

T7

Sample = HYP-PyRo Tails Whole															
Date	Cycle	Volume mL		pH	Cond.	Acidity	Acidity	Alkalinity	Sulphate	Cl	F	Br	Total CN	WAD CN	Hardness
	No.	Input	Output			(pH 4.5)	(pH 8.3)								CaCO3
					umhos/cm	mgCaCO3/L	mgCaCO3/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
5-Mar-13	0	750	420	7.30	1829	#N/A	12.5	57.4	847	22	0.65	0.3	< 0.01	< 0.01	822
12-Mar-13	1	500	475	7.26	719	#N/A	8.5	52.4	273	4.0	0.74	< 0.3	< 0.01	< 0.01	312
19-Mar-13	2	500	450	7.33	666	#N/A	11.8	66.8	268	1.5	0.83	< 0.3	< 0.01	< 0.01	265
26-Mar-13	3	500	455	7.69	443	#N/A	7.9	61.8	138	0.5	0.73	< 0.3	< 0.01	< 0.01	185
2-Apr-13	4	500	430	7.45	376										
9-Apr-13	5	500	425	7.78	371	#N/A	6.6	69.2	106	< 0.2	0.89	< 0.3	< 0.01	< 0.01	144
16-Apr-13	6	500	440	7.45	376										
23-Apr-13	7	500	415	7.78	256	#N/A	6.4	66.2	65	0.2	0.87	< 0.3	< 0.01	< 0.01	97.7
30-Apr-13	8	500	400	7.56	271										
7-May-13	9	500	465	7.78	289	#N/A	11.4	83.7	73	0.3	0.64	< 0.3	< 0.01	< 0.01	129
14-May-13	10	500	425	7.41	266										
21-May-13	11	500	430	7.84	261	#N/A	6.3	73.3	56	0.3	0.61	< 0.3	< 0.01	< 0.01	105
28-May-13	12	500	485	7.31	242										
4-Jun-13	13	500	445	7.81	223	#N/A	6.0	76.2	40	0.3	0.52	< 0.3	< 0.01	< 0.01	101
11-Jun-13	14	500	445	7.28	212										
18-Jun-13	15	500	420	7.74	194	#N/A	7.4	70.6	31	0.6	0.46	< 0.3	#N/A	#N/A	89.8
25-Jun-13	16	500	430	7.42	189										
2-Jul-13	17	500	430	7.73	194	#N/A	10.0	80.1	27	0.4	0.40	< 0.3	#N/A	#N/A	81.9
9-Jul-13	18	500	420	7.76	185										
16-Jul-13	19	500	425	7.80	192	#N/A	5.1	71.2	22	< 1	0.33	< 0.3	#N/A	#N/A	86.7
23-Jul-13	20	500	430	7.77	161										
30-Jul-13	21	500	435	7.77	175	#N/A	6.4	70.6	21	0.3	0.32	< 0.3	#N/A	#N/A	79.0
6-Aug-13	22	500	430	7.79	166										
13-Aug-13	23	500	435	7.80	180	#N/A	5.5	70.5	14	< 1	0.29	< 0.3	#N/A	#N/A	79.4
20-Aug-13	24	500	365	7.68	178										
27-Aug-13	25	500	430	7.83	153	#N/A	3.8	63.8	13	0.4	0.22	< 0.3	#N/A	#N/A	69.7
3-Sep-13	26	500	435	7.78	146										
10-Sep-13	27	500	420	7.75	152	#N/A	4.8	62.5	11	0.3	0.24	< 0.3	#N/A	#N/A	72.4
17-Sep-13	28	500	425	7.81	159										
24-Sep-13	29	500	440	7.85	174	#N/A	3.0	65.3	13	0.4	0.21	< 0.3	#N/A	#N/A	81.9
1-Oct-13	30	500	435	7.88	171										
8-Oct-13	31	500	420	7.87	178	#N/A	2.6	68.7							

Mar 5/13 to July 30/13 As removed due to As contamination from silicon sealant.
 Aug 20/13 New cell constructed using new sealant.

T7

Sample = HYP-PyRo Tails Whole															
Date	Cycle	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
	No.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
5-Mar-13	0	0.0288	0.0014	#N/A	0.0278	< 0.00002	< 0.00001	0.0411	0.000022	304	< 0.0005	0.000304	0.0013	< 0.003	0.00018
12-Mar-13	1	0.0399	0.0012	#N/A	0.0158	< 0.00002	< 0.00001	0.0368	0.000021	113	< 0.0005	0.000082	0.0011	0.007	0.00012
19-Mar-13	2	0.0279	0.0013	#N/A	0.0209	< 0.00002	< 0.00001	0.0348	< 0.000003	93.5	< 0.0005	0.000153	0.0013	< 0.003	0.00011
26-Mar-13	3	0.0518	0.0010	#N/A	0.0174	< 0.00002	< 0.00001	0.0253	0.000024	64.8	< 0.0005	0.000225	0.0020	< 0.003	0.00007
2-Apr-13	4														
9-Apr-13	5	0.0266	0.0013	#N/A	0.0235	< 0.00002	< 0.00001	0.0246	0.000011	49.7	< 0.0005	0.000137	< 0.0005	< 0.003	0.00007
16-Apr-13	6														
23-Apr-13	7	0.0325	0.0017	#N/A	0.0303	< 0.00002	< 0.00001	0.0179	0.000012	32.9	< 0.0005	0.000058	0.0010	0.006	0.00008
30-Apr-13	8														
7-May-13	9	0.0192	0.0023	#N/A	0.0516	< 0.00002	< 0.00001	0.0163	0.000012	43.7	< 0.0005	0.000153	0.0005	< 0.003	0.00003
14-May-13	10														
21-May-13	11	0.0217	0.0028	#N/A	0.0497	< 0.00002	< 0.00001	0.0119	0.000004	35.7	< 0.0005	0.000037	0.0006	< 0.003	< 0.00002
28-May-13	12														
4-Jun-13	13	0.0201	0.0027	#N/A	0.0590	< 0.00002	< 0.00001	0.0097	0.000017	34.2	< 0.0005	0.000074	0.0139	< 0.003	< 0.00002
11-Jun-13	14														
18-Jun-13	15	0.0179	0.0032	#N/A	0.0653	< 0.00002	< 0.00001	0.0094	0.000021	30.2	< 0.0005	0.000150	< 0.0005	0.005	< 0.00002
25-Jun-13	16														
2-Jul-13	17	0.0265	0.0032	#N/A	0.0738	< 0.00002	< 0.00001	0.0082	0.000008	27.5	< 0.0005	0.000027	0.0007	< 0.003	< 0.00002
9-Jul-13	18														
16-Jul-13	19	0.0253	0.0029	#N/A	0.0821	< 0.00002	< 0.00001	0.0073	0.000011	29.1	< 0.0005	0.000047	0.0027	< 0.003	0.00003
23-Jul-13	20														
30-Jul-13	21	0.0235	0.0028	#N/A	0.0888	< 0.00002	< 0.00001	0.0077	0.000009	26.4	< 0.0005	0.000019	0.0006	< 0.003	0.00002
6-Aug-13	22														
13-Aug-13	23	0.0220	0.0027	#N/A	0.107	< 0.00002	< 0.00001	0.0064	0.000023	26.4	< 0.0005	0.000142	0.0007	0.010	0.00002
20-Aug-13	24														
27-Aug-13	25	0.0302	0.0022	#N/A	0.117	< 0.00002	< 0.00001	0.0298	< 0.000003	23.3	< 0.0005	0.000038	0.0010	< 0.003	0.00003
3-Sep-13	26														
10-Sep-13	27	0.0397	0.0021	#N/A	0.122	< 0.00002	< 0.00001	0.0164	0.000010	24.6	< 0.0005	0.000119	0.0009	0.012	0.00002
17-Sep-13	28														
24-Sep-13	29	0.0220	0.0025	#N/A	0.141	< 0.00002	< 0.00001	0.0140	0.000007	27.3	< 0.0005	0.000039	0.0009	< 0.003	0.00007
1-Oct-13	30														
8-Oct-13	31														

Mar 5/13 to July 30/13 As removed due to As contamination from silicon sealant.
 Aug 20/13 New cell constructed using new sealant.

T7

Sample = HYP-PyRo Tails Whole															
Date	Cycle	Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S
	No.	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
5-Mar-13	0	0.004	15.3	0.0685	< 0.01	0.0189	0.0015	0.346	63.7	0.00267	13.4	0.00001	33.0	1.27	318
12-Mar-13	1	0.002	7.41	0.0365	< 0.01	0.0117	0.0007	0.105	32.8	0.00116	31.4	< 0.00001	9.18	0.508	112
19-Mar-13	2	0.002	7.59	0.0248	< 0.01	0.0126	0.0004	0.076	28.6	0.00102	16.8	< 0.00001	5.93	0.461	88.6
26-Mar-13	3	0.001	5.55	0.0184	< 0.01	0.00763	0.0003	0.048	18.8	0.00059	11.5	< 0.00001	2.64	0.312	51.9
2-Apr-13	4														
9-Apr-13	5	0.001	4.89	0.0161	< 0.01	0.00982	0.0002	0.018	15.7	0.00169	9.16	< 0.00001	1.56	0.260	35.4
16-Apr-13	6														
23-Apr-13	7	0.001	3.77	0.0103	< 0.01	0.00947	0.0003	0.020	12.3	0.00035	8.02	< 0.00001	0.84	0.192	19.1
30-Apr-13	8														
7-May-13	9	0.001	4.83	0.0169	< 0.01	0.0226	< 0.0001	0.019	11.7	0.00031	7.16	< 0.00001	0.69	0.259	22.9
14-May-13	10														
21-May-13	11	0.001	3.97	0.0121	< 0.01	0.0326	< 0.0001	0.019	8.83	0.00026	6.24	< 0.00001	0.47	0.212	17.9
28-May-13	12														
4-Jun-13	13	< 0.001	3.85	0.0111	< 0.01	0.0298	0.0029	0.016	8.35	0.00035	5.88	0.00001	0.38	0.199	12.4
11-Jun-13	14														
18-Jun-13	15	0.001	3.50	0.0094	< 0.01	0.0279	0.0002	0.017	7.14	0.00054	5.91	< 0.00001	0.37	0.185	10.6
25-Jun-13	16														
2-Jul-13	17	< 0.001	3.24	0.0071	< 0.01	0.0274	0.0003	0.015	6.40	0.00026	4.09	< 0.00001	0.29	0.171	9.39
9-Jul-13	18														
16-Jul-13	19	< 0.001	3.43	0.0050	< 0.01	0.0240	0.0003	0.016	5.53	0.00031	4.64	< 0.00001	0.31	0.176	8.00
23-Jul-13	20														
30-Jul-13	21	< 0.001	3.15	0.0036	0.01	0.0190	0.0001	0.020	5.01	0.00031	4.29	< 0.00001	0.26	0.162	5.87
6-Aug-13	22														
13-Aug-13	23	< 0.001	3.27	0.0034	< 0.01	0.0169	0.0006	0.018	4.59	0.00037	4.16	< 0.00001	0.25	0.172	5.29
20-Aug-13	24														
27-Aug-13	25	< 0.001	2.82	0.0023	0.01	0.0139	0.0002	< 0.009	4.04	0.00017	1.60	< 0.00001	0.31	0.150	4.49
3-Sep-13	26														
10-Sep-13	27	< 0.001	2.95	0.0004	< 0.01	0.0155	< 0.0001	< 0.009	3.80	0.00029	1.58	< 0.00001	0.27	0.151	4.96
17-Sep-13	28														
24-Sep-13	29	< 0.001	3.36	0.0021	< 0.01	0.0220	< 0.0001	< 0.009	4.00	0.00041	1.64	< 0.00001	0.28	0.168	6.76
1-Oct-13	30														
8-Oct-13	31														

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 Aug 20/13 New cell constructed using new sealant.

T7

Sample = HYP-PyRo Tails Whole													
Date	Cycle	Tl	Sn	Ti	U	V	Zn	Zr	SGS File #	Major Anions	Major Cations	Diff	Diff (%)
	No.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L					
5-Mar-13	0	0.00010	0.0168	0.0002	0.0431	0.00014	0.002	0.00007	CA15116-MAR13	19.45	19.54	0.09	0.2%
12-Mar-13	1	0.00005	0.0145	0.0004	0.0206	0.00014	0.001	< 0.00001	CA15226-MAR13	6.89	7.51	0.63	4.4%
19-Mar-13	2	0.00005	0.0153	0.0002	0.0263	< 0.00003	0.001	0.00001	CA15327-MAR13	7.00	6.30	-0.70	-5.3%
26-Mar-13	3	0.00003	0.0133	0.0001	0.0199	0.00015	0.001	0.00002	CA15431-MAR13	4.16	4.31	0.14	1.7%
2-Apr-13	4												
9-Apr-13	5	0.00003	0.0169	0.0001	0.0166	0.00014	< 0.001	< 0.00001	CA15189-APR13	3.64	3.37	-0.27	-3.9%
16-Apr-13	6												
23-Apr-13	7	0.00002	0.0236	0.0001	0.0112	0.00014	0.004	0.00003	CA15318-APR13	2.73	2.32	-0.41	-8.2%
30-Apr-13	8												
7-May-13	9	0.00003	0.0271	0.0001	0.0168	0.00020	0.001	< 0.00001	CA15169-MAY13	3.24	2.92	-0.32	-5.2%
14-May-13	10												
21-May-13	11	0.00003	0.0389	0.0002	0.0136	0.00018	< 0.001	0.00002	CA15297-MAY13	2.67	2.37	-0.31	-6.1%
28-May-13	12												
4-Jun-13	13	< 0.00002	0.0314	0.0001	0.0114	0.00017	< 0.001	0.00004	CA15027-JUN13	2.39	2.26	-0.13	-2.8%
11-Jun-13	14												
18-Jun-13	15	< 0.00002	0.0397	< 0.0001	0.0102	0.00017	0.001	< 0.00001	CA15260-JUN13	2.10	2.00	-0.10	-2.3%
25-Jun-13	16												
2-Jul-13	17	< 0.00002	0.0312	0.0002	0.00910	0.00027	0.001	< 0.00001	CA15072-JUL13	2.20	1.82	-0.37	-9.2%
9-Jul-13	18												
16-Jul-13	19	< 0.00002	0.0372	0.0001	0.00815	0.00018	0.002	0.00001	CA15331-JUL13	1.90	1.90	0.00	0.0%
23-Jul-13	20												
30-Jul-13	21	< 0.00002	0.0363	< 0.0001	0.00732	0.00018	< 0.001	< 0.00001	CA15571-JUL13	1.87	1.72	-0.15	-4.2%
6-Aug-13	22												
13-Aug-13	23	< 0.00002	0.04007	< 0.0001	0.00694	0.00016	0.002	< 0.00001	CA15169-AUG13	1.72	1.72	0.01	0.3%
20-Aug-13	24												
27-Aug-13	25	< 0.00002	0.0128	< 0.0001	0.00639	0.00024	< 0.001	< 0.00001	CA15350-AUG13	1.57	1.53	-0.04	-1.4%
3-Sep-13	26												
10-Sep-13	27	< 0.00002	0.00660	< 0.0001	0.00687	0.00021	0.001	< 0.00001	CA15108-SEP13	1.50	1.59	0.09	3.0%
17-Sep-13	28												
24-Sep-13	29	< 0.00002	0.00300	< 0.0001	0.00873	0.00018	< 0.001	< 0.00001	CA15308-SEP13	1.60	1.77	0.17	5.0%
1-Oct-13	30												
8-Oct-13	31												

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Aug 20/13 New cell constructed using new sealant.

Col 5

Sample = Pyrite Rougher Tails (>75 µm)																		
Date	Cycle	Approx.	Volume mL		pH	Cond.	Acidity	Acidity	Alkalinity	Sulphate	Cl	F	Br	Total CN	WAD CN	Hardness	Al	Sb
	No.	Flow Rate	Input	Output		umhos/cm	(pH 4.5)	(pH 8.3)								CaCO3		
		(mL/min)					mgCaCO3/L	mgCaCO3/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
4-May-11	1	0.5	1505	325	7.68	2297	#N/A	8.4	89.1	1224	62	< 0.06	< 0.3	< 0.01	< 0.01	1170	0.0462	0.0031
11-May-11	2	0.5	300	280	7.66	878	#N/A	5.1	82.7	363	2.5	0.06	< 0.3	< 0.01	< 0.01	313	0.0503	0.0030
18-May-11	3	0.5	300	305	#N/A	#N/A	#N/A	#N/A	#N/A	180	0.8	0.06	< 0.3	< 0.01	< 0.01	195	0.0642	0.0033
25-May-11	4	0.5	300	285	7.83	481	#N/A	5.9	81.6	131	0.6	< 0.06	< 0.3	< 0.01	< 0.01	157	0.0540	0.0033
1-Jun-11	5	0.5	300	290	7.81	436	#N/A	7.3	81.7									
8-Jun-11	6	0.5	350	300	7.66	418	#N/A	7.7	89.6	115	0.4	< 0.06	< 0.3	< 0.01	< 0.01	129	0.0521	0.0034
15-Jun-11	7	0.5	300	305	7.79	431												
22-Jun-11	8	0.5	300	305	8.01	355	#N/A	3.5	94.2	90	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	124	0.0504	0.0032
29-Jun-11	9	0.5	300	300	7.89	338												
6-Jul-11	10	0.5	300	300	7.79	330	#N/A	5.7	97.4	76	0.2	< 0.06	< 0.3	< 0.01	< 0.01	120	0.0693	0.0029
13-Jul-11	11	0.5	300	285	7.74	318												
20-Jul-11	12	0.5	300	290	7.88	310	#N/A	4.8	94.7	66	0.2	0.06	< 0.3	< 0.01	< 0.01	120	0.0404	0.0033
27-Jul-11	13	0.5	300	290	7.89	306												
3-Aug-11	14	0.5	300	190	7.79	299	#N/A	7.9	104.6	58	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	115	0.0380	0.0029
10-Aug-11	15	0.5	300	300	7.85	291												
17-Aug-11	16	0.5	300	295	7.88	292	#N/A	5.2	107.4	36	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	106	0.0379	0.0031
24-Aug-11	17	0.5	300	290	7.82	291												
31-Aug-11	18	0.5	300	300	7.88	301	#N/A	9.2	117.2	46	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	124	0.0472	0.0036
7-Sep-11	19	0.5	300	295	8.03	290												
14-Sep-11	20	0.5	300	310	7.97	282	#N/A	6.6	114.5	44	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	111	0.0391	0.0029
21-Sep-11	21	0.5	300	295	7.86	284												
28-Sep-11	22	0.5	300	295	7.92	283	#N/A	7.2	118.8	38	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	112	0.0659	0.0030
5-Oct-11	23	0.5	300	305	7.95	289												
12-Oct-11	24	0.5	300	305	8.03	288	#N/A	3.9	119.4	39	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	122	0.0331	0.0032
19-Oct-11	25	0.5	300	300	8.00	296												
26-Oct-11	26	0.5	300	300	7.94	292	#N/A	7.7	123.3	38	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	119	0.0602	0.0029
2-Nov-11	27	0.5	300	305	7.92	288												
9-Nov-11	28	0.5	300	290	7.89	290	#N/A	7.7	122.6	35	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	118	0.0436	0.0031
16-Nov-11	29	0.5	300	310	7.98	290												
23-Nov-11	30	0.5	300	300	7.94	285	#N/A	7.2	124.8	31	< 0.2	0.10	< 0.3	< 0.01	< 0.01	112	0.0643	0.0031
30-Nov-11	31	0.5	300	285	7.91	289												
7-Dec-11	32	0.5	300	305	7.95	282	#N/A	6.4	123.0	28	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	118	0.0458	0.0031
14-Dec-11	33	0.5	300	320	7.92	283												
21-Dec-11	34	0.5	300	260	7.93	279	#N/A	7.6	125.4	31	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	121	0.0762	0.0034
28-Dec-11	35	0.5	300	300	7.94	285												
4-Jan-12	36	0.5	300	295	7.91	281	#N/A	7.6	141.0	33	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	111	0.0889	0.0036
11-Jan-12	37	0.5	300	270	7.93	283												
18-Jan-12	38	0.5	300	305	7.91	282	#N/A	4.0	140.7	34	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	115	0.0567	0.0032
25-Jan-12	39	0.5	300	295	7.89	281												
1-Feb-12	40	0.5	300	290	7.89	284	#N/A	4.9	141.2	33	< 0.2	< 0.06	< 0.3	0.02	< 0.01	116	0.0570	0.0040
8-Feb-12	41	0.5	300	300	7.93	287												

Col 5

Sample = Pyrite Rougher Tails (>75 µm)																		
Date	Cycle	Approx.	Volume mL		pH	Cond.	Acidity	Acidity	Alkalinity	Sulphate	Cl	F	Br	Total CN	WAD CN	Hardness	Al	Sb
	No.	Flow Rate	Input	Output		umhos/cm	(pH 4.5)	(pH 8.3)								CaCO3		
		(mL/min)					mgCaCO3/L	mgCaCO3/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
15-Feb-12	42	0.5	300	290	7.89	285												
22-Feb-12	43	0.5	300	285	7.91	274												
29-Feb-12	44	0.5	300	300	7.89	273	#N/A	5.1	125.9	44	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	116	0.0365	0.0037
7-Mar-12	45	0.5	300	300	7.87	275												
14-Mar-12	46	0.5	300	305	7.88	279												
21-Mar-12	47	0.5	300	315	7.86	282												
28-Mar-12	48	0.5	300	340	7.91	289	#N/A	5.0	125.2	29	< 1	< 0.06	< 0.3	< 0.01	< 0.01	123	0.0555	0.0038
4-Apr-12	49	0.5	300	295	7.90	274												
11-Apr-12	50	0.5	300	290	8.01	278												
18-Apr-12	51	0.5	300	275	7.90	272												
25-Apr-12	52	0.5	300	310	7.94	277	#N/A	6.3	122.7	32	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	127	0.0686	0.0045
2-May-12	53	0.5	300	290	8.16	301												
9-May-12	54	0.5	300	290	7.99	272												
16-May-12	55	0.5	300	285	7.35	91												
23-May-12	56	0.5	300	290	7.85	269	#N/A	5.7	119.6	25	0.3	< 0.06	< 0.3	< 0.01	< 0.01	113	0.107	0.0039
30-May-12	57	0.5	300	295	7.94	274												
6-Jun-12	58	0.5	300	300	7.88	267												
13-Jun-12	59	0.5	300	295	7.86	267												
20-Jun-12	60	0.5	300	295	7.94	269	#N/A	6.1	125.7	24	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	120	0.0833	0.0041
27-Jun-12	61	0.5	300	295	7.67	273												
4-Jul-12	62	0.5	300	290	7.84	275												
11-Jul-12	63	0.5	300	290	7.95	268												
18-Jul-12	64	0.5	300	290	7.91	254	#N/A	5.3	121.7	21	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	115	0.0696	0.0042
25-Jul-12	65	0.5	300	300	7.79	262												
1-Aug-12	66	0.5	300	300	8.00	263												
8-Aug-12	67	0.5	300	295	7.96	260												
15-Aug-12	68	0.5	300	290	7.92	255	#N/A	5.4	116.9	20	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	111	0.0771	0.0044
22-Aug-12	69	0.5	300	290	7.88	255												
29-Aug-12	70	0.5	300	295	7.90	251												
5-Sep-12	71	0.5	300	300	7.91	261												
12-Sep-12	72	0.5	300	285	7.90	261	#N/A	5.4	118.2	22	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	111	0.0362	0.0043
19-Sep-12	73	0.5	300	295	7.87	257												
26-Sep-12	74	0.5	300	300	7.91	260												
3-Oct-12	75	0.5	300	295	7.91	260												
10-Oct-12	76	0.5	300	295	7.75	253	#N/A	9.5	128.1	21	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	111	0.0567	0.0048
17-Oct-12	77	0.5	300	305	7.93	260												
24-Oct-12	78	0.5	300	295	7.95	270												
31-Oct-12	79	0.5	300	300	7.98	253												
7-Nov-12	80	0.5	300	295	7.85	235	#N/A	6.5	123.1	22	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	112	0.0295	0.0044
14-Nov-12	81	0.5	300	290	7.87	253												
21-Nov-12	82	0.5	300	300	7.90	237												
28-Nov-12	83	0.5	300	295	7.81	261												
5-Dec-12	84	0.5	300	305	7.87	246	#N/A	11.6	124.7	19	< 0.2	< 0.06	< 0.3	< 0.01	< 0.01	112	0.0301	0.0046

Cell Terminated

May 18/11 Titrator malfunction, samples being repeated.
 Feb, 2012 Change in analytical schedule.

Col 5

Sample = Pyrite Rougher Tails (>75 µm)																					
Date	Cycle	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	P	K
	No.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L
4-May-11	1	0.0049	0.0799	< 0.00002	< 0.00001	0.0735	0.00332	445	0.0011	0.0031	0.316	0.003	0.00244	< 0.001	14.8	0.109	0.03	1.10	0.0178	1.32	69.9
11-May-11	2	0.0036	0.0288	< 0.00002	0.00008	0.0663	0.00112	118	< 0.0005	0.0014	0.173	< 0.002	0.00028	< 0.001	4.30	0.0367	0.01	0.559	0.0010	0.196	33.9
18-May-11	3	0.0035	0.0266	< 0.00002	0.00004	0.0720	0.000634	72.0	0.0008	0.0008	0.138	< 0.002	0.00017	< 0.001	3.74	0.0276	0.01	0.425	0.0024	0.280	29.1
25-May-11	4	0.0035	0.0295	< 0.00002	0.00002	0.0654	0.000488	58.7	< 0.0005	0.0008	0.115	< 0.002	0.00010	< 0.001	2.44	0.0221	< 0.01	0.365	0.0029	0.276	23.8
1-Jun-11	5																				
8-Jun-11	6	0.0037	0.0281	< 0.00002	0.00002	0.0690	0.000472	48.2	< 0.0005	0.0006	0.0949	< 0.002	0.00019	< 0.001	2.21	0.0208	0.01	0.308	0.0016	0.278	21.4
15-Jun-11	7																				
22-Jun-11	8	0.0032	0.0281	< 0.00002	0.00003	0.0667	0.000386	46.2	< 0.0005	0.0004	0.0739	< 0.002	0.00014	< 0.001	2.15	0.0202	0.01	0.262	0.0001	0.174	20.4
29-Jun-11	9																				
6-Jul-11	10	0.0030	0.0326	< 0.00002	< 0.00001	0.0672	0.000318	44.6	< 0.0005	0.0005	0.0980	0.002	0.00037	< 0.001	2.16	0.0197	< 0.01	0.238	0.0011	0.141	19.7
13-Jul-11	11																				
20-Jul-11	12	0.0034	0.0382	< 0.00002	0.00001	0.0609	0.000431	44.3	< 0.0005	0.0003	0.0515	< 0.002	0.00008	< 0.001	2.20	0.0206	< 0.01	0.209	0.0015	0.125	19.2
27-Jul-11	13																				
3-Aug-11	14	0.0043	0.0384	< 0.00002	< 0.00001	0.0647	0.000229	42.7	0.0023	0.0004	0.0460	< 0.002	0.00013	< 0.001	2.13	0.0209	0.01	0.152	0.0001	0.096	18.9
10-Aug-11	15																				
17-Aug-11	16	0.0032	0.0450	< 0.00002	0.00001	0.0623	0.000183	39.0	0.0018	0.0003	0.0413	0.009	0.00008	< 0.001	2.05	0.0193	0.01	0.134	0.0002	0.098	18.1
24-Aug-11	17																				
31-Aug-11	18	0.0041	0.0516	< 0.00002	< 0.00001	0.0726	0.000190	45.7	0.0014	0.0003	0.0428	0.002	0.00019	< 0.001	2.40	0.0231	0.01	0.118	0.0016	0.070	21.4
7-Sep-11	19																				
14-Sep-11	20	0.0033	0.0507	< 0.00002	< 0.00001	0.0607	0.000172	40.8	0.0014	0.0003	0.0356	< 0.002	0.00020	< 0.001	2.22	0.0197	< 0.01	0.103	< 0.0001	0.074	18.2
21-Sep-11	21																				
28-Sep-11	22	0.0033	0.0534	< 0.00002	< 0.00001	0.0506	0.000184	41.0	0.0016	0.00036	0.0336	0.002	0.00021	< 0.001	2.28	0.0225	< 0.01	0.0927	0.0001	0.074	18.7
5-Oct-11	23																				
12-Oct-11	24	0.0037	0.0592	< 0.00002	< 0.00001	0.0556	0.000151	44.5	0.0017	0.000200	0.0321	0.002	0.00015	< 0.001	2.54	0.0239	< 0.01	0.0987	0.0011	0.086	21.0
19-Oct-11	25																				
26-Oct-11	26	0.0033	0.0635	< 0.00002	< 0.00001	0.0537	0.000127	43.4	0.0092	0.000309	0.0323	0.008	0.00010	< 0.001	2.53	0.0246	0.01	0.0842	0.0012	0.093	19.4
2-Nov-11	27																				
9-Nov-11	28	0.0033	0.0606	< 0.00002	< 0.00001	0.0434	0.000140	42.8	< 0.0005	0.000252	0.0292	< 0.003	0.00006	< 0.001	2.61	0.0287	< 0.01	0.0913	0.0018	0.091	18.1
16-Nov-11	29																				
23-Nov-11	30	0.0032	0.0610	< 0.00002	0.00001	0.0430	0.000148	40.9	< 0.0005	0.000302	0.0297	< 0.003	0.00006	< 0.001	2.45	0.0266	< 0.01	0.0852	0.0012	0.076	17.1
30-Nov-11	31																				
7-Dec-11	32	0.0032	0.0635	< 0.00002	< 0.00001	0.0410	0.000131	42.8	< 0.0005	0.000195	0.0279	< 0.003	< 0.00002	< 0.001	2.65	0.0279	0.01	0.0890	0.0003	0.087	18.1
14-Dec-11	33																				
21-Dec-11	34	0.0033	0.0647	< 0.00002	< 0.00001	0.0367	0.000103	43.8	< 0.0005	0.000212	0.0266	< 0.003	< 0.00002	< 0.001	2.75	0.0285	< 0.01	0.0748	0.0012	0.093	19.1
28-Dec-11	35																				
4-Jan-12	36	0.0033	0.0652	< 0.00002	< 0.00001	0.0379	0.000105	40.1	< 0.0005	0.000219	0.0237	< 0.003	0.00003	< 0.001	2.61	0.0278	< 0.01	0.0809	0.0020	0.071	17.4
11-Jan-12	37																				
18-Jan-12	38	0.0039	0.0655	< 0.00002	< 0.00001	0.0376	0.000097	41.7	< 0.0005	0.000301	0.0272	< 0.003	0.00004	< 0.001	2.62	0.0294	0.01	0.0732	0.0002	0.085	15.5
25-Jan-12	39																				
1-Feb-12	40	0.0033	0.0680	< 0.00002	< 0.00001	0.0314	0.000103	42.1	< 0.0005	0.000173	0.0209	< 0.003	0.00004	< 0.001	2.73	0.0311	< 0.01	0.0768	0.0008	0.081	17.1
8-Feb-12	41																				

Col 5

Sample = Pyrite Rougher Tails (>75 µm)																					
Date	Cycle No.	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	P	K
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L
15-Feb-12	42																				
22-Feb-12	43																				
29-Feb-12	44	0.0034	0.0676	< 0.00002	< 0.00001	0.0254	0.000085	41.6	< 0.0005	0.0002	0.0194	< 0.003	0.00035	< 0.001	2.83	0.0317	< 0.01	0.0700	0.0004	0.079	16.2
7-Mar-12	45																				
14-Mar-12	46																				
21-Mar-12	47																				
28-Mar-12	48	0.0033	0.0717	< 0.00002	< 0.00001	0.0256	0.000075	44.3	0.0017	0.000142	0.0178	0.080	0.00032	< 0.001	3.02	0.0354	< 0.01	0.0662	0.0010	0.076	16.4
4-Apr-12	49																				
11-Apr-12	50																				
18-Apr-12	51																				
25-Apr-12	52	0.0034	0.0780	< 0.00002	< 0.00001	0.0241	0.000050	45.7	< 0.0005	0.000134	0.0173	< 0.003	0.00013	< 0.001	3.10	0.0372	0.02	0.0642	0.0006	0.077	15.8
2-May-12	53																				
9-May-12	54																				
16-May-12	55																				
23-May-12	56	0.0033	0.0707	< 0.00002	< 0.00001	0.0217	0.000040	40.7	< 0.0005	0.000140	0.0145	< 0.003	0.00004	< 0.001	2.86	0.0351	0.01	0.0634	0.0016	0.083	14.1
30-May-12	57																				
6-Jun-12	58																				
13-Jun-12	59																				
20-Jun-12	60	0.0032	0.0822	< 0.00002	< 0.00001	0.0253	0.000039	43.1	< 0.0005	0.000138	0.0139	< 0.003	0.00003	< 0.001	2.98	0.0378	< 0.01	0.0602	0.0009	0.085	12.9
27-Jun-12	61																				
4-Jul-12	62																				
11-Jul-12	63																				
18-Jul-12	64	0.0032	0.0777	< 0.00002	< 0.00001	0.0147	0.000053	41.2	< 0.0005	0.000167	0.0125	< 0.003	< 0.00002	< 0.001	2.94	0.0377	0.02	0.0588	0.0003	0.085	10.5
25-Jul-12	65																				
1-Aug-12	66																				
8-Aug-12	67																				
15-Aug-12	68	0.0028	0.0820	< 0.00002	< 0.00001	0.0138	< 0.000003	39.7	< 0.0005	0.000123	0.0113	0.004	< 0.00002	< 0.001	2.89	0.0375	0.01	0.0608	0.0004	0.071	10.6
22-Aug-12	69																				
29-Aug-12	70																				
5-Sep-12	71																				
12-Sep-12	72	0.0028	0.0808	< 0.00002	< 0.00001	0.0130	0.000076	39.8	< 0.0005	0.000101	0.0110	< 0.003	0.00006	< 0.001	2.87	0.0388	< 0.01	0.0595	0.0005	0.066	9.22
19-Sep-12	73																				
26-Sep-12	74																				
3-Oct-12	75																				
10-Oct-12	76	0.0048	0.0874	< 0.00002	< 0.00001	0.0211	0.000064	39.8	< 0.0005	0.000138	0.0115	< 0.003	0.00002	< 0.001	2.91	0.0411	< 0.01	0.0598	0.0002	0.070	9.20
17-Oct-12	77																				
24-Oct-12	78																				
31-Oct-12	79																				
7-Nov-12	80	0.0027	0.0804	< 0.00002	< 0.00001	0.0112	0.000059	39.8	< 0.0005	0.000127	0.0102	< 0.003	0.00037	< 0.001	2.98	0.0427	< 0.01	0.0580	0.0003	0.076	7.97
14-Nov-12	81																				
21-Nov-12	82																				
28-Nov-12	83																				
5-Dec-12	84	0.0031	0.0874	< 0.00002	< 0.00001	0.0116	0.000078	39.9	< 0.0005	0.000193	0.0118	< 0.003	0.00006	< 0.001	3.05	0.0433	< 0.01	0.0593	0.0004	0.073	8.39

Cell Terminated
 May 18/11 Titrator malfunction, samples being repeated.
 Feb, 2012 Change in analytical schedule.

Col 5

Sample = Pyrite Rougher Tails (>75 µm)																			
Date	Cycle No.	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L	SGS File #	Major Anions	Major Cations	Diff	Diff (%)
4-May-11	1	0.0255	2.31	0.00061	89.7	1.52	458	< 0.0002	0.00402	0.0021	0.136	0.00128	0.039	0.00005	CA14310-MAY11	29.03	29.19	0.16	0.3%
11-May-11	2	0.00105	1.66	0.00007	35.8	0.413	129	< 0.0002	0.00220	0.0007	0.0262	0.00128	0.004	0.00003	CA14451-MAY11	9.29	8.71	-0.58	-3.2%
18-May-11	3	0.00099	1.83	0.00087	32.3	0.270	77.0	< 0.0002	0.00291	0.0006	0.0155	0.00163	0.002	0.00001	CA14792-MAY11	#N/A	6.09	#N/A	#N/A
25-May-11	4	0.00145	1.57	0.00003	19.8	0.222	56.0	< 0.0002	0.00944	0.0008	0.0131	0.00144	0.002	0.00001	CA10944-JUN11	4.38	4.63	0.25	2.8%
1-Jun-11	5																		
8-Jun-11	6	0.00034	1.61	0.00004	13.1	0.190	38.2	0.00006	0.0651	0.0006	0.0120	0.00147	0.004	0.00002	CA11140-JUN11	4.20	3.74	-0.46	-5.8%
15-Jun-11	7																		
22-Jun-11	8	0.00025	1.47	< 0.00001	7.89	0.184	30.8	0.00005	0.197	0.0005	0.0103	0.00147	0.011	0.00001	CA10468-JUN11	3.76	3.39	-0.37	-5.2%
29-Jun-11	9																		
6-Jul-11	10	0.00026	1.55	< 0.00001	4.55	0.183	25.0	0.00006	0.390	0.0004	0.00904	0.00136	0.004	< 0.00001	CA15474-JUL11	3.54	3.15	-0.38	-5.7%
13-Jul-11	11																		
20-Jul-11	12	0.00094	1.48	< 0.00001	3.30	0.186	21.8	0.00005	0.381	0.0004	0.00920	0.00150	0.002	0.00001	CA16183-JUL11	3.28	3.07	-0.21	-3.3%
27-Jul-11	13																		
3-Aug-11	14	0.00056	1.46	< 0.00001	2.38	0.180	18.2	0.00006	0.380	0.0003	0.00905	0.00135	0.002	0.00001	CA14195-AUG11	3.30	2.93	-0.36	-5.8%
10-Aug-11	15																		
17-Aug-11	16	0.00023	1.26	< 0.00001	2.21	0.166	17.4	0.00005	0.466	0.0004	0.00944	0.00131	< 0.001	0.00001	CA14769-AUG11	2.90	2.72	-0.18	-3.2%
24-Aug-11	17																		
31-Aug-11	18	0.00036	1.59	< 0.00001	1.86	0.200	16.9	0.00006	0.454	0.0004	0.00873	0.00147	0.003	0.00001	CA14272-SEP11	3.30	3.15	-0.15	-2.3%
7-Sep-11	19																		
14-Sep-11	20	0.00034	1.35	< 0.00001	1.39	0.179	14.1	0.00005	0.414	0.0004	0.00910	0.00133	0.002	0.00001	CA17319-SEP11	3.21	2.79	-0.42	-7.0%
21-Sep-11	21																		
28-Sep-11	22	0.00043	1.39	< 0.00001	1.22	0.181	13.1	0.00006	0.418	0.0003	0.00899	0.00127	0.003	0.00002	CA18914-SEP11	3.17	2.81	-0.36	-6.0%
5-Oct-11	23																		
12-Oct-11	24	0.00039	1.57	< 0.00001	1.23	0.201	13.9	0.00006	0.427	0.0003	0.00906	0.00131	0.003	0.00003	CA14526-OCT11	3.20	3.06	-0.14	-2.2%
19-Oct-11	25																		
26-Oct-11	26	0.00035	1.38	< 0.00001	1.11	0.197	13.5	0.00006	0.411	0.0003	0.00944	0.00130	0.004	0.00002	CA18601-OCT11	3.26	2.96	-0.30	-4.8%
2-Nov-11	27																		
9-Nov-11	28	0.00062	1.39	< 0.00001	1.13	0.198	11.9	0.00006	0.396	0.0005	0.00895	0.00150	0.002	< 0.00001	CA18507-NOV11	3.18	2.90	-0.28	-4.6%
16-Nov-11	29																		
23-Nov-11	30	0.00009	1.39	< 0.00001	0.83	0.188	11.2	0.00006	0.435	0.0004	0.00818	0.00184	0.003	< 0.00001	CA18847-NOV11	3.14	2.76	-0.39	-6.5%
30-Nov-11	31																		
7-Dec-11	32	0.00045	1.42	0.00005	0.83	0.197	12.4	0.00006	0.394	0.0003	0.00810	0.00147	0.002	0.00001	CA14307-DEC11	3.04	2.89	-0.15	-2.6%
14-Dec-11	33																		
21-Dec-11	34	< 0.00004	1.39	< 0.00001	0.84	0.198	12.2	0.00005	0.416	0.0006	0.00855	0.00174	0.004	< 0.00001	CA10461-DEC11	3.15	2.98	-0.18	-2.9%
28-Dec-11	35																		
4-Jan-12	36	0.00038	1.40	< 0.00001	0.75	0.193	10.8	0.00006	0.377	0.0006	0.00825	0.00178	0.002	0.00001	CA10145-JAN12	3.51	2.73	-0.77	-12.4%
11-Jan-12	37																		
18-Jan-12	38	0.00035	1.33	< 0.00001	0.74	0.190	11.0	0.00007	0.364	0.0005	0.00796	0.00175	0.002	< 0.00001	CA11259-JAN12	3.52	2.76	-0.76	-12.1%
25-Jan-12	39																		
1-Feb-12	40	0.00037	1.49	< 0.00001	0.70	0.197	11.3	0.00005	0.361	0.0003	0.00776	0.00178	0.002	< 0.00001	CA14084-FEB12	3.51	2.83	-0.68	-10.8%
8-Feb-12	41																		

Col 5

Sample = Pyrite Rougher Tails (>75 µm)																			
Date	Cycle	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	SGS File #	Major Anions	Major Cations	Diff	Diff (%)
	No.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L					
15-Feb-12	42																		
22-Feb-12	43																		
29-Feb-12	44	0.00031	2.01	< 0.00001	0.70	0.197	10.3	0.00005	0.302	0.0004	0.00780	0.00155	0.003	< 0.00001	CA14028-MAR12	3.43	2.78	-0.65	-10.5%
7-Mar-12	45																		
14-Mar-12	46																		
21-Mar-12	47																		
28-Mar-12	48	0.00039	1.63	< 0.00001	0.90	0.214	10.7	0.00007	0.387	0.0003	0.00834	0.00158	0.001	< 0.00001	CA14955-MAR12	3.11	2.95	-0.16	-2.6%
4-Apr-12	49																		
11-Apr-12	50																		
18-Apr-12	51																		
25-Apr-12	52	0.00036	1.68	< 0.00001	0.66	0.222	10.6	0.00005	0.326	0.0004	0.00729	0.00205	0.003	< 0.00001	CA15000-APR12	3.12	3.00	-0.12	-1.9%
2-May-12	53																		
9-May-12	54																		
16-May-12	55																		
23-May-12	56	0.00024	1.56	< 0.00001	0.53	0.202	9.70	0.00006	0.278	0.0004	0.00763	0.00200	0.010	< 0.00001	CA14956-MAY12	2.91	2.68	-0.23	-4.1%
30-May-12	57																		
6-Jun-12	58																		
13-Jun-12	59																		
20-Jun-12	60	0.00049	1.68	< 0.00001	0.57	0.216	9.42	0.00006	0.260	0.0003	0.00763	0.00186	0.006	< 0.00001	CA15313-JUN12	3.01	2.78	-0.23	-4.0%
27-Jun-12	61																		
4-Jul-12	62																		
11-Jul-12	63																		
18-Jul-12	64	0.00039	1.53	< 0.00001	0.53	0.202	9.17	0.00004	0.251	0.0003	0.00697	0.00177	0.002	0.00004	CA15227-JUL12	2.87	2.62	-0.25	-4.6%
25-Jul-12	65																		
1-Aug-12	66																		
8-Aug-12	67																		
15-Aug-12	68	0.00045	1.52	< 0.00001	0.49	0.201	8.62	0.00005	0.210	0.0003	0.00679	0.00169	0.003	0.00002	CA15197-AUG12	2.75	2.54	-0.22	-4.1%
22-Aug-12	69																		
29-Aug-12	70																		
5-Sep-12	71																		
12-Sep-12	72	0.00032	1.49	< 0.00001	0.52	0.202	8.46	0.00006	0.196	0.0002	0.00719	0.00128	0.003	0.00010	CA15471-SEP12	2.82	2.50	-0.32	-6.0%
19-Sep-12	73																		
26-Sep-12	74																		
3-Oct-12	75																		
10-Oct-12	76	0.00035	1.65	< 0.00001	0.47	0.204	8.17	0.00005	0.194	0.0003	0.00665	0.00159	0.002	< 0.00001	CA15509-OCT12	3.00	2.51	-0.49	-8.9%
17-Oct-12	77																		
24-Oct-12	78																		
31-Oct-12	79																		
7-Nov-12	80	0.00025	1.46	< 0.00001	0.42	0.209	7.86	0.00005	0.161	0.0002	0.00544	0.00135	0.002	< 0.00001	CA15211-NOV12	2.92	2.47	-0.45	-8.3%
14-Nov-12	81																		
21-Nov-12	82																		
28-Nov-12	83																		
5-Dec-12	84	0.00030	1.48	< 0.00001	0.44	0.210	7.95	0.00005	0.140	0.0002	0.00616	0.00140	0.002	< 0.00001	CA15126-DEC12	2.89	2.50	-0.39	-7.3%

Cell Terminated
 May 18/11 Titrator malfunction, samples being repeated.
 Feb, 2012 Change in analytical schedule.

Col 6

Sample = HPY Pyrite Rougher Sands																	
Date	Cycle	Approx.	Volume mL		pH	Cond.	Acidity	Acidity	Alkalinity	Sulphate	Cl	F	Br	Hardness	Al	Sb	As
	No.	Flow Rate	Input	Output		umhos/cm	(pH 4.5)	(pH 8.3)						CaCO3			
		(mL/min)					mgCaCO3/L	mgCaCO3/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
19-Dec-12	1	1.0	300	220	7.66	2145	#N/A	11.1	154.2	1177	42	0.52	< 0.3	1300	0.0328	0.0030	0.0033
26-Dec-12	2	1.0	300	330	7.72	896	#N/A	9.9	116.2	276	5.3	0.65	< 0.3	409	0.0228	0.0029	0.0025
2-Jan-13	3	1.0	300	275	7.73	745	#N/A	8.7	107.6	270	1.6	0.67	< 0.3	319	0.0363	0.0030	0.0023
9-Jan-13	4	1.0	300	300	7.74	753	#N/A	11.3	109.4	309	0.8	0.64	< 0.3	351	0.0306	0.0034	0.0023
16-Jan-13	5	1.0	300	295	7.83	744											
23-Jan-13	6	1.0	300	300	7.71	715	#N/A	12.2	114.6	288	0.6	0.60	< 0.3	319	0.0344	0.0068	0.0024
30-Jan-13	7	1.0	300	300	7.81	646											
6-Feb-13	8	1.0	300	270	7.75	584	#N/A	10.1	114.0	159	1.0	0.66	< 0.3	242	0.0120	0.0119	0.0029
13-Feb-13	9	1.0	300	295	7.71	476											
20-Feb-13	10	1.0	300	290	7.83	431	#N/A	7.9	133.6	102	0.9	0.77	< 0.3	213	0.0151	0.0150	0.0029
27-Feb-13	11	1.0	300	295	7.79	391											
6-Mar-13	12	1.0	300	300	7.64	380	#N/A	8.2	129.6	65	0.8	0.80	< 0.3	170	0.0138	0.0212	0.0033
13-Mar-13	13	1.0	300	295	7.86	336											
20-Mar-13	14	1.0	300	305	7.98	319	#N/A	8.1	117.1	61	0.8	0.75	< 0.3	152	0.0103	0.0205	0.0040
27-Mar-13	15	1.0	300	295	7.96	318											
3-Apr-13	16	1.0	300	290	7.86	313	#N/A	9.1	116.6	46	0.8	0.71	< 0.3	150	0.0141	0.0205	0.0030
10-Apr-13	17	1.0	300	290	7.92	301											
17-Apr-13	18	1.0	300	290	7.63	301	#N/A	#N/A	92.1	52	0.7	0.65	< 0.3	139	0.0159	0.0218	0.0033
24-Apr-13	19	1.0	300	300	7.83	296											
1-May-13	20	1.0	300	295	7.88	284	#N/A	8.6	113.8	49	0.6	0.58	< 0.3	133	0.0118	0.0182	0.0027
8-May-13	21	1.0	300	300	7.71	275											
15-May-13	22	1.0	300	300	7.76	248	#N/A	11.2	114.1	39	0.7	0.52	< 0.3	133	0.0132	0.0188	0.0027
22-May-13	23	1.0	300	300	7.82	258											
29-May-13	24	1.0	300	300	7.82	262	#N/A	9.6	113.0	33	0.6	0.47	< 0.3	121	0.0136	0.0170	0.0025
5-Jun-13	25	1.0	300	295	7.76	268											
12-Jun-13	26	1.0	300	295	7.70	260	#N/A	13.7	112.9	29	0.6	0.45	< 0.3	116	0.0082	0.0167	0.0025
19-Jun-13	27	1.0	300	295	7.75	275											
26-Jun-13	28	1.0	300	295	7.85	272	#N/A	6.3	105.8	30	0.7	0.42	< 0.3	124	0.0109	0.0153	0.0023
3-Jul-13	29	1.0	300	305	7.80	261											
10-Jul-13	30	1.0	300	300	7.69	259	#N/A	12.6	111.9	31	0.7	0.39	< 0.3	128	0.0124	0.0152	0.0024
17-Jul-13	31	1.0	300	295	7.80	261											
24-Jul-13	32	1.0	300	305	7.65	261	#N/A	13.2	106.4	28	0.7	0.37	< 0.3	122	0.0107	0.0136	0.0021
31-Jul-13	33	1.0	300	300	7.75	267											
7-Aug-13	34	1.0	300	300	7.67	268	#N/A	12.2	105.8	32	0.6	0.33	< 0.3	118	0.0099	0.0137	0.0021
14-Aug-13	35	1.0	300	300	7.80	273											
21-Aug-13	36	1.0	300	295	7.69	275	#N/A	10.7	102.4	27	0.6	0.34	< 0.3	124	0.0128	0.0132	0.0019
28-Aug-13	37	1.0	300	295	7.88	253											
4-Sep-13	38	1.0	300	295	7.78	249	#N/A	7.9	102.5	25	0.6	0.29	< 0.3	126	0.0097	0.0116	0.0017
11-Sep-13	39	1.0	300	305	7.81	250											
18-Sep-13	40	1.0	300	300	7.79	258	#N/A	8.8	103.4	27	0.6	0.33	< 0.3	126	0.0418	0.0122	0.0020
25-Sep-13	41	1.0	300	300	8.06	259											
2-Oct-13	42	1.0	300	295	7.93	259	#N/A	5.0	105.4								
9-Oct-13	43	1.0	300	295	7.93	257											

Apr 17/13. Acidity 33.1 Suspect instrumental error, not repeated.

Col 6

Sample = HPY Pyrite Rougher Sands																		
Date	Cycle	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni
	No.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L
19-Dec-12	1	0.0550	< 0.00002	< 0.00001	0.0354	0.000406	457	< 0.0005	0.000475	0.0063	< 0.003	0.00162	0.002	39.8	0.194	< 0.01	0.0482	0.0007
26-Dec-12	2	0.0253	< 0.00002	< 0.00001	0.0398	0.000173	141	< 0.0005	0.000218	0.0018	< 0.003	0.00047	0.001	13.8	0.0640	< 0.01	0.0329	0.0014
2-Jan-13	3	0.0292	< 0.00002	< 0.00001	0.0320	0.000123	111	< 0.0005	0.000192	0.0011	0.005	0.00028	0.001	10.1	0.0574	< 0.01	0.0258	0.0009
9-Jan-13	4	0.0349	< 0.00002	< 0.00001	0.0332	0.000125	122	< 0.0005	0.000232	0.0024	< 0.003	0.00020	0.001	11.0	0.0675	< 0.01	0.0253	0.0018
16-Jan-13	5																	
23-Jan-13	6	0.0329	< 0.00002	0.00001	0.0282	0.000162	111	< 0.0005	0.000313	0.0027	< 0.003	0.00018	0.001	10.2	0.0749	< 0.01	0.0351	0.0032
30-Jan-13	7																	
6-Feb-13	8	0.0332	< 0.00002	< 0.00001	0.0303	0.000138	83.1	< 0.0005	0.000270	0.0030	0.004	0.00021	0.001	8.50	0.0709	< 0.01	0.0553	0.0009
13-Feb-13	9																	
20-Feb-13	10	0.0304	< 0.00002	< 0.00001	0.0231	0.000124	74.6	< 0.0005	0.000185	0.0048	< 0.003	0.00014	0.001	6.48	0.0601	< 0.01	0.0800	0.0004
27-Feb-13	11																	
6-Mar-13	12	0.0377	< 0.00002	< 0.00001	0.0204	0.000135	58.5	< 0.0005	0.000248	0.0032	< 0.003	0.00014	0.001	5.72	0.0587	< 0.01	0.119	0.0004
13-Mar-13	13																	
20-Mar-13	14	0.0440	< 0.00002	< 0.00001	0.0146	0.000119	52.2	< 0.0005	0.000236	0.0035	< 0.003	0.00011	0.001	5.21	0.0556	< 0.01	0.137	0.0002
27-Mar-13	15																	
3-Apr-13	16	0.0495	< 0.00002	< 0.00001	0.0138	0.000122	51.7	< 0.0005	0.000227	0.0035	< 0.003	0.00011	0.001	5.09	0.0553	< 0.01	0.131	0.0003
10-Apr-13	17																	
17-Apr-13	18	0.0576	< 0.00002	< 0.00001	0.0174	0.000111	47.2	< 0.0005	0.000527	0.0040	< 0.003	0.00012	0.001	5.02	0.0537	< 0.01	0.143	0.0005
24-Apr-13	19																	
1-May-13	20	0.0511	< 0.00002	< 0.00001	0.0178	0.000093	45.5	< 0.0005	0.000221	0.0039	< 0.003	0.00006	0.001	4.70	0.0529	< 0.01	0.121	0.0004
8-May-13	21																	
15-May-13	22	0.0627	< 0.00002	< 0.00001	0.0157	0.000135	45.5	< 0.0005	0.000182	0.0038	< 0.003	0.00036	0.001	4.62	0.0520	< 0.01	0.0878	0.0005
22-May-13	23																	
29-May-13	24	0.0668	< 0.00002	< 0.00001	0.0120	0.000103	40.9	< 0.0005	0.000157	0.0060	0.011	0.00019	0.001	4.53	0.0548	< 0.01	0.0774	0.0010
5-Jun-13	25																	
12-Jun-13	26	0.0721	< 0.00002	< 0.00001	0.0090	0.000098	39.5	< 0.0005	0.000168	0.0046	< 0.003	0.00005	0.001	4.19	0.0457	< 0.01	0.0655	0.0003
19-Jun-13	27																	
26-Jun-13	28	0.0747	< 0.00002	< 0.00001	0.0102	0.000071	42.1	< 0.0005	0.000168	0.0042	< 0.003	0.00020	0.001	4.50	0.0514	< 0.01	0.0580	0.0004
3-Jul-13	29																	
10-Jul-13	30	0.0801	< 0.00002	< 0.00001	0.0106	0.000103	43.4	< 0.0005	0.000261	0.0046	< 0.003	0.00004	0.001	4.67	0.0543	< 0.01	0.0546	0.0006
17-Jul-13	31																	
24-Jul-13	32	0.0762	< 0.00002	< 0.00001	0.0124	0.000100	41.3	< 0.0005	0.000178	0.0043	< 0.003	0.00006	0.001	4.52	0.0534	< 0.01	0.0506	0.0006
31-Jul-13	33																	
7-Aug-13	34	0.0807	< 0.00002	< 0.00001	0.0103	0.000096	40.1	< 0.0005	0.000190	0.0045	< 0.003	0.00005	0.001	4.30	0.0512	< 0.01	0.0488	0.0009
14-Aug-13	35																	
21-Aug-13	36	0.0768	< 0.00002	< 0.00001	0.0146	0.000119	41.6	< 0.0005	0.000160	0.0048	0.087	0.00003	0.001	4.79	0.0520	< 0.01	0.0455	< 0.0001
28-Aug-13	37																	
4-Sep-13	38	0.0781	< 0.00002	< 0.00001	0.0194	0.000102	42.6	< 0.0005	0.000171	0.0049	< 0.003	0.00007	0.001	4.70	0.0563	< 0.01	0.0389	0.0006
11-Sep-13	39																	
18-Sep-13	40	0.0832	< 0.00002	< 0.00001	0.0176	0.000080	42.5	< 0.0005	0.000255	0.0045	< 0.003	0.00005	0.001	4.79	0.0512	< 0.01	0.0378	0.0003
25-Sep-13	41																	
2-Oct-13	42																	
9-Oct-13	43																	

Apr 17/13. Acidity 33.1 Suspect instrumental error, not repeated.

Col 6

Sample = HPY Pyrite Rougher Sands																					
Date	Cycle	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	SGS File #	Major Anions	Major Cations	Diff	Diff (%)
	No.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L					
19-Dec-12	1	0.235	38.5	0.00316	3.11	0.00007	46.7	1.76	414	0.00005	0.00042	0.0005	0.254	0.00089	0.004	0.00010	CA15305-DEC12	28.82	29.13	0.32	0.5%
26-Dec-12	2	0.135	20.3	0.00081	2.73	0.00002	16.2	0.748	120	0.00003	0.00026	0.0002	0.0851	0.00061	0.002	0.00002	CA15366-DEC12	8.26	9.41	1.16	6.5%
2-Jan-13	3	0.112	17.7	0.00044	3.02	0.00008	9.76	0.621	91.6	0.00003	0.00038	0.0005	0.0773	0.00085	0.003	0.00003	CA15062-JAN13	7.86	7.27	-0.58	-3.9%
9-Jan-13	4	0.092	19.0	0.00052	2.73	< 0.00001	6.78	0.692	82.5	0.00003	0.00031	0.0003	0.0838	0.00081	0.002	0.00004	CA15248-JAN13	8.68	7.80	-0.88	-5.3%
16-Jan-13	5																				
23-Jan-13	6	0.086	17.1	0.00049	2.95	0.00013	2.85	0.676	86.8	0.00003	0.00062	0.0005	0.0780	0.00076	0.002	0.00006	CA15419-JAN13	8.34	6.97	-1.37	-9.0%
30-Jan-13	7																				
6-Feb-13	8	0.064	15.1	0.00058	3.22	< 0.00001	1.70	0.591	60.6	0.00003	0.00105	0.0002	0.0728	0.00049	0.002	0.00005	CA15098-FEB13	5.66	5.33	-0.33	-3.0%
13-Feb-13	9																				
20-Feb-13	10	0.083	13.4	0.00070	3.03	< 0.00001	1.26	0.470	36.9	0.00003	0.00179	0.0002	0.0466	0.00058	0.004	0.00005	CA15261-FEB13	4.86	4.67	-0.19	-2.0%
27-Feb-13	11																				
6-Mar-13	12	0.072	11.5	0.00087	3.13	< 0.00001	0.88	0.426	25.6	0.00003	0.00242	< 0.0001	0.0371	0.00058	< 0.001	0.00006	CA15116-MAR13	4.01	3.74	-0.27	-3.5%
13-Mar-13	13																				
20-Mar-13	14	0.070	11.5	0.00081	2.98	< 0.00001	0.80	0.393	20.0	0.00003	0.00329	0.0001	0.0328	0.00031	0.001	0.00002	CA15327-MAR13	3.68	3.38	-0.30	-4.2%
27-Mar-13	15																				
3-Apr-13	16	0.070	11.3	0.00052	3.08	< 0.00001	0.66	0.392	17.5	0.00003	0.00445	0.0001	0.0290	0.00046	< 0.001	0.00002	CA15081-APR13	3.35	3.33	-0.02	-0.3%
10-Apr-13	17																				
17-Apr-13	18	0.075	11.1	0.00079	3.13	< 0.00001	0.62	0.391	16.1	0.00003	0.00546	0.0001	0.0327	0.00054	0.002	< 0.00001	CA15252-APR13	2.98	3.10	0.12	1.9%
24-Apr-13	19																				
1-May-13	20	0.058	9.66	0.00072	3.00	< 0.00001	0.56	0.364	13.8	0.00002	0.00620	0.0001	0.0260	0.00059	0.001	0.00001	CA15086-MAY13	3.34	2.94	-0.40	-6.4%
8-May-13	21																				
15-May-13	22	0.062	9.66	0.00078	2.90	< 0.00001	0.47	0.354	12.1	0.00003	0.00783	0.0001	0.0260	0.00051	0.002	< 0.00001	CA15254-MAY13	3.14	2.93	-0.21	-3.4%
22-May-13	23																				
29-May-13	24	0.060	9.00	0.00063	2.78	< 0.00001	0.45	0.349	10.7	0.00002	0.00923	0.0003	0.0229	0.00050	0.002	0.00001	CA15422-MAY13	2.99	2.68	-0.31	-5.5%
5-Jun-13	25																				
12-Jun-13	26	0.060	7.93	0.00069	2.73	< 0.00001	0.38	0.320	9.08	0.00003	0.00942	< 0.0001	0.0224	0.00046	0.004	< 0.00001	CA15169-JUN13	2.90	2.55	-0.36	-6.5%
19-Jun-13	27																				
26-Jun-13	28	0.057	8.25	0.00080	2.90	< 0.00001	0.40	0.347	10.6	0.00002	0.00971	< 0.0001	0.0202	0.00045	< 0.001	< 0.00001	CA15012-JUL13	2.78	2.71	-0.07	-1.3%
3-Jul-13	29																				
10-Jul-13	30	0.052	8.20	0.00078	2.97	< 0.00001	0.38	0.358	10.6	0.00003	0.0104	< 0.0001	0.0227	0.00048	0.002	0.00002	CA15234-JUL13	2.92	2.79	-0.13	-2.3%
17-Jul-13	31																				
24-Jul-13	32	0.054	7.50	0.00087	2.84	< 0.00001	0.34	0.345	10.1	0.00002	0.00943	0.0001	0.0225	0.00050	0.002	0.00002	CA15472-JUL13	2.75	2.65	-0.10	-1.8%
31-Jul-13	33																				
7-Aug-13	34	0.038	7.10	0.00098	2.84	< 0.00001	0.34	0.335	9.60	0.00002	0.00854	< 0.0001	0.0236	0.00036	< 0.001	< 0.00001	CA15097-AUG13	2.82	2.56	-0.25	-4.7%
14-Aug-13	35																				
21-Aug-13	36	0.051	6.12	0.00085	2.72	0.00001	0.43	0.388	9.84	0.00003	0.00768	< 0.0001	0.0222	0.00054	0.001	0.00001	CA15287-AUG13	2.64	2.66	0.02	0.3%
28-Aug-13	37																				
4-Sep-13	38	0.057	6.70	0.00080	2.90	< 0.00001	0.32	0.358	9.75	0.00002	0.00646	< 0.0001	0.0209	0.00043	0.002	0.00001	CA15053-SEP13	2.60	2.71	0.11	2.1%
11-Sep-13	39																				
18-Sep-13	40	0.050	6.44	0.00091	2.77	< 0.00001	0.37	0.349	9.72	< 0.00002	0.00701	< 0.0001	0.0230	0.00041	0.001	< 0.00001	CA15265-SEP13	2.66	2.72	0.05	0.9%
25-Sep-13	41																				
2-Oct-13	42																				
9-Oct-13	43																				

Apr 17/13. Acidity 33.1 Suspect instrumental error, not repeated.

Col 7

Sample = CL-01 L Residue															
Date	Cycle	Approx.	Volume mL		pH	Cond.	Acidity	Acidity	Alkalinity	Sulphate	Total CN	WAD CN	SCN	CNO	Nitrate
	No.	Flow Rate	Input	Output			(pH 4.5)	(pH 8.3)							
		(mL/min)				umhos/cm	mgCaCO3/L	mgCaCO3/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
20-Mar-13	1	1.0	470	490	7.51	3710	#N/A	17.1	69.2	2010	0.13	< 0.01	< 2	< 1	60.8
27-Mar-13	2	1.0	470	480	7.58	3765	#N/A	13.7	65.3	1851	0.15	0.02	< 1	< 2	60.8
3-Apr-13	3	1.0	495	475	7.55	3257	#N/A	15.7	61.8	1428	0.12	0.02	< 2	< 1	36.4
10-Apr-13	4	1.0	470	480	7.57	2729	#N/A	12.2	53.1	1716	0.06	< 0.01	< 2	< 1	20.1
17-Apr-13	5	1.0	470	560	7.56	2183									
24-Apr-13	6	1.0	470	460	7.65	1943	#N/A	12.4	52.3	991	0.11	< 0.01	< 1	< 2	6.28
1-May-13	7	1.0	470	460	7.59	1789									
8-May-13	8	1.0	470	485	7.60	1513	#N/A	15.4	48.2	1011	0.03	< 0.01	< 2	< 1	2.87
15-May-13	9	1.0	470	520	7.55	1335									
22-May-13	10	1.0	470	520	7.62	1302	#N/A	11.5	48.6	779	0.03	< 0.01	< 2	< 1	1.59
29-May-13	11	1.0	470	490	7.62	1396									
5-Jun-13	12	1.0	470	490	7.58	1206	#N/A	11.6	51.4	704	0.03	#N/A	#N/A	#N/A	1.06
12-Jun-13	13	1.0	470	490	7.71	1182									
19-Jun-13	14	1.0	470	520	7.58	1202	#N/A	9.6	46.9	583	0.02	#N/A	#N/A	#N/A	< 0.6
26-Jun-13	15	1.0	470	520	7.66	1068									
3-Jul-13	16	1.0	470	455	7.61	978	#N/A	10.9	48.4	506	0.02	#N/A	#N/A	#N/A	1.16
10-Jul-13	17	1.0	470	495	7.69	908									
17-Jul-13	18	1.0	470	495	7.30	854	#N/A	9.0	43.3	433	0.02	#N/A	#N/A	#N/A	1.17
24-Jul-13	19	1.0	470	515	7.66	790									
31-Jul-13	20	1.0	470	495	7.66	728	#N/A	9.2	46.3	294	0.01	#N/A	#N/A	#N/A	0.77
7-Aug-13	21	1.0	470	490	7.63	716									
14-Aug-13	22	1.0	470	490	7.64	702	#N/A	7.8	43.7	312	0.02	#N/A	#N/A	#N/A	0.56
21-Aug-13	23	1.0	470	500	7.65	696									
28-Aug-13	24	1.0	470	490	7.70	630	#N/A	5.7	43.0	251	0.02	#N/A	#N/A	#N/A	0.43
4-Sep-13	25	1.0	470	480	7.70	606									
11-Sep-13	26	1.0	470	495	7.68	581	#N/A	7.4	48.2	251	0.01	#N/A	#N/A	#N/A	0.27
18-Sep-13	27	1.0	470	500	7.71	537									
25-Sep-13	28	1.0	470	495	7.79	561	#N/A	4.1	46.8	212	0.02	#N/A	#N/A	#N/A	0.20
2-Oct-13	29	1.0	470	500	7.78	537									
9-Oct-13	30	1.0	470	475	7.75	518	#N/A	7.2	49.7						

May 22/13 Change in analytical schedule

Col 7

Sample = CL-01 L Residue																
Date	Cycle	Nitrite	Ammonia	Cl	F	Br	Hardness	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca
	No.	mg/L	mg/L	mg/L	mg/L	mg/L	CaCO3 mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
20-Mar-13	1	0.90	< 0.1	130	0.52	< 0.3	1270	0.0046	0.0076	0.0094	0.0117	< 0.00002	< 0.00001	0.0845	0.000433	476
27-Mar-13	2	0.12	0.1	130	0.55	< 0.3	1310	0.0072	0.0091	0.0089	0.0113	< 0.00002	< 0.00001	0.0858	0.000035	490
3-Apr-13	3	< 0.3	< 0.1	80	0.61	< 3	1210	0.0062	0.0096	0.0091	0.0111	< 0.00002	< 0.00001	0.0634	0.000063	455
10-Apr-13	4	< 0.3	< 0.1	43	0.60	< 3	1040	0.0052	0.0079	0.0077	0.00966	< 0.00002	0.00001	0.0579	0.000060	390
17-Apr-13	5															
24-Apr-13	6	< 0.3	0.1	19	0.58	< 3	742	0.0066	0.0068	0.0084	0.00946	< 0.00002	< 0.00001	0.0415	0.000068	279
1-May-13	7															
8-May-13	8	< 0.3	< 0.1	11	0.54	< 3	614	0.0077	0.0055	0.0073	0.00906	< 0.00002	< 0.00001	0.0360	0.000043	232
15-May-13	9															
22-May-13	10	< 0.3	< 0.1	6.3	0.55	< 3	590	0.0067	0.0059	0.0075	0.0110	< 0.00002	< 0.00001	0.0270	0.000035	223
29-May-13	11															
5-Jun-13	12	#N/A	#N/A	4.6	0.52	< 3	536	0.0056	0.0051	0.0076	0.0101	< 0.00002	< 0.00001	0.0289	0.000178	203
12-Jun-13	13															
19-Jun-13	14	#N/A	#N/A	4.3	0.53	< 3	509	0.0061	0.0050	0.0074	0.0102	< 0.00002	< 0.00001	0.0326	0.000015	194
26-Jun-13	15															
3-Jul-13	16	#N/A	#N/A	3.0	0.46	< 3	428	0.0073	0.0048	0.0074	0.00928	< 0.00002	< 0.00001	0.0268	0.000036	163
10-Jul-13	17															
17-Jul-13	18	#N/A	#N/A	2.7	0.44	< 3	354	0.0111	0.0048	0.0085	0.00989	< 0.00002	< 0.00001	0.0189	0.000028	135
24-Jul-13	19															
31-Jul-13	20	#N/A	#N/A	2.0	0.46	< 0.3	309	0.0108	0.0042	0.0074	0.00939	< 0.00002	< 0.00001	0.0276	0.000030	118
7-Aug-13	21															
14-Aug-13	22	#N/A	#N/A	1.9	0.47	< 0.3	285	0.0112	0.0043	0.0063	0.00978	< 0.00002	< 0.00001	0.0223	0.000065	109
21-Aug-13	23															
28-Aug-13	24	#N/A	#N/A	1.6	0.49	< 0.3	266	0.0098	0.0045	0.0079	0.0108	< 0.00002	< 0.00001	0.0261	0.000032	102
4-Sep-13	25															
11-Sep-13	26	#N/A	#N/A	1.7	0.55	< 0.3	251	0.0089	0.0047	0.0081	0.0111	< 0.00002	< 0.00001	0.0232	0.000033	96.8
18-Sep-13	27															
25-Sep-13	28	#N/A	#N/A	1.4	0.53	< 0.3	242	0.0103	0.0052	0.0089	0.0136	< 0.00002	< 0.00001	0.0245	0.000031	92.8
2-Oct-13	29															
9-Oct-13	30															

May 22/13 Change in analytical schedule

Col 7

Sample = CL-01 L Residue																	
Date	Cycle	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag
	No.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
20-Mar-13	1	0.0008	0.390	0.0213	0.014	0.00005	0.003	20.8	0.0210	0.01	1.90	0.0019	< 0.009	8.89	0.0581	16.7	< 0.00001
27-Mar-13	2	< 0.0005	0.404	0.0211	0.014	0.00008	0.003	21.8	0.0189	0.02	2.10	0.0020	< 0.009	7.94	0.0529	19.5	0.00001
3-Apr-13	3	< 0.0005	0.272	0.0178	0.005	0.00007	0.002	19.2	0.0183	< 0.01	1.88	0.0015	< 0.009	8.15	0.0382	19.9	< 0.00001
10-Apr-13	4	< 0.0005	0.178	0.0133	0.005	0.00008	0.002	16.3	0.0142	< 0.01	1.42	0.0011	< 0.009	6.00	0.0259	20.3	< 0.00001
17-Apr-13	5																
24-Apr-13	6	< 0.0005	0.111	0.0093	< 0.003	0.00007	0.002	10.8	0.0094	< 0.01	1.16	0.0020	0.017	4.18	0.0128	17.8	0.00001
1-May-13	7																
8-May-13	8	< 0.0005	0.0696	0.0151	< 0.003	0.00002	0.001	8.66	0.0069	< 0.01	0.831	0.0013	0.018	3.21	0.00860	15.9	0.00002
15-May-13	9																
22-May-13	10	< 0.0005	0.0577	0.0054	< 0.003	< 0.00002	0.001	8.12	0.0055	< 0.01	0.697	0.0016	0.025	2.52	0.00638	16.2	< 0.00001
29-May-13	11																
5-Jun-13	12	0.0007	0.0482	0.0041	0.006	0.00004	0.001	7.03	0.0045	< 0.01	0.654	0.0021	0.013	2.08	0.00445	15.6	0.00006
12-Jun-13	13																
19-Jun-13	14	< 0.0005	0.0452	0.0049	< 0.003	< 0.00002	0.001	6.35	0.0046	< 0.01	0.663	0.0012	0.015	1.95	0.00526	17.4	0.00002
26-Jun-13	15																
3-Jul-13	16	< 0.0005	0.0367	0.0057	< 0.003	0.00013	< 0.001	5.06	0.0039	< 0.01	0.560	0.0016	0.031	1.62	0.00401	15.3	0.00002
10-Jul-13	17																
17-Jul-13	18	< 0.0005	0.0373	0.0042	< 0.003	0.00004	< 0.001	4.17	0.0030	< 0.01	0.622	0.0005	0.009	1.18	0.00294	14.9	0.00007
24-Jul-13	19																
31-Jul-13	20	< 0.0005	0.0311	0.0046	< 0.003	0.00004	< 0.001	3.43	0.0029	< 0.01	0.540	0.0015	0.015	1.26	0.00229	16.1	0.00002
7-Aug-13	21																
14-Aug-13	22	< 0.0005	0.0285	0.0052	< 0.003	0.00065	< 0.001	3.13	0.0030	< 0.01	0.469	0.0024	0.020	1.20	0.00195	15.7	< 0.00001
21-Aug-13	23																
28-Aug-13	24	< 0.0005	0.0272	0.0060	< 0.003	< 0.00002	< 0.001	2.77	0.0031	< 0.01	0.490	0.0004	0.018	1.10	0.00185	15.4	< 0.00001
4-Sep-13	25																
11-Sep-13	26	< 0.0005	0.0138	0.0032	< 0.003	< 0.00002	< 0.001	2.60	0.0026	< 0.01	0.484	< 0.0001	0.012	1.08	0.00148	16.6	< 0.00001
18-Sep-13	27																
25-Sep-13	28	< 0.0005	0.0190	0.0032	< 0.003	0.00034	< 0.001	2.50	0.0027	< 0.01	0.523	0.0011	0.011	1.10	0.00143	17.0	< 0.00001
2-Oct-13	29																
9-Oct-13	30																

May 22/13 Change in analytical schedule

Col 7

Sample = CL-01 L Residue																
Date	Cycle	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	SGS File #	Major Anions	Major Cations	Diff	Diff (%)
	No.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L					
20-Mar-13	1	416	0.256	625	0.00010	0.00012	0.0005	0.0207	0.00041	0.003	0.00004	CA15325-MAR13	46.95	43.87	3.08	3.4%
27-Mar-13	2	429	0.260	623	0.00008	0.00019	0.0006	0.0273	0.00046	0.003	0.00003	CA15432-MAR13	43.56	45.19	-1.63	-1.8%
3-Apr-13	3	322	0.240	575	0.00008	0.00017	0.0004	0.0212	0.00052	0.002	0.00002	CA15081-APR13	33.27	38.57	-5.30	-7.4%
10-Apr-13	4	241	0.205	486	0.00007	0.00033	0.0004	0.0148	0.00044	0.002	0.00003	CA15189-APR13	38.06	31.50	6.55	9.4%
17-Apr-13	5															
24-Apr-13	6	146	0.146	342	0.00006	0.00041	0.0005	0.0114	0.00052	0.003	0.00001	CA15395-APR13	22.26	21.31	0.94	2.2%
1-May-13	7															
8-May-13	8	98.3	0.117	259	0.00004	0.00004	0.0005	0.00829	0.00048	0.003	0.00002	CA15170-MAY13	22.36	16.68	5.68	14.5%
15-May-13	9															
22-May-13	10	73.8	0.106	234	0.00003	0.00015	0.0005	0.00796	0.00049	0.002	< 0.00001	CA15349-MAY13	17.41	15.10	2.30	7.1%
29-May-13	11															
5-Jun-13	12	59.1	0.102	220	0.00002	0.00006	0.0004	0.00785	0.00045	0.004	< 0.00001	CA15084-JUN13	15.85	13.36	2.49	8.5%
12-Jun-13	13															
19-Jun-13	14	47.9	0.0959	192	< 0.00002	0.00010	0.0005	0.00620	0.00037	0.002	0.00002	CA15342-JUN13	13.23	12.37	0.86	3.4%
26-Jun-13	15															
3-Jul-13	16	36.7	0.0800	156	< 0.00002	0.00015	0.0006	0.00528	0.00044	0.003	0.00003	CA15109-JUL13	11.62	10.21	1.40	6.4%
10-Jul-13	17															
17-Jul-13	18	25.6	0.0741	129	< 0.00002	0.00005	0.0004	0.00463	0.00045	0.002	0.00003	CA15360-JUL13	9.99	8.25	1.74	9.5%
24-Jul-13	19															
31-Jul-13	20	22.6	0.0606	108	< 0.00002	0.00013	0.0007	0.00392	0.00041	0.001	0.00003	CA15038-AUG13	7.13	7.21	-0.08	-0.5%
7-Aug-13	21															
14-Aug-13	22	19.6	0.0554	93.8	0.00004	0.00008	0.0012	0.00374	0.00038	0.002	0.00001	CA15209-AUG13	7.45	6.60	0.85	6.1%
21-Aug-13	23															
28-Aug-13	24	15.2	0.0531	81.2	< 0.00002	0.00030	0.0004	0.00365	0.00045	0.001	< 0.00001	CA15449-AUG13	6.16	6.03	0.13	1.1%
4-Sep-13	25															
11-Sep-13	26	15.0	0.0489	77.8	< 0.00002	0.00010	0.0006	0.00415	0.00044	0.001	0.00004	CA15177-SEP13	6.27	5.74	0.53	4.4%
18-Sep-13	27															
25-Sep-13	28	15.3	0.0473	73.5	< 0.00002	0.00035	0.0005	0.00390	0.00048	0.004	0.00002	CA15348-SEP13	5.42	5.55	-0.13	-1.2%
2-Oct-13	29															
9-Oct-13	30															

May 22/13 Change in analytical schedulei

Col 8

Sample = CL-01 L Residue																				
Date	Cycle	Approx.	Volume mL		pH	Cond.	Acidity	Acidity	Alkalinity	Sulphate	Total CN	WAD CN	Thiocyanate	Cyanate	Nitrate	Nitrite	Ammonia	Cl	F	Br
	No.	Flow Rate	Input	Output		umhos/cm	(pH 4.5)	(pH 8.3)												
		(mL/min)					mgCaCO3/L	mgCaCO3/L	mgCaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
20-Mar-13	1	1.0	470	850	7.65	4170	#N/A	18.1	57.1	2187	0.12	< 0.01	< 2	< 1	68.1	2.05	0.1	140	0.55	< 0.3
27-Mar-13	2	1.0	570	480	7.67	4128	#N/A	15.8	70.1	2095	0.12	0.01	< 1	< 2	68.9	0.71	< 0.1	150	0.52	< 0.3
3-Apr-13	3	1.0	495	480	7.75	4275	#N/A	15.8	70.6	1658	0.20	0.03	< 2	< 1	82.3	< 0.3	< 0.1	180	0.52	< 3
10-Apr-13	4	1.0	470	485	7.69	3748	#N/A	12.7	65.5	2852	0.11	0.02	< 2	< 1	56.3	< 0.3	< 0.1	110	0.53	< 3
17-Apr-13	5	1.0	470	490	7.61	3169														
24-Apr-13	6	1.0	470	500	7.66	2957	#N/A	11.9	52.0	1967	0.12	0.01	< 1	< 2	28.7	< 0.3	0.2	56	0.53	< 3
1-May-13	7	1.0	470	555	7.69	2588														
8-May-13	8	1.0	470	460	7.69	2437	#N/A	16.3	54.4	2437	0.06	< 0.01	< 2	< 1	16.7	< 0.3	0.2	37	0.49	< 3
15-May-13	9	1.0	470	460	7.56	2353														
22-May-13	10	1.0	470	480	7.57	2421	#N/A	14.1	54.3	1489	0.06	< 0.01	< 2	< 1	14.5	< 0.3	< 0.1	33	0.55	< 3
29-May-13	11	1.0	470	470	7.64	2353														
5-Jun-13	12	1.0	470	470	7.58	2280	#N/A	13.2	52.6	1435	0.06	#N/A	#N/A	#N/A	11.7	#N/A	#N/A	21	0.52	< 3
12-Jun-13	13	1.0	470	465	7.73	2022														
19-Jun-13	14	1.0	470	440	7.62	2169	#N/A	12.1	51.5	1219	0.05	#N/A	#N/A	#N/A	9.42	#N/A	#N/A	< 20	0.52	< 3

Cell Terminated

May 22/13 Change in analytical schedule.

Col 8

Sample = CL-01 L Residue																						
Date	Cycle	Hardness	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni
	No.	CaCO3																				
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L
20-Mar-13	1	1520	0.0053	0.0074	0.0096	0.0126	< 0.00002	< 0.00001	0.0709	0.000342	551	0.0010	0.311	0.0308	0.017	0.00011	0.005	24.6	0.0207	0.02	1.59	0.0021
27-Mar-13	2	1540	0.0083	0.0077	0.0089	0.0131	< 0.00002	< 0.00001	0.0755	< 0.000003	576	< 0.0005	0.318	0.0265	0.016	0.00006	0.004	24.0	0.0178	< 0.01	1.71	0.0023
3-Apr-13	3	1460	0.0073	0.0078	0.0098	0.0145	< 0.00002	< 0.00001	0.0646	< 0.000003	543	0.0006	0.393	0.0251	0.017	0.00011	0.004	25.3	0.0251	0.01	2.02	0.0016
10-Apr-13	4	1490	0.0057	0.0070	0.0081	0.0124	< 0.00002	< 0.00001	0.0609	0.000035	558	< 0.0005	0.289	0.0187	0.018	0.00007	0.004	22.9	0.0191	0.01	1.78	0.0014
17-Apr-13	5																					
24-Apr-13	6	1070	0.0046	0.0058	0.0076	0.0113	< 0.00002	< 0.00001	0.0411	0.000026	400	< 0.0005	0.224	0.0123	0.007	0.00006	0.003	16.6	0.0146	< 0.01	1.52	0.0025
1-May-13	7																					
8-May-13	8	960	0.0087	0.0056	0.0072	0.0110	< 0.00002	< 0.00001	0.0418	0.000047	362	< 0.0005	0.162	0.0262	0.003	0.00002	0.003	13.4	0.0130	< 0.01	1.24	0.0020
15-May-13	9																					
22-May-13	10	998	0.0057	0.0068	0.0078	0.0127	< 0.00002	< 0.00001	0.0302	0.000061	378	< 0.0005	0.161	0.0097	0.004	0.00015	0.002	13.1	0.0120	< 0.01	1.26	0.0022
29-May-13	11																					
5-Jun-13	12	921	0.0068	0.0061	0.0082	0.0118	< 0.00002	< 0.00001	0.0330	0.000016	348	< 0.0005	0.155	0.0101	< 0.003	< 0.00002	0.002	12.5	0.0110	< 0.01	1.21	0.0024
12-Jun-13	13																					
19-Jun-13	14	923	0.0046	0.0058	0.0076	0.0131	< 0.00002	< 0.00001	0.0385	0.000041	349	< 0.0005	0.131	0.0093	< 0.003	< 0.00002	0.003	12.3	0.0119	< 0.01	1.22	0.0020

Cell Terminated
 May 22/13 Change in analytical schedule.

Col 8

Sample = CL-01 LResidue																					
Date	Cycle No.	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr	SGS File #	Major Anions	Major Cations	Diff	Diff (%)
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L					
20-Mar-13	1	< 0.009	10.7	0.0662	15.8	< 0.00001	469	0.315	703	0.00011	0.00009	0.0004	0.0226	0.00046	0.003	0.00004	CA15325-MAR13	50.68	50.26	-0.42	-0.4%
27-Mar-13	2	< 0.009	9.07	0.0593	16.9	0.00002	473	0.303	687	0.00009	0.00016	0.0005	0.0372	0.00057	0.002	0.00002	CA15432-MAR13	49.30	51.60	2.29	2.3%
3-Apr-13	3	< 0.009	11.2	0.0753	17.5	0.00001	461	0.339	673	0.00011	0.00021	0.0004	0.0339	0.00057	0.002	0.00002	CA15081-APR13	41.05	49.60	8.55	9.4%
10-Apr-13	4	< 0.009	9.04	0.0646	18.6	< 0.00001	441	0.304	689	0.00008	0.00064	0.0004	0.0261	0.00048	0.012	0.00002	CA15189-APR13	63.85	49.21	-14.64	-13.0%
17-Apr-13	5																				
24-Apr-13	6	< 0.009	6.88	0.0392	16.1	< 0.00001	278	0.235	498	0.00007	0.00017	0.0005	0.0168	0.00052	0.001	< 0.00001	CA15395-APR13	43.63	33.65	-9.97	-12.9%
1-May-13	7																				
8-May-13	8	0.022	5.71	0.0313	15.8	< 0.00001	219	0.198	436	0.00007	0.00006	0.0006	0.0144	0.00059	0.002	0.00001	CA15170-MAY13	52.93	28.89	-24.04	-29.4%
15-May-13	9																				
22-May-13	10	0.023	4.91	0.0278	17.1	< 0.00001	207	0.188	436	0.00006	0.00009	0.0005	0.0143	0.00055	0.001	< 0.00001	CA15349-MAY13	33.07	29.12	-3.95	-6.4%
29-May-13	11																				
5-Jun-13	12	0.026	4.61	0.0235	17.4	< 0.00001	185	0.174	382	0.00005	0.00009	0.0004	0.0143	0.00055	0.002	0.00001	CA15084-JUN13	31.57	26.60	-4.96	-8.5%
12-Jun-13	13																				
19-Jun-13	14	0.018	3.99	0.0243	18.8	0.00001	344	0.175	393	0.00004	0.00012	0.0006	0.0117	0.00047	0.002	< 0.00001	CA15342-JUN13	26.45	33.54	7.08	11.8%

Cell Terminated

May 22/13 Change in analytical schedule.