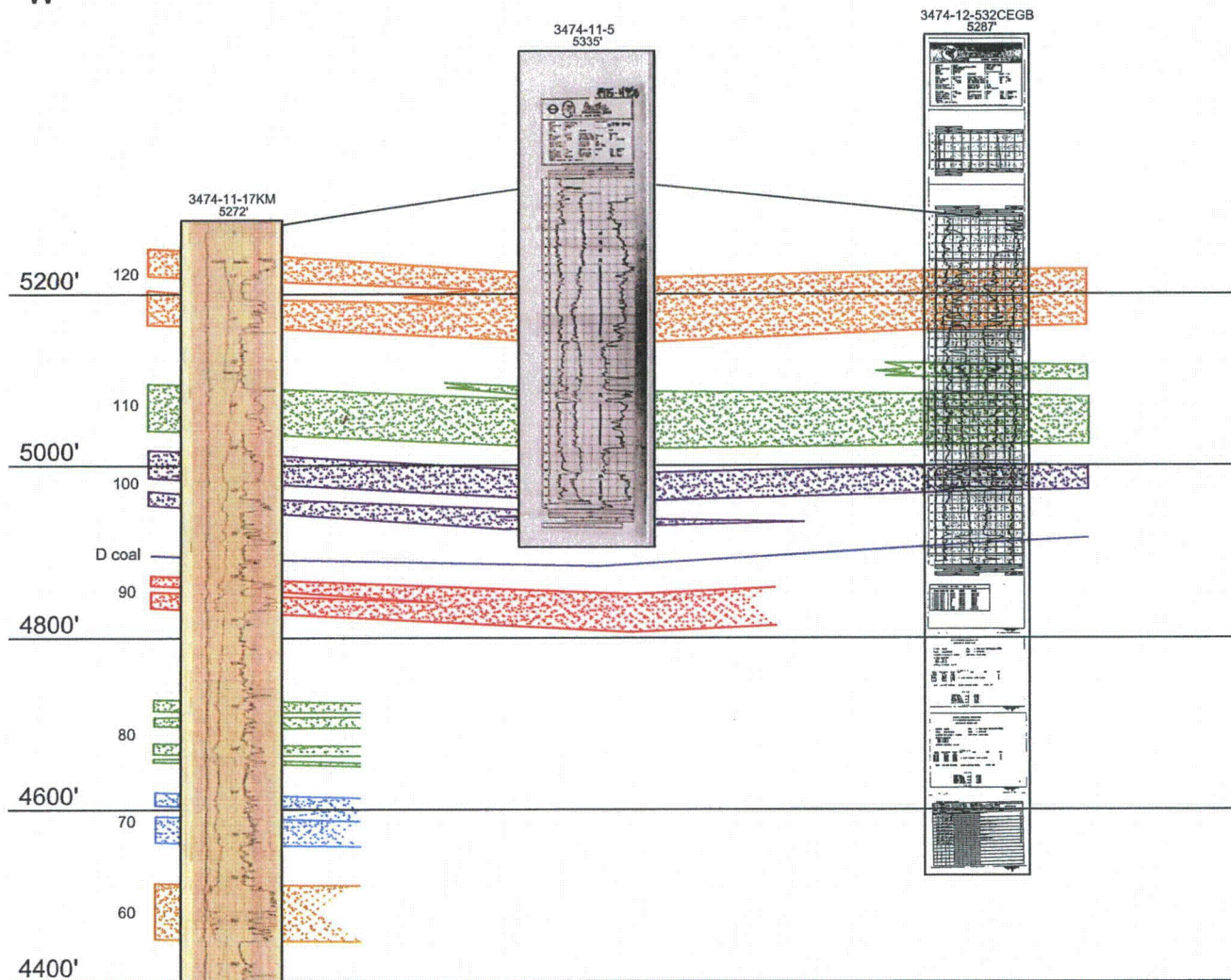


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907 North Poplar St., Suite 260, Casper, WY 82601 307-234-8235

LUDEMAN PROJECT
AA-AA' NEGLEY CROSS-SECTION

T.34N., R.74W., Sec. 11, 12
 CONVERSE COUNTY, WYOMING

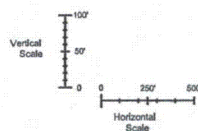
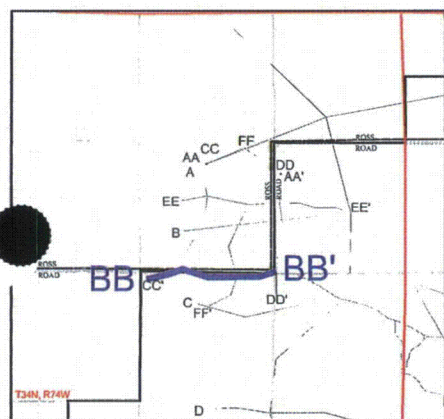
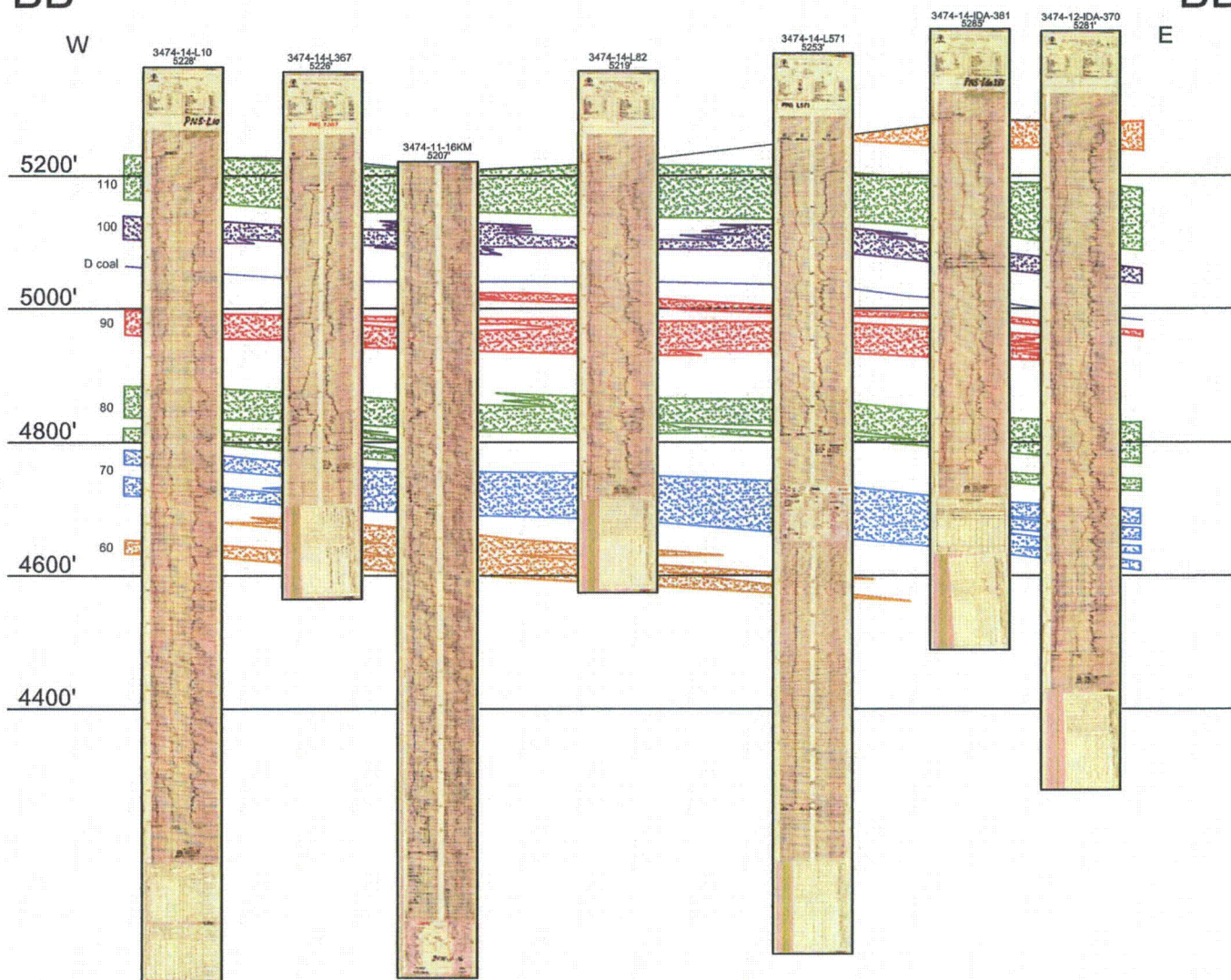
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LUDEMAN PROJECT
BB-BB' NEGLEY CROSS-SECTION

T.34N., R.74W., Sec. 11, 12, 14
CONVERSE COUNTY, WYOMING

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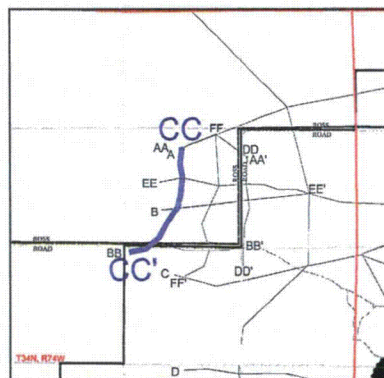
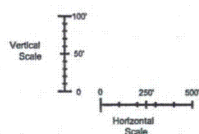
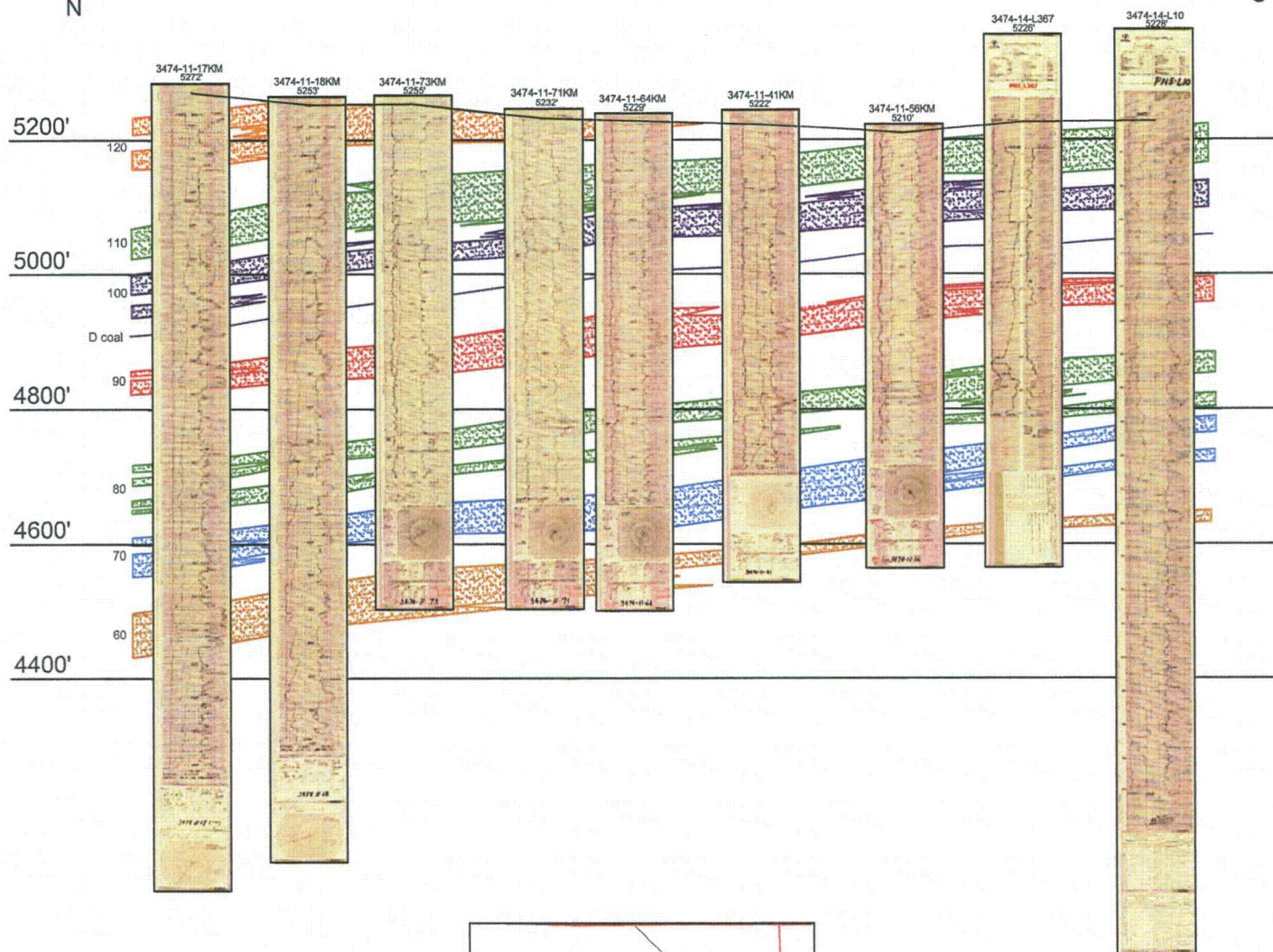
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907 North Poplar St., Suite 260, Casper, WY 82601 307-234-8235

LUDEMAN PROJECT
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CONVERSE COUNTY, WYOMING

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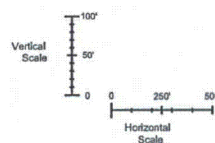
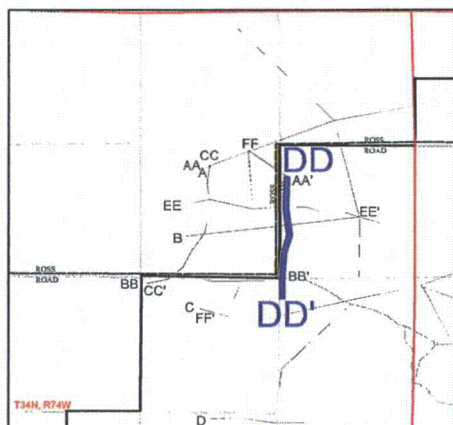
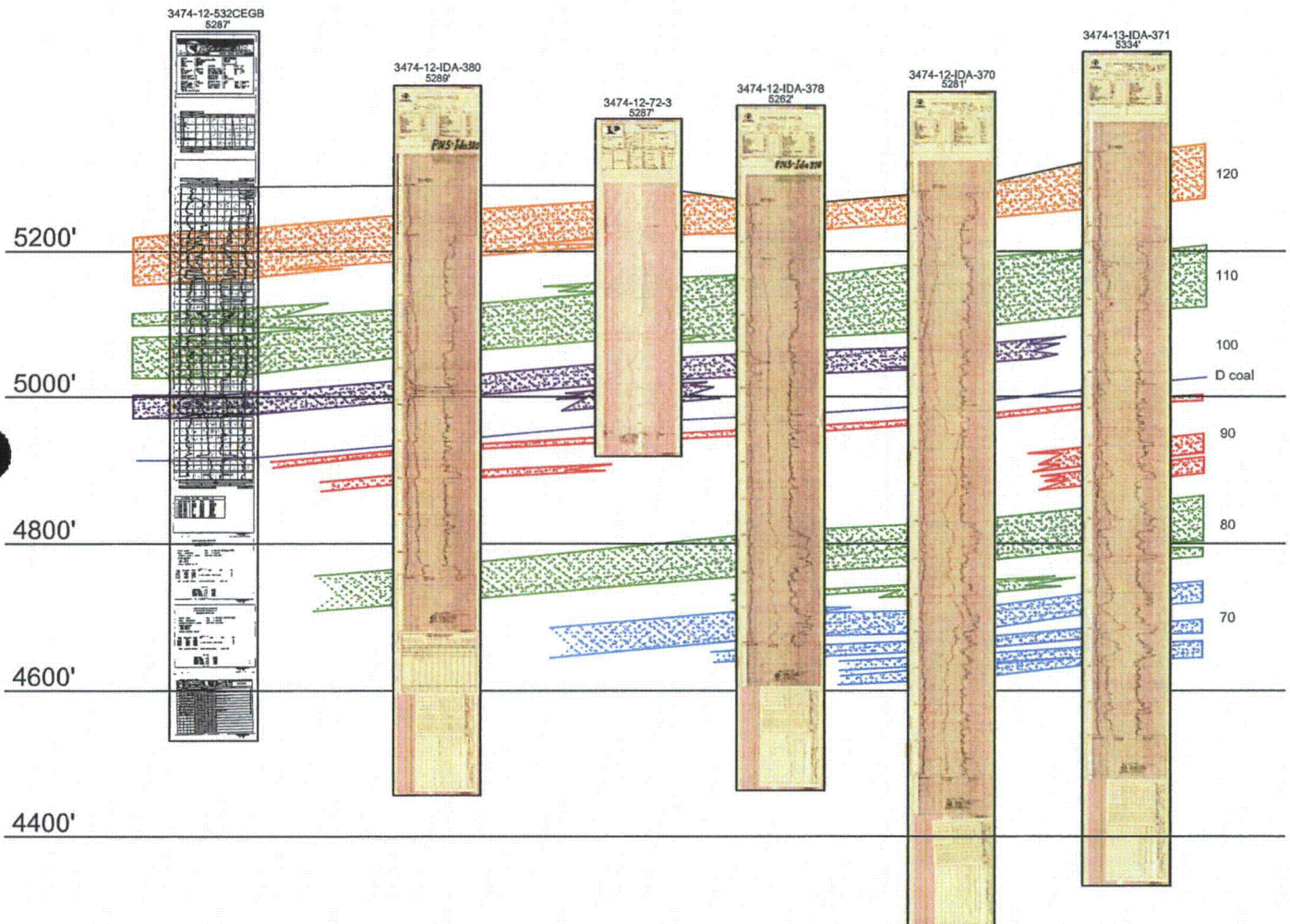
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907 North Poplar St., Suite 260, Casper, WY 82601 307-234-8235

LUDEMAN PROJECT DD-DD' NEGLEY CROSS-SECTION

T.34N., R.74W., Sec. 12,13
CONVERSE COUNTY, WYOMING

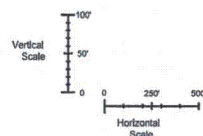
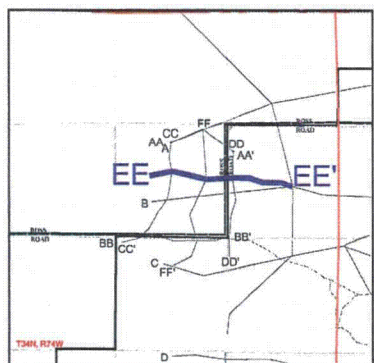
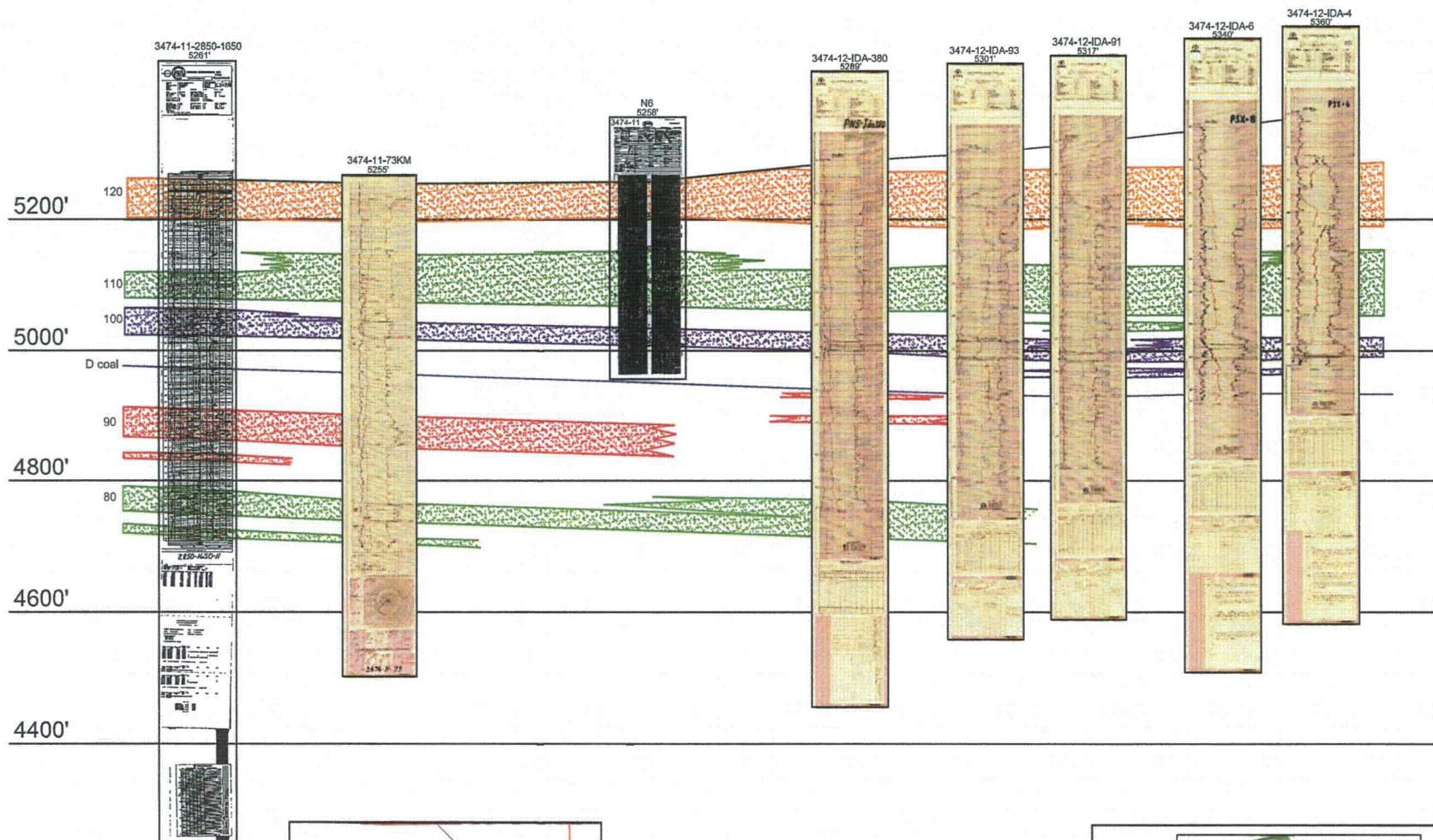
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LUDEMAN PROJECT
EE-EE' NEGLEY CROSS-SECTION

T.34N., R.74W., Sec. 11,12
CONVERSE COUNTY, WYOMING

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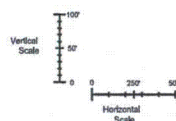
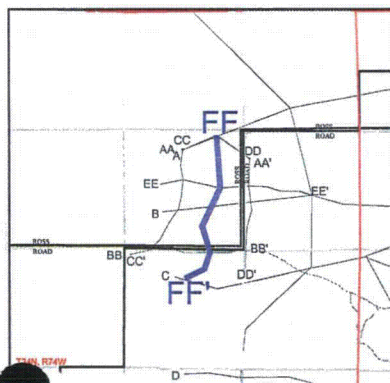
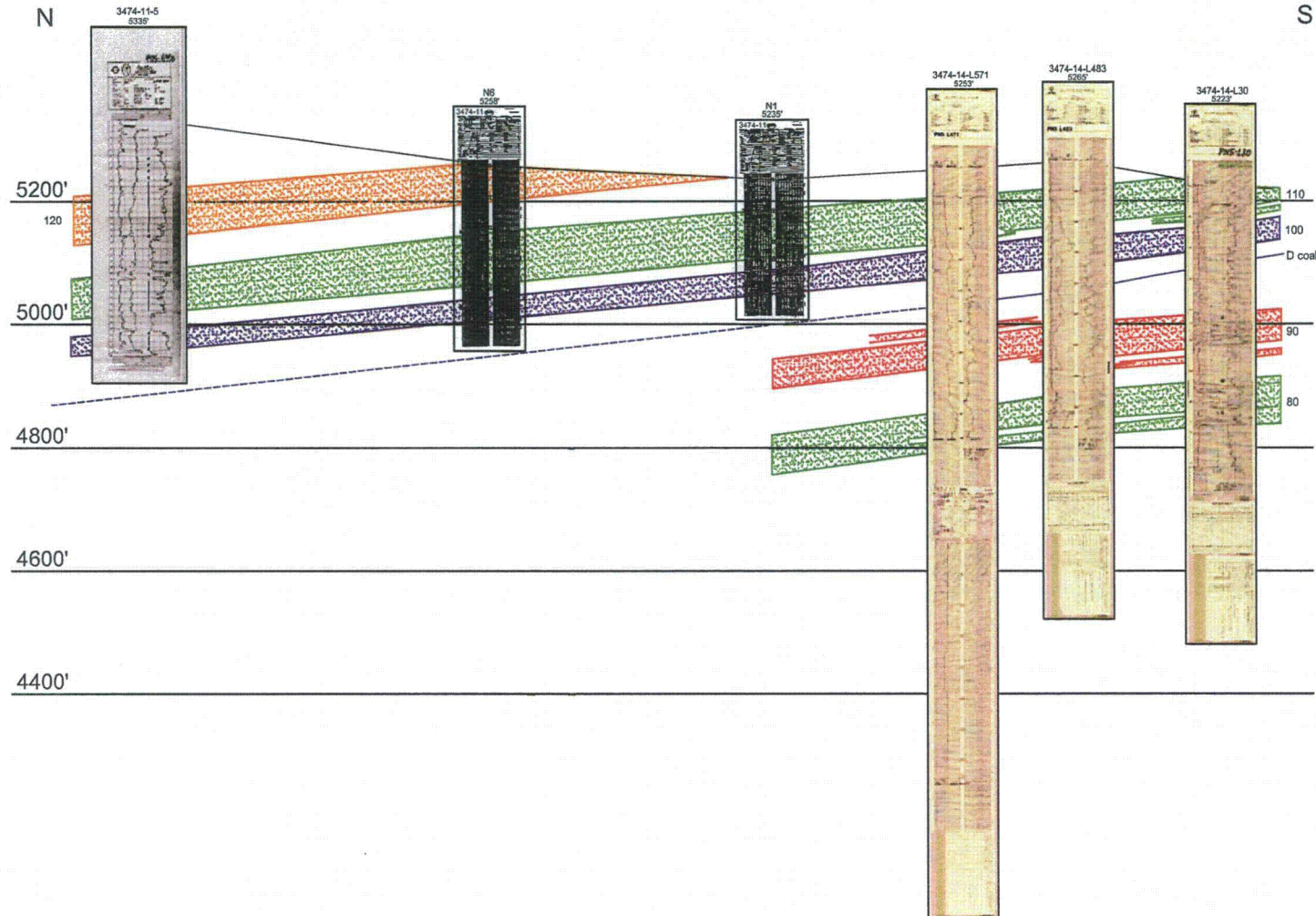
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LUDEMAN PROJECT
FF-FF' NEGLEY CROSS-SECTION

T.34N., R.74W., Sec. 11, 14
CONVERSE COUNTY, WYOMING

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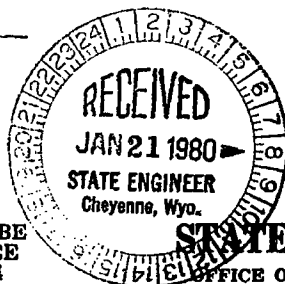
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Attachment B

Negley Subdivision Well Completion Reports

N-1	50986	
N-2	26629	
N-3	42818/83767	
N-4	40688	
N-5	40689	
N-6	50985	
N-7	26631	
N-8	173339	
N-9	180	No well completion report available
N-10	24572 (cancelled.)	Only Permit Application included, no completion report available
N-11	P08605P	No well completion report available
N-12	64309	
N-13a and b	30262/30263 - both canceled	Only Permit Application included, no completion report available
N-14	46720	
N-15	32804	
N-16	30265	
N-17	30264	
N-18	9485	No well completion report available
N-19	26630	
N-20	26415	
N-21	26463	
N-22	42928	
N-23	161492	Only Permit Application included, no completion report available

Form U.W. 6



MICRO-FILMED FEB 6 '80

NOTE: Do not fold this form. Use typewriter or print neatly with black ink.

IF WELL IS TO BE
ABANDONED, SEE
ITEM 15, PAGE 4

STATE OF WYOMING
OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

PERMIT NO. U.W. 50986 NAME OF WELL LaPlant #1

1. NAME OF OWNER Earlene LaPlant
2. ADDRESS P. O. Box 1615, Glenrock, WY Zip Code 82637
3. USE OF WATER: Domestic ☐ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☒
Well used to measure static water level only.
4. LOCATION OF WELL: SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),
Wyoming, being specifically _____ (Bearing and Distance)
or 4186.1 ft. ^{XXX} North and 7017.9 ft. ^{Back} South from the SE corner of Section 1, T. 34 N., R. 74 W.
(Strike out words not needed).
5. TYPE OF CONSTRUCTION: Drilled ☒ and rotary Dug ☐ Driven ☐ Jetted ☐
(Type of Rig)
Other _____
6. CONSTRUCTION: Total Depth of Well 131 ft. Depth to Static Water Level 44.9 ft.
 - a. Casing Schedule New ☒ Used ☐
5 1/2" diameter from 0 ft. to 71 ft. Material PVC Gage Sch.40
_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____
_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____
 - b. Perforations: Type of perforator used Does not apply.
Size of perforations _____ inches by _____ inches.
Number of perforations and depths where perforated:
_____ perforations from _____ ft. to _____ feet.
_____ perforations from _____ ft. to _____ feet.
 - c. Was well screen installed? Yes ☒ No ☐
Diameter: 5 1/2" slot size: 1/32" set from 71 feet to 131 feet.
Diameter: _____ slot size: _____ set from _____ feet to _____ feet.
 - d. Was well gravel packed? Yes ☒ No ☐ Size of gravel 3/4"
 - e. Was surface casing used Yes ☒ No ☐ Was it cemented in place? Yes ☐ No ☒
7. NAME & ADDRESS OF DRILLER Teton Exploration Drlg. Co., P.O. Drawer A-1, Casper, WY 82602
8. DATE OF COMPLETION OF WELL (including pump installation) November 15, 1979
9. PUMP INFORMATION: Manufacturer No pump permanently installed. Type _____
Source of power _____ Horsepower _____ Depth of Pump Setting _____
Amount of Water Being Pumped 0 Gallons Per Minute. (For springs or flowing wells, see item 11.)

Permit No. U.W. 50986

Book No. 290 Page No. 19

U.W. 50986

13. TABULATION

a. If for irrigation, the land proposed to be irrigated should be described in the following tabulation. Describe in the "Remarks" section, under Item 14, the means of conveying the water to the lands and the method of irrigation.

(Give irrigable acreage in each legal subdivision. If proposed use is for supplemental supply for lands with a right from another source, indicate in the tabulation the priority or permit number, the source of supply and the name of the ditch or other well.)

b. If not used for irrigation, show the area and point(s) of use and location of well in the tabulation below. Also describe the method of conveyance in the "Remarks" section under Item 14.

Township	Range	Sec.	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTALS
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
34	74	11															X		

TOTAL NUMBER OF ACRES TO BE IRRIGATED none

Original Supply acres

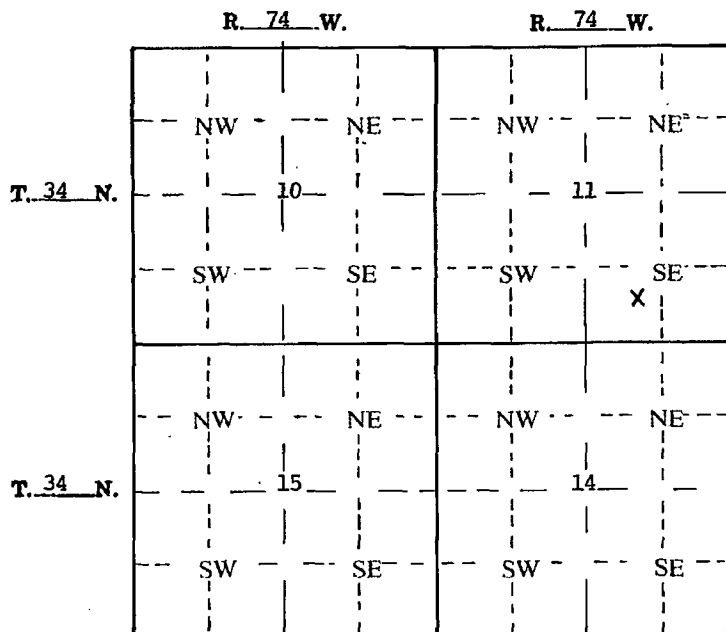
Supplemental Supply acres

14. PLAT

a. If the well is to be used for irrigation, industrial, miscellaneous or municipal use, show the location of the well on the plat below. For such uses, a plat certified by a licensed engineer or land surveyor is required to be submitted at the time the Proof of Appropriation and Beneficial Use of Ground Water is submitted.

b. For other uses, accurately show the well location, point of use or uses and describe method of conveyance of water to points of use on plat and in "Remarks" section below. Make certain location on plat agrees with written description.

c. A separate map may be submitted if the information required cannot be shown on this plat.



Scale: 2" -- 1 Mile

REMARKS: Well will be used to measure the static water level (SWL) of the groundwater aquifer open to the well. Personnel from Teton Exploration Drilling Co. will be taking the SWL measurements on a periodic basis. No water will be pumped from the well except during well development and any well testing.

U.W. 50986

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Daniel M. Hahly

Signature of Owner or Authorized Agent

1/17

Date

19 80

JAN 21 1980

Date of Receipt _____, 19 _____

January 21

Date of Priority _____, 19 80

Date of Approval January 31, 19 80

[Signature]
for State Engineer

JAN 22 '75

Form U.W. 7

IF WELL IS TO BE
ABANDONED, SEE ITEM 20

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

for Domestic or Stock Watering Use Only

A preferred water right is given to such use when the yield or flow does not exceed .056 cubic feet per second or 25 gallons per minute. Domestic use refers to household use and the watering of lawns and gardens for family use, not to exceed one acre.

Permit No. U.W. 26629Temporary Filing No. 9-8-68Water Division No. 1 (15-5)

**Completed Prior
to May 24, 1969

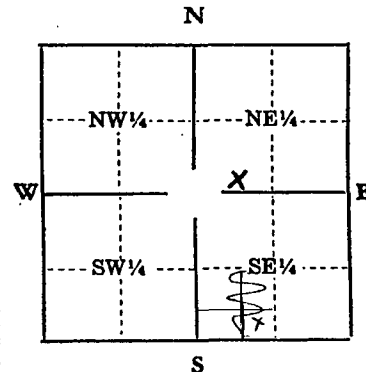
U.W. District Converse CountyNAME OF WELL Negley No. 3

1. Owner Jacob S. Negley
2. Address Glenrock, WY 82637
3. Agent to receive correspondence Dennis M. Hand, Attorney,
P.O. Box 277, Glenrock, WY 82637
4. Name & address of driller Crimm Drilling, Inc., 311 South 4th
Avenue, Casper, Wyoming 82601
5. Well is constructed on lands owned by Jacob S. Negley
(Obtaining of easement or right of way is the responsibility of the applicant's.
Include copy if land is privately owned and owner is not a co-applicant.)
6. Type of construction: Dug ☐ Drilled ☐ Rotary
Type of Rig
- Driven ☐ Jet ☐ Other _____
7. Use of Water—Domestic ☒ Stock ☐
8. Means of conveyance, distance and direction to point of use
PIPE 400'
9. Date started June 1, 19 74
10. Date completed June 2, 19 74 (including pump)
11. Date after completion when water was used June 5, 19 74
12. WELL DESCRIPTION
Total Depth 120' Depth to Water Level 80 ft.
13. TEST DATA
Yield 25 Gal. per Min. How Tested With Pump
Drawdown _____ Length of Test _____
14. PUMP DATA
Type Ruda Pump Power Source Electricity
(Turbine, Centrifugal, etc.) (Elec., Gas, etc.)
Horsepower 3/4 Amount of Water Being Used 25
(Gallons per Minute)
15. CASING RECORD
Plain Casing
Size 6" Kind PLASTIC from 0 ft. to 80 ft.
Size _____ Kind _____ from _____ ft. to _____ ft.
Size _____ Kind _____ from _____ ft. to _____ ft.
Perforated Casing
Size 1" Kind PLASTIC from 80 ft. to 120 ft.
Size _____ Kind _____ from _____ ft. to _____ ft.

WELL LOCATION

Converse County

SW 1/4 of NE 1/4 of Sec. 11
T. 34 N., R. 75 W.



Scale: 2" = 1 mile

Above diagram represents one full
section. Locate well accurately in
small square representing 40 ac.
or
fill in the following:

Lot _____ & Block _____ or Tract _____

of the _____
(Subdivision or Addition)

of _____
(City, Town or County)

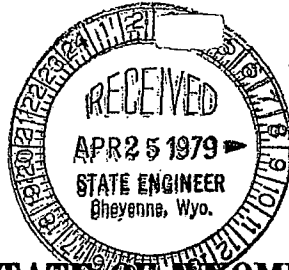
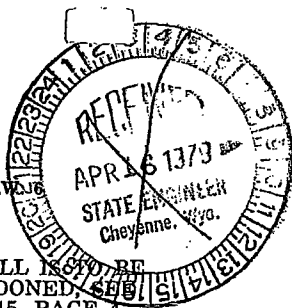
Section _____, T. _____ N., R. _____ W.

**For wells constructed after May 24, 1969, Application Form U.W. 5 must be submitted prior to construction.

Permit No. U.W. 26629Book No. 138 Page No. 68

Form U.W. 16

IF WELL IS TO BE
ABANDONED, SEE
ITEM 15, PAGE 4



MICRO-
FILMED AUG 8 '79

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

STATE OF WYOMING
OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

ASSIGNED: SEE CURRENT ENDORSEMENT

PERMIT NO. U.W. 42818

NAME OF WELL Negley #6

Weldon W. + Candy Yoder

1. NAME OF OWNER J. S. Negley P.O. Box 756

2. ADDRESS Box 14 Glenrock, Wyo Zip Code 82637

3. USE OF WATER: Domestic ☒ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☐

4. LOCATION OF WELL: NE 1/4 SE 1/4 of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),

Wyoming, being specifically _____

(Bearing and Distance)

or _____ ft. North and _____ ft. East from the _____ corner of Section _____, T. _____ N., R. _____ W.
(Strike out words not needed).

5. TYPE OF CONSTRUCTION: Drilled ☒ _____ Dug ☐ Driven ☐ Jetted ☒

Other _____ (Type of Rig)

6. CONSTRUCTION: Total Depth 120 ft. Depth to Water Level 85 ft.

a. Casing Schedule New ☒ Used ☐

5" diameter from _____ ft. to _____ ft. Material 250 Styrum Gage _____

_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____

_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____

b. Perforations: Type of perforator used Sowed

Size of perforations 1/16 inches by 2 inches.

Number of perforations and depths where perforated:

_____ perforations from 850 ft. to 1260 feet.

_____ perforations from _____ ft. to _____ feet.

c. Was well screen installed? Yes ☐ No ☐

Diameter: _____ slot size: _____ set from _____ feet to _____ feet.

Diameter: _____ slot size: _____ set from _____ feet to _____ feet.

d. Was well gravel packed? Yes ☒ No ☐ Size of gravel 5/16

e. Was surface casing used Yes ☐ No ☐ Was it cemented in place? Yes ☐ No ☒

7. NAME & ADDRESS OF DRILLER Payne Drilling Co

8. DATE OF COMPLETION OF WELL (including pump installation) April 7th x 79

9. PUMP INFORMATION: Manufacturer Pearl Series 8 Type Submersible

Source of power Electric Horsepower 1/4 HP Depth of Pump Setting 100'

Amount of Water Being Pumped 20 Gallons Per Minute.

Permit No. U.W. 42818

Book No. 230 Page No. 100

REMARKS:

U.W. 42818

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

X J. D. Hegley
Signature of Owner or Authorized Agent

X April 1st, 19 79
Date

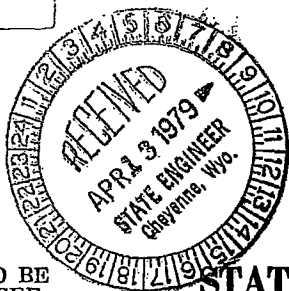
Date of Receipt APR 25 1979, 19 79

Date of Priority April 20, 19 78

Date of Approval July 16, 19 79

[Signature]
for State Engineer

Form U.W. 6



FILMED MAY 30 1979

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

IF WELL IS TO BE
ABANDONED, SEE
ITEM 15, PAGE 4

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

ASSIGNED: SEE CURRENT ENDORSEMENT

PERMIT NO. U.W. 40688

NAME OF WELL Bourquin No. 2

Weldon W. + Candy Yoder

1. NAME OF OWNER Evert L. Bourquin

2. ADDRESS Box 231 Glenrock Wyo Zip Code 82437

3. USE OF WATER: Domestic ☐ Stock Watering ☒ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☐

4. LOCATION OF WELL: SW 1/4 NE 1/4 of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),

Wyoming, being specifically

(Bearing and Distance)

or 3122 ft. North and 1982 ft. West from the NE corner of Section 11, T. 34 N., R. 74 W.
(Strike out words not needed).

5. TYPE OF CONSTRUCTION: Drilled ☒ Rotary Dug ☐ Driven ☐ Jetted ☐
(Type of Rig)

Other

6. CONSTRUCTION: Total Depth 200 ft. Depth to Water Level 170 ft.

a. Casing Schedule New ☒ Used ☐

5 in. diameter from 0 ft. to 200 ft. Material 5 Type h-c Gage 200

diameter from _____ ft. to _____ ft. Material _____ Gage _____

diameter from _____ ft. to _____ ft. Material _____ Gage _____

b. Perforations: Type of perforator used SAW

Size of perforations 1/4 inches by 12 inches.

Number of perforations and depths where perforated:

80 perforations from 200 ft. to 140 feet.

_____ perforations from _____ ft. to _____ feet.

c. Was well screen installed? Yes ☐ No ☒

Diameter: _____ slot size: _____ set from _____ feet to _____ feet.

Diameter: _____ slot size: _____ set from _____ feet to _____ feet.

d. Was well gravel packed? Yes ☒ No ☐ Size of gravel 1/4"

e. Was surface casing used Yes ☐ No ☒ Was it cemented in place? Yes ☐ No ☒

7. NAME & ADDRESS OF DRILLER Payne Drilling Co. Glenrock Wyo 82437

8. DATE OF COMPLETION OF WELL (including pump installation) March 25, 1979

9. PUMP INFORMATION: Manufacturer A&R motor Type Windmill

Source of power Wind Horsepower _____ Depth of Pump Setting 740-193 ft.

Amount of Water Being Pumped 12 Gallons Per Minute.

Permit No. U.W. 40688

Book No. 216 Page No. 75

REMARKS:

U.W. 40688

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Evert S. Bourgeois
Signature of Owner or Authorized Agent

April 12, 1979
Date

APR 13 1979

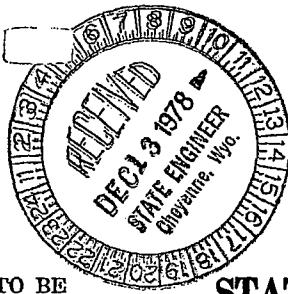
Date of Receipt _____, 19____

Date of Priority November 2, 1977

Date of Approval May 10, 1979

Richard S. Stubble
for State Engineer

Form U.W. 6



502
- 907
MICROFILMED MAR 7 79

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

IF WELL IS TO BE
ABANDONED, SEE
ITEM 15, PAGE 4

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

ASSIGNED: SEE CURRENT ENDORSEMENT

PERMIT NO. U.W. 40689

NAME OF WELL Bourquin No. 1

Weldon W. + Candy Yoder

1. NAME OF OWNER Evert L. Bourquin

2. ADDRESS 506 S. 3rd Box 231 Glenrock, Wyo. Zip Code 82437
P.O. Box 756

3. USE OF WATER: Domestic ☒ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☐

4. LOCATION OF WELL: SE 1/4 NE 1/4 of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),

Wyoming, being specifically

1913 (Bearing and Distance)
of 1573 ft. South and 1573 ft. West from the NE corner of Section 11, T. 34 N., R. 74 W.
(Strike out words not needed).

5. TYPE OF CONSTRUCTION: Drilled ☒ Rotary (Type of Rig) Dug ☐ Driven ☐ Jetted ☒

Other _____

6. CONSTRUCTION: Total Depth 125 ft. Depth to Water Level 110 ft. 65 per letter 2/3/79

a. Casing Schedule New ☒ Used ☐

5" diameter from 0 ft. to 125 ft. Material Plastic Gage 200
_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____
_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____

b. Perforations: Type of perforator used Saw

Size of perforations 1/4 inches by 10 inches.

Number of perforations and depths where perforated:

40 perforations from 60 ft. to 125 feet.
_____ perforations from _____ ft. to _____ feet.

c. Was well screen installed? Yes ☒ No ☐

Diameter: _____ slot size: _____ set from _____ feet to _____ feet.

Diameter: _____ slot size: _____ set from _____ feet to _____ feet.

d. Was well gravel packed? Yes ☒ No ☐ Size of gravel 1/4"

e. Was surface casing used Yes ☐ No ☒ Was it cemented in place? Yes ☐ No ☒

7. NAME & ADDRESS OF DRILLER Evert L. Bourquin

8. DATE OF COMPLETION OF WELL (including pump installation) Nov 15, 1978

9. PUMP INFORMATION: Manufacturer Fairbanks Morse Type submersible

Source of power Electric Horsepower 1 Depth of Pump Setting 110

Amount of Water Being Pumped 70 12 Gallons Per Minute.

Permit No. U.W. 40689

Book No. 216 Page No. 76

REMARKS:

U.W. 40689

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Everett L. Burquin
Signature of Owner or Authorized Agent

Dec 12, 1978
Date

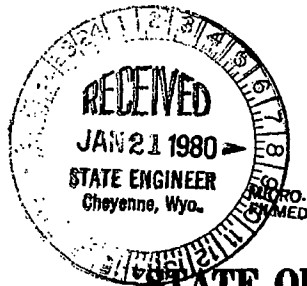
Date of Receipt DEC 13 1978 DW, 1978

Date of Priority November 2, 1977

Date of Approval Feb 20, 1979

Richard L. White
for State Engineer

Form U.W. 6



FEB 6 '80

NOTE: Do not fold this form. Use type-writer or print neatly with black ink.

IF WELL IS TO BE
ABANDONED, SEE
ITEM 15, PAGE 4

STATE OF WYOMING
OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

PERMIT NO. U.W. 50985 NAME OF WELL KT-2

1. NAME OF OWNER Robert Haun
 2. ADDRESS P. O. Box 125, Glenrock, WY Zip Code 82637
 3. USE OF WATER: Domestic ☐ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☒
Well used to monitor static water level only.
 4. LOCATION OF WELL: SE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),
Wyoming, being specifically _____
(Bearing and Distance)
or 2624.5 ft. North and 6183.8 ft. East from the SE corner of Section 1, T. 34 N., R. 74 W.
(Strike out words not needed).
 5. TYPE OF CONSTRUCTION: Drilled ☒ mud rotary Dug ☐ Driven ☐ Jetted ☐
(Type of Rig)
Other _____
 6. CONSTRUCTION: Total Depth 196.0 ft. Depth to Water Level 66.7 ft.
 - a. Casing Schedule New ☒ Used ☐

<u>5 1/2"</u> diameter from <u>0</u> ft. to <u>106</u> ft.	Material <u>PVC</u>	Gage Sch. <u>40</u>
<u>5 1/2"</u> diameter from <u>186</u> ft. to <u>196</u> ft.	Material <u>PVC</u>	Gage Sch. <u>40</u>
_____ diameter from _____ ft. to _____ ft.	Material _____	Gage _____
 - b. Perforations: Type of perforator used Does not apply.
Size of perforations _____ inches by _____ inches.
Number of perforations and depths where perforated:
_____ perforations from _____ ft. to _____ feet.
_____ perforations from _____ ft. to _____ feet.
 - c. Was well screen installed? Yes ☒ No ☐
Diameter: 5 1/2" slot size: 1/32" set from 106 feet to 186 feet.
Diameter: _____ slot size: _____ set from _____ feet to _____ feet.
 - d. Was well gravel packed? Yes ☒ No ☐ Size of gravel 3/4"
 - e. Was surface casing used Yes ☒ No ☐ Was it cemented in place? Yes ☐ No ☒
 7. NAME & ADDRESS OF DRILLER Teton Exploration Drilling Co., P. O. Drawer A-1, Casper, WY 82602
 8. DATE OF COMPLETION OF WELL (including pump installation) November 16, 1979
 9. PUMP INFORMATION: Manufacturer No pump permanently installed. Type _____
Source of power _____ Horsepower _____ Depth of Pump Setting _____
Amount of Water Being Pumped 0 Gallons Per Minute.
- Permit No. U.W. 50985 Book No. 290 Page No. 18

10. PUMP TEST: Was a pump test made? Yes ☐ No ☒

If so, by whom _____ Address _____

Yield: _____ gal./min. with _____ foot drawdown after _____ hours.

Yield: _____ gal./min. with _____ foot drawdown after _____ hours.

11. **FLOWING WELL** (Owner is responsible for control of flowing well). Not flowing.

If well yields artesian flow, yield is _____ gal./min. Surface pressure is _____ lb./sq. inch, or _____ feet of water.

The flow is controlled by: valve ☐ cap ☐ plug ☐

Does well leak around casing? Yes ☐ No ☐

12. LOG OF WELL: Total depth drilled 196 feet.

Depth of completed well 196 feet. Diameter of well 5-1/2 inches.

Depth to first water bearing formation_____feet.

Depth to principal water bearing formation Top_____feet to Bottom_____feet.

Ground Elevation, if known 5241.9'

[illegible]**QUALITY OF WATER INFORMATION:**

Was a chemical analysis made? Yes ☒ No ☐

If so, please include a copy of the analysis with this form.

If not, do you consider the water as: Good ☐ Acceptable ☐ Poor ☐ Unusable ☐

18. TABULATION

- (Give irrigable acreage in each legal subdivision. If proposed use is for supplemental supply for lands with a right from another source, indicate in the tabulation the priority or permit number, the source of supply and the name of the ditch or other well.)

- [illegible]

Supplemental Supply_____across

14. PLAT

- Scale: 2" = 1 Mile**

T. 34 N.

10 11 X

T. 34 N.

15 14

REMARKS: Well will be used to measure the static water level (SWL) of the groundwater aquifer open to the well. Personnel from Teton Exploration Drilling Company will be taking the SWL measurements on a periodic basis. No water will be pumped from the well except during well development and any well testing.

U.W. 50985

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Daniel M. Hally
Signature of Owner or Authorized Agent

1/17 19 80
Date

Date of Receipt JAN 21 1980, 19 80

Date of Priority January 21, 19 80

Date of Approval January 31, 19 80

[Signature]
for State Engineer

U.W. 50985

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Daniel M. Helly
Signature of Owner or Authorized Agent

1/17 19 80
Date

Date of Receipt JAN 21 1980, 19 80

Date of Priority January 21, 19 80

Date of Approval January 31, 19 80

[Signature]
for State Engineer

JAN 22 '75

Form U.W. 7

IF WELL IS TO BE

ABANDONED, SEE ITEM 20

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

for Domestic or Stock Watering Use Only

A preferred water right is given to such use when the yield or flow does not exceed .058 cubic feet per second or 25 gallons per minute. Domestic use refers to household use and the watering of lawns and gardens for family use, not to exceed one acre.

Permit No. U.W. 26631Temporary Filing No. 9-10-68Water Division No. 1 (15-5)

**Completed Prior
to May 24, 1969

U.W. District Converse CountyNAME OF WELL Negley No. 5

1. Owner Jacob S. Negley
2. Address Glenrock, WY 82637
3. Agent to receive correspondence Dennis M. Land, Attorney,
P.O. Box 277, Glenrock, WY 82637
4. Name & address of driller Crimm Drilling, Inc., 311 South 4th
Avenue, Casper, Wyoming 82601
5. Well is constructed on lands owned by Jacob S. Negley
(Obtaining of easement or right of way is the responsibility of the applicant's.
Include copy if land is privately owned and owner is not a co-applicant.)
6. Type of construction: Dug ☐ Drilled ☒ Rotary
Type of Rig
- Driven ☐ Jet ☐ Other _____
7. Use of Water—Domestic ☒ Stock ☐
8. Means of conveyance, distance and direction to point of use
PIPE 400 EAST
9. Date started June 2, 19 74
10. Date completed June 8, 19 74 (including pump)
11. Date after completion when water was used June 5, 19 74
12. WELL DESCRIPTION
Total Depth 120' Depth to Water Level 70 ft.
13. TEST DATA
Yield 25 Gal. per min. How Tested With Pump
Drawdown _____ Length of Test _____
14. PUMP DATA
Type Ruda Pump Power Source Electricity
(Turbine, Centrifugal, etc.) (Elec., Gas, etc.)
Horsepower -- Amount of Water Being Used 25
(Gallons per Minute)

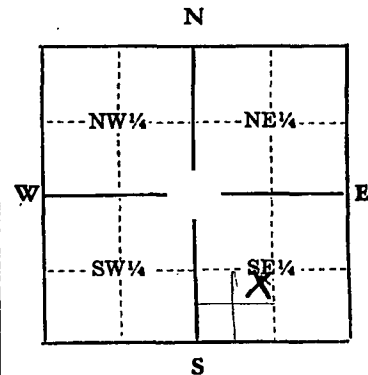
15. CASING RECORD

Plain Casing
Size 6" Kind PLASTIC from 0 ft. to 80 ft.
Size _____ Kind _____ from _____ ft. to _____ ft.
Size _____ Kind _____ from _____ ft. to _____ ft.

Perforated Casing
Size 6" Kind PLASTIC from 80 ft. to 120 ft.
Size _____ Kind _____ from _____ ft. to _____ ft.

WELL LOCATION

Converse County
N 1/2 SW 1/4 of SE 1/4 of Sec. 11
T. 34 N., R. 75 W.



Scale: 2" = 1 mile

Above diagram represents one full
section. Locate well accurately in
small square representing 40 ac.
or
fill in the following:

Lot _____ & Block _____ or Tract _____

of the _____
(Subdivision or Addition)of _____
(City, Town or County)

Section _____, T. _____ N., R. _____ W.

**For wells constructed after May 24, 1969, Application Form U.W. 5 must be submitted prior to construction.

Permit No. U.W. 26631Book No. 138 Page No. 70

U.W. 26631

16. Was surface seal provided? Yes ☐ No ☐ To What Depth 6 - 120 Material used: 3/8 gravel
Was well gravel packed? Yes ☒ No ☐
17. FLOWING WELL (Owner is responsible for installing control device on flowing well.)
Does well flow? Yes ☐ No ☒
Flow controlled by: Valve ☐ Cap ☐ Plug ☐ Does well leak around casing? Yes ☐ No ☐
18. LOG OF WELL—Clearly indicate first water bearing material and principal water bearing material.

[illegible]

19. QUALITY OF WATER INFORMATION

Was a chemical analysis made? Yes ☐ No ☒

If so, please include a copy of the analysis with this form.

If not, do you consider the water as: Good ☒ Acceptable ☐ Poor ☐ Unusable ☐

Was a bacteriological analysis made? Yes ☐ No ☒

If a domestic well, was the well disinfected by the driller? Yes ☐ No ☒

20. IF WELL IS TO BE ABANDONED, complete only Items 1 through 6, Item 10 and Item 18 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

REMARKS:

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Signature of Owner or Authorized Agent

Date _____, 19____

Date of Receipt: DEC 6 1974, 19

Date of Priority: May 16, 1974

Date of Approval: Jan. 5, 1975

for State Engineer

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER
HERSCHLER BLDG., 4-E
CHEYENNE, WYOMING 82002
(307) 777-6163

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL OR SPRING

NOTE: Do not fold this form. Use typewriter
or print neatly with black ink.

PERMIT NO. U.W. 173339 NAME OF WELL/SPRING _____ WOECK #1

1. NAME OF OWNER PETER F. WOECK, II

2. ADDRESS P.O. Box 520

City GLENROCK State WY Zip Code 82637 Phone No. 307-234-3361

3. USE OF WATER ☒ Domestic ☐ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous
☐ Monitor or Test ☐ Coal Bed Methane Explain proposed use (Example: One single family dwelling) _____

4. LOCATION OF WELL/SPRING SE 1/4 NE 1/4 of Section 9, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.)
GPS coordinates UTM Zone _____ Easting _____ Northing _____ Lot _____ Block _____
Subdivision name _____
If surveyed, bearing, distance, and reference point _____
Longitude (degrees, minutes, seconds) N42° 55.254' Latitude (degrees, minutes, seconds) W105° 43.928'
Datum: ☐ 1927 ☐ 1983 Source: ☒ GPS ☐ Map ☐ Survey

5. TYPE OF CONSTRUCTION Drilled ☒ KOTARY ☐ Dug ☐ Driven ☐ Other
Describe _____ (type of rig, and fluid used, if any)

6. CONSTRUCTION Total depth of well/spring 380 ft.
Depth to static water level 110 ft. (below land surface) Casing height 2 ft. above ground

a. Diameter of borehole (bit size) 7 7/8 inches
b. Casing schedule ☒ New ☐ Used Joint type ☐ Threaded ☐ Glued ☐ Welded ☒ SPLINDE
5" diameter from 0 ft. to 380 ft. Material PVC Gage SCHEDULE 40
_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____

c. Cemented/grouted interval, from 385 ft. to 330 ft.
Amount of grout used 1 sack type BENTONITE CHIPS
(example: 10 sacks) (example: bentonite pellets)

d. Type of completion ☒ Factory screen ☐ Open hole ☐ Customized perforations
Type of perforator used _____

Size of perforations _____ inches by _____ inches

Number of perforations and depths where perforated

_____ perforations from _____ ft. to _____ ft.

_____ perforations from _____ ft. to _____ ft.

Open hole from _____ ft. to _____ ft.

Well screen details

Diameter 5" slot size .032 set from 340 ft. to 380 ft.

Diameter _____ slot size _____ set from _____ ft. to _____ ft.

e. Well development method AIRLIFT How long did development last? 2 HOURS

f. Was a filter/gravel pack installed? ☒ Yes ☐ No Size of sand/gravel 3/8 MINUS WASHED PEA GRAVEL

Filter pack/gravel installed from 330 ft. to 380 ft.

g. Was surface casing used? ☐ Yes ☒ No Was it cemented in place? ☐ Yes ☐ No

Surface casing installed from _____ ft. to _____ ft.

7. NAME AND ADDRESS OF DRILLING COMPANY PRONGHORN DRILLING, GLENROCK, WY

8. DATE OF COMPLETION OF WELL (including pump installation) OR SPRING (first used) NOVEMBER 2, 2007

9. PUMP INFORMATION Manufacturer GRUNDFOS Type SUBMERSIBLE

Source of power ELECTRICITY Horsepower 3 Depth of pump setting or intake 340 ft.

Amount of water being pumped 25 gal./min. (For springs or flowing wells, see item 10)

Total volumetric quantity used per calendar year 325,000

10. FLOWING WELL OR SPRING (Owner is responsible for control of flowing well)

If well yields artesian flow or if spring, yield is _____ gal./min. Surface pressure is _____ lb./sq. inch, or _____ feet of water

The flow is controlled by ☐ Valve ☐ Cap ☐ Plug

Does well leak around casing? ☐ Yes ☐ No

Permit No. U.W. 173339

Book No. 1262 Page No. 42

SEE REVERSE SIDE

11. IF SPRING, HOW WAS IT CONSTRUCTED? (Some method of artificial diversion, i.e., springbox, cribbing, etc., is necessary to qualify for a water right)

12. PUMP TEST Was a pump test conducted? ☐ Yes ☐ No

If so, by whom _____
Yield _____ gal./min. with _____ ft. drawdown after _____ hours
Yield _____ gal./min. with _____ ft. drawdown after _____ hours

13. LOG OF WELL Total depth drilled 400 ft.
Depth of completed well 380 ft. Diameter of well 5 inches.
Depth to first water bearing formation 340 ft.
Depth to principal water bearing formation top 340 ft. to bottom 380 ft.

Land surface elevation (ft. above mean sea level) 5320 ft Datum ☐ 1929 ☐ 1988
How determined ☐ Map ☐ Altimeter ☐ Survey ☒ Other GPS

DRILL CUTTINGS DESCRIPTION:

From	To	Rock Type Or Description	Formation	Water Bearing? (Yes or No)
Surface	2	TOP SOIL		NO
2	10	DARK BROWN SANDY CLAY		NO
10	80	WHITE SILTED SAND		NO
80	90	OXIDIZED SILTED SAND		NO
90	115	DARK GRAY CLAYSTONE		NO
115	130	OXIDIZED W/ PINK CLAY MIXED		NO
130	165	GRAY FINE TO COARSE SILTED SANDS		NO
165	170	OXIDIZED CLAY		NO
170	175	DARK GRAY CLAY		NO
175	180	OXIDIZED CLAY		NO
180	225	FINE SILTED SANDS		NO
225	240	OXIDIZED FINE TO COARSE SILTED SANDS		NO
240	265	DARK GRAY CLAYSTONE		NO
265	280	FINE COAL W/ CARBONACEOUS SILTS		NO
280	335	DARK GRAY CLAYSTONE		NO
335	340	CALCITE STRINGER		NO
340	370	FINE TO COARSE SILT & TEPHER SAND		YES
370	380	FINE TO COARSE GRAVEL-GRAY TO BLACK TO WHITE IN COLOR		YES
380	400	GRAY SILTED CLAYS		NO

14. DOES A GEOPHYSICAL LOG ACCOMPANY THIS FORM? ☐ Yes ☐ No

15. QUALITY OF WATER INFORMATION

Does a chemical and/or bacteriological water quality analysis accompany this form? ☐ Yes ☒ No
It is recommended that chemical and bacteriologic water quality analyses be performed and that the report(s) be filed with the records of this well. (Contact Department of Agriculture, Analytical Lab Services, Laramie, 742-2984.)
If not, do you consider the quality of water as ☒ Good ☐ Acceptable ☐ Poor ☐ Unusable

REMARKS

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct, and complete.

Signature of Owner or Authorized Agent

Date

NOVEMBER 19, 2007

FOR STATE ENGINEER'S USE ONLY

Permit No. U.W. 173339

Date of Receipt NOV 21 2007, 20

Date of Approval _____, 20

Date of Priority 2/24/2006

for State Engineer

NOTE: Do not fold this form. Use typewriter or ball point pen.

Cancelled

APPLICATION FOR PERMIT TO APPROPRIATE GROUND WATER

Temporary Filing No. U.W. 8-9-308

NAME AND NUMBER OF WELL

a.c. $\neq 1$

1. Name of applicant(s) A.C. Layton Phone: 26-1887

2. Address of applicant(s) 166 N. Iowa Ave., Casper, Wyo Zip: 82601

3. Name & address of agent to receive correspondence and notices _____

4. Use to which the water will be applied: Irrigation ☐ Municipal ☐ Industrial ☐ Commercial ☐ Domestic ☒
Stock Watering ☒ Other _____

5. Location of the well: Converse County, NE 1/4 Sec. 11, T. 34 N., R. 17 W., or Lot _____, Block _____ of the _____ Subdivision (or Add'n) of _____, Sec. _____, T. _____ N., R. _____ W., of the 6th P.M. (or W.R.M.), Wyoming.

6. Estimated depth of the well is 150 feet.

7. MAXIMUM quantity of water to be developed and beneficially used: 25 gallons per minute.
Note: If for domestic or stock use, this application will be processed for a maximum of 25 gallons per minute.

8. If for irrigation use,

☐ Land will be irrigated from this well only.

☐ Land is irrigated from existing water right(s) to be supplemented by this well. Describe existing water right(s) under REMARKS.

9. If for irrigation use, describe MAXIMUM acreage to be irrigated. Show number of acres to be irrigated in each 40-acre subdivision.

[illegible]

REMARKS: _____

10. The well is to be constructed on lands owned by A.C. Layton
(The granting of a permit does not constitute the granting of right of way. If any easement or right of way is necessary in connection with this application, it should be understood that the responsibility is the applicant's. A copy of the agreement should accompany this application, if the land is privately owned and the owner is not a co-applicant.)
11. The water is to be used on lands owned by A.C. Layton
(If landowner is not the applicant, a copy of the agreement relating to usage of appropriated water on the land should be submitted to this office. If the landowner is included as a co-applicant on the application, this procedure need not be followed.)

THE LEGALLY REQUIRED FILING FEE MUST ACCOMPANY THIS APPLICATION.

Under penalties of perjury, I declare that I have examined this application and to the best of my knowledge and belief it is true, correct and complete.

A.C. Layton
Signature of Applicant or Authorized Agent

Sept 18 19 73
Date

THIS SECTION IS NOT TO BE FILLED IN BY APPLICANT

THE STATE OF WYOMING }
STATE ENGINEER'S OFFICE } ss.

This instrument was received and filed for record on the 20th day of September, A. D. 1973, at 9:00 o'clock A.M.

Permit No. U.W. 24572

Karen N. Armour
Karen N. Armour for State Engineer

THIS IS TO CERTIFY that I have examined the foregoing application and do hereby grant the same subject to the following limitations and conditions:

This application is approved subject to the condition that the proposed use shall not interfere with any existing rights to ground water from the same source of supply and is subject to regulation and correlation with surface water rights, if the ground and surface waters are interconnected. The use of water hereunder is subject to the further provisions of Chapter 169, Session Laws of Wyoming, 1957, and any subsequent amendments thereto.

Granting of a permit does not guarantee the right to have the water level or artesian pressure in the well maintained at any specific level. The well should be constructed to a depth adequate to allow for the maximum development and beneficial use of ground water in the source of supply.

If the well is a flowing artesian well, it shall be so constructed and equipped that the flow may be shut off when not in use, without loss of water into surface formations or at the surface.

Approval of this application may be considered as authorization to proceed with construction of the proposed well.

Construction of well will begin within one (1) year from date of approval. A Statement of Completion will be filed within thirty (30) days of completion of construction, including pump installation.

Completion of construction and completion of the beneficial use of water for the purposes specified in Item 4 of this application will be made by December 31, 1975.

The amount of appropriation shall be limited to the quantity to which permittee is entitled as determined at time of proof of application of water to beneficial use.

Witness my hand this 29th day of Sept. A. D. 19 73

Richard G. Stockdale
for State Engineer.

May 31, 1974 - Notice of expiration of time for commencement mailed MAY 20 74
October 4, 1974 - 30 Day Cancellation Notice for Commencement mailed OCT 7 74
December 11, 1974 - This permit cancelled in compliance with the provisions of Section 41-206, Wyoming Statutes, 1957.

DEC 18 '74

Richard G. Stockdale
RICHARD G. STOCKDALE - Ground Water Geologist

Form U.W. 5

NOTE: Do not fold this form. Use typewriter or ball point pen.

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

APPLICATION FOR PERMIT TO APPROPRIATE GROUND WATER.

FILING FEE \$2.00

Temporary Filing No. U.W. 8-9-308

PERMIT NO. U.W. 24572

NAME AND NUMBER OF WELL

WATER DIVISION NO. 1 DISTRICT 155

U.W. DISTRICT CONVERSE Co

1. Name of applicant(s) A.C. Layton Phone: 26-1887

2. Address of applicant(s) 166 Mo. Iowa Ave., Casper, Wyo Zip: 82601

3. Name & address of agent to receive correspondence and notices _____

4. Use to which the water will be applied: Irrigation ☐ Municipal ☐ Industrial ☐ Commercial ☐ Domestic ☒
Stock Watering ☒ Other _____

5. Location of the well: Converse County, NE 1/4 NE 1/4 Sec. 11, T. 34 N., R. 17 W., or Lot _____, Block _____ of the _____ Subdivision (or Add'n) of _____, Sec. _____, T. _____ N., R. _____ W., of the 6th P.M. (or W.R.M.), Wyoming.

6. Estimated depth of the well is 150 feet.

7. MAXIMUM quantity of water to be developed and beneficially used: 25 gallons per minute.
Note: If for domestic or stock use, this application will be processed for a maximum of 25 gallons per minute.

8. If for irrigation use,

☐ Land will be irrigated from this well only.

☐ Land is irrigated from existing water right(s) to be supplemented by this well. Describe existing water right(s) under REMARKS.

9. If for irrigation use, describe MAXIMUM acreage to be irrigated. Show number of acres to be irrigated in each 40-acre subdivision.

[illegible]

REMARKS: _____

10. The well is to be constructed on lands owned by A.C. Layton
(The granting of a permit does not constitute the granting of right of way. If any easement or right of way is necessary in connection with this application, it should be understood that the responsibility is the applicant's. A copy of the agreement should accompany this application, if the land is privately owned and the owner is not a co-applicant.)
11. The water is to be used on lands owned by A.C. Layton
(If landowner is not the applicant, a copy of the agreement relating to usage of appropriated water on the land should be submitted to this office. If the landowner is included as a co-applicant on the application, this procedure need not be followed.)

THE LEGALLY REQUIRED FILING FEE MUST ACCOMPANY THIS APPLICATION.

Under penalties of perjury, I declare that I have examined this application and to the best of my knowledge and belief it is true, correct and complete.

A.C. Layton
Signature of Applicant or Authorized Agent

Sept 18 19 73
Date

THIS SECTION IS NOT TO BE FILLED IN BY APPLICANT

THE STATE OF WYOMING
STATE ENGINEER'S OFFICE } ss.

This instrument was received and filed for record on the 20th day of September, A. D.
19 73, at 9:00 o'clock A.M.

Permit No. U.W. 24572

Karen N. Armour
Karen N. Armour for State Engineer

THIS IS TO CERTIFY that I have examined the foregoing application and do hereby grant the same subject to the following limitations and conditions:

This application is approved subject to the condition that the proposed use shall not interfere with any existing rights to ground water from the same source of supply and is subject to regulation and correlation with surface water rights, if the ground and surface waters are interconnected. The use of water hereunder is subject to the further provisions of Chapter 169, Session Laws of Wyoming, 1957, and any subsequent amendments thereto.

Granting of a permit does not guarantee the right to have the water level or artesian pressure in the well maintained at any specific level. The well should be constructed to a depth adequate to allow for the maximum development and beneficial use of ground water in the source of supply.

If the well is a flowing artesian well, it shall be so constructed and equipped that the flow may be shut off when not in use, without loss of water into surface formations or at the surface.

Approval of this application may be considered as authorization to proceed with construction of the proposed well.

Construction of well will begin within one (1) year from date of approval. A Statement of Completion will be filed within thirty (30) days of completion of construction, including pump installation.

Completion of construction and completion of the beneficial use of water for the purposes specified in Item 4 of this application will be made by December 31, 19 75.

The amount of appropriation shall be limited to the quantity to which permittee is entitled as determined at time of proof of application of water to beneficial use.

Witness my hand this 22nd day of Sept, A. D. 19 73

Richard G. Stockdale
State Engineer.

May 31, 1974 - Notice of expiration of time for commencement mailed MAY 20 '74
October 4, 1974 - 30 Day Cancellation Notice for Commencement mailed OCT 7 '74
December 11, 1974 - This permit cancelled in compliance with the provisions of
Section 41-206, Wyoming Statutes, 1957.

DEC 18 '74

Richard G. Stockdale
RICHARD G. STOCKDALE - Ground Water Geologist

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

MICROFILMED MAY 2 '84

IF WELL IS TO BE
ABANDONED, SEE STATEMENT OF COMPLETION AND DESCRIPTION OF WELL
ITEM 15, PAGE 4

NOTE: Do not fold this form. Use typewriter or
print neatly with black ink.

PERMIT NO. U.W. 64309 NAME OF WELL Huxtable #1

1. NAME OF OWNER Gary and Karen Huxtable

2. ADDRESS Box 311 Glenrock Wyo. Zip Code 82637

3. USE OF WATER: Domestic ☒ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☐

4. LOCATION OF WELL: SE 1/4 SE 1/4 of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),

Wyoming, being specifically _____
(Bearing and Distance)

or ~~#500~~ ft. North and 1000 ft. West from the SE corner of Section 11, T. 34 N., R. 74 W.
(Strike out words not needed).

5. TYPE OF CONSTRUCTION: Drilled ☒ Rotary Dug ☐ Driven ☐ Jetted ☐
(Type of Rig)

Other _____

6. CONSTRUCTION: Total Depth of Well 160 ft. Depth to Static Water Level 80 ft.

a. Casing Schedule New ☒ Used ☐

5" diameter from 0 ft. to 160 ft. Material PVC Gage 40

_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____

_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____

b. Perforations: Type of perforator used Slotted Pipe

Size of perforations 1/8" inches by 3' inches.

Number of perforations and depths where perforated:

_____ perforations from 120 ft. to 160 feet.

_____ perforations from _____ ft. to _____ feet.

c. Was well screen installed? Yes ☐ No ☒

Diameter: _____ slot size: _____ set from _____ feet to _____ feet.

Diameter: _____ slot size: _____ set from _____ feet to _____ feet.

d. Was well gravel packed? Yes ☒ No ☐ Size of gravel Pea Gravel

e. Was surface casing used? Yes ☐ No ☒ Was it cemented in place? Yes ☐ No ☒

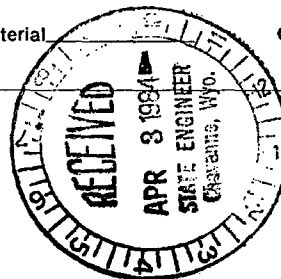
7. NAME & ADDRESS OF DRILLER Pranghorn Drilling Box 805 Glenrock Wyo

8. DATE OF COMPLETION OF WELL (including pump installation) 9-28-83

9. PUMP INFORMATION: Manufacturer Meyer Type Submersible

Source of power electric Horsepower 1 hp. Depth of Pump Setting 130'

Amount of Water Being Pumped 10 Gallons Per Minute. (For springs or flowing wells, see item 11.)



Permit No. U.W. 64309

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If not, do you consider the water as: Good ☒ Acceptable ☐ Poor ☐ Unusable ☐

REMARKS: Domestic Use

U.W. 64309

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment and details of the plugging below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Shay W. Austab
Signature of Owner or Authorized Agent

4-1, 19 84
Date

Date of Receipt APR 3 1984, 19 84

Date of Priority June 9, 19 83

Date of Approval Apr. 1 17, 19 84

John D. Montgomery
for State Engineer

FILING FEE \$2.00

NOTE: Do not fold this form. Use typewriter or print neatly with black ink.

MAILING FEE \$2.00

CANCELLED

ST

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

APPLICATION FOR PERMIT TO APPROPRIATE GROUND WATER.

FOR OFFICE USE ONLY

Temporary Filing No. U.W. 9-5-384

30262
PERMIT NO. U.W. _____
WATER DIVISION NO. 1 DISTRICT 15-5
U.W. DISTRICT CONVERSE CO.

NAME AND NUMBER OF WELL

Bobbie No. 1

1. Name of applicant(s) Richard C. Deveraux Phone: 436-2345
2. Address of applicant(s) Box 1417, Glenrock, Wyoming Zip: 82637
3. Name & address of agent to receive correspondence and notices Above
4. Use to which the water will be applied: Irrigation ☐ Municipal ☐ Industrial ☐ Domestic ☒ Stock Watering ☐
Miscellaneous ☐ (Describe completely and accurately) _____
5. Location of the well: Converse County, NE 1/4 SE 1/4 of Sec. 11, T. 34 N., R. 74 W., or Lot _____, Block _____ of the _____ Subdivision (or Add'n) of _____, _____ 1/4 _____ 1/4 of Sec. _____, T. _____ N., R. _____ W., of the 6th P.M. (or W.R.M.), Wyoming. NOTE: Quarter-quarter (40-acre subdivision) must be shown. Example: SE1/4NW1/4 of Sec. 12, Township 14 North, Range 68 West.
6. Estimated depth of the well is 200 feet.
7. MAXIMUM quantity of water to be developed and beneficially used: 25 gallons per minute.
NOTE: If for domestic or stock use, this application will be processed for a maximum of 25 gallons per minute.
SPRINGS: Only springs flowing 25 gallons per minute or less, where the proposed use is domestic or stockwatering, will be considered as ground water appropriations. After approval of this application, some type of artificial diversion must be constructed to qualify for a water right.
8. If for irrigation use,
☐ Land will be irrigated from this well only.
☐ Land is irrigated from existing water right(s) with water from this well to be additional supply. Describe existing water right(s) under REMARKS.
9. If for irrigation use, describe MAXIMUM acreage to be irrigated. The number of acres to be irrigated in each 40-acre subdivision MUST be shown in the tabulation below.

[illegible]

10. If the water is to be utilized for some purpose other than irrigation, the area(s) or point(s) of use MUST be shown in the above tabulation.
11. If for irrigation use, describe method of irrigation, i.e. center pivot sprinkler, flood, etc. _____

30262

SEE REVERSE SIDE

156

87

Permit No. U.W. _____

Book No. _____ Page No. _____

12. The well is to be constructed on lands owned by Richard C. Deveraux
(The granting of a permit does not constitute the granting of right of way. If any easement or right of way is necessary in connection with this application, it should be understood that the responsibility is the applicant's. A copy of the agreement should accompany this application, if the land is privately owned and the owner is no a co-applicant.)
13. The water is to be used on lands owned by Richard C. Deveraux
(If landowner is not the applicant, a copy of the agreement relating to usage of appropriated water on the land should be submitted to this office. If the landowner is included as a co-applicant on the application, this procedure need not be followed.)

REMARKS:

THE LEGALLY REQUIRED FILING FEE MUST ACCOMPANY THIS APPLICATION

Under penalties of perjury, I declare that I have examined this application and to the best of my knowledge and belief it is true, correct and complete.

complete.

Richard C. Owens
Signature of Applicant or Authorized Agent

JUNE 23, 1975
Date

THIS SECTION IS NOT TO BE FILLED IN BY APPLICANT

THE STATE OF WYOMING)
) ss.
STATE ENGINEER'S OFFICE)

This instrument was received and filed for record on the 25 day of June, A. D. 1975, at 8:30 o'clock A. M.

Permit No. U.W. 30262 Sheran F. Keller

THIS IS TO CERTIFY that I have examined the foregoing application and do hereby grant the same subject to the following limitations and conditions:

This application is approved subject to the condition that the proposed use shall not interfere with any existing rights to ground water from the same source of supply and is subject to regulation and correlation with surface water rights, if the ground and surface waters are interconnected. The use of water hereunder is subject to the further provisions of Chapter 169, Session Laws of Wyoming, 1957, and any subsequent amendments thereto.

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If the well is a flowing artesian well, it shall be so constructed and equipped that the flow may be shut off when not in use, without loss of water into surface formations or at the surface.

Approval of this application may be considered as authorization to proceed with construction of the proposed well.

Construction of well will begin within one (1) year from date of approval. A Statement of Completion will be filed within thirty (30) days of completion of construction, including pump installation.

Completion of construction and completion of the beneficial use of water for the purposes specified in Item 4 of this application will be made by December 31, 19 24

The amount of appropriation shall be limited to the quantity to which permittee is entitled as determined at time of proof of application of water to beneficial use.

Witness my hand this 2nd day of July, A. D. 1925

[Signature]
State Engineer

Mar 31, 1976 - Notice of expiration of time for commencement mailed. MAR 24 '76
Sept. 30, 1976 - Notice of expiration of time for completion and beneficial use
mailed. SEP 22 '76

CANCELLED

PERMIT NO. U.W. 30262

PERMIT STATUS

Priority Date June 25, 1975

Approval Date July 2, 1975


December 30, 1976 - 30 Day Cancellation Notice for Completion and Beneficial Use mailed.

JAN 5 1977

February 16, 1977. This permit cancelled in compliance with the provisions of Section 41-206, Wyoming Statutes, 1957.

DATE

2-18-77


RICHARD G. STOCKDALE, Ground Water Geologist

MICRO-
FILMED MAR 2 77

FILING FEE \$2.00

NOTE: Do not fold this form. Use typewriter or print neatly with black ink.

CANCELLED
ST

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

APPLICATION FOR PERMIT TO APPROPRIATE GROUND WATER

FOR OFFICE USE ONLY

Temporary Filing No. U.W. 9-6-384

30263
PERMIT NO. U.W. _____
WATER DIVISION NO. 1 DISTRICT 15-5
U.W. DISTRICT CONVERSE CO.

NAME AND NUMBER OF WELL

Jean No. 1

1. Name of applicant(s) Richard C. Deveraux Phone: 436-2345
2. Address of applicant(s) Box 1417, Glenrock, Wyoming Zip: 82637
3. Name & address of agent to receive correspondence and notices Above
4. Use to which the water will be applied: Irrigation [] Municipal [] Industrial [] Domestic ☒ Stock Watering [] Miscellaneous [] (Describe completely and accurately) _____
5. Location of the well: CONVERSE County, NE SE $\frac{1}{4}$ of Sec. 11, T. 34 N., R. 74 W., or Lot _____, Block _____ of the _____ Subdivision (or Add'n) of _____, _____ $\frac{1}{4}$ _____ $\frac{1}{4}$ of Sec. _____, T. _____ N., R. _____ W., of the 6th P.M. (or W.R.M.), Wyoming. NOTE: Quarter-quarter (40-acre subdivision) must be shown. Example: SE $\frac{1}{4}$ NW $\frac{1}{4}$ of Sec. 12, Township 14 North, Range 68 West.
6. Estimated depth of the well is 200 feet.
7. MAXIMUM quantity of water to be developed and beneficially used: 25 gallons per minute.
NOTE: If for domestic or stock use, this application will be processed for a maximum of 25 gallons per minute.
SPRINGS: Only springs flowing 25 gallons per minute or less, where the proposed use is domestic or stockwatering, will be considered as ground water appropriations. After approval of this application, some type of artificial diversion must be constructed to qualify for a water right.
8. If for irrigation use,
[] Land will be irrigated from this well only.
[] Land is irrigated from existing water right(s) with water from this well to be additional supply. Describe existing water right(s) under REMARKS.
9. If for irrigation use, describe MAXIMUM acreage to be irrigated. The number of acres to be irrigated in each 40-acre subdivision MUST be shown in the tabulation below.

[illegible]

10. If the water is to be utilized for some purpose other than irrigation, the area(s) or point(s) of use MUST be shown in the above tabulation.
11. If for irrigation use, describe method of irrigation, i.e. center pivot sprinkler, flood, etc. _____

Permit No. U.W. 30263

SEE REVERSE SIDE

Book No. 156 Page No. 88

12. The well is to be constructed on lands owned by Richard C. Deveraux
(The granting of a permit does not constitute the granting of right of way. If any easement or right of way is necessary in connection with this application, it should be understood that the responsibility is the applicant's. A copy of the agreement should accompany this application, if the land is privately owned and the owner is no a co-applicant.)
13. The water is to be used on lands owned by Richard C. Deveraux
(If landowner is not the applicant, a copy of the agreement relating to usage of appropriated water on the land should be submitted to this office. If the landowner is included as a co-applicant on the application, this procedure need not be followed.)

REMARKS: _____

THE LEGALLY REQUIRED FILING FEE MUST ACCOMPANY THIS APPLICATION

Under penalties of perjury, I declare that I have examined this application and to the best of my knowledge and belief it is true, correct and complete.

Richard C. Deveraux June 23, 1975
Signature of Applicant or Authorized Agent Date

THIS SECTION IS NOT TO BE FILLED IN BY APPLICANT

THE STATE OF WYOMING)
) ss.
STATE ENGINEER'S OFFICE)

This instrument was received and filed for record on the 25 day of June, A. D.
19 75, at 8:30 o'clock A. M.
Permit No. U.W. 30263

Sheran K. Keller
for State Engineer

THIS IS TO CERTIFY that I have examined the foregoing application and do hereby grant the same subject to the following limitations and conditions:

This application is approved subject to the condition that the proposed use shall not interfere with any existing rights to ground water from the same source of supply and is subject to regulation and correlation with surface water rights, if the ground and surface waters are interconnected. The use of water hereunder is subject to the further provisions of Chapter 169, Session Laws of Wyoming, 1957, and any subsequent amendments thereto.

Granting of a permit does not guarantee the right to have the water level or artesian pressure in the well maintained at any specific level. The well should be constructed to a depth adequate to allow for the maximum development and beneficial use of ground water in the source of supply.

If the well is a flowing artesian well, it shall be so constructed and equipped that the flow may be shut off when not in use, without loss of water into surface formations or at the surface.

Approval of this application may be considered as authorization to proceed with construction of the proposed well.

Construction of well will begin within one (1) year from date of approval. A Statement of Completion will be filed within thirty (30) days of completion of construction, including pump installation.

Completion of construction and completion of the beneficial use of water for the purposes specified in Item 4 of this application will be made by December 31, 1976

The amount of appropriation shall be limited to the quantity to which permittee is entitled as determined at time of proof of application of water to beneficial use.

Witness my hand this 22nd day of July, A. D. 1975
Sheran K. Keller
State Engineer

Mar 31, 1976 - Notice of expiration of time for commencement mailed MAR 24 '76
Sept. 30, 1976 - Notice of expiration of time for completion and beneficial use
mailed. SEP 22 '76

CANCELLED

PERMIT NO. U.W. 30263

PERMIT STATUS

Priority Date June 25, 1975

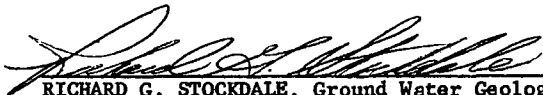
Approval Date July 2, 1975

December 30, 1976 - 30 Day Cancellation Notice for Completion and Beneficial Use mailed.

JAN 5 1977

February 16, 1977. This permit cancelled in compliance with the provisions of Section 41-206, Wyoming Statutes, 1957.

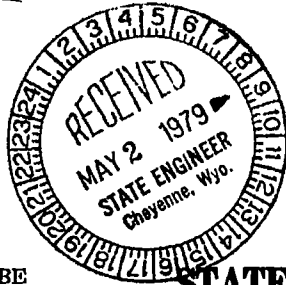
2-18-77
DATE


RICHARD G. STOCKDALE, Ground Water Geologist

MICRO-
FILMED

MAR 2'77

Form U.W. 6



MICRO-
FILMED JUL 03 '79

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

IF WELL IS TO BE
ABANDONED, SEE
ITEM 15, PAGE 4

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

PERMIT NO. U.W. 46720

NAME OF WELL ELRU #1

- ✓ 1. NAME OF OWNER ELMER DOEGE
- ✓ 2. ADDRESS Box 477 GLENROCK WYO Zip Code 82637
- ✓ 3. USE OF WATER: Domestic ☒ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☐
- ✓ 4. LOCATION OF WELL: SE 1/4 NE 1/4 of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),
Wyoming, being specifically _____ (Bearing and Distance)
or 150 ft. South and 800 ft. West from the _____ corner of Section 11, T. 34 N., R. 74 W.
(Strike out words not needed).
- ✓ 5. TYPE OF CONSTRUCTION: Drilled ☒ Rotary (Type of Rig) Dug ☐ Driven ☐ Jetted ☐
Other _____
- ✓ 6. CONSTRUCTION: Total Depth 180 ft. Depth to Water Level 100 ft.
- a. Casing Schedule New ☒ Used ☐
- | | | |
|---|-------------------------|-----------------|
| <u>5 1/2</u> diameter from <u>0</u> ft. to <u>180</u> ft. | Material <u>Plastic</u> | Gage <u>272</u> |
| _____ diameter from _____ ft. to _____ ft. | Material _____ | Gage _____ |
| _____ diameter from _____ ft. to _____ ft. | Material _____ | Gage _____ |
- b. Perforations: Type of perforator used Saw
- Size of perforations 1/8 inches by 2 1/2 inches.
- Number of perforations and depths where perforated:
- 80 perforations from 135 ft. to 175 feet.
- _____ perforations from _____ ft. to _____ feet.
- c. Was well screen installed? Yes ☐ No ☒
- Diameter: _____ slot size: _____ set from _____ feet to _____ feet.
- Diameter: _____ slot size: _____ set from _____ feet to _____ feet.
- d. Was well gravel packed? Yes ☒ No ☐ Size of gravel 1/8
- e. Was surface casing used Yes ☐ No ☐ Was it cemented in place? Yes ☐ No ☐
- ✓ 7. NAME & ADDRESS OF DRILLER Chester Schessow 815 2nd Casper Wyo
- ✓ 8. DATE OF COMPLETION OF WELL (including pump installation) 4-27-79
- ✓ 9. PUMP INFORMATION: Manufacturer _____ Type Submersible
- Source of power ER Horsepower _____ Depth of Pump Setting 165
- Amount of Water Being Pumped 23 Gallons Per Minute.
- Permit No. U.W. 46720
- Book No. 256 Page No. 102

REMARKS:

U. W. 4672C

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Elmer J. McGehee
Signature of Owner or Authorized Agent

4-26
Date

19 79

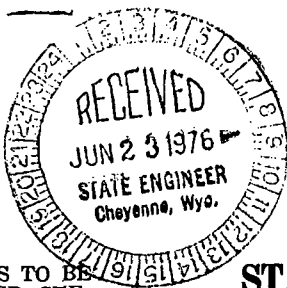
Date of Receipt MAY 2 1979, 1979

Date of Priority February 28, 1979, 1979

Date of Approval June 12, 1979

Richard A. Voth
for State Engineer

Form U.W. 6



MICRO-
FILMED

AUG 18 '76

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

IF WELL IS TO BE
ABANDONED, SEE
ITEM 15, PAGE 4

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

PERMIT NO. U.W. 32804

NAME OF WELL Hickerson # 1

1. NAME OF OWNER Mark A. and Ardith A. Hickerson
2. ADDRESS Box 193 Glenrock, Wyoming Zip Code 82637
3. USE OF WATER: Domestic ☒ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☐
4. LOCATION OF WELL: SE 1/4 NW 1/4 of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),
Wyoming, being specifically _____
(Bearing and Distance)
or 150 ft. ~~South~~ and 150 ft. ~~West~~ East from the Northwest corner of Section 11, T. 34 N., R. 74 W.
(Strike out words not needed).
5. TYPE OF CONSTRUCTION: Drilled ☒ Rotary (Type of Rig) Dug ☐ Driven ☐ Jetted ☐
Other _____
6. CONSTRUCTION: Total Depth 195 ft. Depth to Water Level 80 ft.
 - a. Casing Schedule New ☒ Used ☐
4 1/2 diameter from 0 ft. to 195 ft. Material Plastic Gage _____
_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____
_____ diameter from _____ ft. to _____ ft. Material _____ Gage _____
 - b. Perforations: Type of perforator used Plastic Perforated Pipe
Size of perforations 3/4 inches by 3/4 inches.
Number of perforations and depths where perforated:
_____ perforations from 160 ft. to 195 feet.
_____ perforations from _____ ft. to _____ feet.
 - c. Was well screen installed? Yes ☐ No ☒
Diameter: _____ slot size: _____ set from _____ feet to _____ feet.
Diameter: _____ slot size: _____ set from _____ feet to _____ feet.
 - d. Was well gravel packed? Yes ☒ No ☐ Size of gravel 5/8
 - e. Was surface casing used Yes ☐ No ☒ Was it cemented in place? Yes ☐ No ☐
7. NAME & ADDRESS OF DRILLER Smitty's Drilling, Casper, Wyoming
8. DATE OF COMPLETION OF WELL (including pump installation) June 18, 1976
9. PUMP INFORMATION: Manufacturer Berkely Type Submersible
Source of power Electric Horsepower 1/2 Depth of Pump Setting 140 ft.
Amount of Water Being Pumped 6 Gallons Per Minute.

Permit No. U.W. 32804

Book No. 169 Page No. 24

Abstract

- If so, by whom _____ Address _____

Yield: _____ gal./min. with _____ foot drawdown after _____ hours.

Yield: _____ gal./min. with _____ foot drawdown after _____ hours.

- If well yields artesian flow, yield is _____ gal./min. Surface pressure is _____ lb./sq. inch, or _____ feet of water.

The flow is controlled by: valve ☐ cap ☐ plug ☐

Does well leak around casing? Yes ☐ No ☐

12. LOG OF WELL: Total depth drilled 195 feet.

Depth of completed well 190 feet. Diameter of well 7 inches.

Depth to first water bearing formation 75 feet.

Depth to principal water bearing formation Top 150 feet to Bottom 185 feet.

Ground Elevation, if known Unknown

Not Available

Was a chemical analysis made? Yes ☐ No ☒

If so, please include a copy of the analysis with this form.

If not, do you consider the water as: Good ☒ Acceptable ☐ Poor ☐ Unusable ☐

REMARKS:

U.W. 32804

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Mark A. Hiberson
Signature of Owner or Authorized Agent

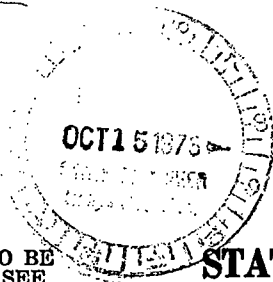
June 22, 1976
Date

Date of Receipt JUN 23 1976, 1976

Date of Priority April 20, 1976

Date of Approval Aug. 9, 1976

[Signature]
for State Engineer



JAN 14 '76

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.IF WELL IS TO BE
ABANDONED, SEE
ITEM 15, PAGE 4

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

PERMIT NO. U.W. 30265NAME OF WELL Highway Corner #2

1. NAME OF OWNER Merle H. Dunham
2. ADDRESS Box 533, Glenrock, WY Zip Code 82637
3. USE OF WATER: Domestic ☒ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☐
4. LOCATION OF WELL: SE 1/4 SE 1/4 of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),
Wyoming, being specifically _____ (Bearing and Distance)
or _____ ft. North and _____ ft. East from the _____ corner of Section _____, T. _____ N., R. _____ W.
(Strike out words not needed).
5. TYPE OF CONSTRUCTION: Drilled ☒ Rotary Dug ☐ Driven ☐ Jetted ☐
(Type of Rig)
Other _____
6. CONSTRUCTION: Total Depth 160 ft. Depth to Water Level 45 ft.
 - a. Casing Schedule New ☒ Used ☐

<u>6</u> diameter from <u>1</u> ft. to <u>160</u> ft.	Material <u>plastic</u>	Gage <u>1/4"</u>
_____ diameter from _____ ft. to _____ ft.	Material _____	Gage _____
_____ diameter from _____ ft. to _____ ft.	Material _____	Gage _____
 - b. Perforations: Type of perforator used SITS
Size of perforations 1/32 inches by 6 inches.
Number of perforations and depths where perforated:
_____ perforations from 120 ft. to 160 feet.
_____ perforations from _____ ft. to _____ feet.
 - c. Was well screen installed? Yes ☐ No ☒
Diameter: _____ slot size: _____ set from _____ feet to _____ feet.
Diameter: _____ slot size: _____ set from _____ feet to _____ feet.
 - d. Was well gravel packed? Yes ☒ No ☐ Size of gravel 3/8"
 - e. Was surface casing used Yes ☐ No ☒ Was it cemented in place? Yes ☐ No ☐
7. NAME & ADDRESS OF DRILLER Martin Drilling, Casper, Wyo.
8. DATE OF COMPLETION OF WELL (including pump installation) 10-10-75
9. PUMP INFORMATION: Manufacturer Berkley Type Submersible
Source of power 220 V. Electricity Horsepower 1/2 Depth of Pump Setting 105
Amount of Water Being Pumped 10 Gallons Per Minute.

V.W. 30265

10. PUMP TEST: Was a pump test made? Yes ☒ No ☐

If so, by whom Merle A. Dunham Address Box 533 Glenrock Wyo.

Yield: 10 gal./min. with 13 foot drawdown after 4 hours.

Yield: _____ gal./min. with _____ foot drawdown after _____ hours.

11. FLOWING WELL (Owner is responsible for control of flowing well).

If well yields artesian flow, yield is _____ gal./min. Surface pressure is _____ lb./sq. inch, or _____ feet of water.

The flow is controlled by: valve ☐ cap ☐ plug ☐

Does well leak around casing? Yes ☐ No ☐

12. LOG OF WELL: Total depth drilled_____feet.

Depth of completed well_____feet. Diameter of well_____inches.

Depth to first water bearing formation.....feet.

Depth to principal water bearing formation Top_____feet to Bottom_____feet.

Ground Elevation, if known _____

[illegible]**QUALITY OF WATER INFORMATION:**

Was a chemical analysis made? Yes ☐ No ☐

If so, please include a copy of the analysis with this form.

If not, do you consider the water as: Good ☐ Acceptable ☐ Poor ☐ Unusable ☐

REMARKS:

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

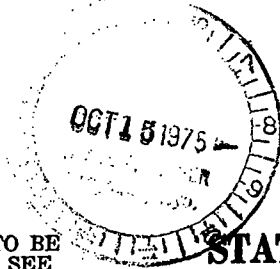
Merle H. Duncan October 14, 1975
 Signature of Owner or Authorized Agent Date
 Subscribed & sworn before me this 14th day of October
 1975 by Merle H. Duncan.
Francis Hest, notary

Date of Receipt OCT 15 1975, 1975

Date of Priority June 25, 1975

Date of Approval JAN. 2, 1976

Richard C. Stubble
 for State Engineer



APR 14 '76

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

IF WELL IS TO BE
ABANDONED, SEE
ITEM 15, PAGE 4

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

PERMIT NO. U.W. 30264

NAME OF WELL Highway Corner No. 1

1. NAME OF OWNER Merle H. Dunham
2. ADDRESS Box 533, Glenrock, WY Zip Code 82637
3. USE OF WATER: Domestic ☒ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☐
4. LOCATION OF WELL: SE 1/4 SE 1/4 of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),
Wyoming, being specifically _____ (Bearing and Distance)
or _____ ft. North and _____ ft. East from the _____ corner of Section _____, T. _____ N., R. _____ W.
(Strike out words not needed).
5. TYPE OF CONSTRUCTION: Drilled ☒ Rotary _____ Dug ☐ Driven ☐ Jetted ☐
(Type of Rig)
Other _____
6. CONSTRUCTION: Total Depth 180 ft. Depth to Water Level 55 ft.
 - a. Casing Schedule New ☒ Used ☐

<u>6"</u> diameter from <u>1</u> ft. to <u>180</u> ft.	Material <u>Plastic</u>	Gage <u>1/4"</u>
_____ diameter from _____ ft. to _____ ft.	Material _____	Gage _____
_____ diameter from _____ ft. to _____ ft.	Material _____	Gage _____
 - b. Perforations: Type of perforator used SITS
Size of perforations 1/32 inches by 6 inches.
Number of perforations and depths where perforated:
_____ perforations from 140 ft. to 180 feet.
_____ perforations from _____ ft. to _____ feet.
 - c. Was well screen installed? Yes ☐ No ☒
Diameter: _____ slot size: _____ set from _____ feet to _____ feet.
Diameter: _____ slot size: _____ set from _____ feet to _____ feet.
 - d. Was well gravel packed? Yes ☒ No ☐ Size of gravel 3/8"
 - e. Was surface casing used Yes ☐ No ☒ Was it cemented in place? Yes ☐ No ☐
7. NAME & ADDRESS OF DRILLER Martin Drlg., Casper, Wyo.
8. DATE OF COMPLETION OF WELL (including pump installation) 10-10-75
9. PUMP INFORMATION: Manufacturer Berkley Type Submersible
Source of power 220V. Electricity Horsepower 1/2 Depth of Pump Setting 10.5'
Amount of Water Being Pumped 10 Gallons Per Minute.

REMARKS: _____

U.W. 30264

15. IF WELL IS TO BE ABANDONED, complete Items 1 through 8, Item 12 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

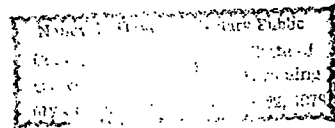
Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Merle H. Dunham
Signature of Owner or Authorized Agent

October 14, 1975
Date

Subscribed & sworn before me this 14th day of October
1975 by, Merle H. Dunham. Gary L. Hoyt, notary

Date of Receipt OCT 15 1975 CS, 1975



Date of Priority June 25, 1975

Date of Approval March 31, 1976

[Signature]
for State Engineer

JAN 22 '75

Form U.W. 7

IF WELL IS TO BE
ABANDONED, SEE ITEM 20

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

for Domestic or Stock Watering Use Only

A preferred water right is given to such use when the yield or flow does not exceed .056 cubic feet per second or 25 gallons per minute. Domestic use refers to household use and the watering of lawns and gardens for family use, not to exceed one acre.

Permit No. U.W. 26630Temporary Filing No. 9-9-68Water Division No. 1 (15-5)

**Completed Prior
to May 24, 1969

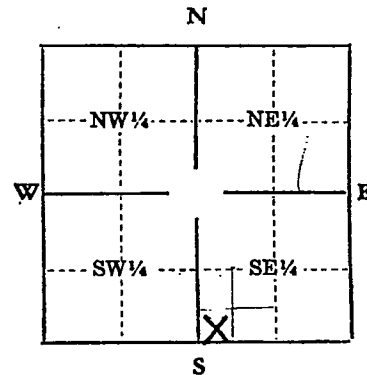
U.W. District Converse CountyNAME OF WELL Negley No. 4

1. Owner Jacob S. Negley
2. Address Glenrock, WY 82637
3. Agent to receive correspondence Dennis M. Heynd, Attorney,
P.O. Box 377, Glenrock, WY 82637
4. Name & address of driller Crimm Drilling, Inc., 311 South 4th
Avenue, Casper, Wyoming 82601
5. Well is constructed on lands owned by Jacob S. Negley
(Obtaining of easement or right of way is the responsibility of the applicant's.
Include copy if land is privately owned and owner is not a co-applicant.)
6. Type of construction: Dug ☐ Drilled ☐ ROTARY
Type of Rig
- Driven ☐ Jet ☐ Other _____
7. Use of Water—Domestic ☒ Stock ☐
8. Means of conveyance, distance and direction to point of use
Pipe 410'
9. Date started June 2, 19 74
10. Date completed June 2, 19 74 (including pump)
11. Date after completion when water was used June 5, 19 74

12. WELL DESCRIPTION
Total Depth 135 Depth to Water Level 100 ft.
13. TEST DATA
Yield 25 Gal. per Min. How Tested With Pump
Drawdown _____ Length of Test _____
14. PUMP DATA
Type Ruda Pump Power Source Electricity
(Turbine, Centrifugal, etc.) (Elec., Gas, etc.)
Horsepower _____ Amount of Water Being Used 25
(Gallons per Minute)

15. CASING RECORD
Plain Casing
Size 1" Kind PLASTIC from 0 ft. to 95 ft.
Size _____ Kind _____ from _____ ft. to _____ ft.
Size _____ Kind _____ from _____ ft. to _____ ft.
Perforated Casing
Size 6" Kind PLASTIC from 95 ft. to 135 ft.
Size _____ Kind _____ from _____ ft. to _____ ft.

WELL LOCATION

CONVERSE CountySW 1/4 of SE 1/4 of Sec. 11T. 34 N., R. 75 W.

Scale: 2" = 1 mile

Above diagram represents one full
section. Locate well accurately in
small square representing 40 ac.
or
fill in the following:

Lot _____ & Block _____ or Tract _____

of the _____
(Subdivision or Addition)of _____
(City, Town or County)

Section _____, T. _____ N., R. _____ W.

**For wells constructed after May 24, 1969, Application Form U.W. 5 must be submitted prior to construction.

Permit No. U.W. 26630Book No. 138 Page No. 69

Form U.W. 7

IF WELL IS TO BE
ABANDONED, SEE ITEM 20

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

for Domestic or Stock Watering Use Only

A preferred water right is given to such use when the yield or flow does not exceed .058 cubic feet per second or 25 gallons per minute. Domestic use refers to household use and the watering of lawns and gardens for family use, not to exceed one acre.

Permit No. U.W. 26415
Water Division No. 1 (15-5)
U.W. District Converse Co.

Temporary Filing No. U.W. 9-11-98
KT No. 1

**Completed Prior
to May 24, 1969 ☐

NAME OF WELL KT No. 1

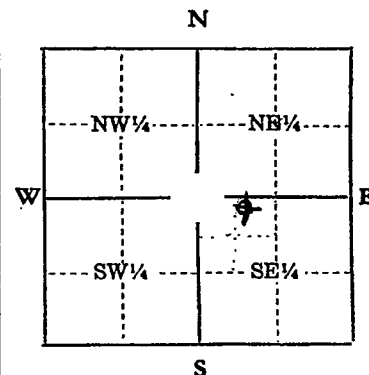
- Owner Robert D. Haun
- Address Box 125 Glenrock, Wy. 82637
- Agent to receive correspondence Same
- Name & address of driller Crimm Drilling Inc.
311 So. 4th Ave. Casper, Wyo.
- Well is constructed on lands owned by Robert D. Haun
(Obtaining of easement or right of way is the responsibility of the applicant's.
Include copy if land is privately owned and owner is not a co-applicant.)
- Type of construction: Dug ☐ Drilled ☒ AIR
Type of Rig
Driven ☐ Jet ☐ Other Submersible
- Use of Water—Domestic ☒ Stock ☐
- Means of conveyance, distance and direction to point of use
Submersible pumped 150' North by 1" underground pipe
- Date started MAY 25, 1974
- Date completed MAY 25, 1974 (including pump)
- Date after completion when water was used _____, 19____.
- WELL DESCRIPTION
Total Depth 180' Depth to Water Level 80 ft.
- TEST DATA
Yield 20 gpm How Tested AIR
Drawdown 45' Length of Test 90 min.
- PUMP DATA
Type _____ Power Source Elec.
(Turbine, Centrifugal, etc.) (Elec., Gas, etc.)
Horsepower 3/4 Amount of Water Being Used 12
(Gallons per Minute)
- CASING RECORD
Plain Casing 120
Size 6" Kind Plastic from 120 ft. to Surface
Size 6" Kind Plastic from 160 ft. to 180 ft.
Size _____ Kind _____ from _____ ft. to _____ ft.
Perforated Casing 120 160
Size 6" Kind Plastic from 120 ft. to 160 ft.
Size _____ Kind _____ from _____ ft. to _____ ft.

OCT 7 '74

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

WELL LOCATION

Converse County
NE 1/4 of SE 1/4 of Sec. 11
T. 34 N., R. 74 W.



Scale: 2" = 1 mile

Above diagram represents one full
section. Locate well accurately in
small square representing 40 ac.
or
fill in the following:

Lot _____ & Block _____ or Tract _____

of the _____
(Subdivision or Addition)

of _____
(City, Town or County)

Section _____, T. _____ N., R. _____ W.

**For wells constructed after May 24, 1969, Application Form U.W. 5 must be submitted prior to construction.

Permit No. U.W. 26415

Book No. 137 Page No. 55

U.W. 26415

16. Was surface seal provided? Yes ☒ No ☐ To What Depth 20' Material used: Cement
Was well gravel packed? Yes ☒ No ☐
17. **FLOWING WELL** (Owner is responsible for installing control device on flowing well.)
Does well flow? Yes ☐ No ☒
Flow controlled by: Valve ☐ Cap ☐ Plug ☐ Does well leak around casing? Yes ☐ No ☐
18. **LOG OF WELL**—Clearly indicate first water bearing material and principal water bearing material.

[illegible]

19. QUALITY OF WATER INFORMATION

Was a chemical analysis made? Yes ☒ No ☐
If so, please include a copy of the analysis with this form.

If not, do you consider the water as: Good ☒ Acceptable ☐ Poor ☐ Unusable ☐

Was a bacteriological analysis made? Yes ☒ No ☐

If a domestic well, was the well disinfected by the driller? Yes ☐ No ☒

20. IF WELL IS TO BE ABANDONED, complete only Items 1 through 6, Item 10 and Item 18 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

REMARKS: _____

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Robert D. Haug
Signature of Owner or Authorized Agent

September 18, 1974
Date

Date of Receipt: SEP 20 1974, 19

Date of Priority: April 23, 1974

Anelia Thompson

Date of Approval: Sept. 30, 1974

Richard E. Whittle
for State Engineer

MICRO-
FILMED SEP 16 '74

Form U.W. 7

IF WELL IS TO BE
ABANDONED, SEE ITEM 20

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

for Domestic or Stock Watering Use Only

A preferred water right is given to such use when the yield or flow does not exceed .056 cubic feet per second or 25 gallons per minute. Domestic use refers to household use and the watering of lawns and gardens for family use, not to exceed one acre.

Permit No. U.W. 26463

Temporary Filing No. _____

Water Division No. 1 (15-5)

**Completed Prior
to May 24, 1969



U.W. District Converse Co.

NAME OF WELL Lucky Five #1

1. Owner Earl G. Doege
2. Address 303 E. Platte, Box 477, Glenrock, WY 82637
3. Agent to receive correspondence same

4. Name & address of driller CROWN DRILLING
311 So. 4th Ave., Casper, Wyoming 82401

5. Well is constructed on lands owned by EARL G. & KATHLEEN DOEGE
(Obtaining of easement or right of way is the responsibility of the applicant's.
Include copy if land is privately owned and owner is not a co-applicant.)

6. Type of construction: Dug ☐ Drilled ☒ ROTARY
Type of Rig

Driven ☒ Jet ☐ Other _____

7. Use of Water—Domestic ☒ Stock ☐

8. Means of conveyance, distance and direction to point of use

PUMP; 100 ft NORTH EAST

9. Date started 6/1/74, 19 74
10. Date completed 6/20, 19 74 (including pump)
11. Date after completion when water was used 7/13, 19 74

12. WELL DESCRIPTION

Total Depth 180 Depth to Water Level 80 ft.

13. TEST DATA

Yield _____ How Tested _____
Drawdown _____ Length of Test _____

14. PUMP DATA

Type TURBINE Power Source ELECTRICAL
(Turbine, Centrifugal, etc.) (Elec., Gas, etc.)

Horsepower 1 1/2 Amount of Water Being Used 5
(Gallons per Minute)

15. CASING RECORD

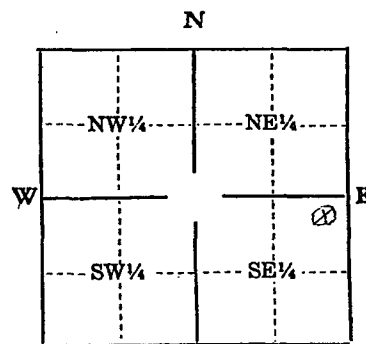
Plain Casing
Size 6" Kind PLASTIC from 0 ft. to 140 ft.
Size _____ Kind _____ from _____ ft. to _____ ft.
Size _____ Kind _____ from _____ ft. to _____ ft.

Perforated Casing
Size 6" Kind PLASTIC from 140 ft. to 180 ft.
Size _____ Kind _____ from _____ ft. to _____ ft.

WELL LOCATION

CONVERSE County

NE 1/4 of SE 1/4 of Sec. 11
T 34 N., R 74 W.



Scale: 2" = 1 mile

Above diagram represents one full
section. Locate well accurately in
small square representing 40 ac.
or

fill in the following:

Lot _____ & Block _____ or Tract _____

of the _____
(Subdivision or Addition)

of _____
(City, Town or County)

Section _____, T. _____ N., R. _____ W.

**For wells constructed after May 24, 1969, Application Form U.W. 5 must be submitted prior to construction.

Permit No. U.W. 26463

Book No. 137 Page No. 103

18. Was surface seal provided? Yes ☐ No ☒ To What Depth _____ Material used: _____
Was well gravel packed? Yes ☒ No ☐

17. FLOWING WELL (Owner is responsible for installing control device on flowing well.)

Does well flow? Yes ☐ No ☒

Flow controlled by: Valve ☐ Cap ☐ Plug ☐ Does well leak around casing? Yes ☐ No ☐

18. **LOG OF WELL**—Clearly indicate first water bearing material and principal water bearing material.

[illegible]

19. QUALITY OF WATER INFORMATION

Was a chemical analysis made? Yes ☒ No ☐

If so, please include a copy of the analysis with this form.

If not, do you consider the water as: Good ☒ Acceptable ☐ Poor ☐ Unusable ☐

Was a bacteriological analysis made? Yes ☒ No ☐

If a domestic well, was the well disinfected by the driller? Yes ☐ No ☒

20. IF WELL IS TO BE ABANDONED, complete only Items 1 through 6, Item 10 and Item 18 (Log of Well) and state reason for abandonment below.

It is the responsibility of the owner to properly plug or fill in the well in order to prevent contamination of ground water and to cover or cap the well at ground level.

REMARKS:

Under penalties of perjury, I declare that I have examined this form and to the best of my knowledge and belief it is true, correct and complete.

Signature of Owner or Authorized Agent

September 3, 1974
Date

Date of Receipt: SEP 5 1974, 1974

Date of Priority: April 25, 1974

Anilisa Thompson

Date of Approval: Sept. 15, 1974

for State Engineer

Form U.W. 6



MICRO-
FILMED AUG 8 '79

NOTE: Do not fold this form. Use type-
writer or print neatly with black
ink.

IF WELL IS TO BE
ABANDONED, SEE
ITEM 15, PAGE 4

STATE OF WYOMING

OFFICE OF THE STATE ENGINEER

STATEMENT OF COMPLETION AND DESCRIPTION OF WELL

PERMIT NO. U.W. 42928

NAME OF WELL Lucky Five #2

1. NAME OF OWNER Mr. and Mrs. Earl G. Doege

2. ADDRESS Box 477 Laramie Wyo Zip Code 82637

3. USE OF WATER: Domestic ☒ Stock Watering ☐ Irrigation ☐ Municipal ☐ Industrial ☐ Miscellaneous ☐

4. LOCATION OF WELL: SW 1/4 NE 1/4 SE 1/4 of Section 11, T. 34 N., R. 74 W., of the 6th P.M. (or W.R.M.),

Wyoming, being specifically:

(Bearing and Distance)

or 150 ft. ~~North~~ South and 650 ft. ~~East~~ West from the corner of Section 11, T. 34 N., R. 74 W.
(Strike out words not needed).

5. TYPE OF CONSTRUCTION: Drilled ☒ Rotary Dug ☐ Driven ☐ Jetted ☐
(Type of Rig)

6. CONSTRUCTION: Total Depth 180 ft. Depth to Water Level 100 ft.

a. Casing Schedule New ☒ Used ☐

<u>5</u> diameter from <u>0</u> ft. to <u>180</u> ft.	Material <u>Plastic</u>	Gage <u>272</u>
_____ diameter from _____ ft. to _____ ft.	Material _____	Gage _____
_____ diameter from _____ ft. to _____ ft.	Material _____	Gage _____

b. Perforations: Type of perforator used saw

Size of perforations 1/8 inches by 3 1/2 inches.

Number of perforations and depths where perforated:

80 perforations from 135 ft. to 175 feet.

_____ perforations from _____ ft. to _____ feet.

c. Was well screen installed? Yes ☐ No ☒

Diameter: _____ slot size: _____ set from _____ feet to _____ feet.

Diameter: _____ slot size: _____ set from _____ feet to _____ feet.

d. Was well gravel packed? Yes ☒ No ☐ Size of gravel 1/4

e. Was surface casing used Yes ☐ No ☒ Was it cemented in place? Yes ☐ No ☐

7. NAME & ADDRESS OF DRILLER Chester Schassow 565 Nash Casper Wyo

8. DATE OF COMPLETION OF WELL (including pump installation) MAY 25, 1979

9. PUMP INFORMATION: Manufacturer Berkley Type Submersible

Source of power * Electric Horsepower * 3/4 Depth of Pump Setting * 150 ft.

Amount of Water Being Pumped * 20 Gallons Per Minute per letter Reel 6-12-79- del

Permit No. U.W. 42928

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If not, do you consider the water as: Good ☐ Acceptable ☐ Poor ☐ Unusable ☐

STATE OF WYOMING
OFFICE OF THE STATE ENGINEER
HERSCHLER BLDG., 4-E CHEYENNE, WYOMING 82002
(307) 777-6163

Rec'd 25⁰⁰ 8-25-04
12:30 pm

APPLICATION FOR PERMIT TO APPROPRIATE GROUND WATER

SE025944

2500
8/25/04

APPLICATION FOR WELLS AND SPRINGS

Note: Only springs flowing 25 gallons per minute or less, where the proposed use is domestic and /or stock watering, will be considered as ground water appropriations.

FOR OFFICE USE ONLY

Temporary Filing No. U.W.

36-9-5916

PERMIT NO. U.W. 161492
WATER DIVISION NO. 1 DISTRICT 15-5
U.W. DISTRICT Converse County

NOTE: Do not fold this form. Use typewriter or print neatly with black ink.
ALL ITEMS MUST BE COMPLETED BEFORE APPLICATION IS ACCEPTABLE

NAME AND NUMBER OF WELL or SPRING

ALBAUGH 1

1. Name of applicant(s) JOHN & MELISSA ALBAUGH Phone: 286-0831

2. Address of applicant(s) PO BOX 935 GLENROCK WY 82637
(MAILING ADDRESS) (CITY) (STATE) (ZIP)

3. Name & address of agent to receive correspondence and notices
SAME Phone: _____
(MAILING ADDRESS) (CITY) (STATE) (ZIP)

4. Use to which the water will be applied:

- ☒ Domestic: Use of water in 3 single family dwellings or less, noncommercial watering of lawns and gardens totaling one acre or less. Number of houses served? 1.
- ☐ Stock Watering: Normal livestock use at four tanks or less within one mile of well or spring. Stockwatering pipelines and commercial feedlots are a miscellaneous use. Number of stock tanks? ____.
- ☐ Irrigation: Watering of commercially grown crops (large-scale lawn watering of golf courses, cemeteries, recreation areas, etc., is miscellaneous use).
- ☐ Municipal: Use of water in incorporated Towns and Cities. Note 1: use of water in unincorporated towns, subdivisions, improvement districts, mobile home parks, etc. is classified as miscellaneous use. Note 2: a permit may be required by the Wyoming Department of Environmental Quality (WDEQ) if the well will be classified as a public water supply under the WDEQ's rules and regulations.
- ☐ Industrial: Long term use of water for the manufacture of a product or production of oil/gas or other minerals (oil field water flood operations, power plant water supply, etc.). (Describe in REMARKS)
- ☐ Miscellaneous: Any use of water not defined under previous definitions such as stock water pipelines, subdivisions, mine dewatering, mineral/oil exploration drilling, potable supplies in office, etc Describe in Remarks. Note: a permit may be required by the WDEQ if the well will be classified as a public water supply under the WDEQ's rules and regulations.
- ☐ Coalbed Methane: Water produced in the production of coal bed methane gas. Note: wells used in the production coal bed methane will require a permit from the Wyoming Oil and Gas Conservation Commission.
- ☐ Monitor, Observation: Note: a WDEQ permit may be required ☐ Test Well: (Describe in REMARKS)

5. Location of the well or spring: (NOTE: Quarter-quarter (40 acre subdivision) MUST be shown. EXAMPLE: SE 1/4 NW 1/4 of Sec. 12, Township 14 North, Range 68 West.)
CONVERSE County, NW 1/4 SE 1/4 of Sec. 11, T. 34 N., R. 74 W. of the 6th P.M. (W.R.M.), Wyoming. If located in a platted subdivision, also provide Lot/Tract ____ Block ____ of the ____ Subdivision (or Add'n) of ____ Resurvey Location: Tract ____ (or Lot) ____.

6. Estimated depth of the well or spring is 400 feet. Estimated production interval is ____ ft. to ____ ft.

7. (a) MAXIMUM instantaneous flow of water to be developed and beneficially used: 25 gallons per minute.
NOTE: if for domestic and / or stock use, this application will be processed for a maximum of 25 gallons per minute. For a spring, after approval of this application, some type of artificial diversion or improvement must be constructed to qualify for a water right.

(b) MAXIMUM volumetric quantity of water to be developed and beneficially used per calendar year: 325,000
Circle appropriate units: (Gallons) (Acre Feet) A four person family utilizes approximately one (1) acre-foot of water per year or 325,000 gallons.

8. Mark the point(s) or area(s) of use in the tabulation box below.

TABULATION BOX

TWP	RNG	SEC	NE 1/4				NW 1/4				SW 1/4				SE 1/4				TOTAL
			NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	NE 1/4	NW 1/4	SW 1/4	SE 1/4	
<u>34</u>	<u>74</u>	<u>11</u>																	

161492

SEE REVERSE SIDE

Permit No. U.W.

Book No.

1183

Page No.

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9. If for irrigation use:
- Describe MAXIMUM acreage to be irrigated in each 40 acre subdivision in the tabulation box above.
 - Land will be irrigated from this well only.
 - Land is irrigated from existing water right(s) with water from this well to be additional supply. Describe existing water right(s) under REMARKS.
10. If for Irrigation use, describe method of irrigation, i.e. center pivot sprinkler, flood, etc.:
11. The well or spring is to be constructed on lands owned by JOHN & MELISSA ALBAUGH
(The granting of a permit does not constitute the granting of right-of-way. If any easement or right-of-way is necessary in connection with this application, it should be understood that the responsibility is the applicant's. A copy of the agreement should accompany this application, if the land is privately owned and the owner is not the co-applicant.)
12. The water is to be used on lands owned by JOHN & MELISSA ALBAUGH
(If the landowner is not the applicant, a copy of the agreement relating to the usage of appropriated water on the land should be submitted to this office. If the landowner is included as co-applicant on the application, this procedure need not be followed.) NOTE: Water rights attach to the area(s) and/or point(s) of use.

REMARKS:

Under penalties of perjury, I declare that I have examined this application and to the best of my knowledge and belief it is true, correct and complete.

Melissa Albough 08/25, 2004
Signature of Applicant or Authorized Agent Date

THE LEGALLY REQUIRED FILING FEE MUST ACCOMPANY THIS APPLICATION

DOMESTIC AND/OR STOCK WATERING USES (Domestic use is defined as use of water in 3 single family dwellings or less, noncommercial watering of lawns and gardens totalling one acre or less.)	\$25.00
IRRIGATION, MUNICIPAL, INDUSTRIAL, MISCELLANEOUS, COAL BED METHANE	\$50.00
MONITOR (For water level measurements or chemical quality sampling) or TEST WELL	No Fee

IF WELL WILL SERVE MULTIPLE USES, SUBMIT ONLY ONE (THE HIGHER) FILING FEE.

THIS SECTION IS NOT TO BE FILLED IN BY APPLICANT

THE STATE OF WYOMING)
) ss.
STATE ENGINEER'S OFFICE)

This instrument received and filed for record on the 25th day of August, A.D. 2004, at 12:30 o'clock P M.

Permit No. U.W. 161482
for State Engineer

THIS IS TO CERTIFY that I have examined the foregoing application and do hereby grant the same subject to the following limitations and conditions:

This application is approved subject to the condition that the proposed use shall not interfere with any existing rights to ground water from the same source of supply and is subject to regulation and correlation with surface water rights, if the ground and surface waters are interconnected. The use of water hereunder is subject to the further provisions of Chapter 169, Session Laws of Wyoming, 1957, and any subsequent amendments thereto.

Granting of a permit does not guarantee the right to have the water level or artesian pressure in the well maintained at any specific level. The well should be constructed to a depth adequate to allow for the maximum development and beneficial use of ground water in the source of supply.

If the well is a flowing artesian well, it shall be so constructed and equipped that the flow may be shut off when not in use without loss of water into sub-surface formations or at the land surface.

Coal Bed Methane wells have Additional Conditions and Limitations on attachment sheet.

Approval of this application may be considered as authorization to proceed with construction of the proposed well or spring. A Statement of Completion will be filed within thirty (30) days of completion of construction, including pump installation.

Completion of construction and completion of the beneficial use of water for the purposes specified in Item 4 of this application will be made by December 31, 2005.

The amount of appropriation shall be limited to the quantity to which permittee is entitled as determined at time of proof of application of water to beneficial use.

Witness my hand this 31st day of August, A.D. 2004.

SEP 30 '05

NOTICE OF EXPIRATION OF TIME FOR COMPLETION
AND COMPLETION OF BENEFICIAL USE MAILED

PATRICK T. TYRRELL, State Engineer

MICRO
FILMS

SEP 30 2005

@ Scanned