

**APPENDIX B**

## Data Summary Tables

Summary of Bedrock Groundwater Sampling Results, Analytical Laboratory Data  
 Lower Disposal Area  
 Reserve Silica, Ravensdale, Washington

SAMPLE LOCATION ID	DATE SAMPLED	General Wet Chemistry				Total Metals (mg/L)				Dissolved Metals (mg/L)								
		Bicarbonate as Calcium Carbonate (mg/L)	Chloride (mg/L)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese	Arsenic	Barium	Calcium	Iron	Lead	Magnesium	Manganese	Potassium	Sodium
MWB-1LDA	12/19/06	180	34.3	7.60	310	0.159	0.352	<0.001	0.0346	0.151	0.0543	50.5	<0.15	<0.001	19.5	0.0377	-	42.7
	02/14/07	194	9.77	-	240	0.169	0.297	<0.001	0.0481 J	0.160	0.0654	48.5	0.208	<0.001	17.8	0.0463	-	18.2
	05/31/07	198	4.68	-	220	0.108	0.152	<0.001	0.0452	0.122	0.0494	47.2	0.183	<0.001	16.9	0.0442	-	16.5
	08/27/07	199	3.52	-	240	0.0814	0.548 J	<0.001	0.0618 J	0.0899	0.0401	46.6	0.166	<0.001	16.4	0.0466	-	15.2
	11/28/07	204	3.14	-	220	0.0711	0.175	<0.001	0.0535	0.0883	0.0413	49.4	<0.15	<0.001	16.7	0.0547	-	14.6
	02/27/08	197	2.66	7.59 J	230	0.0742	1.16	<0.001	0.0749	0.0809	0.0451 J	45.9	0.159	<0.001	16.8	0.0553	<3	15.1
	05/20/08	199	2.92	-	230	0.0694 J	0.206	<0.001	0.0528	0.0643	0.0344	47.5	0.162	<0.001	15.7	0.0521	-	13.0
MWB-2LDA	12/19/06	180	8.79	7.55	230	0.0102	0.349 J	<0.001	0.0254	0.00849	0.0160	43.5	<0.15	<0.001	20.2	0.0242	-	20.3
	02/14/07	184	2.46	-	200	0.00597	0.274	<0.001	0.0241 J	0.00609	0.0338	40.8	0.232	<0.001	18.3	0.0266	-	11.1
	05/31/07	185	2.30	-	210	0.00691	0.223	<0.001	0.0323	0.00695	0.0334	40.3	0.255	<0.001	18.0	0.0297	-	10.8
	08/27/07	188	2.19	-	210	0.00606	0.640	<0.001	0.0395	0.00749	0.0302	39.7	0.262	<0.001	17.7	0.0313	-	10.6
	11/28/07	194	2.36	-	250	0.00555	0.288	<0.001	0.0307	0.00691	0.0396	42.9	0.259	<0.001	18.5	0.0320	-	10.5
	02/27/08	184	2.20	-	210	0.00626	0.315	<0.001	0.0274	0.00746	0.0443 J	39.5	0.254	<0.001	18.6	0.0309	<3	11.1
	05/20/08	182	2.57	-	200	0.00566 J	0.310	<0.001	0.0269	0.00631	0.0410	42.6	0.315	<0.001	17.8	0.0267	-	9.56
MWB-3LDA	12/19/06	173	101	9.15	500	0.0440	0.445	<0.001	0.0294	0.0257	<0.01	19.6	0.173	<0.001	11.8	0.0476	-	106
	01/23/07	160	40.8	-	270	0.0182	0.519	<0.001	0.0757	0.0184	<0.01	19.7	0.450	<0.001	9.64	0.0787	-	73.6
	02/14/07	130	33.9	-	310	0.0166	0.870	<0.001	0.0840 J	0.0151	<0.01	19.8	<0.15	<0.001	9.28	0.0718	-	88.8
	03/29/07	162	22.0	-	260 J	0.0382 J	0.357	<0.001	0.0748	0.0379	<0.01	20.2	0.261	<0.001	10.0	0.0601	-	72.8
	04/17/07	151	15.4	-	240	0.0235	0.574	<0.001	0.0845	0.0230	<0.01	21.6	0.451	<0.001	11.2	0.0900	-	46.9
	05/31/07	148	15.3	-	240	0.0198	0.430	<0.001	0.0945	0.0212	<0.01	21.6	0.443	<0.001	11.0	0.0998	-	48.6
	06/20/07	143	11.7	-	230 J	0.0211	0.698 J	<0.001	0.106	0.0238	<0.01	23.7	0.274	<0.001	11.2	0.0898	-	53.2
	07/31/07	146	11.4	-	250	0.0211	0.639 J	<0.001	0.0927	0.0189	<0.01	27.0	0.609	<0.001	13.3	0.119	-	45.4
	08/27/07	143	14.0	-	250	0.0170	0.541	<0.001	0.105	0.0176	<0.01	23.7	0.315	<0.001	11.7	0.104	-	50.1
	09/27/07	138	13.4	-	250	0.0181	0.440	<0.001	0.102	0.0193	<0.01	26.7	0.451	<0.001	13.0	0.117	-	40
	10/26/07	147	11	-	240 J	0.0189	1.67	<0.001	0.205	0.0110	<0.01	27.0 J	0.949	<0.001	12.7 J	0.197	-	27
	11/28/07	146	10.8	-	200	0.0145	0.384	<0.001	0.0786	0.0178	<0.01	26.8	0.315	<0.001	12.8	0.0819	-	38.0
	12/12/07	142	9.57	7.31 J	280 J	0.0163	0.524	<0.001	0.102	0.0174	<0.01	22.7	0.458	<0.001	11.7	0.0953	-	33.2
	01/24/08	140	8.98	-	220	0.0210	0.507	<0.001	0.0929	0.0192	<0.01	24.1	0.456	<0.001	12.0	0.0861	-	36.6
	02/26/08	138	7.87	-	210	0.0192	0.510	<0.001	0.0910	0.0220	<0.01 UJ	24.0	0.448	<0.001	12.6	0.0916	<3	35.7
	03/25/08	140	8.03 J	-	210	0.0198	0.478	<0.001	0.0917	0.0178	<0.01	24.1	0.296	<0.001	11.8	0.0789	-	30.8 J
04/29/08	138	6.66	-	200 J	0.0189	0.549	<0.001	0.0906	0.0182	<0.01	24.2	0.449	<0.001	11.7	0.0826	-	28.9	
05/19/08	137	6.02	-	200 J	0.0187 J	0.534	<0.001	0.0911	0.0187	<0.01	25.4	0.373	<0.001	11.8	0.0758	-	26.5	
06/18/08	140	5.19	-	190 J	0.0181	0.492	<0.001	0.0901	0.0195	<0.01	21.9	0.461	<0.001	10.3	0.0896	-	23.8 J	
Preliminary Standard <sup>a</sup>		-	250	6.5-8.5	500	-	-	-	-	to be determined <sup>b</sup>	1	-	0.3	0.05	-	0.05	-	-

Note: Higher result between primary and duplicate sample shown.  
 - Not available or not measured.  
 a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest.  
 b This standard will be determined following sampling and analysis of site background wells.  
 mg/L Milligrams per liter.  
 < Analyte not detected above the reporting limit shown.  
 J Data validation code. Estimated value.

Summary of Bedrock Groundwater Sampling Results, Analytical Laboratory Data  
 Dale Strip Pit  
 Reserve Silica, Ravensdale, Washington

SAMPLE LOCATION ID	DATE SAMPLED	General Wet Chemistry				Dissolved Metals (mg/L)							
		Bicarbonate as Calcium Carbonate (mg/L)	Chloride (mg/L)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Barium	Cadmium	Calcium	Lead	Magnesium	Sodium	Zinc
MWB-1SDSP	Dec-02	450	61.2	-	910	0.0466	0.165	<0.0005	125	0.00268	56.2	86.2	0.127
	Mar-03	450	35.6	-	860	0.00973	-	-	139	-	61.8	71.4	-
	May-03	480	25.9	-	950	-	-	-	148	-	66.3	58.1	-
	Aug-03	510	20.3	-	990	-	-	-	165	-	71.1	50.8	-
	Nov-03	507	18.2	-	1,010	0.00858	0.0848	<0.0005	166	0.000695	74.7	44.3	0.0272
	Feb-04	530	17.4	-	1,060	-	-	-	183	-	82.1	39.2	-
	May-04	517	15.7	-	1,020	-	-	-	173	-	75.5	43.2	-
	Aug-04	499	16.8	-	981	-	-	-	165	-	72.4	42.9	-
	Nov-04	517	14.4	-	1,060	0.01	0.0894	<0.0005	183	<0.001	79.8	42.5	0.0194
	Feb-05	511	13.9	-	1,020	-	-	-	188	-	82.7	48.9	-
	May-05	521	14.2	-	1,000	-	-	-	159	-	70.9	30.2	-
	Aug-05	529	15.3	-	1,090	-	-	-	188	-	79.6	34.4	-
	Nov-05	536	12.7	-	1,100	0.0103	0.0734	<0.001	200	<0.001	83.3	31.9	<0.01
	Feb-06	537	15.8 J	-	1,100 J	-	-	-	190	-	82.9	32.8	-
	May-06	505	14.6	-	1,100	-	-	-	194	-	83.7	31.8	-
	Aug-06	592	13.0 J	-	1,100	-	-	-	205	-	89.4	32.7	-
	Nov-06	-	-	-	-	-	-	-	-	-	-	-	-
	Feb-07	-	-	-	-	-	-	-	-	-	-	-	-
	May-07	539	14.0	-	1,100	-	-	-	187	-	85.5	32.7	-
	Aug-07	540	14.8	-	1,200	-	-	-	206	-	91.9	36.8	-
	Nov-07	541	15.8	-	1,000 J	0.00572	0.0675	<0.001	227	<0.001	103	36.0	0.0104 U
	Feb-08	544	14.6	-	1,100	-	-	-	218	-	107	38.6	-
	May-08	536	16.5	-	1,200 J	-	-	-	209	-	94.0	37.5	-
	MWB-1DDSP	Dec-02	330	22.8	-	540	0.0327	0.108	<0.0005	90.3	<0.0005	42	27
Mar-03		260	9.43	-	370	0.00708	-	-	66.3	-	28.7	21.8	-
May-03		270	9.18	-	440	-	-	-	72.2	-	32.7	19.6	-
Aug-03		270	7.9	-	450	-	-	-	72.1	-	31.5	19.8	-
Nov-03		251	8.13	-	437	0.00603	0.081	<0.0005	70.9	<0.0005	31.4	17.6	0.208
Feb-04		270	8.64	-	440	-	-	-	68.7	-	30.7	18.7	-
May-04		258	8.12	-	429	-	-	-	72.1	-	31.4	19.8	-
Aug-04		253	8.48	-	399	-	-	-	78.3	-	34.1	20	-
Nov-04		262	8.11	-	477	0.00308	0.134	<0.0005	78.5	<0.001	34.6	22.1	0.0069
Feb-05		273	8.47	-	451	-	-	-	76.6	-	34.1	25.8	-
May-05		297	8.89	-	432	-	-	-	76.6	-	34.4	18	-
Aug-05		267	10.7	-	518	-	-	-	82.3	-	34.9	21.2	-
Nov-05		270	9.23	-	470	0.0036	0.15	<0.001	84.8	<0.001	39.4	24.2	<0.01
Feb-06		248	13.7 J	-	450 J	-	-	-	80.8	-	35.8	21.5	-
May-06		263	10.1	-	450	-	-	-	83.6	-	37.2	19.0	-
Aug-06		295	9.19	-	480	-	-	-	87.6	-	39.1	19.9	-
Nov-06		-	-	-	-	-	-	-	-	-	-	-	-
Feb-07		-	-	-	-	-	-	-	-	-	-	-	-
May-07		273	9.98	-	470	-	-	-	80.0	-	36.6	22.1	-
Aug-07		272	9.10	-	500	-	-	-	86.4	-	38.8	22.2	-
Nov-07		272	9.88	-	470 J	0.00289	0.188	<0.001	94.0	<0.001	41.4	22.5	<0.01
Feb-08		274	9.40	-	500	-	-	-	92.4	-	44.1	22.9	-
May-08		271	9.84	-	520 J	-	-	-	92.6	-	40.8	19.8	-
MWB-2DSP		Mar-02	372	3	-	467	-	-	-	132	-	44	22
	Jun-02	427	4	-	459	-	-	-	100	-	52	17	-
	Sep-02	458	2	-	499	-	-	-	108	-	58	19	-
	Dec-02	440	1.75	-	440	<0.001	0.178	<0.0005	92.9	<0.0005	41.3	13.5	0.00344
	Mar-03	430	1.84	-	450	-	-	-	94.6	-	41.9	16.6	-
	May-03	470	1.92	-	550	-	-	-	100	-	46.2	17.4	-
	Aug-03	460	1.55	-	520	-	-	-	102	-	46	18	-
	Nov-03	435	1.87	-	522	0.00098	0.19	<0.0005	95.9	<0.0005	44.5	18.2	0.00905
	Feb-04	450	1.98	-	560	-	-	-	101	-	45.2	17.3	-
	May-04	417	1.73	-	478	-	-	-	96.5	-	43.6	18.3	-
	Aug-04	418	1.9	-	460	-	-	-	97.1	-	43.8	18.7	-
	Nov-04	425	1.61	-	512	<0.001	0.173	<0.0005	95.2	<0.001	43	21.4	0.0101
	Feb-05	442	1.61	-	487	-	-	-	101	-	45.8	22.9	-
	May-05	344	1.61	-	338	-	-	-	78.8	-	35	14.8	-
	Aug-05	305	2.6	-	388	-	-	-	69.1	-	27.1	18.7	-
	Nov-05	361	2.91	-	350	<0.001	0.0751	<0.001	66.7	<0.001	24.5	14.6	0.0144
	Feb-06	378	2.78 J	-	400 J	-	-	-	82.3	-	35.1	16.8	-
	May-06	331	2.41	-	380	-	-	-	78.7	-	33.0	17.2	-
	Aug-06	330	1.90	-	360	-	-	-	70.5	-	30.3	17.8	-
	Nov-06	393	2.19	-	430	<0.001	0.168	<0.001	96.1	<0.001	43.1	18.9	<0.01
	Feb-07	414	2.09	-	420	-	-	-	94.9	-	43.6	18.7	-
	May-07	-	-	-	-	-	-	-	-	-	-	-	-
	Aug-07	-	-	-	-	-	-	-	-	-	-	-	-
	Nov-07	-	-	-	-	-	-	-	-	-	-	-	-
Feb-08	-	-	-	-	-	-	-	-	-	-	-	-	
May-08	-	-	-	-	-	-	-	-	-	-	-	-	

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 Reserve Silica, Ravensdale, Washington

SAMPLE LOCATION ID	DATE SAMPLED	General Wet Chemistry				Dissolved Metals (mg/L)								
		Bicarbonate as Calcium Carbonate (mg/L)	Chloride (mg/L)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Barium	Cadmium	Calcium	Lead	Magnesium	Sodium	Zinc	
MWB-4DDSP	Mar-02	464	2	-	615	-	-	-	130	-	250	22	-	
	Jun-02	390	4	-	465	-	-	-	105	-	52	15	-	
	Sep-02	376	2	-	444	-	-	-	113	-	59	18	-	
	Dec-02	370	1.35	-	410	0.0034	0.121	<0.0005	82.2	<0.0005	36.5	11	0.00192	
	Mar-03	390	1.48	-	420	-	-	-	90	-	40	12.7	-	
	May-03	400	1.54	-	500	-	-	-	87.1	-	40	13.1	-	
	Aug-03	390	1.28	-	430	-	-	-	87.4	-	39.5	13.2	-	
	Nov-03	367	1.47	-	460	0.00638	0.112	<0.0005	79.8	0.00108	36.8	13.4	0.00615	
	Feb-04	400	1.61	-	500	-	-	-	92.3	-	41.8	13.3	-	
	May-04	378	1.39	-	443	-	-	-	86	-	38.9	13.3	-	
	Aug-04	355	1.41	-	427	-	-	-	83.5	-	38.1	13.3	-	
	Nov-04	367	1.22	-	472	0.00542	0.129	<0.0005	89.8	<0.001	40.6	15.1	0.0108	
	Feb-05	395	1.25	-	467	-	-	-	94.8	-	43.5	16.8	-	
	May-05	406	1.49	-	446	-	-	-	89.1	-	40.2	12.4	-	
	Aug-05	376	2.15	-	484	-	-	-	92.1	-	40.1	14.1	-	
	Nov-05	347	1.74	-	470	0.00568	0.123	<0.001	93.8	<0.001	41.0	12.4	<0.01	
	Feb-06	394	2.30 J	-	450 J	-	-	-	91.5	-	42.9	14.3	-	
	May-06	372	2.13	-	480	-	-	-	92.0	-	42.2	13.6	-	
	Aug-06	406	1.60	-	460	-	-	-	90.4	-	41.9	14.0	-	
	Nov-06	-	-	-	-	-	-	-	-	-	-	-	-	
	Feb-07	-	-	-	-	-	-	-	-	-	-	-	-	
	May-07	-	-	-	-	-	-	-	-	-	-	-	-	
	Aug-07	-	-	-	-	-	-	-	-	-	-	-	-	
	Nov-07	-	-	-	-	-	-	-	-	-	-	-	-	
	Feb-08	-	-	-	-	-	-	-	-	-	-	-	-	
	May-08	-	-	-	-	-	-	-	-	-	-	-	-	
	MWB-5DSP	Dec-06	411	53.0	-	630	0.00446	0.0742	<0.001	97.7	<0.001	51.8	96.1	<0.01
		Jan-07	415	15.2	-	540	0.00519	0.157	<0.001	100	<0.001	49.2	37.6	<0.01
Feb-07		424	13.5	-	530	0.00519	0.168	<0.001	105	<0.001	50.4	31.7	<0.01	
Mar-07		456	6.53	-	550 J	0.00491	0.181	<0.001	104	<0.001	49.6	27.3	<0.01	
Apr-07		418	6.71	-	560	0.00475	0.192	<0.001	104	<0.001	49.2	29.4	<0.01	
May-07		415	4.41	-	540	0.00490	0.192	<0.001	94.9	<0.001	46.2	29.6	<0.01	
Jun-07		444	4.62	-	600 J	0.00437	0.225	<0.001	116	<0.001	54.1	32.2	<0.01	
Jul-07		424	5.45	-	550	0.00491	0.211	<0.001	113	<0.001	53.7	28.0	<0.01	
Aug-07		434	4.14	-	590	0.00446	0.200	<0.001	106	<0.001	51.2	28.8	<0.01	
Sep-07		423	5.29	-	590	0.00492	0.206	<0.001	120	<0.001	56.9	33.0	0.0144	
Oct-07		393	6.5	-	620 J	0.00443	0.194	<0.001	108	<0.001	51.5	40.0	<0.01	
Nov-07		433	5.15	-	560 J	0.00490	0.233	<0.001	112	<0.001	57.8	30.8	<0.01	
Dec-07		430	5.97	6.88 J	820	0.00409	0.196	<0.001	102	<0.001	52.0	30.5	<0.01	
Jan-08		421	5.43	-	550	0.00472	0.202	<0.001	106	<0.001	52.8	26.2	<0.01	
Feb-08		433	4.87	-	550	0.00450	0.212 J	<0.001	113	<0.001	57.0	26.4	<0.01	
Mar-08		433	6.14 J	-	550	0.00521	0.197	<0.001	108	<0.001	53.2	20.9 J	<0.01	
Apr-08		433	7.10	-	550 J	0.00488	0.202	<0.001	109	<0.001	52.1	21.1	<0.01	
May-08		435	7.18	-	580 J	0.00534	0.221	<0.001	121	<0.001	57.3	17.5	<0.01	
Jun-08		470	8.52	-	580 J	0.00445	0.201	<0.001	106	<0.001	48.0	16.5 J	<0.01	
MWB-6DSP		Dec-06	229	19.6	-	300	0.00537	<0.01	<0.001	54.9	<0.001	28.8	28.7	<0.01
		Feb-07	300	11.6	-	330	0.00601	<0.01	<0.001	63.1	<0.001	32.9	19.8	<0.01
		May-07	372	14.6	-	480	0.0101	<0.01	<0.001	77.7	<0.001	41.2	22.1	<0.01
		Aug-07	400	9.62	-	470	0.00325	0.0653	<0.001	85.6	<0.001	47.0	17.7	<0.01
		Nov-07	392	8.50	-	440 J	0.00282	0.0868	<0.001	93.5	<0.001	51.5	20.2	<0.01
		Feb-08	337	6.07	-	380	0.00268	0.0761 J	<0.001	74.5	<0.001	43.5	17.6	<0.01
		May-08	320	7.29	-	380 J	0.00240	0.0653	<0.001	70.9	<0.001	38.1	16.2	<0.01
		Portal	Mar-02	280	8.0	-	586	-	-	-	78.0	-	53.0	45.0
Jun-02			330	10.0	-	583	-	-	-	80.0	-	51.0	46.0	-
Sep-02	296		11.0	-	651	-	-	-	88.0	-	62.0	62.0	-	
Dec-02	330		9.21	-	570	0.00444	0.0666	<0.0005	70.8	<0.0005	40.2	32.1	0.0018	
Mar-03	320		8.18	-	530	-	-	-	66.3	-	38.1	38.3	-	
May-03	340		7.96	-	590	-	-	-	70.1	-	41.8	40.5	-	
Aug-03	370		10.0	-	630	-	-	-	80.1	-	46	50.6	-	
Nov-03	322		9.99	-	592	0.00333	0.0621	<0.0005	72.0	<0.0005	41.6	42.5	0.00435	
Feb-04	340		6.84	-	560	-	-	-	70.4	-	42.6	33.3	-	
May-04	341		9.9	-	615	-	-	-	81.7	-	46.6	49.9	-	
Aug-04	335		10.6	-	601	-	-	-	74.2	-	42.8	51.7	-	
Nov-04	345		9.68	-	656	0.00341	0.078	<0.0005	86.1	<0.001	48.4	66.1	0.00517	
Feb-05	341		7.05	-	541	-	-	-	71.2	-	42.2	55.4	-	
May-05	354		8.46	-	548	-	-	-	64.7	-	37.8	37.8	-	
Aug-05	362		10.1	-	644	-	-	-	75.8	-	42.9	47.9	-	
Nov-05	382		9.23	-	640	0.00315	0.0712	<0.001	77.8	<0.001	43.5	45.8	<0.01	
Feb-06	314		5.28 J	-	450 J	-	-	-	61.7	-	38.2	26.1	-	
May-06	341		8.84	-	570	-	-	-	73.9	-	43.8	41.0	-	
Aug-06	362		9.12	-	640	-	-	-	72.6	-	43.4	48.9	-	
Nov-06	302		8.49	-	510	0.00245	0.0680	<0.001	70.0	<0.001	41.3	40.8	<0.01	
Feb-07	324		6.49 J	-	510	-	-	-	67.3	-	41.3	35.3	-	
May-07	331		8.19	-	510	-	-	-	64.8	-	40.0	38.9	-	
Aug-07	338		9.38	-	560	-	-	-	69.0	-	41.0	44.3	-	
Nov-07	323		8.76	7.06 J	520	0.00317	0.0822	<0.001	72.3	<0.001	42.8	39.4	<0.01	
Feb-08	301		5.34	-	420	-	-	-	61.8	-	41.7	30.5	-	
May-08	310		7.28	-	480 J	-	-	-	65.5	-	40.0	31.3	-	
Preliminary Standard <sup>a</sup>	-		250	-	500	to be determined <sup>b</sup>	1	0.01	-	0.05	-	-	5	

Note: Higher result between primary and duplicate sample shown beginning with June 2002 data.  
 Calcium, magnesium, and sodium results prior to May 2003 may be representative of total rather than the dissolved fraction.  
 Data validation codes shown beginning with 2008 data.  
 Wells MW-1S and MW-1D decommissioned/abandoned and replaced with MWB-1SDSP and MWB-1DDSP in December 2002.

- Not measured or not available.  
 < Analyte not detected above the reporting limit shown.  
 a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest.  
 b This standard will be determined following sampling and analysis of site background wells.  
 J Data validation code: Estimated value.  
 mg/L Milligram per liter.  
 U Data validation code: Not detected.

Summary of Shallow Groundwater Sampling Results, Analytical Laboratory Data  
 Lower Disposal Area  
 Reserve Silica, Ravensdale, Washington

Monitor Well ID	Date Sampled	General Wet Chemistry				Total Metals (mg/L)				Dissolved Metals (mg/L)							
		Bicarbonate as Calcium Carbonate (mg/L)	Chloride (mg/L)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese	Arsenic	Barium	Calcium	Iron	Lead	Magnesium	Manganese	Sodium
MW-1A	07/15/05	245	65.8	-	664	0.0107	8.93	<0.005	0.786	0.00847	0.0748	48.5	<0.1	<0.002	24.9	0.602	72.2
	11/09/05	474	12.9	-	680	0.0041	1.12	0.00168	0.0635	0.00345	0.122	61.0	<0.15	<0.001	29.8	0.0286	84.4
	02/15/06	279	4.48 J	-	470 J	0.00357	0.243	<0.001	<0.01	0.00325	0.0489	30.3	<0.15	<0.001	12.4	<0.01	64.2
	05/17/06	265	98.5	-	600	0.00673	2.39	0.00161	0.516	0.00518	0.0563	43.8	<0.15	<0.001	23.0	0.316	65.5
	08/23/06	207	4.26	-	340	0.00571	6.70	0.00301	0.133	0.00170	0.0565	39.3	<0.15	<0.001	20.5	0.0234	24.2
	11/14/06	262	3.86	-	550	0.00410	0.449	<0.001	<0.01	0.00307	0.0736	31.1	<0.15	<0.001	14.4	0.0131	47.1
	02/14/07	172	3.35	-	260	0.00292	0.831	<0.001	0.0160 J	0.00200	0.0412	24.1	<0.15	<0.001	10.9	0.0116	26.9
	05/30/07	207	4.64	-	320	0.00222	<0.15	<0.001	<0.01	0.00248	0.0542	41.2	<0.15	<0.001	19.8	<0.01	25.7
	08/27/07	165	3.91	-	260 J	0.00224	1.49	<0.001	0.0414	0.00187	0.0455	34.2	<0.15	<0.001	17.1	0.0189	19.1
	11/29/07	223	5.72	6.53 J	340 J	0.00197	0.236	<0.001	0.0105	0.00232	0.0622	61.2	<0.15	<0.001	30.0	<0.01	26.2
02/27/08	197	3.42	6.93 J	320	0.00364	0.665	<0.001	0.0101	0.00258	0.0497 J	23.2	<0.15	<0.001	11.6	<0.01	33.1	
05/20/08	171	4.68	-	290 J	0.00336 J	1.93	0.00111	0.0427	0.00224	0.0433	33.7	<0.15	<0.001	15.8	0.0253	19.9	
MW-2A	07/15/05	330	12.0	-	606	<0.005	1.53	<0.005	0.253	<0.002	0.0473	43.6	<0.1	<0.002	26.9	0.209	56.3
	11/09/05	335	5.93	-	550	0.00142	<0.15	<0.001	0.425	0.00131	0.0546	50.8	<0.15	<0.001	32.6	0.449	46.9
	02/15/06	327	6.02 J	-	520 J	0.00127	<0.15	<0.001	0.179	0.00106	0.0336	38.4	<0.15	<0.001	23.6	0.134	49.6
	05/17/06	338	6.08	-	490	0.00113	<0.15	<0.001	0.121	0.00113	0.0367	38.7	<0.15	<0.001	27.8	0.0596	51.2
	08/23/06	382	4.18	-	570	0.00289	5.09	0.00145	0.807	0.00154	0.0453	47.3	<0.15	<0.001	30.6	0.230	54.3
	11/14/06	296	4.17	-	460	0.00201	0.393	<0.001	0.0992	0.00136	0.0366	36.6	<0.15	<0.001	21.8	0.0553	36.9
	02/14/07	284	3.88	-	380	0.00164	1.31	<0.001	0.230 J	0.00107	0.0304	37.4	<0.15	<0.001	22.5	0.165	39.1
	05/30/07	302	3.57	-	480	0.00138	0.764	<0.001	0.358	0.00117	0.0404	43.1	<0.15	<0.001	26.2	0.187	41.9
	08/27/07	362	3.40	-	590 J	0.00388	9.71	0.00247	0.764	0.00109	0.0434	44.7	<0.15	<0.001	29.7	0.116	51.0
	11/29/07	330	4.64	6.89 J	490	0.00393	14.4	0.00297	1.10	0.00103	0.0664	71.0	<0.15	<0.001	41.4	0.126	38.7
02/27/08	272	3.75	7.52 J	400	0.00747	18.1	0.00540	0.700	0.00109	0.0314 J	38.4	<0.15	<0.001	23.8	0.123	34.8	
05/20/08	290	3.94	-	420 J	0.00662 J	18.8	0.00521	0.901	0.00121	0.0387	44.5	<0.15	<0.001	26.3	0.0835	32.2	
MW-3A	07/15/05	545	111	-	922	<0.005	1.21	<0.005	0.657	0.00241	0.0431	99.4	<0.1	<0.002	39.8	0.628	170
	11/10/05	790	15.5	-	960	0.0113	4.48	<0.001	3.15	0.0105	0.0537	138	4.80	<0.001	49.8	3.60	155
	02/15/06	742	17.0 J	-	930 J	0.00829	5.54	<0.001	2.94	0.00666	0.0490	110	4.29	<0.001	39.3	2.85	156
	05/16/06	699	13.4	-	910	0.00948	7.52	<0.001	3.18	0.0101	0.0411	116	6.56	<0.001	41.8	3.38	132
	08/22/06	775	12.5	-	900	0.0112	8.67	<0.001	2.66	0.0121	0.0720	120	7.06	<0.001	46.0	2.85	156
	11/13/06	748	13.8	-	910	0.00575	4.95	<0.001	2.64	0.00573	0.0666	118	4.75	<0.001	41.4	2.69	152
	02/16/07	701	12.6	-	770	0.00392	3.45	<0.001	2.43 J	0.00374	0.0560	115	3.77 J	<0.001	40.7	2.61 J	169
	05/30/07	666	11.4	-	790	0.00402	5.46	<0.001	2.23	0.00520	0.0649	98.6	5.84	<0.001	34.9	2.22	145
	08/27/07	755	13.2	-	1,100 J	0.00709	9.68	<0.001	2.68	0.00874	0.109	101	9.16	<0.001	35.0	2.32	154
	11/28/07	723	15.6	-	730	0.00389	5.81	<0.001	2.30	0.00424	0.0893	114	5.46	<0.001	39.6	2.27	155
02/27/08	702	14.0	7.01 J	860	0.00891	9.2	<0.001	2.44	0.00976	0.0843 J	102	5.99	<0.001	39.4	2.49	162	
05/19/08	672	11.6	-	820 J	0.00818 J	11.2	<0.001	2.35	0.00664	0.0890	90.2	8.74	<0.001	31.5	2.33	134	
MW-4A	07/15/05	224	55.7	-	490	<0.005	0.53	<0.005	0.403	<0.002	0.0224	68.8	<0.1	<0.002	21.6	0.426	49
	11/10/05	184	2.96	-	290	<0.001	<0.15	<0.001	0.0919	<0.001	<0.01	57.1	<0.15	<0.001	19.2	0.0991	13.9
	01/19/06	178	2.90	-	290 J	<0.001	<0.15	<0.001	0.0649	<0.001	<0.01	43.8	<0.15	<0.001	15.3	0.0908	10.6
	02/15/06	128	2.45 J	-	220 J	<0.001	<0.15	<0.001	0.0313	<0.001	<0.01	37.0	<0.15	<0.001	12.5	0.0341	10.7
	03/15/06	133	2.84 J	-	210 J	<0.001	<0.15	<0.001	0.0707	<0.001	<0.01	37.9	<0.15	<0.001	12.9	0.0650	10.6
	04/07/06	138	2.59	-	220	<0.001	<0.15	<0.001	0.0686	<0.001	<0.01	42.7	<0.15	<0.001	15.2	0.0724	11.5
	05/16/06	131	2.89	-	220	<0.001	<0.15	<0.001	0.0481	<0.001	<0.01	31.4	<0.15	<0.001	11.0	0.0376	11.0
	06/23/06	129	2.04	-	200	<0.001	<0.15	0.00252	0.0509	<0.001	<0.01	37.0	<0.15	0.00264	13.0	0.0638	11.6
	07/20/06	154	2.46	-	120	<0.001	<0.15	<0.001	0.0879	<0.001	<0.01	46.9	<0.15	<0.001	17.2	0.104	16.2
	08/22/06	189	2.50	-	280	<0.001	0.182	<0.001	0.129	<0.001	<0.01	54.3	<0.15	<0.001	20.6	0.151	13.9
	09/26/06	190	2.52	-	290	<0.001	<0.15	<0.001	0.0597	<0.001	<0.01	59.9	<0.15	<0.001	22.0	0.0835	15.2
	10/26/06	194	2.39	-	320	<0.001	<0.15	<0.001	0.0550	<0.001	<0.01	70.4	<0.15	<0.001	24.9	0.216	15.6
	11/13/06	181	2.21	-	280	<0.001	<0.15	<0.001	0.0222	<0.001	<0.01	52.8	<0.15	<0.001	19.3	0.0442	12.8
	12/20/06	142	1.70	-	250	<0.001	0.761	<0.001	0.0455	<0.001	<0.01	54.0	<0.15	<0.001	19.4	0.0568	12.8
	01/23/07	155	1.78	-	220	<0.001	0.172	<0.001	0.0819	<0.001	<0.01	60.5	<0.15	<0.001	22.8	0.180	10.7
	02/14/07	144	1.70	-	210	<0.001	<0.15	<0.001	0.0373 J	<0.001	<0.01	39.8	<0.15	<0.001	14.7	0.0398	9.66
	03/27/07	152	1.70	-	210 J	<0.001	<0.15	<0.001	0.102	<0.001	<0.01	69.2	<0.15	<0.001	26.9	0.229	10.8
	04/17/07	129	1.55	-	190	<0.001	0.600	<0.001	0.0469	<0.001	<0.01	49.8	<0.15	<0.001	18.1	0.222	10.4
	05/30/07	120	1.52	-	180	<0.001	<0.15	<0.001	0.0176	<0.001	<0.01	35.2	<0.15	<0.001	13.1	0.0246	10.2
06/20/07	162	1.68	-	240 J	<0.001	<0.15	<0.001	0.0344	<0.001	<0.01	40.5	<0.15	<0.001	13.9	0.0321	11.6	
07/31/07	167	1.88	-	250	<0.001	<0.15	<0.001	0.0187	0.00129	<0.01	52.9	<0.15	<0.001	18.6	0.0307	13.9	
08/29/07	190	2.03	-	280 J	<0.001	<0.15	<0.001	0.0605	<0.001	<0.01	53.4	<0.15	<0.001	19.7	0.0490	14.0	
09/27/07	216	2.37	-	300	<0.001	<0.15	<0.001	0.0667	<0.001	<0.01	69.0	<0.15	<0.001	25.3	0.117	12.0	
10/26/07	199	1.7	-	310 J	<0.001	<0.15	<0.001	0.0124	<0.001	<0.01	62.6	<0.15	<0.001	22.7	0.0117	12	
11/29/07	186	1.86	6.05 J	270	<0.001	<0.15	<0.001	0.0134	<0.001	<0.01	57.6	<0.15	<0.001	20.6	0.0164	12.5	
MW-4A	12/12/07	174	1.65	6.13 J	260	<0.001	<0.15	<0.001	0.0411	<0.001	<0.01	45.7	<0.15	<0.001	17.3	0.0392	11.0
	01/24/08	163	1.63	-	250	<0.001	<0.15	<0.001	0.0373	<0.001	<0.01	44.0	<0.15	<0.001	16.4	0.0376	11.7
	02/28/08	143	1.39	6.20 J	220	<0.001	<0.15	<0.001	0.0273	<0.001	<0.01 UJ	40.7	<0.15	<0.001	15.8	0.0275	10.9
	05/19/08	135	1.66	-	200 J	<0.001 UJ	<0.15	<0.001	0.0211	<0.001	<0.01	38.8	<0.15	<0.001	14.1	0.0191	9.29
MW-5A	07/15/05	386	9.32	-	600	0.06	142	0.0489	4.67	0.00201	0.0881	35.2	<0.1	<0.002	16.7	1.13	52.2
	11/10/05	536	5.41	-	800	0.00998	1.04	0.00213	0.0306	0.0084	0.146	36.5	<0.15	<0.001	22.0	0.0183	78.7
	02/15/06	282	3.71 J	-	520 J	0.0245	0.85										

Summary of Shallow Groundwater Sampling Results, Analytical Laboratory Data  
 Lower Disposal Area  
 Reserve Silica, Ravensdale, Washington

Monitor Well ID	Date Sampled	General Wet Chemistry				Total Metals (mg/L)				Dissolved Metals (mg/L)							
		Bicarbonate as Calcium Carbonate (mg/L)	Chloride (mg/L)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese	Arsenic	Barium	Calcium	Iron	Lead	Magnesium	Manganese	Sodium
	05/20/08	330	4.19	-	480 J	0.00624 J	2.59	0.00137	0.0702	0.00567	0.0645	31.7	<0.15	<0.001	14.6	0.0124	37.8
MW-6A	07/15/05	262	32.7	-	612	<0.005	5.39	<0.005	0.617	<0.002	0.0499	28.9	<0.1	<0.002	15.9	0.349	64.2
	11/10/05	262	6.19	-	460	0.00224	0.249	<0.001	0.42	0.00216	0.0445	51.1	<0.15	<0.001	28.3	0.451	30.8
	02/15/06	245	7.09 J	-	550 J	0.00782	0.460	<0.001	0.687	0.00754	0.0589	36.9	<0.15	<0.001	18.1	0.616	53.3
	05/17/06	321	6.12	-	550	0.0109	2.54	0.00102	0.924	0.0110	0.0516	33.8	<0.15	<0.001	17.4	0.106	51.3
	08/23/06	372	6.57	-	810	0.00664	13.5	0.00388	1.11	0.00134	0.0717	55.8	<0.15	<0.001	30.9	0.682	53.8
	11/14/06	272	4.06	-	500	0.00256	0.432	<0.001	0.0359	0.00171	0.0626	49.0	<0.15	<0.001	23.2	0.0163	51.5
	02/16/07	271	4.98	-	420	0.00598	12.1	0.00322	0.654 J	0.00160	0.0348	53.9	<0.15 UJ	<0.001	30.9	0.171 J	31.3
	05/30/07	508	6.24	-	740	0.0273	6.67	0.00383	0.422	0.0162	0.0806	38.8	<0.15	<0.001	18.4	0.157	93.7
	08/29/07	381	4.34	-	620 J	0.0115	21.3	0.00804	1.42	0.00141	0.0823	53.8	<0.15	<0.001	28.3	0.352	51.8
	11/29/07	269	8.35	6.98 J	420	0.0136	46.3	0.00929	1.28	0.00178	0.0543	58.5	<0.15	<0.001	31.5	0.176	31.8
	02/27/08	239	4.06	7.39 J	410	0.0233	55.1	0.0151	1.56	0.00147	0.0298 J	45.6	<0.15	<0.001	27.4	0.0220	25.5
05/20/08	351	4.32	-	540 J	0.0280 J	49.6	0.0147	1.68	0.00818	0.0663	29.3	0.170	<0.001	13.8	0.0410	53.6	
Preliminary Standard <sup>a</sup>		-	250		500	-	-	-	-	to be determined <sup>b</sup>	1	-	0.3	0.05	-	0.05	-

- Note: Higher result between primary and duplicate sample shown. Data validation codes shown beginning with 2006 data.
- Not available.
  - J Data validation code. Estimated value.
  - mg/L Milligrams per liter.
  - UJ Data validation code. Estimated non-detect value (not detected above the reporting limit shown).
  - < Analyte not detected above the reporting limit shown.
  - a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest.
  - b This standard will be determined following sampling and analysis of site background wells.

Summary of Surface Water Sampling Results, Analytical Laboratory Data  
Lower Disposal Area  
Reserve Silica, Ravensdale, Washington

	Units	Analytical Method	2-1-05	3-9-05	4-5-05	5-10-05	6-7-05	7-15-05 <sup>a</sup>	7-15-05 <sup>b</sup>	8-9-05 <sup>a</sup>	8-9-05 <sup>b</sup>	9-14-05 <sup>a</sup>	9-14-05 <sup>b</sup>	10-5-05	11-9-05	12-09-05	1-19-06	2-16-06	3-15-06	4-7-06	5-16-06	6-23-06	7-20-06	8-22-06	9-26-06	10-26-06	11-15-06	12-20-06					
<b>Still Well</b>																																	
<b>General Wet Chemistry</b>																																	
Bicarbonate as Calcium Carbonate	mg/L	EPA 310.1 or SM 2320B	0	-	-	0	-	-	-	<5	0	-	-	-	<5	-	-	<5	-	-	-	<5	-	-	-	<5	-	-	-				
Total Dissolved Solids	mg/L	EPA 160.1	2,860	2,860	2,900	2,810	2,490	3,800	2,540	3,500	2,820	3,600	2,830	3,020	3,400	2,800	1,900	J	3,200	J	3,300	J	3,400	3,500	3,600	4,300	3,800	3,600	3,400	2,600	J		
pH	standard units	EPA 150.1	12.58	12.53	12.32	12.57	12.51	12.6	12.61	12.6	12.46	12.5	12.61	12.60	12.6	12.6	12.6	J	12.6	12.6	12.6	12.6	12.6	12.7	12.7	12.5	12.6	12.5	12.8				
Chloride	mg/L	EPA 300.0	11	-	-	11.4	-	-	-	13.6	15.6	-	-	-	16.0	-	-	9.54	J	-	-	9.88	-	-	17.6	-	-	13.4	-				
<b>Total Metals</b>																																	
Iron	mg/L	EPA 6010	0.266	1.92	0.143	0.43	0.17	0.51	0.458	0.962	1.49	13.5	8.96	2.13	0.898	0.603	0.922	1.41	J	0.188	<0.15	<0.15	0.281	0.232	0.290	3.96	2.74	0.582	J	<0.15			
Manganese	mg/L	EPA 6010	<0.01	0.0377	<0.02	<0.02	<0.02	0.015	<0.02	0.0272	0.032	1.92	0.204	0.0577	0.0195	0.0135	0.0195	0.0282	J	<0.01	<0.01	<0.01	0.0570	0.0542	0.0582	0.147	0.142	0.0580	0.0621	<0.01			
Arsenic	mg/L	EPA 6020	0.051	0.101	0.0596	0.0549	0.015	0.0773	0.0786	0.0958	0.113	0.455	0.105	0.135	0.0692	0.0596	0.0696	0.0710		0.0694	0.0618												
Barium	mg/L	EPA 6020	-	0.321	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Lead	mg/L	EPA 6020	0.00727	0.0246	0.0145	0.0157	0.00753	0.0143	0.0148	0.0134	0.0191	0.798	0.0726	0.112	0.0299	0.0376	0.0388	0.0459		0.0233		0.0180		0.0183	0.0178	0.0174	0.0104	0.110	0.0686	0.0331	J	0.0164	
<b>Dissolved Metals</b>																																	
Calcium	mg/L	EPA 6010	186	-	-	223	-	-	-	52.7	93.8	-	-	155	-	-	-	216	-	-	-	249	-	-	150	-	-	193	-	-			
Iron	mg/L	EPA 6010	<0.1	0.228	<0.1	<0.1	<0.1	<0.15	<0.1	0.288	<0.1	<0.75	0.363	<0.1	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.171	<1.5	<0.15	<0.15	<0.15			
Magnesium	mg/L	EPA 6010	<1	-	-	0.0427	-	-	-	<0.5	<1	<1	<1	4.09	-	-	-	<0.5	-	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-			
Manganese	mg/L	EPA 6010	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.02	0.0101	<0.02	<0.05	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0154	<0.1	<0.01	<0.01	<0.01			
Sodium	mg/L	EPA 6010	548	-	-	467	-	-	-	360	398	-	-	490	-	-	-	285	-	-	-	296	-	-	388	-	-	369	-	-			
Arsenic	mg/L	EPA 6020	0.0499	0.115	0.0556	0.0554	<0.005	0.00272	0.0398	0.12	0.0915	0.118	0.115	0.0852	0.074	0.0145	0.0152	J	0.0134	J	0.00236	0.0152	0.00404	0.0526	0.0193	0.144	0.123	0.161	0.0306	J	0.0526		
Barium	mg/L	EPA 6020	-	0.112	-	0.404	-	-	-	0.169	0.272	-	-	-	0.342	-	-	0.343	-	-	-	0.116	-	-	0.344	-	-	0.431	-	-			
Lead	mg/L	EPA 6020	0.00552	0.0147	0.0116	0.0125	<0.005	0.00607	0.00757	0.0109	0.00953	0.0112	0.0144	0.0119	<0.01	0.00107	<0.001	0.00189		0.00250	J	0.00283	0.00159	0.0165	0.00357	0.00914	J	0.00463	0.0195	0.00450	0.0130		
<b>Infiltration #1</b>																																	
<b>General Wet Chemistry</b>																																	
Bicarbonate as Calcium Carbonate	mg/L	EPA 310.1 or SM 2320B	133	-	-	185	-	-	-	493	442	-	-	422	-	-	-	255	-	-	-	295	-	-	348	-	-	222	-	-			
Total Dissolved Solids	mg/L	EPA 160.1	874	960	800	844	804	1,100	874	1,000	1,030	790	806	736	970	980	470	J	530	J	530	J	780	950	920	980	760	820	760	500	680		
pH	standard units	EPA 150.1	9.75	9.46	9.49	9.79	9.53	9.54	9.45	9.22	9.05	9.04	9.03	8.73	9.28	9.54	9.77		8.99		9.19		9.72	9.65	9.35	8.79	9.15	8.76	8.59	9.25	9.83		
Chloride	mg/L	EPA 300.0	5.51	-	-	4.32	-	-	-	6.96	6.74	-	-	-	6.92	-	-	5.31	J	-	-	5.87	-	-	3.93	-	-	4.14	-	-			
<b>Total Metals</b>																																	
Iron	mg/L	EPA 6010	1.84	1.54	1.48	7.8	6.06	3.85	3.28	2.56	2.35	6.00	4.81	1.93	5.39	1.37	2.84	2.30	1.18	1.19	1.00	3.77	11.6	5.24	15.8	7.25	0.641	1.24					
Manganese	mg/L	EPA 6010	0.0974	0.0551	0.0522	0.227	0.162	0.116	0.109	0.102	0.103	0.220	0.208	0.119	0.135	0.05	0.0914	0.194	0.101	0.0523	0.0525	0.100	0.274	0.138	0.672	0.209	0.0317	0.0564					
Arsenic	mg/L	EPA 6020	0.172	0.0982	0.0682	0.1	0.0991	0.104	0.108	0.147	0.146	0.122	0.12	0.0758	0.0571	0.0741	0.0458	0.0170	0.0258	0.0614	0.0745	0.0812	0.122	0.126	0.118	0.0844	0.0237	0.0616					
Barium	mg/L	EPA 6020	-	0.0369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Lead	mg/L	EPA 6020	0.0148	0.00691	0.00796	0.0317	0.0225	0.0155	0.0147	0.0138	0.0129	0.0182	0.0181	0.00871	0.0107	0.00575	0.00786	0.00347	0.00324	0.00487	0.00413	0.0183	0.0340	0.0288	0.0564	0.0163	0.00425	0.00392					
<b>Dissolved Metals</b>																																	
Calcium	mg/L	EPA 6010	9.33	-	-	10.2	-	-	-	11.9	9.02	-	-	12.3	-	-	-	50.6	-	-	-	10.5	-	-	16.1	-	-	20.5	-	-			
Iron	mg/L	EPA 6010	0.234	0.47	0.574	0.79	0.722	<0.3	0.533	0.792	0.339	<0.75	0.877	0.329	0.194	0.179	0.181	<0.15	0.167	0.344	0.462	0.228	0.287	0.734	0.616	<1.5	0.174	0.269					
Magnesium	mg/L	EPA 6010	4.15	-	-	3.74	-	-	-	4.59	3.57	-	4.21	4.98	5.41	-	-	31.7	-	-	5.01	-	-	6.09	-	-	9.32	-	-				
Manganese	mg/L	EPA 6010	0.0249	0.0321	<0.02	0.0462	0.0327	0.0534	<0.02	0.0499	0.0308	<0.05	<0.02	0.0263	0.0295	0.0399	0.0402	0.0119	0.0791	0.0483	0.0505	0.0366	0.0285	0.0237	0.0558	<0.1	0.0367	0.0549					
Sodium	mg/L	EPA 6010	147	-	-	108	-	-	-	119	117	-	-	110	-	-	-	42.1	-	-	79.2	-	-	75.5	-	-	56.5	-	-				
Arsenic	mg/L	EPA 6020	0.0849	0.0962	0.0623	0.0765	0.0843	0.0925	0.0999	0.123	0.14	0.11	0.118	0.0893	0.046	0.0646	0.0407	0.0133	0.0225	0.0638	0.0779	0.0707	0.108	0.116	0.0758	0.0683	0.0208	0.0513					
Barium	mg/L	EPA 6020	-	0.0288	-	0.027	-	-	-	0.0293	0.0355	-	-	-	-	-	-	0.0534	-	-	0.0226	-	-	0.0326	-	-	0.0313	-	-				
Lead	mg/L	EPA 6020	0.00499	0.00392	0.00321	<0.005	<0.005	0.00414	0.00382	0.0051	0.00612	0.00354	0.00518	0.00283	<0.01	0.00311	0.00229	<0.001	<0.001	0.00324	0.00249	0.00365	0.00348	0.00384	0.00306	0.00166	0.00229	0.00267					
<b>Weir</b>																																	
<b>General Wet Chemistry</b>																																	
Bicarbonate as Calcium Carbonate	mg/L	EPA 310.1 or SM 2320B	142	-	-	335	-	-	-	dry	dry	dry	dry	2,800	2,730	2,150	1,900	1,700	1,000	J	65.7	-	-	170	-	-	dry	-	-	230	-		
Total Dissolved Solids	mg/L	EPA 160.1	1,440	1,630	1,420	1,210	1,570	3,200	1,990	dry	dry	dry	dry	2,800	2,730	2,150	1,900	1,700	1,000	J	1,400	J	1,300	J	1,500	2,000	1,400	2,300	dry	2,900	2,300	1,200	1,200
pH	standard units	EPA 150.1	10.37	10.11	10.18	9.85	10.18	10.3	10.44	dry	dry	dry	dry	10.0	10.16	9.97	9.88	10.4	10.4	10.8	10.7	10.4	10.6	10.6	10.8	dry	9.94	9.45	10.1	10.5			
Chloride	mg/L	EPA 300.0	8.28	-	-	6.8	-	-	-	dry	dry	dry	dry	-	-	-	11.2	-	-	-	8.05	J	-	11.0	-	-	dry	-	-	7.42	-		
<b>Total Metals</b>																																	
Iron	mg/L	EPA 6010	1.04	1.89	1.24	45.1	2.23	2.38	2.09	dry	dry	dry	dry	2.19	2.83	1.97	1.76	1.58	1.39	1.63	1.93	1.71	2.										

Summary of Surface Water Sampling Results, Analytical Laboratory Data  
Lower Disposal Area  
Reserve Silica, Ravensdale, Washington

	Units	Analytical Method	1-24-07	2-12-07	3-27-07	04-18-07	5-31-2007	06-20-07	7-31-07	8-29-07	9-27-07	10-26-07	11-30-07	12-12-07	1-24-08	2-28-08	3-25-08	4-29-08	5/20/08	6/18/08	Preliminary Standard <sup>d</sup>
<b>Still Well</b>																					
<b>General Wet Chemistry</b>																					
Bicarbonate as Calcium Carbonate	mg/L	EPA 310.1 or SM 2320B	-	<5	-	-	<5	-	-	<5	-	-	<5	-	-	<5	UJ	-	-	2,420	-
Total Dissolved Solids	mg/L	EPA 160.1	2,500 J	3,400	2,900 J	3,300	2,800	4,300 J	6,000	4,600 J	2,800	3,300 J	2,200	4,100	2,500	2,900	3,400	3,000 J	3,400	3,200 J	500
pH	standard units	EPA 150.1	12.4	12.5	12.5 J	12.4 J	12.5 J	12.4 J	12.6 J	12.6 J	12.5 J	12.3 J	12.4 J	12.4 J	11.8 J	12.4 J	12.5 J	12.5 J	12.5 J	12.4 J	6.5-8.5
Chloride	mg/L	EPA 300.0	-	12.6 J	-	-	13.3 J	-	-	16.6	-	-	12.8	-	-	13.6	-	-	15.2	-	250
<b>Total Metals</b>																					
Iron	mg/L	EPA 6010	0.496	<0.15	0.183	0.161	1.24	0.526	0.516	4.07	7.19 J	1.90	3.39	1.56	10.8	1.41	0.379	1.57	1.29	0.526	-
Manganese	mg/L	EPA 6010	0.0109	<0.01	<0.01	<0.01	0.0258	<0.01	<0.01	0.0921	0.137 J	0.0366	0.0721	0.0322	0.227	0.0258	<0.01	0.0254	0.0218	<0.01	-
Arsenic	mg/L	EPA 6020	0.0644	0.0612	0.0589	0.0540	0.0622	0.0529	0.0729	0.116	0.178	0.124	0.170	0.106	0.123	0.0972	0.0726	0.0817	0.0824 J	0.0612	-
Barium	mg/L	EPA 6020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	EPA 6020	0.0296	0.0180	0.0168	0.0181	0.0486	0.0454	0.0332	0.150	0.141	0.0535	0.103	0.0569	0.0695	0.0430	0.0206	0.0438	0.0654	0.0387	-
<b>Dissolved Metals</b>																					
Calcium	mg/L	EPA 6010	-	252	-	-	205	-	-	159	-	-	113	-	-	198	-	-	180	-	-
Iron	mg/L	EPA 6010	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.260	0.184	<0.15	1.53	<0.15	<0.15	<0.15	<0.15	<0.15	0.3
Magnesium	mg/L	EPA 6010	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-	<0.5	-	-
Manganese	mg/L	EPA 6010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0101	<0.01	<0.01	0.0815	<0.01	<0.01	<0.01	<0.01	<0.01	0.05
Sodium	mg/L	EPA 6010	-	298	-	-	348	-	-	363	-	-	294	-	-	365	-	-	347	-	-
Arsenic	mg/L	EPA 6020	0.0586	0.0613	0.0441	0.0293	0.0485	0.0268	0.0876	0.106	0.125	0.124	0.174	0.110	0.101	0.0585	0.0743	0.0766	0.0873	0.0632	to be determined <sup>d</sup>
Barium	mg/L	EPA 6020	-	0.407	-	-	0.395	-	-	0.379	-	-	0.240	-	-	0.338 J	-	-	0.356	-	1
Lead	mg/L	EPA 6020	0.0131	0.0140	0.00181	0.00198	0.0151 J	0.00233	0.00103	0.00946	0.0154	0.0249	0.0141	0.0113	0.00974	0.0126	0.0104	0.0133	0.0151	0.0169	0.05
<b>Infiltration #1</b>																					
<b>General Wet Chemistry</b>																					
Bicarbonate as Calcium Carbonate	mg/L	EPA 310.1 or SM 2320B	-	241	-	-	302	-	-	447	-	-	343	-	-	302	-	-	505	-	-
Total Dissolved Solids	mg/L	EPA 160.1	640 J	860	540 J	1,400	1,300	1,300 J	1,200	1,400 J	970	770 J	570	520	640	510	630	670 J	820	810 J	500
pH	standard units	EPA 150.1	9.97	9.97	9.96 J	11.4 J	10.0 J	10.1 J	9.40 J	9.48 J	9.15 J	8.17 J	8.90 J	9.05 J	9.24 J	9.18 J	9.55 J	9.76 J	9.70 J	9.55 J	6.5-8.5
Chloride	mg/L	EPA 300.0	-	5.72 J	-	-	7.66	-	-	6.16	-	-	7.02	-	-	4.65	-	-	5.69	-	250
<b>Total Metals</b>																					
Iron	mg/L	EPA 6010	1.68	4.32	1.13	1.17	15.0	4.79	6.11	6.79	11.9	10.8	6.27	1.66	4.40 J	2.11	2.18	2.34	2.65	3.76	-
Manganese	mg/L	EPA 6010	0.0550	0.112	0.0483	0.0625	0.538	0.185	0.155	0.172	0.307	0.236	0.128	0.0398	0.0943 J	0.0507	0.0523	0.0709	0.106	0.0944	-
Arsenic	mg/L	EPA 6020	0.0712	0.102	0.0523	0.0766	0.190	0.152	0.142	0.158	0.178	0.0567	0.0478	0.0341	0.0495	0.0468	0.0510	0.0658	0.0901 J	0.0778	-
Barium	mg/L	EPA 6020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	EPA 6020	0.0108	0.0157	0.00509	0.0257	0.0744	0.0388	0.0287	0.0320	0.0380	0.0216	0.0126	0.00479	0.00748 J	0.00630	0.00601	0.00865	0.0171	0.0146	-
<b>Dissolved Metals</b>																					
Calcium	mg/L	EPA 6010	-	11.5	-	-	10.4	-	-	7.38	-	-	25.9	-	-	14.0	-	-	10.3	-	-
Iron	mg/L	EPA 6010	<0.15	0.642	<0.15	0.212	<0.75	<0.15	1.07	0.427 J	0.438	0.422	0.205	0.179	0.162	<0.15	0.180	0.270 J	0.334	0.486	0.3
Magnesium	mg/L	EPA 6010	-	4.23	-	-	2.98	-	-	1.96	-	-	9.90	-	-	5.78	-	-	3.77	-	-
Manganese	mg/L	EPA 6010	0.0403	0.0451	0.0336	0.0296	0.134	<0.01	0.0433	0.0277 J	0.0326	0.0602	0.0271	0.0175	0.0155	0.0159	0.0213	0.0286	0.0432	0.0222	0.05
Sodium	mg/L	EPA 6010	-	108	-	-	224	-	-	114	-	-	75.4	-	-	74.5	-	-	92.9	-	-
Arsenic	mg/L	EPA 6020	0.0661	0.0901	0.0498	0.0792	0.165	0.144	0.140	0.164	0.196	0.0429	0.0489	0.0343	0.0428	0.0413	0.0502	0.0660	0.0859	0.0776	to be determined <sup>d</sup>
Barium	mg/L	EPA 6020	-	0.0278	-	-	0.0244	-	-	0.0262	-	-	0.0481	-	-	0.0306 J	-	-	0.0299	-	1
Lead	mg/L	EPA 6020	0.00758	0.00449	0.00274	0.0105	0.00811	0.00534	0.00723	0.00701	0.00549	0.00225	0.00162	0.00167	0.00166	0.00266	0.00215	0.00287	0.00485	0.00367	0.05
<b>Weir</b>																					
<b>General Wet Chemistry</b>																					
Bicarbonate as Calcium Carbonate	mg/L	EPA 310.1 or SM 2320B	-	210	-	-	<5	-	-	830	-	-	536	-	-	293	-	-	1,040	-	-
Total Dissolved Solids	mg/L	EPA 160.1	1,100 J	1,100	840 J	2,000	2,100	2,400 J	3,300	2,300 J	1,600	1,800 J	1,600	1,500	1,000	1,200	1,100	1,100 J	1,700	1,800 J	500
pH	standard units	EPA 150.1	10.6	10.3	10.2 J	11.9 J	11.5 J	10.4 J	10.8 J	9.53 J	9.51 J	9.74 J	9.74 J	9.85 J	9.73 J	10.1 J	9.98 J	10.4 J	10.8 J	10.9 J	6.5-8.5
Chloride	mg/L	EPA 300.0	-	7.65 J	-	-	11.4	-	-	7.84	-	-	13.1	-	-	8.38	-	-	8.28	-	250
<b>Total Metals</b>																					
Iron	mg/L	EPA 6010	2.09	2.51	1.18	3.90	1.65	4.26	1.62	2.62	4.42	1.84	1.63	1.54	2.02	1.89	1.95	1.92	2.49	1.96	-
Manganese	mg/L	EPA 6010	0.0897	0.107	0.0838	0.185	0.160	0.314	0.0979	0.304	0.696	0.206	0.109	0.0910	0.177	0.0864	0.0917	0.102	0.218	0.202	-
Arsenic	mg/L	EPA 6020	0.141	0.144	0.0910	0.105	0.237	0.237	0.218	0.124	0.221	0.125	0.119	0.0957	0.0973	0.129	0.111	0.131	0.146 J	0.184	-
Barium	mg/L	EPA 6020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	mg/L	EPA 6020	0.0216	0.0130	0.00690	0.0739	0.0151	0.0664	0.0218	0.0166 J	0.00947	0.0110	0.00961	0.00862	0.00795	0.0142	0.00729	0.0160	0.0232	0.0140	-
<b>Dissolved Metals</b>																					
Calcium	mg/L	EPA 6010	-	9.42	-	-	11.0	-	-	15.0	-	-	15.3	-	-	10.1	-	-	13.7	-	-
Iron	mg/L	EPA 6010	0.359	0.283	0.289	0.830	<0.75	<0.15	1.10	0.627	1.15	0.591	0.432	0.324	0.451	0.260	0.307	0.328	0.558	0.351	0.3
Magnesium	mg/L	EPA 6010	-	2.86	-	-	3.10	-	-	16.9	-	-	4.77	-	-	3.34	-	-	2.99	-	-
Manganese	mg/L	EPA 6010	0.0729	0.0808	0.0821	0.0408	0.156	0.0309	0.0846	0.194	0.417	0.196	0.100	0.0784	0.150	0.0714	0.0683	0.0789	0.158	0.154	0.05
Sodium	mg/L	EPA 6010	-	154	-	-	401	-	-	225	-	-	219	-	-	168	-	-	170	-	-
Arsenic	mg/L	EPA 6020	0.126	0.139	0.0885	0.0975	0.275	0.255	0.236	0.129	0.132	0.132	0.135	0.105	0.0874	0.118	0.110	0.124	0.146	0.208	to be determined <sup>d</sup>
Barium	mg/L	EPA 6020	-	0.0234	-	-	0.0319	-	-	0.0382	-	-	0.0319	-	-	0.0205 J	-	-	0.0295	-	1
Lead	mg/L	EPA 6020	0.0161	0.00712	0.00486	0.0325	0.0229	0.0274	0.0126	0.00845	0.00437	0.00753	0.00827	0.00573	0.00406	0.00892	0.00386	0.00705	0.0147	0.00848	0.05
<b>South Pond</b>																					
<b>General Wet Chemistry</b>																					
Bicarbonate as Calcium Carbonate	mg/L	EPA 310.1 or SM 2320B	-	<5	-	-	<5	-	-	<5	-	-	<5	-	-	32.0 J	-	-	1,210	-	-
Total Dissolved Solids	mg/L	EPA 160.1	3,000 J	4,700	2,900 J	5,200	5,100	5,300 J	6,300	6,300 J	4,800	3,900 J	2,600	2,700	2,200	2,800	2,900	2,400 J	2,100		

**Summary of Lower Disposal Area - Surface Water Sampling Results - Still Well  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters						General Chemistry		Metals (mg/L)				
	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	pH measured in lab (standard units)	Arsenic	Iron	Lead	Manganese	Potassium
1-Feb-05	8.10	10658	-	-	6.59	12.87	2860	12.58	0.04990	<0.100	0.00552	<0.0100	-
9-Mar-05	13.23	7393	-	-	7.42	12.51	2860	12.53	0.11500	0.228	0.01470	<0.0100	-
5-Apr-05	9.50	11310	-	-	10.90	12.44	2900	12.32	0.05560	<0.100	0.01160	<0.0200	-
10-May-05	13.99	11871	-	-	3.60	12.53	2810	12.57	0.05540	<0.100	0.01250	<0.0200	-
7-Jun-05	13.83	10888	-	-	22.60	12.54	2490	12.51	<0.00500	<0.100	<0.00500	<0.0200	-
15-Jul-05 <sup>a</sup>	18.21	11331	-	-	14.80	12.50	3800	12.6	0.00272	<0.150	0.00607	<0.0100	-
15-Jul-05 <sup>b</sup>	-	-	-	-	-	-	2540	12.61	0.03980	<0.100	0.00757	<0.0200	-
9-Aug-05 <sup>a</sup>	21.45	12087	-	-	17.90	11.78	3500	12.6	0.12000	0.288	0.01090	0.0101	-
9-Aug-05 <sup>b</sup>	-	-	-	-	-	-	2820	12.46	0.09150	<0.100	0.00953	<0.0200	-
14-Sept-05 <sup>a</sup>	17.38	9507	-	-	14.00	12.36	3600	12.5	0.11800	<0.750	0.01120	<0.0500	-
14-Sept-05 <sup>b</sup>	-	-	-	-	-	-	2830	12.61	0.11500	0.363	0.01440	-	-
5-Oct-05	13.31	11481	-	-	62.70	12.47	3020	12.6	0.08520	<0.100	0.01190	<0.0200	-
9-Nov-05	9.58	14417	-	-	11.00	12.34	3400	12.6	0.07400	<0.150	<0.01000	<0.0100	-
9-Dec-05	6.18	7138	-	-	12.50	12.82	2800	12.6	0.01450	<0.150	0.00107	<0.0100	-
19-Jan-06	8.66	8265	1.74	-	11.80	13.06	1900 J	12.6 J	0.01520 J	<0.150	<0.00100	<0.0100	-
16-Feb-06	8.13	9019	2.81	195.6	6.16	12.27	3200 J	12.6	0.01340 J	<0.150	0.00189	<0.0100	-
15-Mar-06	7.98	9033	0.79	114.8	8.93	12.60	3300 J	12.6	0.00236	<0.150	0.00250 J	<0.0100	-
7-Apr-06	9.98	10450	0.57	34.8	6.08	12.51	3400	12.6	0.01520	<0.150	0.00283	<0.0100	-
16-May-06	12.79	11060	0.14	45.4	9.28	12.40	3500	12.6	0.00404	<0.150	0.00159	<0.0100	-
23-Jun-06	13.29	11680	0.44	-	14.60	12.90	3600	12.6	0.05260	<0.150	0.01650	<0.0100	-
20-Jul-06	16.20	12240	0.14	-217.8	10.40	12.47	4300	12.7	0.01930	<0.150	0.00357	<0.0100	-
22-Aug-06	17.14	10920	1.22	-146.0	13.30	12.66	3800	12.7	0.14400	<0.150	0.00914 J	<0.0100	-
26-Sep-06	15.72	9599	0.42	-263.3	61.40	12.59	3800	12.5	0.12300	0.171	0.00463	0.0154	-
26-Oct-06	10.99	9955	0.88	-207.5	82.30	12.93	3600	12.6	0.16100	<1.500	0.01950	<0.1000	-
15-Nov-06	10.58	12040	1.82	149.2	188.00	12.87	3400	12.5	0.03060 J	<0.150	0.00450	<0.0100	-
20-Dec-06	8.85	10990	0.71	-152.0	32.80	13.02	2600 J	12.8	0.05260	<0.150	0.01300	<0.0100	-
24-Jan-07	8.29	10440	0.97	-139.8	13.70	13.05	2500 J	12.4	0.05860	<0.150	0.01310	<0.0100	-
12-Feb-07	8.88	10590	0.86	-125.8	56.40	13.06	3400	12.5	0.06130	<0.150	0.01400	<0.0100	-
27-Mar-07	9.45	9163	1.25	-42.4	18.40	11.53	2900 J	12.5 J	0.04410	<0.150	0.00181	<0.0100	-
18-Apr-07	8.90	8155	2.63	2.3	37.20	12.77	3300 J	12.4	0.02930	<0.150	0.00198	<0.0100	-
31-May-07	20.12	11050	5.30	-153.9	9.31	11.59	2800 J	12.5	0.04850	<0.150	0.01510 J	<0.0100	-
20-Jun-07	18.28	12000	5.41	-122.5	16.10	12.04	4300 J	12.4 J	0.02680	<0.150	0.00233	<0.0100	-
31-Jul-07	16.53	12200	1.70	-151.6	24.80	12.48	6000	12.6 J	0.08760	<0.150	0.00103	<0.0100	-
29-Aug-07	17.00	9570	1.12	-183.1	268.00	12.78	4600 J	12.6 J	0.10600	<0.150	0.00946	<0.0100	-
27-Sep-07	14.49	8263	52.40	-183.0	211.00	12.42	2800	12.5 J	0.12500	<0.150	0.01540	<0.0100	-
26-Oct-07	9.49	6144	4.88	-147.2	92.40	12.85	3300 J	12.3 J	0.12400	0.260	0.02490	0.0101	-
30-Nov-07	5.53	7703	2.13	-122.6	127.00	12.67	2200	12.4 J	0.17400	0.184	0.01410	<0.0100	-
12-Dec-07	5.24	11609	3.43	-144.8	116.00	12.60	4100	12.4 J	0.11000	<0.150	0.01130	<0.0100	-
24-Jan-08	3.73	9649	13.81	-138.0	-	10.74	2500	11.8 J	0.10100	1.530	0.00974	0.0815	-
28-Feb-08	-	-	-	-	51.20	-	2900	12.4 J	0.05850	<0.150	0.01260	<0.0100	-
25-Mar-08	7.06	8623	5.52	-11.2	17.40	11.26	3400	12.5 J	0.07430	<0.150	0.01040	<0.0100	-
29-Apr-08	9.74	11332	4.29	-1.3	27.70	12.82	3000 J	12.5 J	0.07660	<0.150	0.01330	<0.0100	-
20-May-08	14.53	11955	1.74	-35.8	72.70	12.82	3400	12.5 J	0.08730	<0.150	0.01510	<0.0100	-
18-Jun-08	12.77	10267	3.34	-27.0	34.00	12.86	3200 J	12.4 J	0.06320	<0.150	0.01690	<0.0100	-
26-Aug-08	15.86	7703	1.06	-72.8	38.30	12.67	2600 J	12.2 J	0.43000	1.220	0.03500	0.0497	759
20-Nov-08	9.59	8762	0.91	-65.6	74.10	13.32	3500	12.4 J	0.07000	<0.150	0.01680	<0.0100	848
12-Feb-09	3.25	554	14.29	-	108.00	13.03	550	11.8 J	0.04720	<0.150	0.01370	<0.0100	551
19-May-09	11.53	276	8.80	26.0	43.40	9.83	2500 J	12.4 J	0.03780	<0.150	0.01500	<0.0100	689
22-Sep-09	12.47	9760	1.50	159.1	625.00	12.47	3000	-	0.16000	0.200	0.03700	0.0100 J	990
15-Dec-09	5.20	11650	1.90	237.0	26.30	12.85	3000	-	0.08600	0.067 J	0.02100	0.0047 J	900 J
22-Mar-10	9.70	1035	-	182.0	19.40	12.58	3000	-	0.07300	<0.200	0.01700	<0.0200	870
17-Jun-10	11.70	9610	0.08	-	6.59	12.48	2700	-	0.06600	0.095 J	0.01500	0.0020 J	780
21-Sep-10	15.00	6710	1.26	152.6	140.00	12.29	2400	-	0.30000	1.100 J+	0.03900	0.0300 J+	570
8-Dec-10	8.30	10110	1.00	-	5.44	12.63	2600	-	0.06400	<0.200	0.01000	<0.0200	860
30-Mar-11	8.60	4810	0.46	136.3	13.70	14.31	2500 J	-	0.06500	<0.200	0.00960	<0.0200	720
21-Jun-11	16.60	10420	1.63	111.9	3.40	12.36	5200	-	0.06000	<0.200	0.00910	0.0017 J	770
28-Sep-11	14.80	5270	2.34	70.0	66.70	12.17	2200	-	0.22000	0.360	0.01100	0.0072 J	1000
15-Dec-11	6.00	7330	2.47	104.2	18.30	13.09	2800	-	0.08300	<0.200	0.00290	<0.0200	880

**Summary of Lower Disposal Area - Surface Water Sampling Results - Still Well  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters						General Chemistry		Metals (mg/L)				
	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	pH measured in lab (standard units)	Arsenic	Iron	Lead	Manganese	Potassium
21-Mar-12	5.50	11040	3.15	294.2	12.00	12.39	2600	-	0.06700	<0.200	0.00470	<0.0200	760
19-Jun-12	5.50	11040	3.15	294.2	12.00	12.39	2600	-	0.05800	<0.200	0.00670	<0.0200	690
20-Sep-12	16.10	9560	3.27	76.0	10.70	12.35	2900	-	0.08400	<0.200	0.00300	<0.0200	830
19-Dec-12	4.10	1320	10.11	303.1	5.86	9.69	700	-	0.07500	0.690	0.00430	0.0710	250
26-Feb-13	7.30	9950	1.77	161.8	25.50	12.66	2000	-	0.07000	<0.500	0.00029 J	<0.0200	720
23-May-13	11.50	8040	2.23	266.8	22.70	12.47	2500	-	0.05700	<0.500	0.00340	<0.0200	690
22-Aug-13	17.40	8810	2.42	10.8	38.50	12.79	2590	-	0.05780	<0.100	0.00150	0.0020	863
19-Nov-13	9.00	7090	2.47	79.0	62.80	12.54	2720	-	0.05250	<0.100	0.00420	<0.0020	909
1-Apr-14	10.30	6080	0.55	128.2	37.10	6.08	1890	-	0.05460	<0.100	0.00110	<0.0013	687
22-May-14	13.60	7360	1.22	34.4	-	11.75	2330	-	0.06090	<0.100	0.00200	<0.0020	689
13-Aug-14	18.26	7844	0.33	1.2	7.30	12.53	2770	-	0.07000	<0.100	0.00210	<0.0020	849
12-Nov-14	9.00	585	3.17	-47.8	17.50	12.93	2450	-	0.08320	<0.100	0.00390	<0.0020	837
12-Feb-15	10.70	7540	2.68	-18.6	9.64	12.71	2150	-	0.05160	<0.100	0.00030	<0.0020	690
4-May-15	12.90	9140	2.73	110.4	26.80	13.02	2520	-	0.05460	<0.100	0.00022 J	<0.0020	734
5-Aug-15	19.50	8060	2.58	-29.8	61.10	12.62	2980	-	0.06390	<0.250	0.00170	0.0047 J	898
3-Nov-15	11.10	5150	0.37	38.6	171.00	8.93	1840	-	0.10900	0.270	0.02170	0.0130	747
9-Feb-16	9.70	7390	0.78	80.8	7.79	13.07	2170	-	0.05360	<0.100	0.00120	0.0060	601
3-May-16	14.70	7530	1.40	358.1	2.65	12.98	2480	-	0.0542	<0.100	0.00170 J-	0.0020	711
22-Aug-16	20.50	8	2.10	-	59.00	12.95	2780	-	0.09130	<0.250	0.00587	0.0023 J	831
1-Nov-16	12.30	2884	2.66	-72.1	19.10	13.17	2620	-	0.04620	<0.100	0.00964	<0.0020	841
31-Jan-17	7.40	8510	2.37	-167.0	7.35	13.17	2050	-	0.05250	0.026 J	0.00119	0.0016 J	582
31-May-17	14.60	7500	2.44	-	4.17	12.89	1900	-	0.04540	0.011 J	0.00068 J+	0.0007 J	615
17-Aug-17	18.30	8460	3.35	-84.0	15.90	12.79	2680	-	0.05680	0.003 J	0.00214	0.0013 J	750
9-Nov-17	8.20	7215	3.48	90.9	18.20	12.65	2360	-	0.0621	<0.1	0.00352	0.0025	822
27-Feb-18	6.60	5312	3.75	2.3	2.49	12.11	1970	-	0.0502	<0.1	0.00753	0.0025	521
2-May-18	11.10	8260	1.70	-	13.00	12.92	2360	-	0.0434	0.133	0.02170 J+	0.0088	552
21-Aug-18	20.22	6260	4.71	-42.1	5.84	12.58	2100	-	0.0522	0.10 U	0.000138	<0.002	629
7-Nov-18	9.70	995	6.72	126.8	20.60	9.15	1880	-	0.644	1.35	0.0802	0.0491	502 J+
11-Mar-19	10.60	1354	5.93	-18.7	7.19	10.31	1710	-	0.0528	0.0091 J	0.0212	0.0013 J	501
9-May-19	13.80	6973	6.40	18.1	16.70	12.36	1980	-	0.0416	0.0079 J	0.0134	0.0008 J	521
26-Aug-19	17.80	6405	3.91	Note 1	5.15	12.56	2570	-	0.0425	<0.1	0.0154	0.001 J	722
14-Nov-19	9.70	6065	0.41	-53.3	12.00	12.67	1750	-	0.167	0.121 J	0.0239	0.0065	563
13-Feb-20	7.60	4936	0.37	-139.0	2.56	12.66	1630	-	0.0486	0.0136 J	0.00608	0.0031	490
13-Aug-20	15.00	6817	2.55	-42.8	2.02	12.39	2620	-	0.0419	0.0063 J	0.00086	0.0009 J	659
10-Dec-20	8.80	4534	0.55	-26.2	5.87	12.79	1670	-	0.0827	0.241	0.0111	0.0108	510
4-Mar-21	7.70	4728	0.05	-42	0.85	11.94	1470	-	0.0618	0.1 U	0.00149	0.008 U	512
Preliminary Standard <sup>c</sup>	-	700	-	-	-	6.5-8.5	500	6.5-8.5	TBD <sup>d</sup>	0.3	0.05	0.05	-

Notes:

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not analyzed or not available
- < Analyte not detected above the reporting limit shown
- a North Creek Analytical, Inc.
- b Severn Trent Laboratories
- c Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- d Site background arsenic value to be determined (TBD)
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius
- Note 1 ORP measurements not available due to faulty sensor.
- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Surface Water Sampling Results - Infiltration Ponds #1  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters						General Chemistry		Metals (mg/L)				
	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	pH measured in lab (standard units)	Arsenic	Iron	Lead	Manganese	Potassium
1-Feb-05	8.17	1315	-	-	8.13	9.95	874	9.75	0.08490	0.234	0.00499	0.0249	-
9-Mar-05	14.04	1183	-	-	23.00	9.59	960	9.46	0.09620	0.470	0.00392	0.0321	-
5-Apr-05	11.00	1115	-	-	43.70	9.80	800	9.49	0.06230	0.574	0.00321	<0.0200	-
10-May-05	14.91	1275	-	-	564.00	9.83	844	9.79	0.07650	0.790	<0.00500	0.0462	-
7-Jun-05	15.11	1140	-	-	239.00	9.61	804	9.53	0.08430	0.722	<0.00500	0.0327	-
15-Jul-05 <sup>a</sup>	23.56	1276	-	-	94.40	9.30	1100	9.54	0.09250	<0.300	0.00414	0.0534	-
15-Jul-05 <sup>b</sup>	-	-	-	-	-	-	874	9.45	0.09990	0.533	0.00382	<0.0200	-
9-Aug-05 <sup>a</sup>	19.05	1744	-	-	57.20	9.44	1000	9.22	0.12300	0.792	0.00510	0.0499	-
9-Aug-05 <sup>b</sup>	-	-	-	-	-	-	1030	9.05	0.14000	0.339	0.00612	0.0308	-
14-Sept-05 <sup>a</sup>	13.59	1154	-	-	99.80	8.97	790	9.04	0.11000	<0.750	0.00354	<0.0500	-
14-Sept-05 <sup>b</sup>	-	-	-	-	-	-	806	9.03	0.11800	0.877	0.00518	-	-
5-Oct-05	14.82	970	-	-	82.70	8.98	736	8.73	0.08930	0.329	0.00283	0.0263	-
9-Nov-05	8.43	1285	-	-	135.00	8.83	970	9.28	0.04600	0.194	<0.01000	0.0295	-
9-Dec-05	2.12	1361	-	-	14.20	9.71	980	9.54	0.06460	0.179	0.00311	0.0399	-
19-Jan-06	6.66	728	7.96	-	64.70	10.13	470 J	9.77	0.04070	0.181	0.00229	0.0402	-
16-Feb-06	2.63	624	9.75	30.3	25.20	8.54	530 J	8.99	0.01330	<0.150	<0.00100	0.1190	-
15-Mar-06	7.16	639	11.61	236.8	23.10	9.22	530 J	9.19	0.02250	0.167	<0.00100	0.0791	-
7-Apr-06	11.91	1013	10.81	27.8	18.80	9.98	780	9.72	0.06380	0.344	0.00324	0.0483	-
16-May-06	15.58	1160	7.58	50.6	16.50	9.57	950	9.65	0.07790	0.462	0.00249	0.0505	-
23-Jun-06	18.63	1261	7.41	-	126.00	9.85	920	9.35	0.07070	0.228	0.00365	0.0366	-
20-Jul-06	20.65	932	5.36	-35.1	279.00	8.94	980	8.79	0.10800	0.287	0.00348	0.0285	-
22-Aug-06	15.65	860	7.64	86.5	218.00	9.22	760	9.15	0.11600	0.734	0.00384	0.0237	-
26-Sep-06	21.86	903	8.98	-72.8	263.00	8.89	820	8.76	0.07580	0.616	0.00306	0.0558	-
26-Oct-06	11.04	702	9.97	90.4	221.00	8.56	760	8.59	0.06830	<1.500	0.00166	<0.1000	-
15-Nov-06	7.73	715	9.21	149.2	33.60	9.07	500	9.25	0.02080	0.174	0.00229	0.0367	-
20-Dec-06	4.98	1082	9.05	86.3	9.29	9.78	680	9.83	0.05130	0.269	0.00267	0.0549	-
24-Jan-07	2.12	1058	10.71	130.4	20.50	9.97	640 J	9.97	0.06610	<0.150	0.00758	0.0403	-
12-Feb-07	10.10	1218	12.40	-61.8	103.00	9.98	860	9.97	0.09010	0.642	0.00449	0.0451	-
27-Mar-07	7.94	772	9.67	13.3	25.50	8.27	540 J	9.96 J	0.04980	<0.150	0.00274	0.0336	-
18-Apr-07	7.52	2418	9.23	84.4	58.10	11.73	1400	11.4 J	0.07920	0.212	0.01050	0.0296	-
31-May-07	15.45	1879	6.47	-92.2	3.15	9.79	1300	10 J	0.16500	<0.750	0.00811	0.1340	-
20-Jun-07	24.18	1925	10.88	-52.1	251.00	10.24	1300 J	10.1 J	0.14400	<0.150	0.00534	<0.0100	-
31-Jul-07	19.05	1418	5.97	-36.1	128.00	9.81	1200	9.4 J	0.14000	1.070	0.00723	0.0433	-
29-Aug-07	18.00	1193	5.60	-35.4	158.00	9.29	1300 J	9.48 J	0.16400	0.427 J	0.00701	0.0277 J	-
27-Sep-07	14.97	987	5.44	45.9	186.00	8.99	970	9.15 J	0.19600	0.438	0.00549	0.0326	-
26-Oct-07	2.66	504	6.02	63.1	282.00	8.64	770 J	8.17 J	0.04290	0.422	0.00225	0.0602	-
30-Nov-07	1.86	955	9.77	190.1	163.00	10.02	570	8.9 J	0.04890	0.205	0.00162	0.0271	-
12-Dec-07	4.22	790	11.11	126.8	56.00	9.40	520	9.05 J	0.03430	0.179	0.00167	0.0175	-
24-Jan-08	2.12	875	19.35	142.0	-	8.68	640	9.24 J	0.04280	0.162	0.00166	0.0155	-
28-Feb-08	-	-	-	-	25.60	-	510	9.18 J	0.04130	<0.150	0.00266	0.0159	-
25-Mar-08	5.27	937	14.46	91.0	86.80	9.60	630	9.55 J	0.05020	0.180	0.00215	0.0213	-
29-Apr-08	9.02	1079	10.56	190.8	61.30	9.87	670 J	9.76 J	0.06600	0.27 J	0.00287	0.0286	-
20-May-08	15.42	1191	7.58	160.0	91.40	9.75	820	9.7 J	0.08590	0.334	0.00485	0.0432	-
18-Jun-08	12.94	1124	9.62	167.3	76.90	9.65	810 J	9.55 J	0.07760	0.486	0.00367	0.0222	-
26-Aug-08	15.95	880	3.75	53.5	490.00	8.00	650 J	7.81 J	0.07690	0.334	0.00164	0.0713	144
20-Nov-08	6.91	897	7.02	183.5	376.00	10.22	960	10.1 J	0.08720	0.196	0.00421	0.0584 J	313
12-Feb-09	1.29	-	13.72	-	10.20	10.52	800	10.1 J	0.11800	0.177	0.00584	0.0561	271
19-May-09	11.90	862	6.52	71.9	133.00	9.59	840 J	9.9 J	0.09130	0.350	0.00399	0.0366	238
18-Nov-09	5.70	852	6.61	185.9	68.00	9.88	490	-	0.04000	0.700	0.00440	0.0350	160
15-Dec-09	2.30	1162	8.22	460.1	63.30	9.97	640	-	0.07100	0.850	0.00720	0.0500	220
24-Mar-10	13.00	1299	5.83	408.2	13.00	10.48	1,000	-	0.14000	0.720	0.00850	0.0370	340
17-Jun-10	12.00	947	4.45	332.1	33.60	10.56	540	-	0.06200	0.660	0.00620	0.0630	220
22-Sep-10	15.60	1736	3.14	342.5	33.00	9.84	1300	-	0.13000	2.900	0.02100	0.1700 J+	360
8-Dec-10	5.40	1382	7.73	371.1	12.10	10.75	870	-	0.10000	0.490	0.01200	0.0370	300
29-Mar-11	9.60	627	5.16	577.6	19.80	11.05	760 J	-	0.07800	0.200 J+	0.00310	0.0210	270
21-Jun-11	21.00	1778	5.46	239.1	11.60	10.44	1700 J	-	0.07800	0.810	0.01100	0.0650	340
27-Sep-11	14.80	1382	3.98	239.8	33.40	9.58	1600	-	0.12000	1.600	0.01300	0.0820	670

**Summary of Lower Disposal Area - Surface Water Sampling Results - Infiltration Ponds #1  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters						General Chemistry		Metals (mg/L)				
	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	pH measured in lab (standard units)	Arsenic	Iron	Lead	Manganese	Potassium
14-Dec-11	3.10	1046	5.60	281.7	15.70	9.93	1100	-	0.08700	1.100	0.01400	0.0630	330
20-Mar-12	6.10	986	11.04	271.1	11.70	10.32	500	-	0.07100	0.470	0.00330	0.0590	180
19-Jun-12	14.80	862	7.83	352.2	38.80	9.57	500	-	0.06400	0.560 J+	0.00370	0.0540	180
20-Sep-12	12.40	1961	1.81	419.0	10.30	9.43	4600 J	-	0.13000	0.480	0.00210	0.0470	440
19-Dec-12	4.10	1320	10.11	303.1	5.86	9.69	700	-	0.07500	0.690	0.00430	0.0710	250
25-Feb-13	7.10	1963	9.30	234.7	26.60	11.30	1000	-	0.09000	0.100 J	0.00600	0.0230	370
22-May-13	10.50	4380	7.72	411.7	202.00	12.56	1400	-	0.02500	<0.500	0.01100	0.0064 J	530
21-Aug-13	20.10	12850	1.24	-2.3	18.20	12.18	3430	-	0.10600	0.270	0.04750	0.0210	1180
20-Nov-13	5.70	1198	8.03	131.9	22.20	10.23	704	-	0.04130	0.210	0.00620	0.0400	260
1-Apr-14	9.80	1708	9.77	136.4	8.79	12.26	832	-	0.02410	0.049 J	0.00300	0.0050 J+	317
23-May-14	12.63	6574	8.63	120.8	-	12.61	2120	-	0.00480	<0.100	0.03540	<0.0020	811
13-Aug-14	18.99	3273	6.29	77.7	89.00	12.34	1660	-	0.07140	<0.100	0.00630 J	0.0070	548
11-Nov-14	8.80	578	3.55	179.2	62.50	12.73	2000	-	0.05670	<0.100	0.02040	<0.0020	739
11-Feb-15	9.70	487	9.97	66.2	42.00	9.40	337	-	0.00910	0.120	0.00090	0.0120	87.7
4-May-15	14.30	4210	5.60	281.2	7.67	12.53	1670	-	0.03530	0.039 J	0.00740	0.0014 J	589
5-Aug-15	19.90	4890	5.14	18.8	89.80	11.79	3080	-	0.08540	0.390	0.01810	0.0120	1150
3-Nov-15	9.20	760	6.39	129.9	34.60	9.78	707	-	0.02350	0.270	0.00530	0.0150	235
9-Feb-16	10.20	-	10.29	100.3	8.01	12.78	1330	-	0.00530	<0.1000	0.02480	0.0030	530
2-May-16 <sup>e</sup>	-	-	-	-	-	-	2490	-	0.02400	0.0754 J	0.0370 J-	0.0041 J	996
23-Aug-16	19.30	4250	3.95	386.5	46.30	11.76	2970	-	0.10500	0.404	0.01430	0.0113	989
1-Nov-16	11.70	229	9.26	185.2	48.90	10.33	508	-	0.01260	0.155	0.00079	0.0067	164
1-Feb-17	2.40	8890	10.78	26.1	3.17	13.36	2220	-	0.01010	<0.250	0.04680	<0.0050	854
30-May-17	14.70	6800	56.90	17.7	1.38	12.73	1720	-	0.00175	0.030 J	0.03160 J+	0.0009 J	759
17-Aug-17	18.10	5410	3.88	-19.5	14.90	11.93	3080	-	0.06260	0.122 J	0.03280	0.0111	1150
10-Nov-17	7.90	2016	7.72	64.4	30.70	12.00	1520	-	0.063	0.156	0.0322	0.0141	578
27-Feb-18	5.70	5062	8.76	42.0	3.74	12.28	1620	-	0.015	<0.1	0.0546	<0.002	678
1-May-18	12.30	6620	5.25	-	1.94	12.73	2070	-	0.00242	0.0117 J	0.03010 J+	0.0010 J	745
21-Aug-18	23.85	5058	2.95	106.0	5.62	11.64	3090	-	0.0773	0.25 U	0.0288	0.0094	1200
6-Nov-18	11.70	1078	3.50	-5.4	46.90	8.48	1180	-	0.00603	<0.5	0.00544	0.0298	359 J+
13-Mar-19	3.90	331	8.08	183.7	29.10	10.72	455	-	0.0119	0.131	0.00221	0.0053	185
8-May-19	17.20	6113	6.38	6.4	6.17	12.39	2040	-	0.0077	0.0246 J	0.0268	0.0018 J	830
26-Aug-19	24.22	4177	2.47	Note 1	7.21	9.12	2840	-	0.0172 J	0.405 J	0.00527 J	0.0172 J	1020
13-Nov-19	8.70	2523	1.61	-201.7	33.00	8.67	1930	-	0.0325	0.211	0.00444	0.024	726
12-Feb-20	7.80	971	7.99	150.3	16.00	7.92	836	-	0.0143	0.0234 J	0.00396	0.0279	243
12-Aug-20	18.30	3655	4.33	123.5	5.74	8.98	2570	-	0.0208	0.124 J	0.00259	0.0048 J	988
9-Dec-20	8.30	740	7.80	202.0	18.40	8.21	632	-	0.0149	0.686	0.00511	0.0172	207
3-Mar-21	8.30	1446	7.87	217	15.50	8.56	1310	-	0.0353	0.118	0.00611	0.0079 J	509
Preliminary Standard <sup>c</sup>	-	700	-	-	-	6.5-8.5	500	6.5-8.5	TBD <sup>d</sup>	0.3	0.05	0.05	-

Notes:

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not analyzed or not available
- < Analyte not detected above the reporting limit shown
- a North Creek Analytical, Inc.
- b Severn Trent Laboratories
- c Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- d Site background arsenic value to be determined (TBD)
- e Field parameters for Infiltration Ponds #1 were inadvertently not collected during May 2016 sampling
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius
- Note 1 ORP measurements not available due to faulty sensor.
- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Surface Water Sampling Results - Weir  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters							General Chemistry		Metals (mg/L)				
	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	pH (standard units)	Weir Flow Rate (gpm)	Total Dissolved Solids (mg/L)	pH measured in lab (standard units)	Arsenic	Iron	Lead	Manganese	Potassium
1-Feb-05	8.47	2205	-	-	6.24	10.23	-	1440	10.37	0.14900	0.323	0.01070	0.0569	-
9-Mar-05	11.38	2054	-	-	7.80	10.15	2.64	1630	10.11	0.20000	0.526	0.01190	0.0938	-
5-Apr-05	7.7	2169	-	-	7.99	10.42	10.00	1420	10.18	0.12900	1.150	0.00861	0.0540	-
10-May-05	14.1	1912	-	-	562.00	9.87	25.00	1210	9.85	0.10500	1.460	0.00763	0.0818	-
7-Jun-05	15.74	2588	-	-	11.60	10.03	6.82	1570	10.18	0.13800	1.470	0.01010	0.1170	-
15-Jul-05 <sup>a</sup>	20.38	3184	-	-	8.91	10.36	0.94	3200	10.3	0.19200	0.367	0.00998	0.2060	-
15-Jul-05 <sup>b</sup>	-	-	-	-	-	-	-	1990	10.44	0.18900	1.460	0.01080	0.1640	-
9-Aug-05 <sup>a</sup>	-	-	-	-	-	-	Dry	-	-	-	-	-	-	-
9-Aug-05 <sup>b</sup>	-	-	-	-	-	-	Dry	-	-	-	-	-	-	-
14-Sept-05 <sup>a</sup>	15.60	3792	-	-	14.50	9.92	0.07	2800	10	0.20800	1.250	0.05780	0.1000	-
14-Sept-05 <sup>b</sup>	-	-	-	-	-	-	-	2730	10.16	0.22300	1.070	0.07330	-	-
5-Oct-05	12.96	3237	-	-	4.99	9.89	0.32	2150	9.97	0.17000	1.430	0.01250	0.2250	-
9-Nov-05	8.40	2545	-	-	13.80	9.64	7.50	1900	9.88	0.07820	0.167	<0.01000	0.0835	-
9-Dec-05	3.34	1377	-	-	8.03	10.43	5.00	1700	10.4	0.13000	0.189	0.00612	0.0857	-
19-Jan-06	7.37	1424	7.92	-	12.20	10.61	7.50	1000 J	10.4	0.08950	0.449	0.00481	0.1040	-
16-Feb-06	3.74	1680	12.19	*	14.60	10.78	7.50	1400 J	10.8	0.10500	0.343	0.00546	0.0817	-
15-Mar-06	7.21	1634	12.61	194.4	7.44	10.63	5.28	1300 J	10.7	0.12800	0.204	0.00638	0.0750	-
7-Apr-06	14.33	2055	8.54	55.3	9.21	10.84	3.17	1500	10.4	0.14300	0.552	0.00663	0.1140	-
16-May-06	21.65	2474	6.09	11.6	9.37	10.69	0.83	2000	10.6	0.15700	0.921	0.00819	0.2000	-
23-Jun-06	24.58	2820	6.66	-	15.40	11.64	0.63	1400	10.6	0.15400	0.210	0.01310	0.1090	-
20-Jul-06	21.17	3291	8.56	-85.5	68.30	10.75	Dry*	2300	10.8	0.13100	0.454	0.00941	0.0406	-
22-Aug-06	-	-	-	-	-	-	Dry	-	-	-	-	-	-	-
26-Sep-06	16.38	2997	3.00	-57.1	31.60	9.92	Dry*	2900	9.94	0.10300	1.070	0.01680	0.1010	-
26-Oct-06	11.00	2650	5.35	59.6	25.80	9.65	0.63	2300	9.45	0.13200	2.220	0.02630	<0.100	-
15-Nov-06	8.51	1708	8.16	-35.7	34.70	10.15	17.14	1200	10.1	0.06740	0.518	0.00807	0.0794	-
20-Dec-06	5.07	1927	8.84	14.8	7.94	10.67	10.91	1200	10.5	0.09970	0.384	0.00478	0.0844	-
24-Jan-07	2.30	1846	10.72	5.9	11.70	10.37	9.00	1100 J	10.6	0.12600	0.359	0.01610	0.0729	-
12-Feb-07	9.26	1777	11.75	-91.3	26.70	10.56	6.00	1100	10.3	0.13900	0.283	0.00712	0.0808	-
27-Mar-07	8.71	1219	9.18	-12.6	13.80	8.70	24.00	840 J	10.2 J	0.08850	0.289	0.00486	0.0821	-
18-Apr-07	7.39	4563	8.65	41.0	16.80	12.12	9.00	2000	11.9 J	0.09750	0.830	0.03250	0.0408	-
31-May-07	-	3916	6.33	-149.5	10.70	10.96	1.36	2100	11.5 J	0.27500	<0.750	0.02290	0.1560	-
20-Jun-07	22.59	3336	8.50	-20.4	42.50	10.46	0.29	2400 J	10.4 J	0.25500	<0.150	0.02740	0.0309	-
31-Jul-07	18.94	3915	7.85	-69.2	41.30	10.92	0.06	3300	10.8 J	0.23600	1.100	0.01260	0.0846	-
29-Aug-07	21.52	2406	5.75	-5.3	24.10	9.72	Dry*	2300 J	9.53 J	0.12900	0.627	0.00845	0.1940	-
27-Sep-07	13.88	2009	5.75	15.5	28.30	9.56	0.06	1600	9.51 J	0.20700	1.150	0.00437	0.4170	-
26-Oct-07	7.68	1662	9.06	80.5	13.00	9.92	2.04	1800 J	9.74 J	0.13200	0.591	0.00753	0.1960	-
30-Nov-07	4.34	2446	9.63	26.7	11.70	9.86	2.63	1600	9.74 J	0.13500	0.432	0.00827	0.1000	-
12-Dec-07	5.88	2056	10.34	39.3	10.30	10.18	2.63	1500	9.85 J	0.10500	0.324	0.00573	0.0784	-
24-Jan-08	3.05	1601	15.03	42.3	-	9.40	2.63	1000	9.73 J	0.08740	0.451	0.00406	0.1500	-
28-Feb-08	-	-	-	-	9.22	-	4.13	1200	10.1 J	0.11800	0.260	0.00892	0.0714	-
25-Mar-08	6.80	1622	12.37	95.1	16.40	9.98	5.25	1100	9.98 J	0.11000	0.307	0.00386	0.0683	-
29-Apr-08	7.53	1997	9.10	137.4	11.90	10.29	7.50	1100 J	10.4 J	0.12400	0.328	0.00705	0.0789	-
20-May-08	16.35	2504	9.03	77.4	32.90	10.92	7.50	1700	10.8 J	0.14600	0.558	0.01470	0.1580	-
18-Jun-08	11.82	2925	8.32	68.3	25.70	11.14	1.69	1800 J	10.9 J	0.20800	0.351	0.00848	0.1540	-
26-Aug-08	17.69	3376	7.98	62.8	41.10	10.43	0.84	2200 J	10.3 J	0.28700	0.391	0.01320	0.4630	647
20-Nov-08	8.10	1447	9.65	112.0	43.70	11.00	11.25	1400	10.6 J	0.12100	0.386	0.01620	0.0888	485
12-Feb-09	2.99	1214	14.46	-	14.60	10.93	4.06	1200	10.6 J	0.21900	0.410	0.01180	0.0986	434
19-May-09	13.05	1962	7.92	32.6	36.70	10.23	7.50	1800 J	10.8 J	0.21000	0.620	0.01370	0.1430	521
24-Sep-09	16.30	2792	1.59	263.8	13.70	8.82	Dry*	2400	-	0.13000	8.600	0.05300	0.6400	730
15-Dec-09	2.80	1702	7.47	343.0	-	10.18	6.67	1200	-	0.17000	2.300	0.02200	0.1200	330
24-Mar-10	13.80	2629	2.09	270.7	263.00	11.46	6.03	1800	-	0.18000	0.660	0.02000	0.0360	600
17-Jun-10	12.00	1876	0.01	-	157.00	10.76	14.15	1200	-	0.02700	1.600	0.00390	0.1700	410
20-Sep-10	11.40	3100	6.34	198.6	12.20	10.63	2.38	2800	-	0.25000	4.800	0.04000	0.4600	580
7-Dec-10	6.60	2455	4.03	154.0	11.00	11.61	16.69	1600	-	0.24000	1.300	0.02600	0.0710	510
30-Mar-11	8.10	848	0.22	136.1	31.50	13.08	58.61	940 J	-	0.09100	0.720 J+	0.00990	0.0500	330
22-Jun-11	14.40	2286	5.68	164.2	13.20	11.28	5.68	2600 J	-	0.12000	1.200	0.02500	0.1000	490

**Summary of Lower Disposal Area - Surface Water Sampling Results - Weir  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters							General Chemistry		Metals (mg/L)				
	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)	Turbidity (NTU)	pH (standard units)	Weir Flow Rate (gpm)	Total Dissolved Solids (mg/L)	pH measured in lab (standard units)	Arsenic	Iron	Lead	Manganese	Potassium
27-Sep-11	16.20	1911	4.62	253.4	39.10	10.07	13.40	2100	-	0.17000	4.900	0.04500	0.4400	880
15-Dec-11	4.10	1439	7.40	139.4	10.60	10.33	6.65	1400	-	0.18000	2.000	0.02100	0.1100	500
20-Mar-12	5.20	1687	8.50	27.5	9.60	11.17	60.00	410	-	0.13000	0.970	0.00740	0.1700	290
18-Jun-12	14.70	2336	0.11	326.9	15.60	11.25	60.00	410	-	0.13000	1.000 J+	0.00980	0.0540	430
20-Sep-12	15.30	2972	7.81	106.0	12.10	9.55	0.10	1400 J	-	0.13000	0.460	0.00220	0.0480	450
18-Dec-12	4.80	1908	9.34	-14.2	7.41	10.28	18.50	870	-	0.12000	1.100	0.00810	0.3000	390
26-Feb-13	5.80	6470	11.27	161.6	22.00	12.46	9.90	1800	-	0.09900	<0.500	0.06200	0.0200	710
23-May-13	10.50	1625	9.14	291.8	14.40	9.93	4.84	980	-	0.09400	2.100	0.02100	0.1500	310
21-Aug-13	15.70	7260	7.69	51.6	9.00	10.71	0.32	2780	-	0.34200	0.770	0.01830	0.1610	954
19-Nov-13	8.10	2032	10.00	87.4	9.95	11.19	25.40	1270	-	0.07080	0.350	0.01690	0.0800	487
1-Apr-14	13.70	3420	9.11	129.4	59.00	12.57	20.77	1300	-	0.03730	0.120	0.01200	0.0160	572
23-May-14	12.83	986	11.63	105.7	-	9.36	-	822	-	0.04700	0.550	0.01390	0.1950	274
13-Aug-14	18.38	2000	5.52	63.6	8.93	8.02	2.00	1250	-	0.01340	0.050	0.00060	0.4140	326
11-Nov-14	6.70	259	9.77	164.8	4.27	8.09	1.50	955	-	0.01900	0.080	0.00020	0.0780	315
12-Feb-15	10.00	669	11.13	142.9	2.75	8.62	40.00	1490	-	0.01490	0.310	0.00180	0.2020	155
4-May-15	13.70	1293	8.69	181.7	155.00	9.38	0.09	1100	-	0.04330	0.660	0.01130	0.1700	292
5-Aug-15	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
3-Nov-15	9.70	1296	7.66	165.6	13.70	8.03	1.98	1200	-	0.01140	0.120	0.00080	0.1690	355
9-Feb-16	9.10	838	8.79	181.4	2.17	7.87	0.69	529	-	0.00780	0.110	0.00050 J+	0.0630	145
2-May-16	23.40	1126	6.16	128.1	7.59	7.63	Dry*	688	-	0.00760	0.023 J	0.00006 J-	0.3240	162
23-Aug-16	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
1-Nov-16	11.70	332	7.12	97.5	7.71	7.76	7.24	703	-	0.00918	0.097	0.00030	0.0223	207
1-Feb-17	2.30	925	11.55	39.1	2.04	7.71	0.30	567	-	0.00490	<0.050	0.00009 J	0.0397	135
30-May-17	13.30	817	57.50	8.3	22.20	7.40	0.30	516	-	0.01310	0.526	0.00008 J+	3.4700	94
17-Aug-17	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
9-Nov-17	7.00	851	7.57	88.0	67.30	8.43	-	865	-	0.0366	1.33	0.0107	0.284	236
27-Feb-18	5.50	498	10.68	106.0	5.39	8.60	-	503	-	0.00970	0.174	0.00123	0.0488	127
1-May-18	12.80	894	8.87	-	2.39	7.97	-	656	-	0.00781	0.0212 J	<0.00010 J	0.0762	195
21-Aug-18	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
7-Nov-18	8.50	1079	7.37	166.6	5.48	7.94	-	1030	-	0.01570	<0.05	0.000089 J	0.0244	322 J+
11-Mar-19	5.00	525	9.79	146.3	1.28	7.76	-	541	-	0.00421	0.0035 J	<0.0001	0.0050	133
9-May-19	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
26-Aug-19	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
14-Nov-19	7.40	842	4.10	214.3	19.00	7.74	Dry*	783	-	0.01130	0.0146 J	0.000076 J	0.1560	242
12-Feb-20	7.20	401	8.41	-38.3	2.47	7.53	3.96	348	-	0.00481	0.0201 J	0.0001 U	0.0106	87
13-Aug-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	-	DRY	DRY	DRY	DRY	DRY
10-Dec-20	7.20	581	6.72	185.0	0.96	7.80	8	560	-	0.00513	0.029 J	0.0001 U	0.0089	126
4-Mar-21	4.90	427	7.11	146	2.50	7.86	2.68	424	-	0.00370	0.0386 J	0.00011	0.0156	81
Preliminary Standard <sup>c</sup>	-	700	-	-	-	6.5-8.5	-	500	6.5-8.5	TBD <sup>d</sup>	0.3	0.05	0.05	-

Notes:  
Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- \* Sample collected from constructed wetland (alternative sampling location) upstream of weir
- Not analyzed or not available
- Dry Weir dry; unable to collect field parameters or samples
- < Analyte not detected above the reporting limit shown
- a North Creek Analytical, Inc.
- b Severn Trent Laboratories
- c Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- d Site background arsenic value to be determined (TBD)
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius
- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- gpm Gallons per minute
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Surface Water Sampling Results - South Pond  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters						General Chemistry		Metals (mg/L)				
	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	pH measured in lab (standard units)	Arsenic	Iron	Lead	Manganese	Potassium
1-Feb-05	7.13	9580	-	-	4.19	13.02	4080	12.61	0.17400	1.140	0.02430	0.0694	-
9-Mar-05	14.28	9979	-	-	6.79	12.52	4640	12.57	0.24000	0.988	0.04210	0.0853	-
5-Apr-05	9.90	10820	-	-	43.50	11.99	3830	12.31	0.13300	2.520	0.00985	0.1280	-
10-May-05	15.10	6091	-	-	45.60	12.14	3270	12.4	0.09290	0.866	0.02550	0.0339	-
7-Jun-05	14.49	8257	-	-	24.20	12.19	3780	12.32	0.13200	1.540	0.02470	0.0526	-
15-Jul-05 <sup>a</sup>	18.34	6937	-	-	6.89	11.69	5000	11.6	0.28100	1.260	0.03180	0.0922	-
15-Jul-05 <sup>b</sup>	-	-	-	-	-	-	4260	11.8	0.23700	0.286	0.03420	<0.0200	-
9-Aug-05 <sup>a</sup>	23.53	7654	-	-	17.1	10.26	6600	10.3	0.32200	8.360	0.04450	0.1480	-
9-Aug-05 <sup>b</sup>	-	-	-	-	-	-	5580	10.35	0.34000	0.648	0.03710	0.0828	-
14-Sept-05 <sup>a</sup>	18.55	6730	-	-	10.00	10.51	5100	11.1	0.23500	1.860	0.01930	0.1550	-
14-Sept-05 <sup>b</sup>	-	-	-	-	-	-	4750	11.78	0.26800	2.270	0.03420	-	-
5-Oct-05	12.14	4323	-	-	17.60	9.80	3090	10.15	0.13000	0.947	0.02650	0.0638	-
9-Nov-05	6.78	3784	-	-	11.80	11.12	2600	11.5	0.12100	0.504	0.02170	0.0802	-
9-Dec-05	3.22	8745	-	-	12.90	12.85	3900	12.3	0.17500	5.720	0.01410	0.1490	-
19-Jan-06	7.73	5215	5.43	-	13.30	12.52	2000 J	12.3 J	0.02030	0.556	0.00324	0.0355	-
16-Feb-06	3.96	9342	8.97	231.2	9.08	12.30	4100 J	12.6	0.04300	1.480	0.02560	0.0548	-
15-Mar-06	8.72	12910	9.59	222.1	7.64	12.60	5100 J	12.7	0.03860	<0.150	0.04180	<0.0100	-
7-Apr-06	14.26	15220	6.90	18.9	3.65	12.92	5700	12.7	0.04850	0.382	0.06560	0.0119	-
16-May-06	19.75	10880	2.61	33.8	15.40	12.46	5100	12.6	0.13000	3.200	0.09210	0.0916	-
23-Jun-06	22.76	7586	2.98	-	14.10	12.65	5100	11.9	0.13000	0.606	0.05790	0.0618	-
20-Jul-06	24.33	7457	0.73	-148.4	16.70	11.33	6400	11.5	0.27200	1.180	0.05130	0.0418	-
22-Aug-06	15.03	7481	3.75	61.0	14.10	10.40	6100	10.3	0.31800	0.824	0.03320	0.0390	-
26-Sep-06	17.30	8409	1.31	-312.4	15.10	12.38	5500	12.2	0.23000	0.966	0.04570	0.0490	-
26-Oct-06	10.95	6075	4.10	-265.6	13.30	12.18	4600	11.7	0.24300	3.980	0.04150	<0.2000	-
15-Nov-06	8.07	5022	7.71	-152.7	21.50	12.24	2600	11.9	0.07620	0.217	0.00368	0.1110	-
20-Dec-06	6.32	9148	5.73	-139.6	12.20	12.85	2900 J	12.6	0.04610	1.630	0.00128	0.0820	-
24-Jan-07	2.15	12690	9.24	-98.4	9.74	13.10	3000 J	12.4	0.01920	<0.150	0.02680	<0.0100	-
12-Feb-07	9.35	14110	8.43	-86.7	32.50	13.13	4700	12.6	0.09620	<0.150	0.08350	0.0233	-
27-Mar-07	9.16	10560	8.41	-46.2	7.42	11.31	2900 J	12.5 J	0.00598	<0.150	0.01450	<0.0100	-
18-Apr-07	8.27	14570	8.32	10.8	10.30	12.79	5200	12.5 J	0.01980	<0.300	0.02210	<0.0200	-
31-May-07	23.66	13410	6.42	-95.0	31.20	11.77	5100	12.5 J	0.07840	<1.500	0.05040	<0.100	-
20-Jun-07	26.35	10050	5.53	-195.7	27.90	12.29	5300 J	12.4 J	0.11200	0.315	0.03820	0.0207	-
31-Jul-07	21.39	6666	4.76	-106.4	72.00	10.86	6300	10.9 J	0.20800	2.540	0.06880	0.1160	-
29-Aug-07	22.61	6950	1.57	-193.4	61.80	12.05	6300 J	11.7 J	0.14900	0.835	0.03060	0.0710	-
27-Sep-07	11.45	5059	2.66	-180.4	78.40	11.43	4800	11.3 J	0.19000	1.430	0.01740	0.1140	-

**Summary of Lower Disposal Area - Surface Water Sampling Results - South Pond  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters						General Chemistry		Metals (mg/L)				
	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	pH measured in lab (standard units)	Arsenic	Iron	Lead	Manganese	Potassium
26-Oct-07	6.98	4147	1.44	-204.7	39.50	12.48	3900 J	11.8 J	0.16800	1.510	0.02550	0.0861	-
30-Nov-07	2.86	5030	8.50	-74.9	12.40	12.20	2600	11.7 J	0.12100	0.885	0.01430	0.1120	-
12-Dec-07	4.45	3564	2.03	-141.8	20.70	10.93	2700	11 J	0.07930	1.130	0.00987	0.1640	-
24-Jan-08	1.13	4859	4.10	-186.8	-	11.19	2200	12.4 J	0.08610	<0.150	0.00679	<0.0100	-
28-Feb-08	-	-	-	-	18.10	-	2800	11.2 J	0.18300	0.499	0.07340	0.0279	-
25-Mar-08	7.37	5413	7.88	-58.2	122.00	12.29	2900	11.7 J	0.18200	0.548	0.01300	0.0583	-
29-Apr-08	8.43	3685	9.04	59.3	19.20	11.63	2400 J	11.2 J	0.15200	0.708	0.01600	0.0520	-
20-May-08	18.03	3554	6.69	58.0	156.00	11.01	2100	10.8 J	0.13700	0.406	0.03830	0.0688	-
18-Jun-08	13.01	5680	6.46	57.5	71.80	11.14	4000 J	11 J	0.27900	0.381	0.03440	0.0423	-
26-Aug-08	18.02	2800	5.72	16.9	49.80	10.08	2500 J	9.9 J	0.09170	0.404	0.01860	0.0532	557
20-Nov-08	7.46	2011	9.04	38.3	23.60	10.49	2300	10.1 J	0.07290	1.980	0.00920	0.1710	566
12-Feb-09	1.63	1870	11.74	-	46.10	10.83	2300	10.6 J	0.12900	0.982	0.01720	0.1130	738
19-May-09	12.73	1895	5.37	-16.4	168.00	9.82	1700 J	9.94 J	0.07890	1.320	0.01130	0.0736	515
23-Sep-09	21.50	4190	0.09	175.1	14.40	9.70	4100	-	0.12000	4.500	0.09900	0.0890	1300
14-Dec-09	+	+	+	+	+	+	+	+	+	+	+	+	+
22-Mar-10	13.10	2480	-	342.0	15.60	10.05	1700	-	0.07600	5.700	0.03400	0.1400	520
17-Jun-10	13.40	2429	5.14	-	26.10	10.77	2100	-	0.12000	7.700	0.08900	0.1100	630
21-Sep-10	16.30	2733	1.10	216.8	21.50	9.81	2200	-	0.02500	4.400 J	0.02700	0.2400	510
8-Dec-10	6.00	1994	2.70	-	18.70	10.05	1400	-	0.05300	6.000	0.01800	0.2100	490
30-Mar-11	9.10	509	0.37	179.2	13.80	12.04	730 J	-	0.03600	3.000	0.01400	0.0760	260
21-Jun-11	21.60	2092	1.90	192.2	13.60	10.07	2800 J	-	0.06200	4.300	0.02900	0.0890	380
27-Sep-11	14.60	1516	9.34	220.4	32.50	9.34	1800	-	0.07800	2.800	0.03600	0.0580	780
15-Dec-11	3.00	1449	1.90	94.6	13.80	10.75	2100	-	0.14000	6.200	0.07400	0.0810	630
21-Mar-12	2.60	1088	8.10	285.7	13.10	9.95	780	-	0.03000	2.800	0.00720	0.0580	240
19-Jun-12	17.10	1747	5.54	345.3	10.80	9.93	780	-	0.07000	4.200	0.02900	0.0620	400
20-Sep-12	-	-	-	-	-	-	-	-	-	-	-	-	-
19-Dec-12	4.00	1771	6.37	104.0	6.12	10.71	1300	-	0.04700	4.000	0.01800	0.0960	440
26-Feb-13	6.90	3720	5.40	196.7	10.60	11.86	1100	-	0.14000	4.000	0.03900	0.1000	690
23-May-13	11.50	2335	5.21	323.5	44.10	12.48	1800	-	0.13000	3.100	0.05000	0.0510	530
22-Aug-13	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
19-Nov-13	8.20	1256	4.12	79.3	18.20	9.89	1260	-	0.03980	0.650	0.02040	0.0590	487
1-Apr-14	15.30	2053	4.42	130.9	772.00	11.27	1800	-	0.11300	1.270	0.04220	0.0520	649
23-May-14	14.15	2187	5.50	77.3	-	10.19	1860	-	0.11200	1.180	0.02360	0.0840	623
13-Aug-14	20.29	1298	5.35	40.1	24.80	9.63	949	-	0.04490	0.560	0.02280	0.0480	306
12-Nov-14	1.30	315	4.55	-0.5	22.10	10.45	2440	-	0.12200	1.160	0.03420	0.0480	804

**Summary of Lower Disposal Area - Surface Water Sampling Results - South Pond  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters						General Chemistry		Metals (mg/L)				
	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	pH measured in lab (standard units)	Arsenic	Iron	Lead	Manganese	Potassium
12-Feb-15	11.10	1267	4.01	-8.2	23.90	10.20	905	-	0.02720	2.500	0.00960	0.0440	320
4-May-15	15.60	3200	4.35	240.5	9.21	10.42	2280	-	0.15400	1.320	0.03080	0.0580	774
5-Aug-15	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
3-Nov-15	8.30	1143	2.01	88.1	35.40	9.22	1050	-	0.02800	0.660	0.02820	0.0430	364
9-Feb-16	7.30	1672	3.45	95.9	7.79	10.45	1170	-	0.05100 J+	0.880	0.03400	0.0540	410
3-May-16	14.20	3150	3.61	335.2	63.80	10.35	2260	-	0.14800	1.430	0.09790 J-	0.0600	777
24-Aug-16	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
1-Nov-16	12.10	401	5.56	-65.9	15.00	9.43	742	-	0.02190	0.423	0.01410	0.0213	356
1-Feb-17	2.10	2064	4.82	5.0	17.80	10.27	1330	-	0.05760	0.963	0.13900	0.0693	455
31-May-17	14.50	2594	5.36	-	22.70	9.93	1920	-	0.10500	0.888	0.05150 J+	0.0472	664
17-Aug-17	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
9-Nov-17	6.50	1049	6.38	92.3	14.40	10.13	1260	-	0.0588	1.46	0.0534 J+	0.0661	441
27-Feb-18	6.50	1379	4.05	-71.0	6.11	10.94	865	-	0.06170	0.752	0.0477 J-	0.0267	429
2-May-18	11.60	2547	-	-	25.30	10.36	1860	-	0.08590	0.886	0.02670 J+	0.0436	611
22-Aug-18	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
7-Nov-18	9.70	995	6.72	126.8	20.60	9.15	1040	-	0.07600	0.950	0.06550	0.0450	333 J+
11-Mar-19	10.60	1354	5.93	-18.7	7.19	10.31	1270	-	0.04930	0.708	0.04170	0.0833	458
9-May-19	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
26-Aug-19	Dry	Dry	Dry	Dry	Dry	Dry	Dry	-	Dry	Dry	Dry	Dry	Dry
14-Nov-19	8.70	1180	5.98	30.9	7.38	9.03	1120	-	0.0672	0.787	0.0764	0.0599	418
13-Feb-20	4.30	1032	2.51	-126.9	6.10	10.46	927	-	0.0281	0.466	0.0130	0.0680	348
13-Aug-20	DRY	DRY	DRY	DRY	DRY	DRY	DRY	-	DRY	DRY	DRY	DRY	DRY
10-Dec-20	5.60	1000	2.52	66.8	6.02	9.66	952	-	0.0120	0.993	0.0066	0.0382	318
4-Mar-21	8.10	1271	1.98	38	8.02	10.35	4820	-	0.0506	4.370	0.0357	0.0864	435
Preliminary Standard <sup>c</sup>	-	700	-	-	-	6.5-8.5	500	6.5-8.5	TBD <sup>d</sup>	0.3	0.05	0.05	-

Notes:

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not analyzed or not available
- < Analyte not detected above the reporting limit shown
- + South Pond frozen; unable to collect field parameters or samples
- Dry South Pond dry; unable to collect field parameters or samples
- a North Creek Analytical, Inc.
- b Severn Trent Laboratories
- c Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- d Site background arsenic value to be determined (TBD)
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius
- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-1A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
15-Jul-05	35.43	574.40	15.17	883	-	-	358.00	7.03	664	0.00847	<0.100	<0.00200	0.6020	-
9-Nov-05	31.83	578.00	10.77	1037	-	-	22.20	6.89	680	0.00345	<0.150	<0.00100	0.0286	-
15-Feb-06	23.91	585.92	9.14	623	1.53	497.4	6.76	7.26	470 J	0.00325	<0.150	<0.00100	<0.0100	-
17-May-06	31.91	577.92	11.32	1029	1.33	121.6	10.30	7.18	600	0.00518	<0.150	<0.00100	0.3160	-
23-Aug-06	35.35	574.48	19.21	481	5.97	60.4	6.30	6.67	340	0.00170	<0.150	<0.00100	0.0234	-
14-Nov-06	20.00	589.83	10.35	635	4.55	95.1	22.20	7.23	550	0.00307	<0.150	<0.00100	0.0131	-
14-Feb-07	29.29	580.54	11.13	435	3.88	85.6	32.10	6.76	260	0.00200	<0.150	<0.00100	0.0116	-
30-May-07	32.90	576.93	10.30	545	6.63	145.7	6.93	6.81	320	0.00248	<0.150	<0.00100	<0.0100	-
27-Aug-07	35.68	574.15	10.49	428	7.13	76.7	8.65	6.95	260 J	0.00187	<0.150	<0.00100	0.0189	-
29-Nov-07	32.75	577.08	10.10	625	7.14	144.3	12.20	6.96	340 J	0.00232	<0.150	<0.00100	<0.0100	-
27-Feb-08	27.83	582.00	-	-	-	-	19.60	-	320	0.00258	<0.150	<0.00100	<0.0100	-
20-May-08	31.86	577.97	10.22	471	6.38	177.0	109.00	6.48	290 J	0.00224	<0.150	<0.00100	0.0253	-
27-Aug-08	36.04	573.79	9.84	427	7.40	118.4	63.60	7.08	260	0.00205	<0.150	<0.00100	0.0173	23.0
26-Sep-08	<i>Test Trench Drain Line Installed</i>													
16-Oct-08	35.65	574.18	9.51	443	9.78	113.9	38.00	7.38	260 J	0.00179	<0.150	<0.00100	0.0136	22.9
20-Nov-08	25.62	584.21	9.49	563	6.11	231.0	5.48	7.18	430	0.00368	<0.150	<0.00100	<0.0100	106.0
30-Dec-08	23.14	586.69	9.84	402	8.40	106.9	8.92	7.25	280 J	0.00247	<0.150	<0.00100	0.0130	43.9
15-Jan-09	20.66	589.17	8.40	336	9.65	229.6	1.07	6.88	290	0.00225	<0.150	<0.00100	<0.0100	35.7
12-Feb-09	30.00	579.83	9.05	372	8.46	-	16.70	7.34	320	0.00193	<0.150	<0.00100	0.0165	27.0
12-Mar-09	31.30	578.53	9.13	409	8.60	174.9	15.80	7.03	340	0.00166	<0.150	<0.00100	<0.0100	20.6
16-Apr-09	23.88	585.95	8.17	343	10.24	131.8	13.50	6.78	310	0.00177	<0.150	<0.00100	<0.0100	24.6
19-May-09	30.50	579.33	8.99	392	8.69	82.6	23.70	7.75	340 J	0.00156	<0.150	<0.00100	<0.0100	19.6
23-Jun-09	34.00	575.83	9.21	480	9.56	79.0	22.90	7.89	430	<0.00200	<0.200	<0.00200	<0.0200	20.0
25-Aug-09	36.95	572.88	13.10	373	6.47	311.9	4.98	6.76	270 J+	0.00064 J	<0.200	<0.00200	0.0042 J	17.0
23-Sep-09	37.12	572.71	11.30	336	6.90	368.3	21.30	6.73	240	<0.00200	0.054 J	0.00018 J	0.0120 J	14.0
15-Dec-09	28.30	581.53	9.20	643	5.30	567.0	18.00	6.72	330	<0.00200	0.033 J	<0.00200	0.0065 J	26.0
24-Mar-10	30.03	579.80	9.80	562	5.72	545.9	5.04	6.74	370	0.00190 J	<0.200	<0.00200	<0.0200 U	19.0
16-Jun-10	23.55	586.28	9.20	506	5.93	405.4	16.10	6.53	<40	0.00360	0.110 J	<0.00200	0.0110 J	20.0
21-Sep-10	35.89	573.94	10.40	593	4.82	288.5	117.00	6.96	370	0.00260	<0.200	0.00023 J	0.0350 J+	19.0
7-Dec-10	27.39	582.44	10.00	504	1.45	198.4	139.00	7.15	330	0.00230	0.650	<0.00200	0.1700	14.0
29-Mar-11	29.76	580.07	8.10	247	2.47	169.0	6.81	7.14	300	0.00240	0.290 J+	<0.00200	0.0540	15.0
21-Jun-11	30.45	579.38	9.30	606	4.58	332.9	3.56	7.17	400 J	<0.00500	<0.200	<0.00200	0.0100 J	16.0
27-Sep-11	36.65	573.18	9.90	366	7.27	356.2	2.18	6.85	310	<0.00500	<0.200	<0.00200	0.0060 J	17.0
14-Dec-11	31.53	578.30	9.20	407	1.97	234.7	20.40	7.09	370	<0.00500	0.330	<0.00200	0.0860	16.0
20-Mar-12	21.60	588.23	7.70	561	7.06	385.4	4.80	7.18	280	0.00230	<0.200	<0.00040	0.0029 J	16.0

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-1A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled*	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
19-Jun-12	21.60	588.23	10.00	575	7.04	378.2	5.60	7.31	330	0.00250	<0.200	<0.00040	0.0068 J	16.0
19-Sep-12	36.42	573.41	11.30	561	8.76	286.0	2.49	7.02	310	0.00240	<0.200	<0.00040	<0.0200	17.0
19-Dec-12	23.43	586.40	9.30	671	6.67	348.2	0.74	7.26	<20	0.00170	<0.200	<0.00040	<0.0200	17.0
25-Feb-13	29.32	580.51	8.00	572	9.51	337.0	26.00	7.28	300	0.00250	<0.500	<0.00040	<0.0200	16.0
22-May-13	31.23	578.60	9.00	518	8.59	397.7	4.68	7.40	310	0.00180	<0.500	<0.00040	<0.0200	15.0
21-Aug-13	37.02	572.81	10.20	534	9.27	152.7	1.46	7.11	227	0.00120	<0.050	<0.00010	0.0030	14.1
20-Nov-13	29.69	580.14	9.50	852	7.62	243.5	39.50	6.75	419	0.00160	<0.050	<0.00010	0.0020	19.9
1-Apr-14	23.29	586.54	8.90	347	7.60	248.1	2.54	7.30	247	0.00200	<0.050	<0.00010	<0.0007	16.5
21-May-14	28.31	581.52	9.50	349	4.02	178.6	-	7.12	280	0.00180	<0.050	<0.00010	0.0150	15.1
13-Aug-14	36.52	573.31	12.10	441	9.22	51.9	6.20	7.10	283	0.00140	<0.050	<0.00010	0.0030	15.2
13-Nov-14	31.63	578.20	11.50	438	8.80	173.0	14.70	7.10	352	0.00160	<0.050	<0.00010	0.0020	17.1
11-Feb-15	23.02	586.81	9.40	498	3.89	98.1	10.50	7.72	319	0.00910	0.180	0.00030	0.0040	42.9
4-May-15	31.93	577.90	9.80	578	7.35	416.9	1.05	7.26	413	0.00170	0.008 J	<0.00010	0.0100	16.0
6-Aug-15	37.65	572.18	10.70	447	0.17	71.6	49.00	7.21	343	0.00390	0.110	<0.00010	0.2140	10.3
4-Nov-15	32.89	576.94	9.50	657	8.56	240.5	5.70	6.92	554	0.00230	0.013 J	<0.00010	<0.0010	49.3
10-Feb-16	25.39	584.44	9.80	322	7.36	204.8	3.21	7.31	202	0.00200	0.0076 J	<0.00010	0.0070	22.2
2-May-16	32.32	577.51	10.80	579	5.95	250.2	4.70	7.02	350	0.00180	<0.050	0.00004 J-	0.0040	17.8
23-Aug-16	37.66	572.17	11.00	488	1.34	459.9	259.00	7.08	413	0.00388	0.130	0.00007 J	0.6220	14.6
2-Nov-16	31.30	578.53	9.70	280	3.94	225.0	6.13	7.18	531	0.00213	<0.050	0.00012	0.0020	37.7
1-Feb-17	29.01	580.82	8.60	510	5.26	187.7	0.97	7.04	270	0.00147	<0.050	<0.00010	0.0035	19.0
30-May-17	28.47	581.36	9.50	483	6.89	4.7	4.85	6.96	290	0.00209	0.005 J	<0.00010	0.0034	15.7
17-Aug-17	36.30	573.53	10.50	536	3.79	82.5	6.44	6.96	283	0.00155	0.061	<0.00010	0.0524	15.5
9-Nov-17	32.20	577.63	9.20	460	5.89	75.1	2.70	7.01	380	0.00163	<0.05	<0.0001	0.0019	16.3
27-Feb-18	25.18	584.65	8.90	215	7.35	121.6	6.04	6.31	186	0.00172	<0.05	<0.0001	0.0084	15.5
1-May-18	26.98	582.85	9.50	391	7.82	-	3.06	6.94	214	0.00165	0.0042 J	<0.00010 J	<0.0003	14.1
21-Aug-18	37.29	572.54	10.02	266	7.37	75.6	129.00	6.84	215	0.00151	0.148	<0.0001	0.0150	13.3
6-Nov-18	34.18	575.65	9.60	340	9.13	215.4	1.00	6.93	327	0.00167	<0.05	<0.0001	<0.001	16.6
11-Mar-19	27.75	582.08	8.90	323	5.65	185.3	4.29	6.94	269	0.00136	<0.05	<0.0001	0.0111	14.4
8-May-19	30.05	579.78	9.80	448	7.77	97.6	1.11	6.87	320	0.00125	0.0068 J	<0.0001	0.0005 J	15.1
26-Aug-19	37.02	572.81	9.83	329	1.16	Note 1	7.97	7.11	258	0.00090	0.0039 J	<0.0001	0.0317	10.7
13-Nov-19	35.13	574.70	9.20	376	5.50	144.0	8.26	6.87	320	0.00123	0.0133 J	<0.0001	0.0055	15.8
12-Feb-20	20.38	589.45	9.00	381	2.58	191.6	1.33	7.15	268	0.00125	0.0083 J	0.0001 U	0.0228	26.6
12-Aug-20	36.61	573.22	9.50	285	5.01	198.7	0.80	6.96	214	0.00114	0.0034 J	0.0001 U	0.0009 J	14.1
9-Dec-20	32.05	577.78	9.10	425	7.17	211.0	1.57	6.86	347	0.00111	0.0185 J	0.0001 U	0.004 U	17.1
3-Mar-21	27.01	582.82	8.60	383	5.71	248	0.60	6.83	299	0.00116	0.05 U	0.0001 U	0.004 U	17.4
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.3	0.05	0.05	-

Notes:

Top of casing elevation (feet msl): 609.83

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not measured or not available

< Analyte not detected above the reporting limit shown

\* Depth to water (DTW) measurements for all shallow/alluvial wells collected on the same day; date noted is sampling date

a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest

b Site background arsenic value to be determined (TBD)

U Data validation code; not detected at the Reporting Limit (RL)

J Data validation code; estimated value

J+ Data validation code; estimated value with positive bias

°C Degrees Celsius

Note 1 ORP measurements not available due to faulty sensor.

µmhos/cm Micromhos per centimeter

mg/L Milligrams per liter

feet bmp Feet below measuring point

mV Millivolts

feet msl Feet above mean sea level

NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-2A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
15-Jul-05	29.18	574.43	13.78	853	-	-	28.30	7.70	606	<0.00200	<0.100	<0.00200	0.2090	-
9-Nov-05	25.64	577.97	10.95	860	-	-	3.82	7.43	550	0.00131	<0.150	<0.00100	0.4490	-
15-Feb-06	17.64	585.97	7.81	709	0.82	467.7	3.96	7.86	520 J	0.00106	<0.150	<0.00100	0.1340	-
17-May-06	25.76	577.85	9.67	810	2.17	246.1	3.01	7.06	490	0.00113	<0.150	<0.00100	0.0596	-
23-Aug-06	29.13	574.48	12.86	759	2.60	12.0	9.82	7.40	570	0.00154	<0.150	<0.00100	0.2300	-
14-Nov-06	13.74	589.87	10.44	649	3.72	63.6	9.78	7.72	460	0.00136	<0.150	<0.00100	0.0553	-
14-Feb-07	22.09	581.52	10.77	648	1.69	11.5	52.40	7.51	380	0.00107	<0.150	<0.00100	0.1650	-
30-May-07	26.72	576.89	11.46	732	2.05	72.2	12.80	7.44	480	0.00117	<0.150	<0.00100	0.1870	-
27-Aug-07	29.45	574.16	10.80	829	7.41	62.8	117.00	7.58	590 J	0.00109	<0.150	<0.00100	0.1160	-
29-Nov-07	26.57	577.04	10.74	899	2.00	81.1	392.00	6.05	490	0.00103	<0.150	<0.00100	0.1260	-
27-Feb-08	21.45	582.16	-	-	-	-	446.00	-	400	0.00109	<0.150	<0.00100	0.1230	-
20-May-08	25.73	577.88	9.48	706	3.07	110.2	419.00	7.26	420 J	0.00121	<0.150	<0.00100	0.0835	-
27-Aug-08	29.84	573.77	9.87	824	4.74	91.5	571.00	7.43	550 J	0.00130	<0.150	<0.00100	0.0929	65.1
26-Sep-08	<i>Test Trench Drain Line Installed</i>													
16-Oct-08	29.13	574.48	9.76	820	4.56	53.6	227.00	7.33	520 J	0.00130	<0.150	<0.00100	0.0496	76.3
20-Nov-08	19.48	584.13	9.31	462	5.24	240.1	6.16	7.35	360	0.00176	<0.150	<0.00100	0.0149	67.0
30-Dec-08	16.93	586.68	9.85	480	6.18	66.8	56.10	7.35	390 J	0.00155	<0.150	<0.00100	0.0157	61.5
15-Jan-09	14.46	589.15	7.71	402	7.47	177.8	1.61	7.61	360	0.00157	<0.150	<0.00100	<0.0100	58.5
12-Feb-09	23.84	579.77	9.63	-	8.72	-	74.90	7.54	390	0.00130	<0.150	<0.00100	0.0371 J	48.1
12-Mar-09	25.15	578.46	9.11	454	7.22	163.7	573.00	7.19	400	0.00117	<0.150	<0.00100	0.0135	43.1
16-Apr-09	17.72	585.89	8.40	417	8.27	126.4	128.00	7.26	400	0.00140	<0.150	<0.00100	0.0107	48.8
19-May-09	24.38	579.23	8.80	448	6.88	72.0	178.00	7.95	410 J	0.00110	<0.150	<0.00100	<0.0100	44.0
23-Jun-09	27.85	575.76	8.95	507	7.76	61.9	256.00	8.07	490	<0.00200	<0.200	<0.00200	<0.0200	39.0
25-Aug-09	30.68	572.93	10.50	707	6.94**	307.4	4.38	7.17	530 J+	<0.00200	0.091 J	0.00018 J	0.0300	49.0
23-Sep-09	30.84	572.77	11.20	661	5.41	374.7	15.00	7.28	500	<0.00200	<0.200	<0.00200	0.0041 J	51.0
15-Dec-09	22.10	581.51	9.50	720	5.10	579.0	39.00	6.92	380	<0.00200	<0.200	<0.00200	<0.0200	42.0
24-Mar-10	23.82	579.79	10.00	602	4.10	535.3	43.30	6.93	370	0.00170 J	0.062 J	<0.00200	<0.0200 U	39.0
17-Jun-10	17.45	586.16	9.30	547	4.06	-	157.00	6.57	350	0.00390	0.063 J	<0.00200	0.0030 J	39.0
22-Sep-10	29.66	573.95	10.20	722	5.77	360.2	7.20	7.22	450	0.00330	<0.200	<0.00200	<0.0200	55.0
8-Dec-10	22.10	581.51	9.90	566	6.69	-	64.60	7.09	350	<0.00200	<0.200	<0.00200	0.0018 J	35.0
29-Mar-11	19.94	583.67	8.40	251	6.95	620.0	28.00	7.13	250 J	0.00140 J	<0.200	<0.00200	0.0030 J	30.0
21-Jun-11	24.25	579.36	9.90	628	5.23	344.3	37.00	7.29	410 J	<0.00500	<0.200	<0.00200	0.0056 J	28.0
28-Sep-11	30.41	573.20	9.50	58	6.54	481.7	13.80	7.24	500	<0.00500	<0.200	<0.00200	<0.0200	54.0
14-Dec-11	25.35	578.26	9.30	441	3.86	346.5	386.00	7.26	440	<0.00500	<0.200	<0.00200	0.0037 J	29.0
20-Mar-12	15.45	588.16	7.70	580	1.53	382.0	32.30	7.40	280	0.00220	0.200	<0.00040	<0.0200	26.0

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-2A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled*	Field Parameters								Gen. Chem. Total Dissolved Solids (mg/L)	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Arsenic	Iron	Lead	Manganese	Potassium
19-Jun-12	23.88	579.73	9.00	590	1.85	388.1	55.70	7.74	320	0.00250	<0.200	<0.00040	<0.0200	23.0
19-Sep-12	30.18	573.43	11.10	695	7.03	297.0	9.31	7.41	420	0.00270	<0.200	<0.00040	<0.0200	42.0
19-Dec-12	17.24	586.37	9.40	704	6.33	317.0	55.20	7.40	310	0.00170	<0.200	<0.00040	<0.0200	25.0
25-Feb-13	23.12	580.49	9.10	585	6.04	339.0	110.00	7.46	370	0.00250	<0.500	<0.00040	<0.0200	24.0
22-May-13	25.05	578.56	8.60	537	8.41	391.5	12.30	7.51	310	0.00190	<0.500	<0.00040	<0.0200	22.0
21-Aug-13	30.75	572.86	10.60	684	8.42	150.2	5.85	7.74	419	0.00150	<0.050	0.00020	0.0020	27.7
20-Nov-13	23.51	580.10	9.60	513	6.19	230.4	32.10	6.81	364	0.00130	<0.050	<0.00010	0.0010	27.5
1-Apr-14	17.11	586.50	8.50	386	7.32	243.1	14.60	7.46	294	0.00140	0.009 J	<0.00010	<0.0005	31.7
21-May-14	22.07	581.54	9.10	365	6.02	212.7	-	6.93	273	0.00130	<0.050	<0.00010	<0.0010	24.7
12-Aug-14	31.32	572.29	13.16	552	6.56	76.7	6.80	7.36	394	0.00150	<0.050	<0.00010	<0.0010	25.3
13-Nov-14	25.48	578.13	12.30	460	7.22	189.8	7.20	7.19	367	0.00140	<0.050	<0.00010	0.0010	25.5
11-Feb-15	16.83	586.78	9.30	447	6.76	134.4	36.60	7.52	286	0.00170	0.026 J	<0.00010	0.0007 J	30.4
4-May-15	25.78	577.83	10.20	619	6.27	407.1	7.70	7.36	382	0.00140	<0.050	<0.00010	0.0004 J	25.2
6-Aug-15	31.87	571.74	11.30	500	9.18	207.1	28.10	7.23	394	0.00150	<0.050	<0.00010	0.0030	22.0
4-Nov-15	26.74	576.87	9.90	481	8.76	222.6	16.80	6.88	381	0.00110	<0.050	<0.00010	0.0190	21.8
10-Feb-16	19.19	584.42	9.00	376	7.35	206.0	40.20	7.68	261	0.00360	0.0140 J	<0.00010	0.0040	37.1
2-May-16	26.14	577.47	11.30	552	3.19	194.5	87.80	7.35	344	0.00210	0.0045 J	0.00001 J-	0.0020	31.2
23-Aug-16	31.64	571.97	10.50	545	7.62	486.5	10.80	7.18	412	0.00154	<0.050	<0.00010	0.0011	32.6
2-Nov-16	25.12	578.49	10.20	220	4.01	238.9	245.00	7.19	431	0.00140	<0.050	<0.00010	0.0015	30.6
1-Feb-17	22.84	580.77	9.10	580	5.06	186.3	13.60	7.35	317	0.00317	0.010 J	<0.00010	<0.0010	51.1
30-May-17	22.31	581.30	9.40	520	7.01	5.0	40.20	7.18	322	0.00178	0.010 J	<0.00010	<0.0010	34.1
17-Aug-17	30.08	573.53	10.60	626	5.63	134.2	32.30	7.21	370	0.00128	0.014 J	<0.00010	0.0009 J	28.9
9-Nov-17	26.04	577.57	9.80	480	5.79	74.4	68.80	7.00	391	0.00139	<0.05	<0.0001	0.0005 J	25.4
27-Feb-18	19.03	584.58	8.80	293	7.43	185.2	15.10	6.90	254	0.00398	<0.05	<0.0001	<0.001	41.9
1-May-18	20.84	582.77	9.10	531	7.46	-	25.00	7.35	316	0.00300	0.0216 J	<0.00010 J	0.0018	40.6
21-Aug-18	31.09	572.52	10.39	437	7.33	115.2	19.10	7.04	358	0.00148	0.05 U	<0.0001	0.0011	26.9
6-Nov-18	28.00	575.61	9.70	420	8.17	210.3	6.74	6.97	418	0.00130	<0.05	<0.0001	<0.001	23.4
11-Mar-19	21.61	582.00	9.00	351	9.20	187.1	20.60	7.11	312	0.00157	0.0057 J	<0.0001	0.0012	32.7
8-May-19	23.88	579.73	9.80	443	8.05	109.6	7.79	7.06	316	0.00166	0.005 J	<0.0001	0.0005 J	32.9
26-Aug-19	30.90	572.71	10.91	495	8.65	Note 1	12.70	6.91	394	0.00128	<0.05	<0.0001	0.0004 J	21.1
13-Nov-19	28.91	574.70	9.80	506	7.81	180.4	14.40	6.87	429	0.00134	0.0031 J	<0.0001	<0.001	22.9
12-Feb-20	14.21	589.40	8.10	319	9.95	189.3	14.60	7.27	277	0.00195	0.0093 J	0.0001 U	0.001 U	56.3
12-Aug-20	30.41	573.20	9.50	463	6.60	185.5	72.90	7.03	359	0.00120	0.0151 J	0.0001 U	0.0013	22.4
9-Dec-20	25.91	577.70	9.40	533	6.44	213.0	9.96	6.97	400	0.00138	0.255 J	0.00049 J	0.0149	26.8
3-Mar-21	20.83	582.78	8.90	330	5.24	216.5	12.40	7.18	268	0.00180	0.340	0.00022	0.0126	61.1
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.3	0.05	0.05	-

Notes:

Top of casing elevation (feet msl): 603.61

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not measured or not available
- < Analyte not detected above the reporting limit shown
- \* Depth to water (DTW) measurements for all shallow/alluvial wells collected on the same day; date noted is sampling date
- \*\* Dissolved Oxygen meter working incorrectly at the time of sample collection
- a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- b Site background arsenic value to be determined (TBD)
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius

Note 1 ORP measurements not available due to faulty sensor.

- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-3A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese	Potassium
15-Jul-05	6.09	679.42	13.80	1124	-	-	30.30	6.96	922	0.00241	<0.100	<0.00200	0.6280	-
10-Nov-05	5.50	680.01	10.80	1518	-	-	2.32	6.88	960	0.01050	4.800	<0.00100	3.6000	-
15-Feb-06	5.31	680.20	9.52	1357	0.46	217.4	58.20	6.33	930 J	0.00666	4.290	<0.00100	2.8500	-
16-May-06	6.25	679.26	10.40	1296	0.96	91.0	11.40	6.91	910	0.01010	6.560	<0.00100	3.3800	-
22-Aug-06	8.85	676.66	12.84	1362	1.28	-64.8	56.00	6.97	900	0.01210	7.060	<0.00100	2.8500	-
13-Nov-06	5.03	680.48	11.24	1392	2.12	-74.4	234.00	6.89	910	0.00573	4.750	<0.00100	2.6900	-
16-Feb-07	5.55	679.96	8.99	1155	0.75	-71.3	12.30	6.96	770	0.00374	3.770 J	<0.00100	2.6100 J	-
30-May-07	6.72	678.79	11.86	1297	0.75	-25.2	12.50	7.04	790	0.00520	5.840	<0.00100	2.2200	-
27-Aug-07	8.38	677.13	12.65	1483	0.71	-96.3	15.30	6.73	1100 J	0.00874	9.160	<0.00100	2.3200	-
28-Nov-07	5.66	679.85	10.47	1363	1.05	-72.9	26.90	7.31	730	0.00424	5.460	<0.00100	2.2700	-
27-Feb-08	5.57	679.94	-	-	-	-	121.00	-	860	0.00976	5.990	<0.00100	2.4900	-
19-May-08	5.94	679.57	9.39	1346	0.66	-52.6	20.00	6.93	820 J	0.00664	8.740	<0.00100	2.3300	-
26-Aug-08	6.44	679.07	12.15	1495	0.85	-53.6	5.85	6.88	820	0.00342	2.610	<0.00100	1.5300	30.3
18-Nov-08	5.50	680.01	10.50	975	1.87	-67.4	225.00	6.93	880 J	0.00748	10.100	<0.00100	2.2900	62.5
11-Feb-09	5.62	679.89	7.67	877	0.98	-	68.00	7.28	810	0.00520	5.710	<0.00100	2.2700	50.6
19-May-09	5.60	679.91	8.52	847	0.91	-63.4	52.00	8.21	750 J	0.00251	<0.150	<0.00100	2.2000	49.5
22-Sep-09	8.36	677.15	15.70	1149	0.10	132.1	75.10	7.05	910	0.00660	5.200	<0.00200	1.8000	53.0
17-Dec-09	4.59	680.92	8.90	1300	0.40	194.0	401.00	7.08	710	<0.00200	0.740	<0.00200	2.2000	62.0
24-Mar-10	5.40	680.11	11.20	1010	0.12	-	226.00	6.76	800	0.00380	4.400	<0.00200	2.1000	46.0
16-Jun-10	5.27	680.24	10.10	1123	0.20	188.0	6.19	8.43	570	0.01300	6.400	<0.00200	1.9000	49.0
21-Sep-10	6.01	679.50	12.70	1314	0.19	177.7	2.97	6.91	1,000	0.00620	2.800	0.00019 J	1.3000	160.0
7-Dec-10	5.23	680.28	9.70	1183	0.23	182.7	25.30	6.86	840	0.00320	4.100	<0.00200	1.9000	82.0
30-Mar-11	5.04	680.47	8.30	498	0.28	174.0	4.93	7.89	700	0.00360	3.700	<0.00200	1.4000	36.0
22-Jun-11	6.77	678.74	9.70	895	0.43	172.2	9.18	7.01	700 J	<0.00500	5.100	<0.00200	1.5000	34.0
28-Sep-11	7.83	677.68	12.60	99	0.18	141.8	6.07	6.83	840	0.00880	7.700	<0.00200	2.7000	83.0
15-Dec-11	5.40	680.11	9.00	785	0.60	179.8	24.40	6.98	760	0.00450 J	2.400	<0.0020	1.9000	73.0
20-Mar-12	4.96	680.55	7.10	1092	0.16	22.6	12.10	7.11	470	0.00520	2.300	<0.0020	1.6000	73.0
19-Jun-12	6.76	678.75	10.30	1077	0.11	198.6	11.30	7.07	660	0.01200	8.500	<0.0004	1.8000	78.0
20-Sep-12	8.67	676.84	12.30	1235	0.15	111.0	1.96	6.99	710	0.01100	7.500	0.00005 J	2.1000	100.0
18-Dec-12	4.98	680.53	8.70	1450	0.30	-40.6	18.70	7.25	740	0.00480	1.800	<0.00040	1.6000	150.0
26-Feb-13	5.25	680.26	7.80	1211	0.15	186.6	27.80	7.21	740	0.00470	3.100	<0.00040	2.0000	98.0
23-May-13	6.56	678.95	9.90	1000	0.18	242.3	16.90	7.21	460	0.01400	5.100	0.00280	0.9100	150.0
21-Aug-13	9.01	676.50	12.10	917	0.12	-14.2	1.24	7.27	772	0.00760	5.210	0.00005 J	1.8100	94.0
19-Nov-13	6.09	679.42	9.90	697	0.07	61.8	2.93	6.77	852	0.01230	9.660	0.00020	1.5300	169.0
1-Apr-14	5.75	679.76	9.00	722	0.10	131.3	4.47	7.07	624	0.01050	11.100	0.00006 J	1.7600	104.0
22-May-14	5.80	679.71	9.80	580	1.08	185.3	-	6.85	494	0.00520	4.170	0.00010	1.4300	66.5
13-Aug-14	8.54	676.97	11.48	915	2.85	-67.6	8.16	7.09	740	0.00690	5.140	<0.00010	1.5100	116.0
12-Nov-14	5.97	679.54	11.10	314	2.79	-85.1	15.30	6.87	744	0.00690	3.400	<0.00010	2.0000	89.1
12-Feb-15	5.50	680.01	9.80	980	0.52	-54.5	1.28	7.04	696	0.00420	3.570	<0.00010	2.1900	73.2
4-May-15	5.80	679.71	10.80	994	0.17	143.4	15.40	7.12	701	0.00930	7.970	<0.00010	1.8800	100.0
5-Aug-15	10.12	675.39	12.60	881	0.13	-90.4	0.89	7.07	724	0.00730	5.000	<0.00010	2.0000	70.3
3-Nov-15	5.30	680.21	12.00	865	1.23	105.5	5.06	6.97	1020	0.00170	0.180	0.00020	0.6750	195.0
9-Feb-16	5.14	680.37	9.10	954	0.55	154.6	4.82	7.03	625	0.00340	3.000	<0.00010	1.8700	92.7
2-May-16	4.74	680.77	11.30	844	0.19	96.8	2.21	7.16	621	0.01050	7.310	0.00004 J	1.7200	105.0
23-Aug-16	9.04	676.47	13.20	946	0.03	156.2	3.48	6.97	924	0.00819	6.780	0.00009 J	1.7000	148.0
1-Nov-16	6.18	679.33	11.90	349	0.15	18.5	2.43	7.11	744	0.00263	0.730	<0.00010	0.8630	180.0
1-Feb-17	5.91	679.60	7.50	1114	0.17	-67.4	6.05	7.08	694	0.00640	4.810	<0.00010	1.9200	100.0
30-May-17	7.40	678.11	10.40	753	2.20	8.6	3.28	7.12	465	0.00952	5.240	<0.00010	1.3800	89.3
17-Aug-17	9.71	675.80	12.40	1101	0.25	-60.2	3.39	7.01	737	0.00847	5.730	<0.00010	2.1700	72.0
9-Nov-17	6.06	679.45	9.60	833	0.64	75.3	2.01	7.08	748	0.00184	<0.05	<0.0001	0.5540	191.0

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-3A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled*	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
27-Feb-18	5.16	680.35	7.60	791	0.21	-75.4	9.52	6.64	506	0.00297	1.410	<0.0001	1.3800	92.0
1-May-18	5.41	680.10	10.00	847	0.93	-	5.82	7.36	547	0.00381	0.961	<0.00010 J	0.8960	120.0
21-Aug-18	10.81	674.70	14.54	909	2.96	-17.2	1.67	6.92	722	0.00648	2.610	<0.0001	2.0700	101.0
7-Nov-18	5.85	679.66	11.20	931	0.66	179.0	0.87	6.97	828	0.00203	<0.05	0.000073 J	0.2780	202 J+
11-Mar-19	5.26	680.25	6.10	478	1.25	53.7	2.39	7.34	486	0.00144	0.051	<0.0001	0.3490	125.0
9-May-19	5.44	680.07	10.20	678	3.72	-9.4	1.85	7.04	574	0.00302	0.274	0.000083 J	0.5940	143.0
26-Aug-19	9.30	676.21	13.96	1041	0.60	Note 1	0.02	6.83	843	0.00615	2.160	<0.0001	2.3600	142.0
13-Nov-19	5.58	679.93	9.40	803	0.31	12.8	0.02	6.97	724	0.00220	0.132	0.000077 J	0.4760	174.0
12-Feb-20	5.10	680.41	7.80	349	0.37	-62.4	1.40	7.25	287	0.00186	0.257	0.0001 U	0.4760	74.2
13-Aug-20	9.33	676.18	11.80	884	0.64	-81.6	4.28	6.76	683	0.01090	3.290	0.0001 U	2.1600	119.0
10-Dec-20	5.08	680.43	8.50	688	3.06	210.0	0.90	7.29	566	0.00236	0.070	0.00016	0.2920	128.0
4-Mar-21	5.26	680.25	7.00	364	0.59	47	1.54	7.42	319	0.00152	0.121	0.00013	0.3710	74.2
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.3	0.05	0.05	-

Notes:

Top of casing elevation (feet msl): 685.51

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not measured or not available
- < Analyte not detected above the reporting limit shown
- \* Depth to water (DTW) measurements for all shallow/alluvial wells collected on the same day; date noted is sampling date
- a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- b Site background arsenic value to be determined (TBD)
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius
- Note 1 ORP measurements not available due to faulty sensor.
- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-4A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
15-Jul-05	4.60	697.25	12.43	629	-	-	6.07	6.45	490	<0.00200	<0.100	<0.00200	0.4260	-
10-Nov-05	3.70	698.15	11.98	441	-	-	7.40	6.22	290	<0.00100	<0.150	<0.00100	0.0991	-
19-Jan-06	3.56	698.29	8.29	319	0.42	-	1.46	6.53	290 J	<0.00100	<0.150	<0.00100	0.0908	-
15-Feb-06	3.82	698.03	8.32	326	0.62	99.7	3.50	7.39	220 J	<0.00100	<0.150	<0.00100	0.0341	-
15-Mar-06	3.79	698.06	7.58	254	0.87	201.9	0.82	6.65	210 J	<0.00100	<0.150	<0.00100	0.0650	-
7-Apr-06	3.87	697.98	9.36	295	0.55	157.4	0.24	6.34	220	<0.00100	<0.150	<0.00100	0.0724	-
16-May-06	4.92	696.93	10.80	321	0.45	142.1	0.99	6.36	220	<0.00100	<0.150	<0.00100	0.0376	-
23-Jun-06	4.41	697.44	12.62	316	0.57	-	2.05	6.25	200	<0.00100	<0.150	0.00264	0.0638	-
20-Jul-06	6.90	694.95	13.43	347	0.23	-20.9	0.32	6.11	120	<0.00100	<0.150	<0.00100	0.1040	-
22-Aug-06	8.46	693.39	13.68	406	0.90	153.5	2.20	6.13	280	<0.00100	<0.150	<0.00100	0.1510	-
26-Sep-06	6.50	695.35	14.59	417	2.47	-35.2	2.42	6.33	290	<0.00100	<0.150	<0.00100	0.0835	-
26-Oct-06	5.98	695.87	12.82	434	3.30	124.1	0.82	6.12	320	<0.00100	<0.150	<0.00100	0.2160	-
13-Nov-06	3.02	698.83	11.70	386	5.06	187.8	2.47	6.13	280	<0.00100	<0.150	<0.00100	0.0442	-
20-Dec-06	3.60	698.25	9.64	379	4.30	150.5	1.03	6.07	250	<0.00100	<0.150	<0.00100	0.0568	-
23-Jan-07	3.68	698.17	8.37	239	3.96	58.9	0.66	6.28	220	<0.00100	<0.150	<0.00100	0.1800	-
14-Feb-07	3.74	698.11	8.18	325	2.85	110.8	0.53	6.25	210	<0.00100	<0.150	<0.00100	0.0398	-
27-Mar-07	3.32	698.53	8.27	289	2.07	61.5	0.88	6.83	210 J	<0.00100	<0.150	<0.00100	0.2290	-
17-Apr-07	3.89	697.96	9.59	306	1.80	102.3	2.31	6.34	190	<0.00100	<0.150	<0.00100	0.2220	-
30-May-07	4.70	697.15	11.27	285	1.78	101.7	1.37	6.37	180	<0.00100	<0.150	<0.00100	0.0246	-
20-Jun-07	4.69	697.16	12.37	350	1.67	9.3	1.25	6.90	240 J	<0.00100	<0.150	<0.00100	0.0321	-
31-Jul-07	6.38	695.47	14.57	402	1.15	5.5	0.60	6.37	250	0.00129	<0.150	<0.00100	0.0307	-
29-Aug-07	7.44	694.41	13.78	353	1.11	128.3	1.87	6.18	280 J	<0.00100	<0.150	<0.00100	0.0490	-
27-Sep-07	8.25	693.60	13.60	375	0.96	142.6	0.70	6.70	300	<0.00100	<0.150	<0.00100	0.1170	-
26-Oct-07	4.09	697.76	12.16	343	2.27	75.9	3.93	6.10	310 J	<0.00100	<0.150	<0.00100	0.0117	-
29-Nov-07	3.93	697.92	10.13	428	3.17	197.3	1.63	6.32	270	<0.00100	<0.150	<0.00100	0.0164	-
12-Dec-07	5.82	696.03	9.51	384	3.37	185.0	0.80	6.06	260	<0.00100	<0.150	<0.00100	0.0392	-
24-Jan-08	3.86	697.99	7.74	354	3.09	109.0	-	6.35	250	<0.00100	<0.150	<0.00100	0.0376	-
28-Feb-08	4.04	697.81	-	-	-	-	1.06	-	220	<0.00100	<0.150	<0.00100	0.0275	-
19-May-08	4.35	697.50	9.79	329	1.38	209.2	1.20	6.08	200 J	<0.00100	<0.150	<0.00100	0.0191	-
26-Aug-08	7.83	694.02	12.66	431	1.38	210.5	0.28	6.19	270	<0.00100	<0.150	<0.00100	0.0493	<3.0
18-Nov-08	3.64	698.21	10.43	235	3.95	217.5	0.66	6.03	210	<0.00100	<0.150	<0.00100	0.0208	<3.0
11-Feb-09	4.09	697.76	7.24	188	2.13	-	0.12	6.54	180	<0.00100	<0.150	<0.00100	0.0180	<3.0
19-May-09	3.79	698.06	8.19	173	1.28	111.9	1.78	7.18	170 J	<0.00100	<0.150	<0.00100	0.0163	<3.0
22-Sep-09	9.70	692.15	16.50	440	0.82	383.3	12.50	6.31	370 J	<0.00200	<0.200	<0.00200	0.0700	1.2 J
17-Dec-09	3.47	698.38	9.20	311	4.37	470.0	16.00	6.25	110	<0.00200	<0.200	<0.00200	0.0200 J	0.7 J
24-Mar-10	3.87	697.98	9.40	410	0.34	204.8	30.70	6.65	240	0.00081 J	<0.200	<0.00200	0.1700	1.3 J
16-Jun-10	3.77	698.08	10.30	298	0.99	397.8	1.11	7.40	180	0.00360	0.049 J	<0.00200	0.0320	0.9 J
21-Sep-10	5.82	696.03	13.70	350	1.01	302.5	1.04	6.25	200	0.00140 J	<0.200	0.0002 J	<0.0200	1.2 J
7-Dec-10	3.83	698.02	9.60	283	0.72	405.6	0.42	6.16	190	<0.00200	<0.200	<0.00200	0.0090 J	0.8 J
30-Mar-11	3.91	697.94	8.20	133	0.51	248.2	0.29	9.87	140 J	0.00035 J	<0.200	<0.00200	0.0091 J	5.0
22-Jun-11	3.99	697.86	11.00	219	0.16	222.5	0.22	6.13	160	<0.00500	0.180 J	<0.00200	0.1900	0.7 J
28-Sep-11	8.54	693.31	14.30	35	0.26	333.9	2.45	6.30	270	<0.00500	0.110 J	<0.00200	0.1300	2.1 J
15-Dec-11	4.12	697.73	9.40	217	1.15	414.3	2.74	6.28	200	<0.00500	<0.200	<0.00200	0.0170 J	1.2 J
21-Mar-12	3.35	698.50	8.40	346	0.42	438.4	0.48	6.14	220	0.00480	<0.200	<0.00040	0.0280	1.3 J
19-Jun-12	3.78	698.07	11.30	290	0.09	314.0	0.46	6.28	170 J+	0.00130	<0.200	<0.00040	0.0710	<3.3
20-Sep-12	8.53	693.32	14.40	419	0.26	309.0	1.07	6.39	240	0.00160	0.085 J	<0.00040	0.1300	2.9 J
18-Dec-12	3.49	698.36	9.10	491	2.56	264.4	1.38	6.63	170	<0.00100	<0.200	<0.00040	0.0480	1.2 J
26-Feb-13	3.91	697.94	8.40	324	2.59	404.2	1.01	7.03	140	0.00110	<0.500	<0.00040	0.0079 J	3.4
23-May-13	3.76	698.09	10.60	338	1.15	465.9	0.57	6.31	190	<0.00100	<0.500	<0.00040	0.0060 J	<3.3
22-Aug-13	8.28	693.57	13.10	284	0.33	32.2	0.89	6.34	220	0.00040	<0.050	<0.00010	0.0320	1.3
19-Nov-13	3.33	698.52	10.30	323	1.70	109.2	0.64	6.27	200	0.00020	<0.050	<0.00010	0.0070	0.8
1-Apr-14	3.69	698.16	8.20	244	0.45	180.7	0.28	6.33	173	0.00018 J	<0.050	<0.00010	0.0050 J+	0.7
22-May-14	4.52	697.33	10.80	195	0.65	75.0	-	7.20	152	0.00030	<0.050	0.00010	0.0240	0.6
13-Aug-14	7.56	694.29	12.62	269	0.44	37.7	1.12	5.89	181	0.00080	0.200	<0.00010	0.0930	0.9
12-Nov-14	3.73	698.12	11.70	231	1.29	108.2	1.32	6.17	191	0.00030	<0.050	<0.00010	0.0450	1.0
11-Feb-15	3.50	698.35	9.20	270	0.53	-34.2	0.73	6.30	170	0.00020	0.021 J	<0.00010	0.0160	0.7
4-May-15	4.69	697.16	10.90	250	0.28	378.1	0.57	6.29	341	0.00020	0.012 J	<0.00010	0.0790	0.6
5-Aug-15	9.44	692.41	13.90	316	0.72	-38.1	1.16	6.45	262	0.00030	<0.050	<0.00010	0.0150	1.2
3-Nov-15	4.21	697.64	11.80	192	8.59	205.6	5.39	6.34	166	0.00020 J	<0.050	<0.00010	0.0008 J	0.8

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-4A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled*	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
9-Feb-16	3.82	698.03	9.20	292	4.61	230.7	0.49	6.45	164	0.00017 J	<0.050	<0.00010	0.0050	0.8
3-May-16	4.61	697.24	10.90	310	2.39	253.0	1.01	6.34	178	0.00030	<0.050	0.00001 J-	0.0020	0.9
24-Aug-16	8.76	693.09	13.20	287	1.24	490.4	1.01	6.35	177	0.00020 J	<0.050	<0.00010	0.0093	0.8
1-Nov-16	3.34	698.51	12.20	100	3.69	177.2	0.40	6.38	205	0.00019 J	<0.050	<0.00010	0.0062	1.0
2-Feb-17	3.94	697.91	7.80	363	3.11	190.0	0.10	6.39	223	0.00017 J	<0.050	<0.00010	0.0080	0.8
31-May-17	4.68	697.17	10.30	300	4.50	-	2.48	6.30	182	0.00020	<0.050	<0.00010	0.0145	0.8
18-Aug-17	8.61	693.24	12.70	393	0.51	120.2	0.87	6.44	228	0.00031	0.096	<0.00010	0.0516	1.3
10-Nov-17	3.58	698.27	11.00	264	3.88	56.5	0.76	6.01	217	0.000186 J	<0.05	<0.0001	0.0054	0.7
27-Feb-18	3.76	698.09	8.30	302	3.19	221.1	0.55	6.29	238	0.000176 J	<0.05	<0.0001	0.0045	0.9
2-May-18	4.02	697.83	10.00	343	3.02	-	0.59	6.36	215	0.00015 J	0.0026 J	<0.00010 J	0.0045	1.0
22-Aug-18	9.35	692.50	12.17	330	1.99	142.0	2.31	6.27	265	0.00032	0.05 U	<0.0001	0.0310	1.2
7-Nov-18	5.25	696.60	11.70	317	5.45	124.4	0.76	6.23	250	0.000199 J	<0.05	<0.0001	0.0007 J	0.8
11-Mar-19	3.96	697.89	7.60	226	3.96	220.8	0.70	6.38	233	0.000146 J	<0.05	<0.0001	0.0034	0.9
9-May-19	4.70	697.15	12.50	283	3.60	82.3	1.56	6.14	230	0.000154 J	0.007 J	<0.0001	0.0041	0.8
26-Aug-19	8.20	693.65	13.13	374	0.86	Note 1	0.02	6.30	264	0.00030	0.0324 J	<0.0001	0.0547	0.9
14-Nov-19	4.35	697.50	10.80	309	3.19	109.5	0.02	6.15	240	0.00025	0.082	<0.0001	0.0723	0.9
13-Feb-20	3.70	698.15	7.90	284	2.98	102.2	0.91	6.18	283	0.000176 J	0.067	0.0001 U	0.0723	0.9
13-Aug-20	7.73	694.12	13.50	334	0.62	58.3	0.51	6.19	238	0.00071	0.248	0.0001 U	0.1710	0.9
10-Dec-20	3.45	698.40	9.80	364	6.11	169.0	1.56	6.51	297	0.00030	0.159	0.0001 U	0.0511	1.3
4-Mar-21	3.72	698.13	8.30	304	2.83	137	0.49	6.47	255	0.000192 J	0.055	0.0001 U	0.0274	0.9
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.3	0.05	0.05	-

Notes:

Top of casing elevation (feet msl): 701.85

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not measured or not available
- < Analyte not detected above the reporting limit shown
- \* Depth to water (DTW) measurements for all shallow/alluvial wells collected on the same day; date noted is sampling date
- a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- b Site background arsenic value to be determined (TBD)
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius
- Note 1 ORP measurements not available due to faulty sensor.
- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-5A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled*	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
15-Jul-05	33.33	574.28	12.02	956	-	-	496.00	7.34	600	0.00201	<0.100	<0.00200	1.1300	-
10-Nov-05	29.62	577.99	11.24	1,212	-	-	27.60	7.32	800	0.00840	<0.150	<0.00100	0.0183	-
15-Feb-06	21.70	585.91	6.45	665	2.59	280.3	11.10	7.86	520 J	0.02230	0.256	<0.00100	0.0169	-
17-May-06	29.80	577.81	7.74	831	0.88	101.9	8.67	7.79	580	0.01100	<0.150	<0.00100	0.0207	-
23-Aug-06	33.25	574.36	15.19	737	1.76	33.5	19.60	7.32	660	0.00253	<0.150	<0.00100	0.5820	-
14-Nov-06	17.79	589.82	10.86	699	4.50	76.3	38.70	7.55	490	0.00315	<0.150	<0.00100	0.0134	-
16-Feb-07	27.08	580.53	8.08	630	6.07	2.3	57.60	8.26	500	0.01440	<0.150 UJ	<0.00100	0.016 J	-
30-May-07	30.75	576.86	9.60	894	2.59	13.3	13.40	7.76	540	0.00843	<0.150	<0.00100	<0.0100	-
29-Aug-07	33.60	574.01	9.56	684	7.64	67.0	-	7.10	670 J	0.00197	<0.150	<0.00100	0.4540	-
29-Nov-07	30.60	577.01	11.00	1075	3.53	151.5	23.50	8.37	560	0.00517	<0.150	<0.00100	<0.0100	-
27-Feb-08	25.68	581.93	-	-	-	-	29.90	-	400	0.01070	<0.150	<0.00100	<0.0100	-
20-May-08	29.73	577.88	7.93	768	4.27	180.7	77.80	7.39	480 J	0.00567	<0.150	<0.00100	0.0124	-
27-Aug-08	33.97	573.64	10.17	862	4.07	81.2	-	7.43	540 J	0.00117	<0.150	<0.00100	0.0644	87.5
26-Sep-08	<i>Test Trench Drain Line Installed</i>													
16-Oct-08	33.55	574.06	8.89	845	5.39	86.3	852.00	7.53	440 J	0.00103	<0.150	<0.00100	0.0578	90.7
20-Nov-08	23.48	584.13	9.34	577	5.27	234.3	9.48	7.50	470	0.00624	<0.150	<0.00200	0.0121	138.0
30-Dec-08	20.88	586.73	8.39	510	8.89	99.0	44.80	8.02	430 J	0.01420	0.202	0.00111	0.0251	138.0
15-Jan-09	18.50	589.11	4.97	347	8.90	154.8	17.20	8.47	380	0.02440	0.172	<0.00100	0.0238 J	104.0
12-Feb-09	27.90	579.71	8.47	-	10.21	-	22.00	7.60	420 J	0.00611	<0.150	<0.00100	<0.0100	99.0
12-Mar-09	29.19	578.42	7.47	521	6.15	171.7	26.80	7.39	480	0.00897	<0.150	<0.00100	<0.0100	124.0
16-Apr-09	21.70	585.91	6.99	456	7.60	151.6	72.70	8.66	470	0.02820	0.162	0.00101	0.0135	126.0
19-May-09	28.37	579.24	8.08	509	6.38	64.4	31.30	8.07	450 J	0.00919	<0.150	<0.00100	<0.0100	105.0
23-Jun-09	31.95	575.66	8.84	551	5.97	69.1	74.30	8.28	500	0.00430	<0.200	<0.00200	<0.0200	71.0
25-Aug-09	35.08	572.53	-	-	-	-	-	-	-	-	-	-	-	-
24-Sep-09	35.29	572.32	11.70	714	2.28	371.9	258.00	7.26	550 J	0.00076 J	0.180 J	0.00017 J	0.1200	88.0
15-Dec-09	26.11	581.50	8.60	928	2.89	544.0	89.00	7.14	450	0.00110 J	<0.200	<0.00200	0.0024 J	110.0
24-Mar-10	27.86	579.75	8.30	697	3.52	505.1	18.10	7.47	450	0.02300	0.160 J	0.00046 J	0.0280	110.0
16-Jun-10	21.35	586.26	10.70	783	2.07	379.0	41.40	7.73	340	0.05300	0.760	0.00210	0.0300	150.0
22-Sep-10	33.88	573.73	10.40	938	4.30	467.1	7.93	7.10	620	0.00500	<0.200	<0.00200	0.0770 J+	100.0
7-Dec-10	25.22	582.39	10.20	781	3.86	353.7	11.10	7.39	500	0.01200	0.094 J	0.00053 J	0.011 J	130.0
29-Mar-11	23.59	584.02	7.00	354	3.47	708.0	22.22	9.52	440 J	0.06300	0.650 J+	0.00140 J	0.0250	140.0
21-Jun-11	28.33	579.28	11.60	1000	2.22	285.3	10.60	9.06	1100 J	0.04300	0.420	0.00120 J	0.0230	180.0
27-Sep-11	34.70	572.91	12.70	641	1.46	307.2	12.80	7.30	680	<0.00500	0.063 J	0.00023 J	0.2800	100.0
14-Dec-11	29.46	578.15	9.50	691	1.95	757.1	9.69	7.35	690	0.00690	<0.200	0.00018 J	0.0019 J	180.0
20-Mar-12	19.50	588.11	6.20	841	3.98	320.2	8.52	8.25	350	0.02600	0.470	0.00100 J	0.0300	140.0

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-5A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled*	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
19-Jun-12	27.91	579.70	10.20	800	3.22	365.9	2.76	7.66	510	0.00870	<0.200	<0.00040	0.0290	120.0
20-Sep-12	34.53	573.08	11.00	859	0.73	387.0	46.80	7.64	530	0.00260	<0.200	<0.00040	0.6300	100.0
19-Dec-12	21.26	586.35	8.90	983	1.73	279.0	778.00	7.71	530	0.01100	0.110 J	0.00062	0.0670	180.0
25-Feb-13	27.19	580.42	7.50	682	7.61	330.5	4.36	7.85	380	0.01300	<0.500	0.00015 J	0.0110 J	74.0
22-May-13	29.09	578.52	8.80	828	3.88	411.4	8.11	8.29	350	0.02500	0.085 J	0.00053	0.0220	100.0
21-Aug-13	35.15	572.46	17.10	1248	3.41	114.2	144.00	7.78	1060	0.00150	0.060	0.00005 J	0.4870	95.0
20-Nov-13	27.45	580.16	10.00	1032	4.13	196.5	31.70	7.18	699	0.01450	0.100	0.00140	0.0080	202.0
1-Apr-14	21.08	586.53	8.40	567	3.04	168.2	15.70	10.24	413	0.06270	0.210	0.00150	0.0140	150.0
21-May-14	26.11	581.50	10.30	670	0.49	198.4	-	7.45	565	0.09500	0.200	0.00160	0.0480	166.0
12-Aug-14	34.56	573.05	14.07	812	3.64	87.7	1519.00	7.51	560	0.00300	0.070	<0.00010	0.1370	107.0
13-Nov-14	29.48	578.13	12.90	1135	3.50	241.7	10.46	7.69	956	0.02080	<0.050	0.00010	0.0020	295.0
11-Feb-15	20.81	586.80	7.70	619	6.17	81.4	18.00	9.63	430	0.03920	0.380	0.00130	0.0110	126.0
4-May-15	29.80	577.81	10.50	924	2.54	361.3	8.70	9.74	623	0.04230	0.110	0.00050	0.0130	192.0
6-Aug-15	36.08	571.53	12.80	781	2.40	129.6	261.00	7.24	Dry	Dry	Dry	Dry	Dry	Dry
4-Nov-15	30.80	576.81	10.70	1234	4.98	205.6	11.80	7.13	1130	0.00660	0.048 J	0.00030	0.0020	318.0
10-Feb-16	23.56	584.05	6.40	602	1.62	197.7	11.90	10.19	451	0.13200	0.190	0.00140	0.0190	148.0
2-May-16	30.19	577.42	11.50	1008	0.80	110.6	9.76	10.14	751	0.17100	0.250	0.00270 J-	0.0480	232.0
23-Aug-16	35.79	571.82	13.10	729	2.00	436.2	51.40	7.20	1010	0.00401	<0.050	<0.00010	0.1820	137.0
2-Nov-16	29.06	578.55	10.90	570	4.98	103.1	32.10	7.55	1180	0.01120	0.185	0.00056	0.0050	372.0
1-Feb-17	26.86	580.75	8.10	992	2.21	99.7	7.19	9.73	632	0.10900	0.089	0.00097	0.0179	194.0
30-May-17	26.86	580.75	10.50	814	6.12	5.8	5.74	9.73	487	0.04250	0.084	0.00036 J+	0.0044	168.0
17-Aug-17	34.23	573.38	11.70	1054	5.43	125.1	5.68	7.65	731	0.00652	0.029 J	<0.00010	0.0604	156.0
10-Nov-17	29.96	577.65	10.00	1077	4.65	85.2	10.50	7.18	953	0.00582	0.069	0.00034	0.0042	308.0
27-Feb-18	23.02	584.59	7.70	584	1.91	120.4	12.60	9.96	530	0.08630	0.143	0.00064	0.0068	174.0
1-May-18	24.85	582.76	9.10	1082	2.16	-	11.80	10.34	682	0.11300	0.214	0.000775 J+	0.0222	196.0
21-Aug-18	35.17	572.44	14.83	1095	4.02	131.0	123.00	7.40	936	0.00365	0.05 U	<0.0001	0.8700	214.0
6-Nov-18	32.00	575.61	10.30	1192	5.93	198.1	2.35	7.49	1200	0.00487	<0.05	0.000077 J	<0.001	363 J+
13-Mar-19	25.12	582.49	7.40	695	2.19	189.7	15.80	9.48	632	0.04410	0.091	0.00063	0.0076	200.0
8-May-19	27.89	579.72	10.70	844	4.95	60.5	5.19	9.30	697	0.04190	0.0953 J	0.00068	0.0140	182.0
26-Aug-19	35.02	572.59	11.89	1111	1.52	Note 1	22.90	7.26	995	0.00246	0.0152 J	<0.0001	0.9700	177.0
13-Nov-19	33.00	574.61	9.80	932	5.27	66.1	0.02	7.18	776	0.00389	0.0049 J	<0.0001	0.0006 J	211.0
12-Feb-20	18.23	589.38	7.00	533	7.58	140.4	10.60	8.32	463	0.00631	0.0436 J	0.00015	0.0015	183.0
12-Aug-20	34.50	573.11	11.20	1381	4.00	125.0	2.75	7.52	1250	0.00537	0.012 J	0.0001 U	0.0839	333.0
9-Dec-20	29.90	577.71	9.80	1105	4.51	222.0	8.32	7.29	897	0.00312	0.196	0.00030	0.0064	263.0
3-Mar-21	24.81	582.80	9.20	899	3.04	225	3.09	7.60	792	0.00374	0.100	0.00013	0.0052	247.0
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.3	0.05	0.05	-

Notes:

Top of casing elevation (feet msl): 607.61

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not measured or not available

< Analyte not detected above the reporting limit shown

\* Depth to water (DTW) measurements for all shallow/alluvial wells collected on the same day; date noted is sampling date

Dry Well went dry during sampling. Unable to collect sample.

a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest

b Site background arsenic value to be determined (TBD)

U Data validation code; not detected at the Reporting Limit (RL)

J Data validation code; estimated value

J+ Data validation code; estimated value with positive bias

°C Degrees Celsius

Note 1 ORP measurements not available due to faulty sensor.

µmhos/cm Micromhos per centimeter

mg/L Milligrams per liter

feet bmp Feet below measuring point

mV Millivolts

feet msl Feet above mean sea level

NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-6A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled*	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
15-Jul-05	30.89	574.46	15.26	735	-	-	303.00	7.60	612	<0.00200	<0.100	<0.00200	0.3490	-
10-Nov-05	27.25	578.10	11.79	700	-	-	13.70	7.51	460	0.00216	<0.150	<0.00100	0.4510	-
15-Feb-06	19.42	585.93	6.17	759	2.00	162.9	9.42	8.27	550 J	0.00754	<0.150	<0.00100	0.6160	-
17-May-06	27.55	577.80	11.99	835	1.31	248.3	4.16	7.46	550	0.01100	<0.150	<0.00100	0.1060	-
23-Aug-06	30.99	574.36	15.92	862	1.60	-26.4	15.50	7.40	810	0.00134	<0.150	<0.00100	0.6820	-
14-Nov-06	15.30	590.05	10.56	712	4.59	84.1	14.50	7.32	500	0.00171	<0.150	<0.00100	0.0163	-
16-Feb-07	24.22	581.13	8.49	581	3.64	38.6	139.00	7.21	420	0.00160	<0.150 UJ	<0.00100	0.1710 J	-
30-May-07	28.50	576.85	13.93	1092	2.72	180.7	210.00	7.40	740	0.01620	<0.150	<0.00100	0.1570	-
29-Aug-07	31.34	574.01	10.15	701	4.48	84.8	662.00	7.80	620 J	0.00141	<0.150	<0.00100	0.3520	-
29-Nov-07	28.32	577.03	11.30	731	6.23	154.0	-	6.26	420	0.00178	<0.150	<0.00100	0.1760	-
27-Feb-08	23.42	581.93	-	-	-	-	-	-	410	0.00147	<0.150	<0.00100	0.0220	-
20-May-08	27.49	577.86	8.14	791	3.93	176.5	-	7.64	540 J	0.00818	0.170	<0.00100	0.0410	-
27-Aug-08	31.72	573.63	9.33	776	4.83	142.0	-	7.32	660 J	0.00186	<0.150	<0.00100	0.2660	109.0
26-Sep-08	<i>Test Trench Drain Line Installed</i>													
16-Oct-08	31.29	574.06	9.17	923	4.60	115.4	-	7.13	590 J	0.00185	<0.150	<0.00100	0.0910	106.0
20-Nov-08	21.18	584.17	9.70	578	5.22	249.4	11.70	7.40	460	0.00442	<0.150	<0.00200	0.0202	110.0
30-Dec-08	18.64	586.71	8.45	448	9.27	137.9	75.80	7.89	370 J	0.01190	0.209	0.00114	0.0267	106.0
15-Jan-09	16.23	589.12	6.84	344	9.25	181.9	2.77	7.47	320	0.00488	<0.150	<0.00100	<0.0100	72.9
12-Feb-09	25.64	579.71	7.89	-	10.82	-	71.70	7.70	420	0.01100	0.177	<0.00100	<0.0100	103.0
12-Mar-09	26.92	578.43	7.27	524	8.31	166.7	116.00	7.76	500	0.02350	0.244	<0.00100	0.0167	125.0
16-Apr-09	19.46	585.89	7.33	406	7.57	182.8	91.80	8.33	430	0.02410	0.154	0.00109	0.0244	101.0
19-May-09	26.10	579.25	9.07	554	6.39	65.6	161.00	8.32	550 J	0.01340	<0.150	<0.00100	<0.0100	115.0
23-Jun-09	29.67	575.68	9.51	522	6.05	71.4	-	8.17	540	0.00310	<0.200	<0.00200	0.0630	74.0
25-Aug-09	32.72	572.63	14.80	795	3.25	282.7	22.00	7.28	630 J	0.00075 J	<0.200	<0.00200	0.0330	100.0
24-Sep-09	32.93	572.42	10.60	745	4.02	361.3	29.80	7.27	560 J	0.00028 J	<0.200	<0.00200	0.0068 J	100.0
15-Dec-09	23.87	581.48	9.50	815	4.20	556.0	20.00	7.15	450	<0.00200	<0.200	<0.00200	0.0030 J	120.0
24-Mar-10	25.61	579.74	8.50	704	4.93	205.6	20.50	8.53	490	0.04700	0.370	0.00090 J	<0.0200 U	140.0
16-Jun-10	19.11	586.24	10.40	553	4.79	399.8	13.40	7.22	310	0.01600	0.100 J	<0.00200	0.0036 J	90.0
22-Sep-10	31.61	573.74	11.30	1019	3.89	413.8	20.30	7.10	770	0.00620	<0.200	0.00024 J	<0.0200	130.0
8-Dec-10	23.10	582.25	87.90	751	6.24	437.1	9.55	8.77	520	0.04300	0.220	0.00130 J	0.0100 J	130.0
29-Mar-11	21.32	584.03	7.10	303	4.76	809.4	13.40	9.35	350 J	0.04300	0.400 J+	0.00055 J	0.0110 J	110.0
21-Jun-11	26.04	579.31	11.20	840	3.24	300.2	8.50	8.40	790	0.01800	0.160 J	0.00058 J	0.0092 J	110.0
28-Sep-11	32.43	572.92	10.90	67	3.92	415.6	8.32	7.30	590	<0.00500	0.040 J	0.00019 J	0.0025 J	110.0
14-Dec-11	27.19	578.16	9.00	605	1.56	329.9	21.90	7.89	570	0.01100	0.280	0.00079 J	0.0085 J	150.0
20-Mar-12	17.23	588.12	6.70	639	5.03	362.5	59.90	7.79	200	0.01700	0.091 J	<0.00200	<0.0200	79.0

**Summary of Lower Disposal Area - Shallow/Alluvial Groundwater Sampling Results - Well MW-6A  
Ravensdale Site, Ravensdale, Washington**

Date Sampled*	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
19-Jun-12	25.63	579.72	9.60	681	5.24	373.2	5.94	7.43	430	0.00740	<0.200	<0.00040	<0.0200	76.0
19-Sep-12	32.12	573.23	11.70	786	3.49	290.0	7.36	7.38	460	0.00570	<0.200	<0.00040	<0.0200	81.0
19-Dec-12	19.00	586.35	8.90	977	4.55	308.0	26.90	7.98	440	0.02000	0.490	0.00130	0.0120 J	150.0
25-Feb-13	24.93	580.42	7.10	766	7.59	306.9	6.18	8.20	450	0.03400	0.190 J	0.00073	0.0120 J	120.0
22-May-13	26.84	578.51	9.10	705	3.94	412.9	5.97	9.33	430	0.04300	0.150 J	0.00052	0.0054 J	140.0
21-Aug-13	32.84	572.51	11.20	879	4.54	110.2	8.28	8.28	548	0.00950	<0.050	<0.00010	0.0040	106.0
20-Nov-13	25.21	580.14	11.10	1264	4.69	201.4	30.80	7.55	640	0.02490	0.140	0.00190	0.0130	163.0
1-Apr-14	18.81	586.54	8.40	448	3.50	194.9	14.70	8.87	342	0.01480	0.060	0.00030	0.0040 J+	78.4
21-May-14	23.84	581.51	10.60	122	1.32	199.3	-	8.46	352	0.01800	<0.050	0.00020	0.0330	80.4
13-Aug-14	32.25	573.10	12.46	796	5.77	54.0	8.01	8.68	628	0.01610	<0.050	<0.00010	0.0040	165.0
13-Nov-14	27.21	578.14	13.30	837	4.02	234.3	11.40	8.63	711	0.04410	0.090	0.00040	0.0030	203.0
11-Feb-15	18.54	586.81	8.40	609	1.75	16.0	87.40	9.71	435	0.03620	0.420	0.00100	0.0120	117.0
4-May-15	27.52	577.83	9.90	974	3.27	356.5	12.30	10.14	654	0.04160	0.100	0.00050	0.0070	199.0
6-Aug-15	33.98	571.37	11.70	822	1.77	113.7	4.02	8.83	670	0.01910	<0.050	<0.00010	0.0020	210.0
4-Nov-15	28.51	576.84	11.70	1207	4.85	206.3	21.20	7.48	1090	0.00770	0.100	0.00100	0.0060	370.0
10-Feb-16	20.96	584.39	6.90	712	2.30	145.8	20.10	10.82	575	0.12100	0.190	0.00110	0.0290	173.0
2-May-16	28.91	576.44	10.60	1856	0.19	111.2	15.60	11.53	1010	0.19900	0.220	0.00250 J-	0.0250	347.0
23-Aug-16	33.58	571.77	11.40	1241	0.43	462.0	8.89	9.51	1150	0.03890	0.084	0.00034	0.0049	349.0
2-Nov-16	26.92	578.43	11.60	409	5.05	14.4	40.60	9.15	911	0.02560	0.448	0.00149	0.0133	297.0
1-Feb-17	24.61	580.74	6.20	1757	2.34	72.1	11.70	11.97	880	0.14100	0.037 J	0.00034	0.0026	283.0
30-May-17	24.56	580.79	10.80	1026	2.45	5.7	16.90	10.50	629	0.07280	0.081	0.00052 J+	0.0064	210.0
17-Aug-17	32.04	573.31	13.10	1019	3.94	87.3	42.70	9.36	726	0.02030	0.048 J	0.00015	0.0083	219.0
10-Nov-17	27.72	577.63	11.60	1090	4.17	109.6	38.20	9.12	931	0.02430	0.251	0.00277	0.0161	356.0
27-Feb-18	20.78	584.57	7.00	823	3.99	59.3	12.00	11.29	635	0.09930	0.077	0.00056	0.0045	203.0
1-May-18	22.58	582.77	8.90	1442	3.52	-	17.70	11.49	817	0.11900	0.182	0.000831 J+	0.0085	250.0
21-Aug-18	33.09	572.26	13.18	1153	1.01	139.8	9.68	10.06	989	0.05360	0.10 U	0.00035	0.0102	334.0
6-Nov-18	29.74	575.61	11.10	1719	3.85	218.4	6.49	8.13	1860	0.00304	<0.1	0.00037	0.0007 J	701 J+
13-Mar-19	22.90	582.45	5.80	748	5.04	145.7	32.00	10.55	737	0.03910	0.0479 J	0.00046	0.0045	246.0
8-May-19	25.63	579.72	9.10	936	5.95	75.9	7.60	10.38	747	0.05470	0.142	0.00127	0.0071	246.0
26-Aug-19	32.90	572.45	11.18	1622	0.88	Note 1	6.57	8.97	1510	0.01880	0.0895 J	0.00051	0.0169	478.0
13-Nov-19	30.92	574.43	10.20	1320	1.45	172.7	5.10	8.33	1140	0.00631	0.0099 J	<0.0001	0.0027	422.0
12-Feb-20	15.95	589.40	7.70	438	1.40	150.6	19.70	8.13	379	0.00212	0.0144 J	0.0001 U	0.0023	122.0
12-Aug-20	32.30	573.05	11.00	2360	2.25	162.9	13.40	8.16	2060	0.00628	0.0089 J	0.000088 J	0.0061	709.0
9-Dec-20	27.60	577.75	10.80	1750	1.95	209.0	22.00	8.22	1500	0.00314	0.592	0.00098	0.0216	539.0
3-Mar-21	22.58	582.77	7.10	760	1.74	208	5.60	8.04	722	0.00309	0.182	0.00031	0.0174	243.0
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.3	0.05	0.05	-

Notes:

Top of casing elevation (feet msl): 605.35

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not measured or not available
- < Analyte not detected above the reporting limit shown
- \* Depth to water (DTW) measurements for all shallow/alluvial wells collected on the same day; date noted is sampling date
- a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- b Site background arsenic value to be determined (TBD)
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius
- Note 1 ORP measurements not available due to faulty sensor.
- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Bedrock Groundwater Sampling Results - Well MWB-1LDA  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water* (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese	Potassium
19-Dec-06	26.51	674.57	10.96	546	0.43	-115.4	1.05	7.70	310	0.15100	<0.150	<0.00100	0.0377	-
14-Feb-07	26.08	675.00	10.62	397	1.02	-90.8	3.07	7.53	240	0.16000	0.208	<0.00100	0.0463	-
31-May-07	25.96	675.12	10.83	386	0.36	-172.8	4.20	8.20	220	0.12200	0.183	<0.00100	0.0442	-
27-Aug-07	25.66	675.42	10.97	372	0.76	-128.2	1.08	7.51	240	0.08990	0.166	<0.00100	0.0466	-
28-Nov-07	26.81	674.27	10.56	371	0.42	-121.2	1.29	8.03	220	0.08830	<0.150	<0.00100	0.0547	-
27-Feb-08	25.80	675.28	10.62	371	2.01	-	1.07	-	230	0.08090	0.159	<0.00100	0.0553	<3.0
20-May-08	25.62	675.46	10.61	391	0.36	-53.0	1.11	7.28	230	0.06430	0.162	<0.00100	0.0521	-
27-Aug-08	26.14	674.94	10.58	394	0.50	-63.9	1.02	7.35	230 J	0.06400	0.170	<0.00100	0.0482	<3.0
19-Nov-08	25.16	675.92	10.33	269	0.45	-88.6	0.48	7.51	230	0.05960	0.166	<0.00100	0.0536	<3.0
11-Feb-09	25.08	676.00	10.04	268	0.48	-	0.97	7.89	230	0.05600	0.182	<0.00100	0.0519	<3.0
18-May-09	24.83	676.25	10.10	271	0.42	-50.5	1.81	8.05	230 J	0.04660	<0.150	<0.00100	0.0500	<3.0
24-Sep-09	26.32	674.76	11.80	323	0.24	202.0	3.59	7.57	260	0.02700	0.080 J	<0.00200	0.0650	1.1 J
17-Dec-09	25.06	676.02	10.10	370	0.94	179.0	4.16	7.77	<40	0.03400	0.052 J	<0.00200	0.0700	1.2 J
23-Mar-10	24.83	676.25	10.90	344	0.21	397.4	3.17	7.57	240	0.02500	0.058 J	<0.00200	0.0660	1.3 J
15-Jun-10	24.38	676.70	10.50	355	0.08	195.5	0.42	7.66	150	0.02700	0.083 J	<0.00200	0.0590	1.1 J
20-Sep-10	25.74	675.34	10.50	354	0.06	192.9	0.20	7.65	200	0.02200	<0.200	<0.00200	0.0660 J+	1.1 J
6-Dec-10	24.59	676.49	10.00	347	0.09	99.3	0.17	7.86	230	0.02200	<0.200	<0.00200	0.0510	1.0 J
28-Mar-11	24.01	677.07	10.00	173	0.16	90.6	0.88	7.58	200	0.02200	<0.200	<0.00200	0.0500	1.0 J
20-Jun-11	24.11	676.97	10.30	330	0.07	121.5	0.17	7.65	250	0.02200	0.110 J	<0.00200	0.0510	0.9 J
26-Sep-11	25.39	675.69	10.40	2906	0.06	123.6	0.43	7.65	280	0.01500	0.130 J	<0.00200	0.0560	1.1 J
14-Dec-11	24.61	676.47	9.90	245	0.10	193.8	1.76	7.57	230	0.02100	0.110 J	<0.00200	0.0540	1.2 J
21-Mar-12	23.70	677.38	10.10	392	0.07	392.0	0.22	7.47	240	0.02300	0.110 J	<0.00200	0.0480	1.1 J
18-Jun-12	23.90	677.18	10.50	383	0.02	342.8	0.30	7.67	230	0.02000	<0.200	<0.00040	0.0510	<3.3
19-Sep-12	25.38	675.70	10.30	402	0.01	151.0	0.44	7.63	220	0.01900	0.110 J	<0.00040	0.0550	1.0 J
18-Dec-12	23.59	677.49	10.10	492	0.00	-45.7	0.16	7.70	92	0.01700	0.120 J	<0.00040	0.0490	1.2 J
25-Feb-13	23.73	677.35	9.90	377	0.00	177.1	0.37	7.53	270 J	0.01900	0.140 J	<0.00040	0.0450	1.0 J
22-May-13	23.85	677.23	9.90	398	0.00	430.4	0.44	7.73	290	0.01700	0.130 J	<0.00040	0.0460	<3.3
21-Aug-13	25.34	675.74	10.40	467	0.01	-31.7	0.55	7.68	238	0.01680	0.140	0.00008 J	0.0480	1.1
19-Nov-13	24.25	676.83	10.10	361	0.00	70.3	0.32	7.30	232	0.01570	0.160	<0.00010	0.0500	1.0
31-Mar-14	22.36	678.72	10.70	286	0.01	107.4	0.21	7.79	211	0.01380	0.160	<0.00010	0.0490	1.0
21-May-14	23.29	677.79	8.54	271	1.35	54.3	-	7.14	198	0.01310	0.160	<0.00010	0.0460	1.0
12-Aug-14	24.87	676.21	14.79	335	0.41	-16.0	2.02	7.05	216	0.01190	0.140	<0.00010	0.0450	1.0
11-Nov-14	24.96	676.12	10.10	262	0.79	11.1	1.51	7.49	221	0.01360	0.160	<0.00010	0.0450	1.1
10-Feb-15	23.23	677.85	10.40	319	0.25	-114.0	0.36	7.70	240	0.01330	0.160	<0.00010	0.0450	1.0
4-May-15	23.62	677.46	10.20	370	0.05	175.1	0.16	7.70	224	0.01170	0.180	<0.00010	0.0480	1.0
4-Aug-15	25.30	675.78	11.00	279	0.06	-30.5	0.72	7.72	234	0.01440	0.180	<0.00010	0.0460	1.0
4-Nov-15	25.35	675.73	10.60	263	0.00	51.2	0.46	7.46	233	0.01100	0.170	<0.00010	0.0450	1.2
8-Feb-16	23.03	678.05	10.20	319	0.03	206.5	0.20	7.77	210	0.01210	0.190	<0.00010	0.0480	1.1
2-May-16	23.49	677.59	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
22-Aug-16	25.00	676.08	11.10	323	0.02	-55.2	1.10	7.64	Monitored Annually <sup>1</sup>					
1-Nov-16	24.29	676.79	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
31-Jan-17	23.06	678.02	10.20	391	0.05	169.3	0.13	7.66	223	0.01190	0.177	<0.00010	0.0418	1.0
30-May-17	22.45	678.63	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
16-Aug-17	24.27	676.81	10.70	385	0.15	123.4	0.40	7.64	Monitored Annually <sup>1</sup>					
9-Nov-17	22.01	679.07	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					

**Summary of Lower Disposal Area - Bedrock Groundwater Sampling Results - Well MWB-1LDA  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water* (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese	Potassium
28-Feb-18	22.04	679.04	10.10	276	0.20	-96.4	0.25	7.44	221	0.01080	0.192	<0.00010	0.0412	1.0
1-May-18	22.11	678.97	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
22-Aug-18	24.42	676.66	11.37	277	5.25	-59.6	0.18	7.61	Monitored Annually <sup>1</sup>					
6-Nov-18	24.57	676.51	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
11-Mar-19	22.61	678.47	10.10	248	0.60	-70.8	0.68	7.60	224	0.00874	0.224	<0.0001	0.0475	1.07
8-May-19	22.68	678.40	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
27-Aug-19	24.54	676.54	11.45	282	0.58	Note 1	0.04	7.30	Monitored Annually <sup>1</sup>					
13-Nov-19	24.15	676.93	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
13-Feb-20	22.04	679.04	10.10	280	0.34	-133.4	0.57	7.51	207	0.00882	0.231	0.0001 U	0.0428	1.05
13-Aug-20	23.92	677.16	11.00	284	0.60	-113.5	0.44	7.55	Monitored Annually <sup>1</sup>					
9-Dec-20	23.35	677.73	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
5-Mar-21	22.01	679.07	10.20	266	0.04	-50	0.42	7.64	214	0.0105	0.210	0.0001 U	0.0407	1.1
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.3	0.05	0.05	-

Note:

Top of casing elevation (feet msl): 701.08

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

1 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated April 7, 2016. Field parameters collected semi-annually, analytical samples collected annually.

- Not available

< Analyte not detected above the reporting limit shown

\* Depth to water (DTW) measurements for all bedrock LDA wells collected on the same day; date noted is sampling date

a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest

b Site background arsenic value to be determined (TBD)

U Data validation code; not detected at the Reporting Limit (RL)

J Data validation code; estimated value

J+ Data validation code; estimated value with positive bias

°C Degrees Celsius

Note 1 ORP measurements not available due to faulty sensor.

µmhos/cm Micromhos per centimeter mg/L Milligrams per liter

feet bmp Feet below measuring point mV Millivolts

feet msl Feet above mean sea level NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Bedrock Groundwater Sampling Results - Well MWB-2LDA  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water* (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese	Potassium
19-Dec-06	36.82	701.24	12.15	394	0.57	114.6	1.84	7.58	230	0.00849	<0.150	<0.00100	0.0242	-
14-Feb-07	36.30	701.76	11.69	339	1.40	-85.7	2.72	7.39	200	0.00609	0.232	<0.00100	0.0266	-
31-May-07	36.93	701.13	12.13	346	0.20	-223.7	3.04	8.28	210	0.00695	0.255	<0.00100	0.0297	-
27-Aug-07	37.99	700.07	12.18	336	0.49	-169.7	0.84	7.54	210	0.00749	0.262	<0.00100	0.0313	-
28-Nov-07	37.89	700.17	11.82	338	0.28	-146.6	1.32	7.93	250	0.00691	0.259	<0.00100	0.0320	-
27-Feb-08	37.24	700.82	11.87	340	0.23	-	0.87	7.41	210	0.00746	0.254	<0.00100	0.0309	<3.0
20-May-08	37.31	700.75	11.91	359	0.23	-86.6	0.67	7.27	200	0.00631	0.315	<0.00100	0.0267	-
27-Aug-08	38.37	699.69	11.84	362	0.35	-77.6	0.70	7.21	210 J	0.00636	0.279	<0.00100	0.0231	<3.0
19-Nov-08	37.50	700.56	11.53	254	0.44	-105.9	2.08	7.45	200	0.00586	0.279	<0.00100	0.0231	<3.0
11-Feb-09	37.10	700.96	11.25	254	0.48	-	0.63	7.91	220	0.00561	0.290	<0.00100	0.0238	<3.0
18-May-09	37.00	701.06	11.42	258	0.42	-71.9	1.11	8.00	210 J	0.00517	<0.150	<0.00100	0.0208	<3.0
25-Sep-09	38.88	699.18	13.10	297	0.14	140.7	3.09	7.54	230	0.00650	0.250	<0.00200	0.0290	1.2 J
17-Dec-09	37.19	700.87	10.80	341	0.51	129.0	4.85	7.71	74	0.00430	0.250	<0.00200	0.0290	1.1 J
23-Mar-10	36.60	701.46	12.60	323	0.27	355.0	5.28	7.54	110	0.00760	0.220	<0.00200	0.0290	1.2 J
15-Jun-10	36.25	701.81	11.40	326	0.08	171.1	-	7.62	98	0.00880	0.310	<0.00200	0.0230	1.1 J
20-Sep-10	37.85	700.21	11.60	324	0.08	144.0	0.16	7.61	160	0.00650	0.310 J+	<0.00200	0.0280 J+	1.2 J
6-Dec-10	36.60	701.46	11.00	319	0.21	78.3	0.20	7.81	210	0.00290	0.180 J	<0.00200	0.0200	0.9 J
29-Mar-11	35.98	702.08	11.20	156	0.15	215.0	0.75	7.48	200	0.00560	0.320 J+	<0.00200	0.0200	1.5 J
21-Jun-11	36.34	701.72	11.80	352	0.06	101.5	0.24	7.59	220	<0.00500	0.270	<0.00200	0.0280	1.0 J
27-Sep-11	38.14	699.92	11.50	2484	0.06	114.4	0.45	7.60	220	<0.00500	0.290	<0.00200	0.0220	1.0 J
14-Dec-11	36.91	701.15	11.00	228	0.05	127.2	4.04	7.54	190	0.00670	0.280	<0.00200	0.0210	1.2 J
21-Mar-12	35.68	702.38	11.00	359	0.05	93.9	0.30	7.43	210	0.00690	0.270	<0.00200	0.0170 J	1.1 J
18-Jun-12	36.06	702.00	11.70	350	0.02	211.9	0.23	7.62	220	0.00620	0.350 J+	<0.00040	0.0170 J	<3.3
19-Sep-12	38.07	699.99	11.60	367	0.00	102.0	0.34	7.59	200	0.00650	0.290	<0.00040	0.0220	1.0 J
18-Dec-12	34.88	703.18	10.90	463	0.00	-97.8	0.17	7.81	68	0.00600	0.280	<0.00040	0.0170 J	1.2 J
25-Feb-13	35.70	702.36	10.90	347	0.09	112.6	0.27	7.56	190	0.00660	0.270 J	<0.00040	0.0180 J	1.1 J
22-May-13	36.24	701.82	11.00	412	0.00	412.5	0.43	7.71	190	0.00600	0.280 J	<0.00040	0.0170 J	<3.3
20-Aug-13	38.13	699.93	12.20	406	0.02	-41.5	0.64	7.48	211	0.00550	0.290	<0.00010	0.0220	1.0
19-Nov-13	36.56	701.50	11.10	344	0.01	43.6	0.32	7.35	206	0.00520	0.310	<0.00010	0.0190	1.1
31-Mar-14	35.36	702.70	11.50	285	0.00	93.1	0.31	7.71	207	0.00510	0.320	<0.00010	0.0200	1.1
22-May-14	35.80	702.26	10.05	260	0.24	17.5	-	7.22	186	0.00500	0.310	<0.00010	0.0190	1.0
13-Aug-14	37.50	700.56	13.10	294	0.57	-37.5	3.28	7.19	190	0.00540	0.400	0.00210 J	0.0280	1.1
11-Nov-14	37.06	701.00	10.10	241	0.68	-39.7	2.10	7.48	206	0.00540	0.320	<0.00010	0.0180	1.1
10-Feb-15	35.70	702.36	11.40	295	0.11	-123.2	2.11	7.69	206	0.00510	0.310	<0.00010	0.0190	1.0
4-May-15	36.34	701.72	11.70	336	0.05	340.2	0.72	7.73	204	0.00480	0.310	<0.00010	0.0200	1.0
4-Aug-15	38.42	699.64	12.70	263	0.04	-81.8	0.77	7.72	204	0.00580	0.330	<0.00010	0.0200	1.0
4-Nov-15	37.81	700.25	11.60	244	0.04	26.9	2.13	7.45	201	0.00470	0.320	<0.00010	0.0180	1.1
8-Feb-16	35.68	702.38	11.60	307	0.00	208.4	0.74	7.68	186	0.00550	0.330	<0.00010	0.0220	1.1
2-May-16	36.03	702.03	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
22-Aug-16	37.92	700.14	12.20	306	0.02	-137.6	1.58	7.67	Monitored Annually <sup>1</sup>					
1-Nov-16	37.07	700.99	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
31-Jan-17	36.00	702.06	10.90	348	0.10	120.5	0.86	7.67	195	0.00566	0.306	<0.00010	0.0168	1.1
30-May-17	35.44	702.62	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
16-Aug-17	37.69	700.37	12.30	356	0.14	-77.2	3.27	7.67	Monitored Annually <sup>1</sup>					
9-Nov-17	37.11	700.95	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					

**Summary of Lower Disposal Area - Bedrock Groundwater Sampling Results - Well MWB-2LDA  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water* (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese	Potassium
28-Feb-18	34.95	703.11	10.90	261	0.21	-115.5	0.80	7.48	205	0.00569	0.310	<0.00010	0.0173	1.0
1-May-18	35.11	702.95	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
22-Aug-18	37.90	700.16	12.31	262	1.64	-80.3	0.92	7.56	Monitored Annually <sup>1</sup>					
6-Nov-18	37.66	700.40	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
12-Mar-19	35.68	702.38	10.70	239	0.58	-75.1	0.59	7.48	188	0.0055	0.352	<0.0001	0.0182	1.08
8-May-19	35.86	702.20	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
27-Aug-19	37.85	700.21	12.30	265	0.43	Note 1	0.02	7.46	Monitored Annually <sup>1</sup>					
13-Nov-19	37.22	700.84	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
13-Feb-20	35.10	702.96	10.80	261	0.39	-135.9	0.96	7.50	185	0.00545	0.349	0.0001 U	0.018	1.15
13-Aug-20	37.21	700.85	11.60	266	0.54	-118.2	1.35	7.50	Monitored Annually <sup>1</sup>					
9-Dec-20	36.55	701.51	Monitored Semi-Annually <sup>1</sup>						Monitored Annually <sup>1</sup>					
5-Mar-21	35.02	703.04	11.10	255	0.04	-80	2.29	7.65	176	0.00552	0.321	0.0001 U	0.0166	1.1
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.3	0.05	0.05	-

Note:

Top of casing elevation (feet msl): 738.06

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

1 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated April 7, 2016. Field parameters collected semi-annually, analytical samples collected annually.

- Not available

< Analyte not detected above the reporting limit shown

\* Depth to water (DTW) measurements for all bedrock LDA wells collected on the same day; date noted is sampling date

a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest

b Site background arsenic value to be determined (TBD)

U Data validation code; not detected at the Reporting Limit (RL)

J Data validation code; estimated value

J+ Data validation code; estimated value with positive bias

°C Degrees Celsius

Note 1 ORP measurements not available due to faulty sensor.

µmhos/cm Micromhos per centimeter mg/L Milligrams per liter

feet bmp Feet below measuring point mV Millivolts

feet msl Feet above mean sea level NTU Nephelometric Turbidity Unit

**Summary of Lower Disposal Area - Bedrock Groundwater Sampling Results - Well MWB-3LDA  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water* (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese	Potassium
19-Dec-06	7.08	733.51	11.37	670	0.42	-171.2	1.20	9.23	500	0.02570	0.173	<0.00100	0.0476	-
23-Jan-07	5.62	734.97	13.07	383	0.51	-275.0	1.53	8.63	270	0.01840	0.450	<0.00100	0.0787	-
14-Feb-07	5.81	734.78	12.57	328	1.09	-158.2	115.00	7.86	310	0.01510	<0.150	<0.00100	0.0718	-
29-Mar-07	4.78	735.81	12.44	458	0.57	-140.8	4.25	7.78	260 J	0.03790	0.261	<0.00100	0.0601	-
17-Apr-07	4.86	735.73	12.79	389	0.27	-102.4	1.22	7.46	240	0.02300	0.451	<0.00100	0.0900	-
31-May-07	6.39	734.20	12.98	394	0.29	-223.8	3.32	8.14	240	0.02120	0.443	<0.00100	0.0998	-
20-Jun-07	6.86	733.73	13.41	412	6.10	-128.5	1.35	8.02	230 J	0.02380	0.274	<0.00100	0.0898	-
31-Jul-07	7.96	732.63	13.47	417	0.77	-174.1	0.92	7.64	250	0.01890	0.609	<0.00100	0.1190	-
27-Aug-07	8.50	732.09	12.84	395	0.46	-132.4	1.97	7.43	250	0.01760	0.315	<0.00100	0.1040	-
27-Sep-07	9.58	731.01	12.68	294	0.51	-133.8	0.53	7.87	250	0.01930	0.451	<0.00100	0.1170	-
26-Oct-07	9.65	730.94	12.49	288	0.84	-111.9	9.83	7.60	240 J	0.01100	0.949	<0.00100	0.1970	-
28-Nov-07	10.23	730.36	11.95	362	0.64	-86.1	1.58	7.87	200	0.01780	0.315	<0.00100	0.0819	-
12-Dec-07	9.66	730.93	11.83	334	0.26	-93.2	0.63	7.63	280 J	0.01740	0.458	<0.00100	0.0953	-
24-Jan-08	8.20	732.39	11.09	335	0.44	-108.3	-	7.46	220	0.01920	0.456	<0.00100	0.0861	-
26-Feb-08	7.61	732.98	12.26	337	0.48	-	2.40	7.45	210	0.02200	0.448	<0.00100	0.0916	<3.0
25-Mar-08	7.22	733.37	11.94	337	1.01	-48.6	2.80	7.51	210	0.01780	0.296	<0.00100	0.0789	-
29-Apr-08	6.75	733.84	12.53	332	0.77	-50.3	1.95	7.41	200 J	0.01820	0.449	<0.00100	0.0826	-
19-May-08	7.17	733.42	12.37	336	0.57	-57.2	2.19	7.34	200 J	0.01870	0.373	<0.00100	0.0758	-
18-Jun-08	7.26	733.33	12.11	323	0.48	-64.1	0.83	7.13	190 J	0.01950	0.461	<0.00100	0.0896	-
26-Aug-08	8.78	731.81	12.31	329	1.16	-36.5	2.89	7.30	200 J	0.01770	0.298	<0.00100	0.0532	<3.0
19-Nov-08	9.03	731.56	11.91	243	0.52	-93.1	1.69	7.40	190	0.01820	0.394	<0.00100	0.0690	<3.0
11-Feb-09	7.07	733.52	11.74	227	0.65	-	1.03	7.76	180	0.01770	0.582	<0.00100	0.1020	<3.0
18-May-09	6.50	734.09	12.11	225	0.67	-63.9	1.51	7.83	190 J	0.01290	<0.150	<0.00100	0.0886	<3.0
25-Sep-09	10.47	730.12	13.50	260.1	0.36	215.3	4.14	7.61	220	0.01700	0.260	0.00094 J	0.0440	12.0
17-Dec-09	8.39	732.20	11.50	301.0	0.44	110.0	3.10	7.71	270	0.02300	0.610	<0.00200	0.0970	1.3 J
23-Mar-10	6.46	734.13	12.20	294.8	0.43	332.5	3.52	7.57	150 J	0.02700	0.380	<0.00200	0.0760	1.3 J
16-Jun-10	5.34	735.25	11.10	281.7	0.05	117.0	-	7.71	160	0.02700	0.490	<0.00200	0.0760	1.3 J
21-Sep-10	7.72	732.87	11.80	276.3	0.06	169.5	0.36	7.54	140	0.02300	0.600 J+	<0.00200	0.0910 J+	1.3 J
7-Dec-10	6.48	734.11	11.00	263.0	0.15	77.2	0.38	7.58	180	0.02000	0.360	<0.00200	0.0680	1.2 J
28-Mar-11	4.42	736.17	10.80	134.0	0.44	75.6	1.06	7.46	160 J	0.02100	0.610 J+	<0.00200	0.0720	1.7 J
20-Jun-11	4.76	735.83	12.10	252.7	0.07	68.4	0.13	7.48	200 J	0.01600	0.650	<0.00200	0.08900	1.0 J
27-Sep-11	7.86	732.73	11.90	2064.0	0.04	102.6	0.37	7.48	170	0.01800	0.620	<0.00200	0.08300	1.1 J
14-Dec-11	7.17	733.42	11.00	188.2	0.03	140.8	1.87	7.50	770	0.02200	0.310	<0.00200	0.05600	1.3 J
21-Mar-12	4.68	735.91	10.70	297.8	0.07	130.6	0.41	7.39	170	0.02100	0.360	<0.00200	0.04600	1.1 J
18-Jun-12	4.75	735.84	11.60	289.0	0.16	271.3	0.55	7.54	150 J+	0.01900	0.440 J+	<0.00040	0.05300	<3.3
19-Sep-12	7.65	732.94	12.60	299.9	0.10	121.0	0.42	7.50	160	0.01800	0.370	<0.00040	0.05500	1.1 J
18-Dec-12	5.58	735.01	10.90	384.0	0.03	15.6	1.39	7.50	200	0.01900	0.150 J	<0.00040	0.04100	1.3 J
25-Feb-13	4.80	735.79	10.60	284.2	0.03	140.4	0.30	7.53	150	0.02200	0.390 J	<0.00040	0.05400	1.2 J
22-May-13	4.81	735.78	11.00	294.9	0.14	387.7	0.52	7.61	160	0.01800	0.420 J	<0.00040	0.05800	<3.3
20-Aug-13	7.63	732.96	12.60	383.0	0.81	-8.4	0.80	7.26	164	0.01670	0.350	<0.00010	0.05200	1.1
19-Nov-13	7.11	733.48	11.30	218.1	0.14	54.3	0.73	7.20	169	0.01660	0.290	<0.00010	0.05200	1.1
1-Apr-14	4.08	736.51	10.70	222.6	0.15	158.5	1.12	7.50	168	0.01330	0.480	<0.00010	0.07300	1.1
22-May-14	4.21	736.38	9.98	206.0	1.59	27.1	-	7.17	158	0.01120	0.150	<0.00010	0.06500	1.0
13-Aug-14	6.95	733.64	13.50	237.0	1.14	9.8	4.70	6.92	154	0.01050	0.160	<0.00010	0.07900	1.0
12-Nov-14	6.04	734.55	8.40	185.1	0.28	-10.1	3.42	7.36	162	0.01610	0.440	<0.00010	0.09300	1.1
11-Feb-15	4.62	735.97	11.50	205.1	1.20	68.1	1.32	7.41	169	0.00900	<0.050	<0.00010	0.07900	1.1
4-May-15	4.93	735.66	12.20	262.0	1.64	190.2	0.84	7.43	168	0.01090	0.640	<0.00010	0.12400	1.0
4-Aug-15	7.44	733.15	13.20	211.3	1.62	81.9	2.02	7.39	173	0.00680	0.043 J	<0.00010	0.05100	1.0
5-Nov-15	8.14	732.45	12.50	186.0	1.49	166.9	1.87	7.10	162	0.00350	0.017 J	<0.00010	0.08600	1.0
8-Feb-16	3.20	737.39	11.70	240.5	2.13	196.9	0.88	7.23	150	0.01120	1.060	<0.00010	0.13300	1.0
2-May-16	3.77	736.82												
22-Aug-16	6.81	733.78	13.10	238.0	2.40	168.5	2.39	7.41						
1-Nov-16	6.59	734.00												
31-Jan-17	4.02	736.57	11.30	265.8	2.79	218.2	1.39	7.34	154	0.00323	0.008 J	<0.00010	0.02720	1.0
30-May-17	2.32	738.27												

**Summary of Lower Disposal Area - Bedrock Groundwater Sampling Results - Well MWB-3LDA  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)				
	Depth to Water* (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Iron	Lead	Manganese
16-Aug-17	5.48	735.11	13.20	258.4	3.54	92.2	2.50	7.41		Monitored Annually <sup>1</sup>				
9-Nov-17	6.00	734.59	Monitored Semi-Annually <sup>1</sup>							Monitored Annually <sup>1</sup>				
28-Feb-18	1.13	739.46	10.80	186.9	4.11	142.0	1.83	7.18	159	0.00253	0.02 J	<0.00010	0.01230	0.8
1-May-18	1.60	738.99	Monitored Semi-Annually <sup>1</sup>							Monitored Annually <sup>1</sup>				
22-Aug-18	5.93	734.66	13.55	194	7.63	16.9	0.77	7.11		Monitored Annually <sup>1</sup>				
6-Nov-18	6.78	733.81	Monitored Semi-Annually <sup>1</sup>							Monitored Annually <sup>1</sup>				
12-Mar-19	2.32	738.27	10.50	166	4.32	167.7	1.34	7.14	149	0.00187	0.0023 J	<0.0001	<0.001	0.953
8-May-19	2.57	738.02	Monitored Semi-Annually <sup>1</sup>							Monitored Annually <sup>1</sup>				
27-Aug-19	5.76	734.83	13.62	192	3.94	Note 1	0.02	7.09		Monitored Annually <sup>1</sup>				
13-Nov-19	6.00	734.59	Monitored Semi-Annually <sup>1</sup>							Monitored Annually <sup>1</sup>				
13-Feb-20	1.69	738.90	10.70	180	3.20	88.5	1.21	7.11	140	0.00169	0.05 U	0.0001 U	0.0062	0.915
13-Aug-20	4.59	736.00	13.60	188.7	4.26	50.3	1.60	7.19		Monitored Annually <sup>1</sup>				
9-Dec-20	4.22	736.37	Monitored Semi-Annually <sup>1</sup>							Monitored Annually <sup>1</sup>				
5-Mar-21	1.06	739.53	10.90	172.0	3.43	132	0.69	7.26	136	0.00184	0.107	0.0001 U	0.00750	0.9
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.3	0.05	0.05	-

Note:

Top of casing elevation (feet msl): 740.59

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

1 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated April 7, 2016. Field parameters collected semi-annually, analytical samples collected annually.

- Not available

< Analyte not detected above the reporting limit shown

\* Depth to water (DTW) measurements for all bedrock LDA wells collected on the same day; date noted is sampling date

a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest

b Site background arsenic value to be determined (TBD)

U Data validation code; not detected at the Reporting Limit (RL)

J Data validation code; estimated value

J+ Data validation code; estimated value with positive bias

°C Degrees Celsius

Note 1 ORP measurements not available due to faulty sensor.

µmhos/cm Micromhos per centimeter mg/L Milligrams per liter

feet bmp Feet below measuring point mV Millivolts

feet msl Feet above mean sea level NTU Nephelometric Turbidity Unit

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-1SDSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)		
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium
2-Dec-02	69.87	862.82	9.5	1690	-	-	-	7.29	910	0.04660	0.00268	-
3-Mar-03	36.83	895.86	11.5	1260	-	-	24.10	7.15	860	0.00973	-	-
3-May-03	34.88	897.81	12.8	1520	-	-	38.00	7.09	950	-	-	-
3-Aug-03	52.02	880.67	19.19	1460	-	-	11.40	7.01	990	-	-	-
1-Nov-03	53.61	879.08	11.60	915	-	-	8.97	7.19	1010	0.00858	0.00070	-
1-Feb-04	32.75	899.94	11.52	1033	-	-	7.36	6.78	1060	-	-	-
1-May-04	42.50	890.19	14.87	1126	-	-	7.53	7.23	1020	-	-	-
1-Aug-04	49.26	883.43	13.72	1234	-	-	8.07	6.98	981	-	-	-
1-Nov-04	42.81	889.88	11.88	1429	-	-	9.06	6.92	1060	0.01000	<0.00100	-
1-Feb-05	33.62	899.07	13.06	1615	-	-	7.11	7.01	1020	-	-	-
1-May-05	34.88	897.81	12.91	1459	-	-	6.54	6.85	1000	-	-	-
1-Aug-05	43.80	888.89	10.40	1472	-	-	10.40	6.80	1090	-	-	-
1-Nov-05	52.80	879.89	10.40	1458	-	-	6.02	6.64	1100	0.01030	<0.00100	-
1-Feb-06	42.70	889.99	10.40	1343	1.10	48.3	11.10	7.08	1100 J	-	-	-
1-May-06	37.81	894.88	11.52	1686	1.64	49.2	10.50	6.83	1100	-	-	-
1-Aug-06	46.11	886.58	14.10	1357	2.33	43.0	10.70	7.11	1100	-	-	-
1-Nov-06	46.47	886.22	-	-	-	-	-	-	-	-	-	-
28-Dec-06	33.20	899.49	-	-	-	-	-	-	-	-	-	-
7-Feb-07	34.50	898.19	-	-	-	-	-	-	-	-	-	-
7-May-07	36.48	896.21	15.19	1484	0.52	-83.4	6.78	7.60	1100	-	-	-
7-Aug-07	47.57	885.12	11.21	1488	8.80	107.4	9.53	6.51	1200	-	-	-
27-Nov-07	51.25	881.44	13.60	1483	1.82	-129.5	434.00	7.11	1000 J	0.00572	<0.00100	-
8-Feb-08	35.12	897.57	14.71	1489	3.11	-	10.20	6.97	1100	-	-	-
8-May-08	37.60	895.09	14.50	1594	3.99	112.5	4.71	6.90	1200 J	-	-	-
8-Aug-08	46.98	885.71	13.27	1617	2.49	105.3	5.32	6.96	1200 J	0.00782	<0.00100	5.6
1-Nov-08	43.35	889.34	11.17	1096	7.29	127.1	47.30	7.70	1100	0.00980	<0.00100	5.6
11-Feb-09	37.00	895.69	10.28	1112	4.15	-	7.68	7.25	1100	0.00752	<0.00100	5.6
9-May-09	36.53	896.16	13.87	1209	2.93	89.0	5.45	7.41	990 J	0.00757	<0.00100	5.6
24-Sep-09	53.61	879.08	12.10	1328	1.98	331.0	3.26	6.92	1200	0.00790	<0.00200	5.7
14-Dec-09	33.72	898.97	10.20	1519	0.55	393.0	2.82	6.99	1100	0.00340	<0.00200	5.7
22-Mar-10	35.11	897.58	10.90	1463	-	508.0	3.95	6.94	1200	0.01000	<0.00200	5.6
15-Jun-10	33.26	899.43	11.00	1485	0.20	210.3	1.50	7.02	1100	0.01100	<0.00200	5.9
20-Sep-10	45.81	886.88	11.30	1484	0.06	159.7	0.91	6.98	1100	0.00910	0.00048 J	6.0
6-Dec-10	36.20	896.49	10.70	1494	0.08	35.4	0.24	7.21	1200	0.00680	0.00034 J	5.2
28-Mar-11	35.07	897.62	10.70	749	0.08	136.8	0.16	6.88	1100	0.00680	<0.00200	5.5
20-Jun-11	38.53	894.16	11.40	1439	0.08	-19.2	0.21	6.99	1400	0.00460 J	<0.00200	5.5
26-Sep-11	50.43	882.26	11.20	1249	0.07	38.5	0.41	7.01	1200	0.00450 J	<0.00200	5.7
13-Dec-11	51.30	881.39	10.40	1308	0.06	50.3	2.03	7.07	530	0.00760	<0.00200	6.1
22-Mar-12	43.75	888.94	10.60	1695	0.08	125.1	0.28	6.99	1200	0.01200	<0.00200	5.7
18-Jun-12	44.86	887.83	Monitored Semiannually <sup>1</sup>									
18-Sep-12	55.74	876.95	12.90	1506	0.05	99.5	0.36	7.08	1300	0.01000	<0.00040	5.8
18-Dec-12	41.94	890.75	Monitored Semiannually <sup>1</sup>									
21-Feb-13	37.86	894.83	10.40	1730	0.02	131.5	0.41	7.27	1200	0.01300	<0.00040	6.3
22-May-13	39.34	893.35	Monitored Semiannually <sup>1</sup>									
20-Aug-13	49.40	883.29	11.90	1707	0.05	-37.6	0.69	7.00	1240	0.01020	<0.00010	6.0
19-Nov-13	44.94	887.75	Monitored Semiannually <sup>1</sup>									
31-Mar-14	33.31	899.38	11.20	1256	0.01	103.5	0.27	7.00	1200	0.01310	<0.00010	6.6
21-May-14	33.37	899.32	Monitored Semiannually <sup>1</sup>									
15-Aug-14	45.31	887.38	13.43	1467	0.71	-1.1	2.32	6.79	1150	0.01340	<0.00010	6.1
14-Nov-14	44.83	887.86	Monitored Semiannually <sup>1</sup>									
10-Feb-15	35.97	896.72	11.00	1423	0.04	-109.4	2.16	7.00	1200	0.01300	<0.00010	6.3

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-1SDSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)		
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium
4-May-15	38.67	894.02	Monitored Semiannually <sup>1</sup>									
4-Aug-15	49.21	883.48	12.50	1253	0.04	-100.7	0.26	7.07	1230	0.01390	<0.00010	6.1
5-Nov-15	56.85	875.84	11.20	1159	0.02	57.4	0.91	6.75	1190	0.01490	<0.00010	7.0
8-Feb-16	33.02	899.67	11.60	1429	0.00	167.6	0.10	7.05	1190	0.01940	<0.00010	6.7
2-May-16	37.48	895.21	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
22-Aug-16	49.78	882.91	12.10	1232	0.06	-143.8	0.77	7.00	Monitored Annually <sup>2</sup>			
1-Nov-16	47.49	885.20	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
31-Jan-17	35.57	897.12	11.10	1620	0.05	-241.6	0.24	6.99	1260	0.02180	<0.00010	6.7
30-May-17	34.70	897.99	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
16-Aug-17	44.32	888.37	11.90	1621	0.12	-144.5	0.47	6.97	Monitored Annually <sup>2</sup>			
9-Nov-17	44.71	887.98	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
28-Feb-18	32.04	900.65	10.70	1278	0.16	-58.5	0.11	6.82	1244	0.02240	<0.00010	6.5
1-May-18	33.99	898.70	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
22-Aug-18	47.95	884.74	11.97	1246	1.17	4.10	0.17	6.88	Monitored Annually <sup>2</sup>			
6-Nov-18	52.94	879.75	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
12-Mar-19	33.09	899.60	10.40	1157	0.55	-23.0	0.62	6.81	1200	0.02	<0.0001	0.95
8-May-19	34.37	898.32	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
27-Aug-19	47.88	884.81	12.51	1314	0.15	Note 1	0.39	6.80	Monitored Annually <sup>2</sup>			
13-Nov-19	47.03	885.66	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
14-Feb-20	31.08	901.61	10.60	1249	0.38	-82.2	0.10	6.61	1230	0.0183	0.0001 U	6.36
13-Aug-20	43.99	888.70	11.70	1176	0.56	-67.7	0.18	6.78	Monitored Annually <sup>2</sup>			
9-Dec-20	39.67	893.02	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
5-Mar-21	34.96	897.73	11.00	1257	0.26	-38	0.24	6.95	1200	0.0195	0.0001 U	6.2
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.05	-

Notes:

Top of casing elevation (feet msl): 932.69

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not measured or not available

< Analyte not detected above the reporting limit shown

1 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated May 16, 2012

2 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated April 7, 2016. Field parameters collected semi-annually, analytical samples collected annually.

a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest

b Site background arsenic value to be determined (TBD)

U Data validation code; not detected at the Reporting Limit (RL)

J Data validation code; estimated value

J+ Data validation code; estimated value with positive bias

°C Degrees Celsius

Note 1 ORP measurements not available due to faulty sensor.

µmhos/cm Micromhos per centimeter

feet bmp Feet below measuring point

feet msl Feet above mean sea level

mg/L Milligrams per liter

mV Millivolts

NTU Nephelometric Turbidity Unit

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-1DDSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)		
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium
2-Dec-02	87.28	844.49	11.1	557	-	-	-	7.72	540	0.03270	<0.00050	-
3-Mar-03	48.63	883.14	12.0	623	-	-	24.00	7.48	370	0.00708	-	-
3-May-03	47.12	884.65	12.1	548	-	-	264.00	7.54	440	-	-	-
3-Aug-03	64.60	867.17	23.23	675	-	-	195.00	7.36	450	-	-	-
1-Nov-03	66.14	865.63	11.0	400	-	-	15.50	8.10	437	0.00603	<0.00050	-
1-Feb-04	46.55	885.22	10.68	455	-	-	8.70	7.15	440	-	-	-
1-May-04	55.82	875.95	13.61	508	-	-	12.40	7.58	429	-	-	-
1-Aug-04	61.89	869.88	13.15	585	-	-	15.70	7.47	399	-	-	-
1-Nov-04	56.83	874.94	10.94	655	-	-	9.40	7.22	477	0.00308	<0.00100	-
1-Feb-05	47.31	884.46	12.80	778	-	-	8.39	7.35	451	-	-	-
1-May-05	48.60	883.17	12.86	743	-	-	4.22	7.25	432	-	-	-
1-Aug-05	56.80	874.97	14.17	746	-	-	3.10	6.99	518	-	-	-
1-Nov-05	66.85	864.92	10.20	702	-	-	5.36	7.11	470	0.00360	<0.00100	-
1-Feb-06	47.88	883.89	10.11	648	0.71	109.4	2.72	7.53	450 J	-	-	-
1-May-06	52.23	879.54	12.22	686	1.82	43.7	3.68	7.43	450	-	-	-
1-Aug-06	59.41	872.36	12.28	665	1.06	-74.0	14.20	7.36	480	-	-	-
1-Nov-06	61.84	869.93	-	-	-	-	-	-	-	-	-	-
28-Dec-06	48.26	883.51	-	-	-	-	-	-	-	-	-	-
7-Feb-07	49.64	882.13	-	-	-	-	-	-	-	-	-	-
7-May-07	53.24	878.53	12.44	722	0.74	-150.8	6.06	7.94	470	-	-	-
7-Aug-07	60.45	871.32	13.76	712	0.79	-50.0	4.53	7.28	500	-	-	-
27-Nov-07	63.40	868.37	14.41	711	0.45	-194.4	7.07	7.34	470 J	0.00289	<0.00100	-
8-Feb-08	49.23	882.54	14.07	737	0.62	-	6.28	7.46	500	-	-	-
8-May-08	51.31	880.46	13.52	793	0.55	27.9	4.42	7.40	520 J	-	-	-
8-Aug-08	59.69	872.08	13.73	812	0.67	-24.7	9.33	7.37	560 J	0.00226	<0.00100	<3.0
1-Nov-08	57.38	874.39	14.75	619	0.89	-42.5	4.40	7.45	480	0.00222	<0.00100	<3.0
10-Feb-09	50.92	880.85	6.50	618	10.51	-	655.00	7.69 J	530	0.00219	<0.00100	3.0
9-May-09	51.25	880.52	13.95	637	2.21	39.3	5.87	7.74	540 J	0.00242	<0.00100	<3.0
25-Sep-09	65.46	866.31	13.20	678	2.25	331.8	2.29	7.15	570	0.00180 J	<0.00200	3.3
17-Dec-09	49.40	882.37	10.60	794	0.99	224.0	3.97	7.58	440	0.00070 J	<0.00200	3.2 J
22-Mar-10	49.18	882.59	10.40	762	-	245.0	0.74	7.39	580	0.00450	<0.00200	3.2 J
15-Jun-10	46.88	884.89	12.10	762	0.05	142.1	0.47	7.50	420	0.00550	<0.00200	3.3
20-Sep-10	58.97	872.80	11.40	765	0.07	89.6	0.47	7.47	520	0.00470	0.00027 J	3.4
6-Dec-10	50.66	881.11	10.20	763	0.19	58.9	0.32	7.72	550	0.00130 J	<0.00200	3.2 J
28-Mar-11	48.89	882.88	10.50	376	0.55	165.0	0.73	7.53	470	0.00370	<0.00200	3.0 J
20-Jun-11	52.13	879.64	13.40	718	0.45	-65.1	0.75	7.53	600 J	<0.00500	<0.00200	3.5
26-Sep-11	63.02	868.75	11.80	633	1.73	-6.0	1.72	7.61	560	<0.00500	<0.00200	3.5
13-Dec-11	63.88	867.89	8.60	678	0.69	-24.7	1.95	7.56	530	0.00570	<0.00200	4.1
22-Mar-12	56.96	874.81	5.60	877	1.89	-26.6	0.84	7.69	540	0.00340	<0.00040	3.0 J
18-Jun-12	58.01	873.76										
18-Sep-12	67.78	863.99	26.30	838	3.62	12.4	1.27	7.70	540	0.00310	<0.00040	3.1 J
18-Dec-12	56.10	875.67										
21-Feb-13	51.62	880.15	4.30	895	7.54	31.3	0.83	8.04	510	0.00360	<0.00040	3.6
22-May-13	53.14	878.63										
20-Aug-13	62.35	869.42	12.30	526	0.08	-60.4	2.91	7.47	585	0.00320	<0.00010	3.2
19-Nov-13	58.70	873.07										
31-Mar-14	46.60	885.17	11.10	622	0.04	48.4	0.45	7.52	561	0.00180	<0.00010	3.3
21-May-14	46.96	884.81										
15-Aug-14	58.62	873.15	12.48	732	0.90	-62.4	2.04	7.16	564	0.00200	0.00020	3.1
14-Nov-14	59.59	872.18										
10-Feb-15	49.61	882.16	10.90	717	0.03	-114.4	1.82	7.48	551	0.00290	<0.00010	3.3

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-1DDSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)			
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium
4-May-15	52.25	879.52	Monitored Semiannually <sup>1</sup>										
4-Aug-15	61.71	870.06	12.00	618	0.04	-115.0	0.35	7.56	552	0.00300	<0.00010	3.4	
5-Nov-15	68.72	863.05	11.10	625	0.05	27.5	1.26	7.21	603	0.00160	<0.00010	3.6	
8-Feb-16	46.93	884.84	11.40	794	0.00	155.1	0.17	7.57	599	0.00210	<0.00010	3.8	
2-May-16	50.77	881.00	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>		
22-Aug-16	62.11	869.66	11.60	770	0.04	-251.0	0.86	7.50	Monitored Annually <sup>2</sup>				
1-Nov-16	61.71	870.06	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>		
31-Jan-17	49.02	882.75	10.60	916	0.13	-310.4	0.35	7.47	676	0.00187	<0.00010	3.4	
30-May-17	48.11	883.66	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>		
16-Aug-17	57.17	874.60	11.80	898	0.12	-210.9	0.22	7.42	Monitored Annually <sup>2</sup>				
9-Nov-17	58.71	873.06	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>		
28-Feb-18	45.21	886.56	10.20	758	0.19	-166.6	0.20	7.26	694	0.00287	<0.00010	3.34	
1-May-18	47.40	884.37	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>		
22-Aug-18	60.25	871.52	11.58	705	2.22	-153.0	0.14	7.37	Monitored Annually <sup>2</sup>				
6-Nov-18	65.30	866.47	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>		
12-Mar-19	46.35	885.42	9.80	707	0.58	-119.9	0.16	7.24	668	0.00496	<0.0001	4.21	
8-May-19	47.20	884.57	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>		
27-Aug-19	59.87	871.90	11.95	762	0.39	Note 1	0.02	7.20	Monitored Annually <sup>2</sup>				
13-Nov-19	60.20	871.57	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>		
14-Feb-20	44.28	887.49	10.30	760	0.30	-169.3	1.09	7.11	717	0.0046	0.0001 U	4.07	
13-Aug-20	57.57	874.20	11.10	739	0.91	-145.8	0.31	7.17	Monitored Annually <sup>2</sup>				
9-Dec-20	54.25	877.52	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>		
5-Mar-21	48.74	883.03	10.70	724	0.27	-222	0.61	7.36	592	0.00406	0.0001 U	3.9	
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.05	-	

Notes:

Top of casing elevation (feet msl): 931.77

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not measured or not available

< Analyte not detected above the reporting limit shown

1 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated May 16, 2012

2 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated April 7, 2016. Field parameters collected semi-annually, analytical samples collected annually.

a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest

b Site background arsenic value to be determined (TBD)

U Data validation code; not detected at the Reporting Limit (RL)

J Data validation code; estimated value

J+ Data validation code; estimated value with positive bias

°C Degrees Celsius

Note 1 ORP measurements not available due to faulty sensor.

µmhos/cm Micromhos per centimeter

feet bmp Feet below measuring point

feet msl Feet above mean sea level

mg/L Milligrams per liter

mV Millivolts

NTU Nephelometric Turbidity Unit

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-5DSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)		
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium
18-Dec-06	20.56	910.89	11.30	1054	0.59	-10.5	6.76	7.01	630	0.00446	<0.00100	-
7-Jan-07	18.48	912.97	12.53	700	0.61	-70.6	33.50	7.11	540	0.00519	<0.00100	-
7-Feb-07	21.53	909.92	11.59	557	0.57	-59.1	33.50	6.88	530	0.00519	<0.00100	-
7-Mar-07	15.34	916.11	11.71	817	0.45	-2.4	91.20	6.52	550 J	0.00491	<0.00100	-
7-Apr-07	17.97	913.48	11.96	909	0.25	0.2	121.00	6.91	560	0.00475	<0.00100	-
1-May-07	26.92	904.53	12.55	880	4.20	-14.3	63.70	7.13	540	0.00490	<0.00100	-
7-Jun-07	29.94	901.51	13.12	1016	3.20	-5.6	3.58	7.52	600 J	0.00437	<0.00100	-
7-Jul-07	35.27	896.18	13.00	910	1.74	-27.4	9.97	7.24	550	0.00491	<0.00100	-
7-Aug-07	39.55	891.90	12.40	1065	0.92	-14.6	4.62	6.99	590	0.00446	<0.00100	-
7-Sep-07	44.69	886.76	12.36	696	0.68	-33.3	3.22	7.29	590	0.00492	<0.00100	-
26-Oct-07	38.90	892.55	11.46	667	0.56	-18.3	22.60	6.98	620 J	0.00443	<0.00100	-
27-Nov-07	38.79	892.66	11.71	914	0.56	-46.7	3.32	6.91	560 J	0.00490	<0.00100	-
12-Dec-07	35.33	896.12	12.61	909	0.53	-27.3	4.28	6.87	820	0.00409	<0.00100	-
24-Jan-08	28.97	902.48	10.72	872	0.78	-49.1	-	7.14	550	0.00472	<0.00100	-
8-Feb-08	26.00	905.45	11.25	888	0.44	-	4.18	6.85	550	0.00450	<0.00100	-
8-Mar-08	26.03	905.42	10.94	915	0.59	-95.6	3.19	6.89	550	0.00521	<0.00100	-
8-Apr-08	25.03	906.42	11.27	931	0.61	-20.1	3.44	6.89	550 J	0.00488	<0.00100	-
8-May-08	27.33	904.12	11.68	949	0.68	-6.7	5.37	6.62	580 J	0.00534	<0.00100	-
8-Jun-08	28.38	903.07	11.40	948	0.75	-50.4	1.59	6.68	580 J	0.00445	<0.00100	-
8-Aug-08	39.80	891.65	11.80	970	0.68	-78.6	1.72	6.84	610 J	0.00464	<0.00100	<3.0
1-Nov-08	33.96	897.49	11.20	682	0.63	-115.4	0.95	6.82	540	0.00480	<0.00100	<3.0
10-Feb-09	25.56	905.89	10.54	671	0.71	-71.7	0.98	7.05	610	0.00473	<0.00100	<3.0
9-May-09	25.79	905.66	11.23	682	0.55	-5.8	0.86	7.68	560 J	0.00340	<0.00100	<3.0
22-Sep-09	46.68	884.77	18.70	737	0.64	214.5	0.99	6.91	580 J	0.00390	<0.00200	2.7 J
14-Dec-09	30.45	901.00	9.80	901	0.18	200.0	0.70	6.96	450	0.00170 J	<0.00200	2.5 J
23-Mar-10	19.92	911.53	11.30	773	0.25	148.0	4.40	6.86	510	0.00560	<0.00200	2.6 J
15-Jun-10	16.74	914.71	11.00	838	0.10	202.3	2.89	7.01	860 J	0.00820	<0.00200	2.8 J
20-Sep-10	33.31	898.14	11.20	852	0.09	174.7	0.60	6.97	540	0.00620	<0.00200	2.7 J
6-Dec-10	19.81	911.64	10.80	838	0.10	30.5	0.47	7.17	530	0.00380	<0.00200	2.3 J
28-Mar-11	17.16	914.29	10.80	403	0.15	48.4	1.13	6.89	500 J	0.00230	<0.00200	2.3 J
20-Jun-11	18.95	912.50	11.10	775	0.05	-29.1	0.37	7.01	610 J	<0.00500	<0.00200	2.4 J
26-Sep-11	33.71	897.74	11.20	690	0.03	-8.7	0.54	7.00	560	0.00410 J	<0.00200	2.8 J
13-Dec-11	24.48	906.97	10.50	730	0.05	93.6	1.92	7.07	520	0.00610	<0.00200	2.8 J
21-Mar-12	15.54	915.91	10.70	883	0.06	106.9	0.34	6.90	500	0.00650	<0.00200	2.4 J
19-Jun-12	17.01	914.44	Monitored Semiannually <sup>1</sup>									
19-Sep-12	29.82	901.63	11.90	877	0.00	122.0	0.47	7.08	490	0.00690	<0.00040	2.6 J
18-Dec-12	17.39	914.06	Monitored Semiannually <sup>1</sup>									
21-Feb-13	18.84	912.61	10.60	875	0.05	103.3	0.40	7.32	510	0.00590	<0.00040	2.6 J
22-May-13	20.25	911.20	Monitored Semiannually <sup>1</sup>									
20-Aug-13	30.15	901.30	12.10	530	0.06	-50.3	0.75	6.98	510	0.00560	<0.00010	2.5
19-Nov-13	22.73	908.72	Monitored Semiannually <sup>1</sup>									
31-Mar-14	15.50	915.95	11.30	574	0.06	95.7	0.53	7.15	447	0.00560	<0.00010	2.7
21-May-14	14.83	916.62	Monitored Semiannually <sup>1</sup>									
15-Aug-14	25.16	906.29	14.49	741	0.48	-24.0	2.92	6.87	477	0.00590	<0.00010	2.6
14-Nov-14	22.25	909.20	Monitored Semiannually <sup>1</sup>									
10-Feb-15	15.98	915.47	11.40	693	0.04	-117.5	0.80	7.13	503	0.00590	<0.00010	2.6
4-May-15	20.05	911.40	Monitored Semiannually <sup>1</sup>									
4-Aug-15	31.90	899.55	11.90	620	0.16	-71.1	0.47	7.13	517	0.00640	<0.00010	2.7
5-Nov-15	32.00	899.45	11.40	605	0.00	37.5	1.16	6.84	511	0.00530	<0.00010	3.1
8-Feb-16	17.13	914.32	11.80	720	0.00	160.4	0.08	7.34	480	0.00600	<0.00010	3.0

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-5DSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)		
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium
2-May-16	23.31	908.14	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
22-Aug-16	34.07	897.38	12.50	571	0.00	-	0.66	7.11	Monitored Annually <sup>2</sup>			
1-Nov-16	26.04	905.41	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
31-Jan-17	19.36	912.09	12.20	808	0.07	-219.2	0.30	7.21	509	0.00676	<0.00010	2.8
30-May-17	17.31	914.14	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
16-Aug-17	28.13	903.32	12.40	826	0.12	-71.9	0.66	7.10	Monitored Annually <sup>2</sup>			
9-Nov-17	27.17	904.28	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
28-Feb-18	16.55	914.90	10.90	657	0.15	-97.6	0.35	7.02	528	0.00539	<0.00010	2.6
1-May-18	17.69	913.76	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
22-Aug-18	32.63	898.82	12.46	655	0.81	-46.4	0.26	7.01	Monitored Annually <sup>2</sup>			
6-Nov-18	32.44	899.01	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
12-Mar-19	18.84	912.61	10.90	597	0.56	-28.1	0.86	6.96	512	0.00451	<0.0001	2.89
8-May-19	19.75	911.70	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
27-Aug-19	33.26	911.70	13.08	688	0.26	Note 1	0.02	6.89	Monitored Annually <sup>2</sup>			
13-Nov-19	33.03	898.42	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
14-Feb-20	16.70	914.75	10.90	626	0.34	-99.8	0.33	6.88	524	0.00431	0.0001 U	2.65
13-Aug-20	27.37	904.08	11.80	619	0.55	-70.6	0.40	6.89	Monitored Annually <sup>2</sup>			
9-Dec-20	24.68	906.77	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>			
5-Mar-21	16.91	914.54	11.30	641	0.19	-77	0.45	7.09	473	0.00484	0.0001 U	2.5
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.05	-

Notes:

Top of casing elevation (feet msl): 931.45

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not measured or not available

< Analyte not detected above the reporting limit shown

1 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated May 16, 2012

2 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated April 7, 2016. Field parameters collected semi-annually, analytical samples collected annually.

a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest

b Site background arsenic value to be determined (TBD)

U Data validation code; not detected at the Reporting Limit (RL)

J Data validation code; estimated value

J+ Data validation code; estimated value with positive bias

°C Degrees Celsius

Note 1 ORP measurements not available due to faulty sensor.

µmhos/cm Micromhos per centimeter

feet bmp Feet below measuring point

feet msl Feet above mean sea level

mg/L Milligrams per liter

mV Millivolts

NTU Nephelometric Turbidity Unit

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-6DSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)		
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium
18-Dec-06	8.13	894.22	9.93	525	0.54	-54.5	0.61	7.78	300	0.00537	<0.00100	-
7-Feb-07	9.40	892.95	11.79	479	1.19	-30.0	7.40	7.41	330	0.00601	<0.00100	-
7-May-07	10.73	891.62	12.26	729	2.83	-103.6	16.40	7.63	480	0.01010	<0.00100	-
7-Aug-07	15.14	887.21	11.42	882	0.75	-11.5	1.82	7.10	470	0.00325	<0.00100	-
27-Nov-07	16.16	886.19	10.98	748	0.37	-47.9	0.83	6.99	440 J	0.00282	<0.00100	-
8-Feb-08	9.66	892.69	11.01	645	0.31	-	0.90	7.05	380	0.00268	<0.00100	-
8-May-08	10.34	892.01	11.27	665	0.64	13.4	1.52	6.93	380 J	0.00240	<0.00100	-
8-Aug-08	14.17	888.18	11.23	683	0.72	-8.2	2.49	7.05	390 J	0.00218	<0.00100	<3.0
1-Nov-08	12.98	889.37	10.61	488	0.60	-45.6	1.35	6.80	380	0.00204	<0.00100	<3.0
10-Feb-09	9.64	892.71	10.32	398	0.52	-57.0	1.20	7.31	350	0.00200	<0.00100	<3.0
9-May-09	9.91	892.44	10.50	405	0.73	-4.0	1.26	7.77	320 J	0.00169	<0.00100	<3.0
23-Sep-09	17.16	885.19	12.50	541	0.25	216.2	5.38	7.14	400 J	0.00091 J	<0.00200	1.3 J
14-Dec-09	12.73	889.62	9.10	580	0.47	231.0	2.70	7.23	270	<0.00200	<0.00200	1.3 J
22-Mar-10	9.62	892.73	10.90	504	-	321.7	3.50	7.22	320	0.00200	<0.00200	1.2 J
15-Jun-10	8.30	894.05	11.00	495	0.11	205.1	1.41	7.29	320	0.00420	<0.00200	1.3 J
20-Sep-10	14.90	887.45	10.90	560	0.10	187.2	0.28	7.29	270	0.00300	<0.00200	1.4 J
6-Dec-10	10.47	891.88	10.50	515	0.12	87.8	0.14	7.47	300	<0.00200	<0.00200	1.1 J
28-Mar-11	8.71	893.64	10.30	241	0.19	58.9	1.86	7.19	300	<0.00200	<0.00200	1.1 J
20-Jun-11	9.87	892.48	10.80	477	0.06	141.2	0.20	7.27	340	<0.00500	<0.00200	1.1 J
26-Sep-11	14.82	887.53	10.80	467	0.05	114.8	0.92	7.26	380	<0.00500	<0.00200	1.5 J
13-Dec-11	13.02	889.33	10.20	491	0.06	131.3	1.69	7.29	340	<0.00500	<0.00200	1.6 J
21-Mar-12	8.13	894.22	10.20	550	0.09	160.0	0.07	7.14	310	0.00250	<0.00040	1.2 J
18-Jun-12	-	-	Monitored Semiannually <sup>1</sup>									
18-Sep-12	14.76	887.59	12.50	587	0.00	122.0	0.35	7.31	370	0.00280	<0.00040	1.3 J
18-Dec-12	8.16	894.19	Monitored Semiannually <sup>1</sup>									
21-Feb-13	8.45	893.90	10.10	594	0.02	152.7	0.28	7.49	300	0.00190	<0.00040	1.3 J
22-May-13	9.36	892.99	Monitored Semiannually <sup>1</sup>									
20-Aug-13	13.28	889.07	11.70	478	0.01	-43.8	0.54	7.22	349 J	0.00160	<0.00010	1.3
19-Nov-13	9.71	892.64	Monitored Semiannually <sup>1</sup>									
31-Mar-14	8.42	893.93	10.70	455	0.06	166.1	0.27	7.35	315	0.00140	<0.00010	1.3
21-May-14	5.99	896.36	Monitored Semiannually <sup>1</sup>									
14-Aug-14	12.03	890.32	13.45	512	0.56	-21.4	1.99	6.95	317	0.00170	<0.00010	1.3
14-Nov-14	10.68	891.67	Monitored Semiannually <sup>1</sup>									

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-6DSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)			
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium
10-Feb-15	7.39	894.96	10.90	482	0.03	-86.2	0.59	7.32	337	0.00140	<0.00010	1.2	
4-May-15	9.17	893.18	Monitored Semiannually <sup>1</sup>										
4-Aug-15	13.64	888.71	12.40	449	0.18	-81.7	0.27	7.33	385	0.00170	<0.00010	1.3	
5-Nov-15	13.98	888.37	11.50	435	2.23	85.2	1.09	7.04	354	0.00130	<0.00010	1.5	
8-Feb-16	6.74	895.61	11.50	495	0.03	187.2	0.25	7.39	297	0.00140	<0.00010	1.4	
2-May-16	8.64	893.71	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>				
22-Aug-16	13.27	889.08	12.20	559	0.03	-52.7	0.80	7.28	Monitored Annually <sup>2</sup>				
1-Nov-16	11.36	890.99	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>				
31-Jan-17	7.91	894.44	10.90	539	0.08	124.4	0.18	7.31	321	0.00148	<0.00010	1.3	
30-May-17	2.65	899.70	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>				
16-Aug-17	12.08	890.27	12.10	573	0.12	-46.9	1.39	7.26	Monitored Annually <sup>2</sup>				
9-Nov-17	11.70	890.65	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>				
28-Feb-18	6.50	895.85	11.00	423	0.19	-61.0	0.18	7.12	138	0.00156	<0.00010	1.2	
1-May-18	6.80	895.55	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>				
22-Aug-18	13.47	888.88	11.61	441	7.44	26.6	0.21	7.11	Monitored Annually <sup>2</sup>				
6-Nov-18	13.96	888.39	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>				
12-Mar-19	7.30	895.05	10.30	363	0.56	-25.1	0.27	7.16	294	0.00147	<0.0001	1.34	
8-May-19	7.77	894.58	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>				
27-Aug-19	13.16	889.19	12.19	454	0.45	Note 1	0.02	7.05	Monitored Annually <sup>2</sup>				
13-Nov-19	26.35	894.30	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>				
13-Feb-20	20.79	899.86	10.60	387	0.39	-76.5	1.05	7.13	313	0.00140	0.0001 U	1.33	
13-Aug-20	25.94	894.71	11.70	403	0.65	-64.3	0.60	7.07	Monitored Annually <sup>2</sup>				
9-Dec-20	24.06	896.59	Monitored Semiannually <sup>2</sup>						Monitored Annually <sup>2</sup>				
4-Mar-21	21.56	899.09	10.80	363	0.16	-9.0	1.29	7.30	280	0.00110	0.0001 U	1.2	
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.05	-	

Notes:

- Top of casing elevation (feet msl) prior to raising casing: 902.35
- Top of casing elevation (feet msl) after raising casing (Q3 2019): 920.65
- Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.
- Not measured or not available
- < Analyte not detected above the reporting limit shown
- 1 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated May 16, 2012
- 2 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated April 7, 2016. Field parameters collected semi-annually, analytical samples collected annually.
- a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- b Site background arsenic value to be determined (TBD)
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius Note 1 ORP measurements not available due to faulty sensor.
- µmhos/cm Micromhos per centimeter mg/L Milligrams per liter
- feet bmp Feet below measuring point mV Millivolts
- feet msl Feet above mean sea level NTU Nephelometric Turbidity Unit

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Portal Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)		
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium
1-Mar-02	-	-	-	653	-	-	-	7.29	586	-	-	-
1-Jun-02	-	-	12	920	-	-	-	7.20	583	-	-	-
1-Sep-02	-	-	11	920	-	-	-	7.10	651	-	-	-
2-Dec-02	-	-	9.1	900	-	-	-	7.03	570	0.00444	<0.00050	-
3-Mar-03	-	-	10.1	873	-	-	-	7.09	530	-	-	-
3-May-03	-	-	11.2	981	-	-	10.00	6.94	590	-	-	-
3-Aug-03	-	-	12.78	1030	-	-	13.00	7.17	630	-	-	-
1-Nov-03	-	-	10.2	569	-	-	4.65	7.53	592	0.00333	<0.00050	-
1-Feb-04	-	-	9.31	568	-	-	5.41	6.85	560	-	-	-
1-May-04	-	-	10.93	952	-	-	5.98	7.12	615	-	-	-
1-Aug-04	-	-	12.10	835	-	-	6.29	7.11	601	-	-	-
1-Nov-04	-	-	10.20	941	-	-	6.58	6.94	656	0.00341	<0.00100	-
1-Feb-05	-	-	10.52	889	-	-	8.72	7.41	541	-	-	-
1-May-05	-	-	13.08	953	-	-	8.15	7.31	548	-	-	-
1-Aug-05	-	-	11.08	988	-	-	7.40	7.23	644	-	-	-
1-Nov-05	-	-	9.53	958	-	-	8.58	7.61	640	0.00315	<0.00100	-
1-Feb-06	-	-	9.23	669	7.88	*	7.93	6.78	450 J	-	-	-
1-May-06	-	-	11.49	947	7.60	38.5	10.40	7.01	570	-	-	-
1-Aug-06	-	-	10.52	835	8.82	-39.8	14.10	7.26	640	-	-	-
1-Nov-06	-	-	9.41	740	9.57	-32.2	12.50	7.23	510	0.00245	<0.00100	-
7-Feb-07	-	-	9.90	815	10.99	-6.2	27.80	7.74	510	-	-	-
7-May-07	-	-	18.39	810	11.05	-6.2	11.80	7.61	510	-	-	-
7-Aug-07	-	-	10.42	870	8.72	-44.9	25.20	7.42	560	-	-	-
30-Nov-07	-	-	9.41	783	9.56	-18.7	48.30	-	520	0.00317	<0.00100	-
8-Feb-08	-	-	10.02	708	10.04	-	50.00	7.20	420	-	-	-
8-May-08	-	-	10.83	815	12.13	0.1	7.28	7.29	480 J	-	-	-
8-Aug-08	-	-	10.63	906	11.05	-5.6	11.00	7.05	560 J	0.00369	<0.00100	41.6
1-Nov-08	-	-	9.79	553	10.70	-21.1	16.90	7.40	460	0.00320	<0.00100	35.5
11-Feb-09	-	-	9.16	488	6.99	-	15.40	7.52	430	0.00297	<0.00100	34.2
9-May-09	-	-	9.64	522	10.56	13.4	9.77	7.39	440 J	0.00201	<0.00100	32.4
23-Sep-09	-	-	10.70	745	8.95	271.7	14.70	6.88	570	<0.00200	<0.00200	40.0
15-Dec-09	-	-	8.60	713	5.20	279.0	12.50	6.67	350	<0.00200	<0.00200	30.0
24-Mar-10	-	-	9.90	681	6.14	370.7	-	6.57	470	0.00420	<0.00200	39.0
17-Jun-10	-	-	10.00	623	9.58	-	26.30	7.50	380	0.00590	<0.00200	28.0
22-Sep-10	-	-	10.00	783	9.02	225.9	17.40	7.00	510	0.00520	<0.00200	42.0
7-Dec-10	-	-	9.90	662	9.15	186.0	13.60	6.95	450	<0.00200	<0.00200	32.0
29-Mar-11	-	-	9.90	292	5.90	370.8	4.44	6.73	360 J	0.00410	<0.00200	25.0
20-Jun-11	-	-	10.50	591	6.42	219.1	4.44	7.01	420	<0.00500	<0.00200	26.0
26-Sep-11	-	-	10.70	623	5.76	240.5	11.90	6.83	520	<0.00500	<0.00200	39.0
15-Dec-11	-	-	8.80	472	4.92	310.4	7.32	6.78	430	0.00470 J	<0.00200	32.0
21-Mar-12	-	-	8.90	611	5.24	313.3	9.16	6.49	330	0.00480	<0.00040	20.0
18-Jun-12	Monitored Semiannually <sup>1</sup>											
18-Sep-12	-	-	14.20	652	9.70	148.0	20.80	7.48	450	0.00500	<0.00040	29.0
18-Dec-12	Monitored Semiannually <sup>1</sup>											
25-Feb-13	-	-	9.20	648	10.10	209.6	4.12	7.58	300	0.00500	<0.00040	25.0
25-Feb-13	Monitored Semiannually <sup>1</sup>											
21-Feb-13	-	-	9.20	648	10.10	209.6	4.12	7.58	300	0.00500	<0.00040	25.0
22-May-13	Monitored Semiannually <sup>1</sup>											
20-Aug-13	-	-	10.80	635	9.31	170.1	8.46	7.11	458	0.00390	<0.00010	32.3
19-Nov-13	Monitored Semiannually <sup>1</sup>											
31-Mar-14	-	-	10.60	448	9.29	213.5	87.20	7.30	321	0.00370	0.00018 J	21.1

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Portal Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)		
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium
21-May-14	Monitored Semiannually <sup>1</sup>											
15-Aug-14	-	-	10.01	595	10.01	-35.2	6.43	6.99	427	0.00350	<0.00010	31.5
14-Nov-14	Monitored Semiannually <sup>1</sup>											
10-Feb-15	-	-	10.60	515	9.88	183.5	6.84	7.26	363	0.00280	0.00007 J	27.2
4-May-15	Monitored Semiannually <sup>1</sup>											
4-Aug-15	-	-	10.90	554	9.98	95.8	8.68	7.48	438	0.00260	<0.00010	34.7
5-Nov-15	-	-	10.30	503	10.24	177.6	13.40	7.46	449	0.00280	<0.00010	31.8
8-Feb-16	-	-	9.30	541	11.30	215.0	5.12	7.30	293	0.00320	<0.00010	23.1
-	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>			
24-Aug-16	-	-	13.40	585	9.32	410.0	8.50	7.23	Monitored Annually <sup>2</sup>			
1-Nov-16	-	-	10.90	242	9.13	51.4	7.57	7.41	Monitored Annually <sup>2</sup>			
31-Jan-17	-	-	8.90	663	10.87	-57.4	6.23	7.50	3390	0.00397	<0.00010	29.2
-	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>			
17-Aug-17	-	-	11.40	712	9.67	-12.4	9.87	7.30	Monitored Annually <sup>2</sup>			
9-Nov-17	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>			
27-Feb-18	-	-	9.50	427	9.94	-46.4	16.70	7.72	354	0.00411	<0.00010	20.4
1-May-18	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>			
21-Aug-18	-	-	13.13	582	12.46	-23.0	23.10	7.24	Monitored Annually <sup>2</sup>			
6-Nov-18	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>			
12-Mar-19	-	-	8.00	406	11.35	-2.8	10.70	7.97	388	0.00156	<0.0001	24.7
8-May-19	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>			
27-Aug-19	-	-	10.55	576	11.80	Note 1	154.00	6.78	Monitored Annually <sup>2</sup>			
13-Nov-19	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>			
13-Feb-20	-	-	9.20	382	9.19	-1.3	13.40	6.93	259	0.00365	0.0001 U	16.7
13-Aug-20	-	-	10.10	569	10.01	-27.0	12.20	7.12	Monitored Annually <sup>2</sup>			
9-Dec-20	Monitored Semiannually <sup>2</sup>								Monitored Annually <sup>2</sup>			
4-Mar-21	-	-	9.30	416	5.80	33.0	17.1	6.89	364	0.00414	0.0001 U	20.0
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.05	-

Notes:

Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- Not measured or not available
- < Analyte not detected above the reporting limit shown
- \* Measurement invalid and not shown
- 1 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated May 16, 2012
- 2 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated April 7, 2016. Field parameters collected semi-annually, analytical samples collected annually.
- a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- b Site background arsenic value to be determined (TBD)
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius
- Note 1 ORP measurements not available due to faulty sensor.
- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-2DSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)		
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Lead
1-Mar-02	-	-	-	542	-	-	-	7.22	467	-	-	-
1-Jun-02	197.34	731.88	12.00	750	-	-	-	7.10	459	-	-	-
1-Sep-02	199.29	729.93	14.00	660	-	-	-	6.90	499	-	-	-
2-Dec-02	200.09	729.13	10.80	675	-	-	-	6.89	440	<0.00100	<0.00050	-
3-Mar-03	190.21	739.01	11.90	763	-	-	-	6.98	450	-	-	-
3-May-03	191.78	737.44	12.30	730	-	-	233.00	6.98	550	-	-	-
3-Aug-03	199.82	729.40	16.50	848	-	-	17.00	6.92	520	-	-	-
1-Nov-03	199.97	729.25	11.60	559	-	-	9.20	7.04	522	0.00098	<0.00050	-
1-Feb-04	188.78	740.44	11.96	608	-	-	4.86	6.68	560	-	-	-
1-May-04	198.45	730.77	13.69	614	-	-	6.17	6.80	478	-	-	-
1-Aug-04	199.17	730.05	14.38	731	-	-	5.48	6.71	460	-	-	-
1-Nov-04	197.92	731.30	11.62	785	-	-	12.30	6.75	512	<0.00100	<0.00100	-
1-Feb-05	186.36	742.86	11.64	806	-	-	1.47	6.94	487	-	-	-
1-May-05	-	-	12.87	790	-	-	15.80	6.89	338	-	-	-
1-Aug-05	196.10	733.12	15.01	603	-	-	45.70	6.44	388	-	-	-
1-Nov-05	196.78	732.44	9.91	549	-	-	13.30	6.66	350	<0.00100	<0.00100	-
1-Feb-06	193.93	735.29	8.10	641	2.11	269.2	35.70	6.82	400 J	-	-	-
1-May-06	197.90	731.32	10.88	798	1.67	27.3	5.38	6.50	380	-	-	-
1-Aug-06	198.80	730.42	11.44	534	2.52	205.7	8.74	6.67	360	-	-	-
1-Nov-06	187.36	741.86	10.77	680	2.12	-19.9	18.90	7.06	430	<0.00100	<0.00100	-
28-Dec-06	192.37	736.85	-	-	-	-	-	-	-	-	-	-
7-Feb-07	197.46	731.76	10.24	621	0.64	-16.7	27.80	6.89	420	-	-	-
7-May-07	198.49	730.73	-	-	-	-	-	-	-	-	-	-
1-Aug-07	198.45	730.77	-	-	-	-	-	-	-	-	-	-
27-Nov-07	196.48	732.74	-	-	-	-	-	-	-	-	-	-
8-Feb-08	191.30	737.92	-	-	-	-	-	-	-	-	-	-
8-May-08	193.95	735.27	-	-	-	-	-	-	-	-	-	-
27-Sep-11	197.32	731.90	-	-	-	-	-	-	-	-	-	-
13-Dec-11	192.15	737.07	9.60	421	2.10	313.0	16.10	7.49	-	-	-	-
22-Mar-12	183.35	747.87	8.90	546	12.83	166.3	0.56	7.47	-	-	-	-
18-Jun-12	192.54	738.68	-	-	-	-	-	-	-	-	-	-
18-Sep-12	199.51	731.71	16.20	508	2.21	120.0	1.27	7.58	-	-	-	-
18-Dec-12	184.52	746.70	-	-	-	-	-	-	-	-	-	-
21-Feb-13	190.65	740.57	7.60	678	5.33	342.6	6.61	8.02	-	-	-	-
22-May-13	198.05	733.17	-	-	-	-	-	-	-	-	-	-
20-Aug-13	200.47	730.75	13.00	488	3.26	90.2	8.47	7.42	-	-	-	-
19-Nov-13	196.59	734.63	-	-	-	-	-	-	-	-	-	-
31-Mar-14	186.78	744.44	11.40	421	7.28	195.1	1.70	7.47	-	-	-	-
21-May-14	192.27	738.95	-	-	-	-	-	-	-	-	-	-
15-Aug-14	199.97	731.25	18.90	492	0.97	1.4	52.50	7.01	-	-	-	-
14-Nov-14	196.60	734.62	-	-	-	-	-	-	-	-	-	-
10-Feb-15	183.97	747.25	10.20	450	7.65	121.4	1.02	7.34	-	-	-	-
4-May-15	194.19	737.03	-	-	-	-	-	-	-	-	-	-
4-Aug-15	198.35	732.87	13.60	432	3.07	18.6	0.27	7.47	-	-	-	-
3-Nov-15	198.25	732.97	10.30	405	2.57	106.2	7.07	7.35	-	-	-	-
8-Feb-16	188.43	742.79	12.50	536	2.77	189.8	0.25	7.78	-	-	-	-
2-May-16	195.72	735.50	Monitored Semiannually <sup>1</sup>								-	-
22-Aug-16	197.89	733.33	14.00	418	1.27	-123.1	4.36	7.32	-	-	-	-
1-Nov-16	195.49	735.73	Monitored Semiannually <sup>1</sup>								-	-
31-Jan-17	186.94	744.28	9.20	506	5.26	-45.4	0.38	7.45	-	-	-	-
30-May-17	190.62	740.60	Monitored Semiannually <sup>1</sup>								-	-

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-2DSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)		
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)		Total Dissolved Solids (mg/L)	Arsenic	Lead
16-Aug-17	197.55	733.67	13.30	540	2.31	37.3	3.42	7.37	-	-	-	-
9-Nov-17	197.11	734.11	Monitored Semiannually <sup>1</sup>					-	-	-	-	-
28-Feb-18	185.96	745.26	10.10	390	5.95	204.7	1.62	7.15	-	-	-	-
1-May-18	184.95	746.27	Monitored Semiannually <sup>1</sup>					-	-	-	-	
22-Aug-18	197.40	733.82	13.70	412	3.10	85.5	1.66	7.27	-	-	-	-
6-Nov-18	197.94	733.28	Monitored Semiannually <sup>1</sup>					-	-	-	-	
12-Mar-19	182.84	748.38	8.70	332	6.25	148.4	1.93	7.28	-	-	-	-
8-May-19	185.36	745.86	Monitored Semiannually <sup>1</sup>					-	-	-	-	
27-Aug-19	196.56	734.66	11.92	411	8.82	Note 1	0.02	7.28	-	-	-	-
13-Nov-19	196.74	734.48	Monitored Semiannually <sup>1</sup>					-	-	-	-	
13-Feb-20	177.10	754.12	9.30	453	3.03	91.0	2.31	7.56	-	-	-	-
13-Aug-20	200.97	730.25	12.20	422	3.04	35.0	0.96	7.42	-	-	-	-
9-Dec-20	197.86	733.36	Monitored Semiannually <sup>1</sup>					-	-	-	-	
5-Mar-21	197.42	733.80	10.0	398	3.79	112	1.17	7.37	-	-	-	-
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.05	-

Notes:

Top of casing elevation (feet msl) prior to raising casing: 929.22  
 Top of casing elevation (feet msl) after raising casing (December 14, 2011): 931.22  
 Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- 1 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated April 7, 2016. Field parameters collected semi-annually, analytical samples collected annually.
- Not measured or not available
- < Analyte not detected above the reporting limit shown
- a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- b Site background arsenic value to be determined (TBD)
- U Data validation code; not detected at the Reporting Limit (RL)
- J Data validation code; estimated value
- J+ Data validation code; estimated value with positive bias
- °C Degrees Celsius
- Note 1 ORP measurements not available due to faulty sensor.
- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit

**Summary of Dale Strip Pit - Bedrock Groundwater Sampling Results - Well MWB-4SDSP  
Ravensdale Site, Ravensdale, Washington**

Date Sampled	Field Parameters								Gen. Chem.	Metals (mg/L)			
	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)	Temperature (°C)	Conductivity (µmhos/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (Rel mV)	Turbidity (NTU)	pH (standard units)	Total Dissolved Solids (mg/L)	Arsenic	Lead	Potassium	
26-Sep-11	25.77	903.04	11.40	553	0.86	197.2	-	7.21	-	-	-	-	
13-Dec-11	24.94	903.87	9.70	625	1.73	658.0	22.70	7.68	-	-	-	-	
22-Mar-12	23.80	905.01	9.60	785	3.71	242.6	8.14	7.30	-	-	-	-	
19-Jun-12	24.09	904.72	-	-	-	-	-	-	-	-	-	-	
18-Sep-12	25.68	903.13	16.50	664	2.37	150.0	19.20	7.34	-	-	-	-	
18-Dec-12	23.02	905.79	-	-	-	-	-	-	-	-	-	-	
21-Feb-13	23.50	905.31	10.00	840	6.55	352.4	3.42	7.42	-	-	-	-	
22-May-13	23.84	904.97	-	-	-	-	-	-	-	-	-	-	
20-Aug-13	25.08	903.73	13.50	539	2.91	45.1	1.87	7.22	-	-	-	-	
19-Nov-13	22.76	906.05	-	-	-	-	-	-	-	-	-	-	
31-Mar-14	21.39	907.42	12.20	511	6.31	197.3	1.38	7.58	-	-	-	-	
21-May-14	19.82	908.99	-	-	-	-	-	-	-	-	-	-	
15-Aug-14	24.00	904.81	12.81	647	0.82	7.5	5.42	6.62	-	-	-	-	
14-Nov-14	22.28	906.53	-	-	-	-	-	-	-	-	-	-	
10-Feb-15	21.10	907.71	12.30	636	2.56	-71.9	1.11	7.11	-	-	-	-	
4-May-15	22.65	906.16	-	-	-	-	-	-	-	-	-	-	
5-Aug-15	24.65	904.16	13.50	563	3.21	116.4	55.20	7.42	-	-	-	-	
3-Nov-15	23.87	904.94	12.20	493	4.65	114.4	5.78	7.52	-	-	-	-	
8-Feb-16	19.39	909.42	15.80	670	3.92	163.5	5.06	7.59	-	-	-	-	
2-May-16	20.99	907.82	Monitored Semiannually <sup>1</sup>						-	-	-	-	-
22-Aug-16	24.42	904.39	17.60	527	5.01	106.0	1.39	7.44	-	-	-	-	
1-Nov-16	21.31	907.50	Monitored Semiannually <sup>1</sup>						-	-	-	-	-
31-Jan-17	21.11	907.70	12.10	680	2.75	-146.1	1.48	7.35	-	-	-	-	
30-May-17	18.49	910.32	Monitored Semiannually <sup>1</sup>						-	-	-	-	-
17-Aug-17	22.58	906.23	12.60	673	5.22	177.8	1.97	7.15	-	-	-	-	
9-Nov-17	20.72	908.09	Monitored Semiannually <sup>1</sup>						-	-	-	-	-
28-Feb-18	17.09	911.72	11.10	509	8.34	29.0	0.72	7.37	-	-	-	-	
1-May-18	17.76	911.05	Monitored Semiannually <sup>1</sup>						-	-	-	-	-
22-Aug-18	Could not be safely accessed due to wasp nests.												
6-Nov-18	21.70	907.11	Monitored Semiannually <sup>1</sup>						-	-	-	-	-
12-Mar-19	18.30	910.51	10.10	215	9.65	18.9	0.39	7.86	-	-	-	-	
8-May-19	19.09	909.72	Monitored Semiannually <sup>1</sup>						-	-	-	-	-
27-Aug-19	22.85	905.96	14.79	562	8.59	Note 1	3.60	7.80	-	-	-	-	
13-Nov-19	21.95	906.86	Monitored Semiannually <sup>1</sup>						-	-	-	-	-
13-Feb-20	16.60	912.21	10.80	458	8.74	68.0	1.98	7.83	-	-	-	-	
13-Aug-20	21.96	906.85	12.60	503	8.74	-39.8	1.89	7.83	-	-	-	-	
9-Dec-20	20.58	908.23	Monitored Semiannually <sup>1</sup>						-	-	-	-	-
5-Mar-21	17.69	911.12	11.3	497	6.84	90	1.46	7.91	-	-	-	-	
Preliminary Standard <sup>a</sup>	-	-	-	700	-	-	-	6.5-8.5	500	TBD <sup>b</sup>	0.05	-	

Notes:

Top of casing elevation (feet msl) prior to DSP Cover Upgrade: 935.82  
 Top of casing elevation (feet msl) after DSP Cover Upgrade (completed July 2011): 928.81  
 Dissolved metals were analyzed at the Site until December 2020 (Q4 2020). Total metals were analyzed for Q4 2020 and will continue to be analyzed moving forward.

- 1 Reduction in monitoring frequency approved by Public Health – Seattle and King County in a letter to Golder Associates Inc. dated April 7, 2016, extended October 10, 2019. Field parameters collected semi-annually, analytical samples collected annually.
- Not measured or not available
- a Preliminary standard is the standard listed or the site-specific (natural) background concentration, whichever is highest
- b Site background arsenic value to be determined (TBD)
- °C Degrees Celsius
- Note 1 ORP measurements not available due to faulty sensor.
- µmhos/cm Micromhos per centimeter
- feet bmp Feet below measuring point
- feet msl Feet above mean sea level
- mg/L Milligrams per liter
- mV Millivolts
- NTU Nephelometric Turbidity Unit