Parameter	Units	Tailings Humidity Cell Average	Tailings Humidity Cell Standard Deviation	Supernatant Average
EBD Source		**Table 11-49 (calc); Appenidx 11L (pH)**	**Table 11-49 (calc); Appenidx 11L (pH)**	**Table 11-48**
pH	S.U.	7.8	0.2	7.9
Alkalinity	mg/L $CaCO_3$	59.7	15.5	74.8
Hardness	mg/L $CaCO_3$	66.8	13.6	322.8
Cl	mg/L	0.52	0.08	nr
F	mg/L	0.451	0.440	nr
SO_4	mg/L	17.4	8.0	318.7
Thiosalts (S_2O_3)	mg/L			44.1
Ag	mg/L	0.000010	0.000000	0.000018
Al	mg/L	0.0236	0.0312	0.0718
As	mg/L	0.00546	0.00837	0.01719
B	mg/L	0.0107	0.0010	nr
Ba	mg/L	0.0092	0.0050	nr
Be	mg/L	0.000198	0.000005	nr
Bi	mg/L	0.00049	0.00001	nr
Ca	mg/L	22.6	3.9	116.0
Cd	mg/L	0.000052	0.000004	-0.000078
Co	mg/L	0.000193	0.000151	-0.000123
Cr	mg/L	0.00050	0.00002	-0.00099
Cu	mg/L	0.00533	0.00216	0.00776
Fe	mg/L	0.030	0.001	0.017
Hg	mg/L	0.000010	0.000000	-0.000037
K	mg/L	4.02	1.69	25.95
Mg	mg/L	2.55	2.07	8.00
Mn	mg/L	0.0441	0.0224	0.0719
Mo	mg/L	0.0335	0.0237	0.0697
Na	mg/L	2.10	0.26	43.78
Ni	mg/L	0.00054	0.00005	-0.00079
Pb	mg/L	0.000064	0.000008	0.000229
Sb	mg/L	0.00180	0.00170	0.00600
Se	mg/L	0.00148	0.00060	0.00761
Sn	mg/L	0.002928	0.004015	nr
Tl	mg/L	0.000051	0.000003	0.000022
V	mg/L	0.00078	0.00078	nr
Zn	mg/L	0.003155	0.001703	0.004325

nr: not reported

Supernatant Standard Deviation	Tertiary Waste Rock Average	Tertiary Waste Rock Standard Deviation	Pebble West Pre-Tertiary Waste Rock Average	Pebble West Pre-Tertiary Waste Rock Standard Deviation
Table 11-48	Table 11-31 (calc); Appendix 11C (pH)	Table 11-31 (calc); Appendix 11C (pH)	Table 11-21 (calc); Appendix 11C (pH)	Table 11-21 (calc); Appendix 11C (pH)
0.3	7.2	1.3	6.6	1.7
20.4	65.9	51.0	18.5	16.4
254.8	74.0	88.1	59.2	51.9
nr	0.53	0.11	0.52	0.01
nr	0.062	0.091	0.120	0.115
372.1	28.0	83.8	60.8	68.4
156.1	nr	nr	nr	nr
0.000250	0.000011	0.000003	0.000027	0.000044
0.0745	0.0800	0.2116	0.3183	0.8507
0.02122	0.00274	0.00419	0.00149	0.00181
nr	0.0177	0.0122	0.0159	0.0085
nr	0.0572	0.0824	0.0136	0.0087
nr	0.000307	0.000490	0.000327	0.000290
nr	0.00054	0.00017	0.00069	0.00040
101.2	21.3	31.6	12.7	8.9
0.000176	0.000219	0.000637	0.000397	0.000700
0.000364	0.003919	0.015702	0.007027	0.014546
0.00167	0.00055	0.00017	0.00069	0.00040
0.00485	0.00320	0.00611	1.59890	3.24694
0.316	0.140	0.484	1.671	6.042
0.000103	0.000010	0.000000	0.000011	0.000002
8.16	1.85	2.24	1.41	0.72
5.53	5.06	7.49	6.69	8.68
0.0631	0.1015	0.3990	0.7289	1.5653
0.0560	0.0063	0.0138	0.0018	0.0018
132.40	7.2163	12.4562	2.0539	0.0304
0.00177	0.00437	0.01645	0.00681	0.01433
0.000618	0.000115	0.000148	0.000172	0.000289
0.00582	0.00212	0.00190	0.00307	0.00180
0.00623	0.00191	0.00202	0.00380	0.00566
nr	0.001253	0.001492	0.000140	0.000077
0.000215	0.000068	0.000031	0.000414	0.000984
nr	0.00177	0.00224	0.00068	0.00038
0.007984	0.015891	0.049987	0.055582	0.107979

Pebble East Pre-Tertiary Waste Rock Average	Pebble East Pre-Tertiary Waste Rock Standard Deviation
Table 11-21 (calc); Appendix 11C (pH)	Table 11-21 (calc); Appendix 11C (pH)
4.8	1.9
9.9	14.1
21.9	23.1
0.91	0.91
0.110	0.157
51.9	52.0
nr	nr
0.000019	0.000013
0.3803	0.5078
0.00800	0.01891
0.0125	0.0052
0.0045	0.0056
0.000549	0.000614
0.00063	0.00027
6.3	5.3
0.003221	0.008289
0.009684	0.011963
0.00157	0.00230
1.41621	2.16086
10.195	16.051
0.000010	0.000000
0.96	0.69
1.50	3.40
0.3386	1.0745
0.0043	0.0070
2.0660	0.0601
0.01049	0.01677
0.000352	0.000411
0.00078	0.00180
0.00324	0.00244
0.001870	0.002148
0.000088	0.000100
0.00244	0.00556
0.478569	1.361824

Comments
HCT pH represents final pH for PLP experiments, not average pH of their experiments.

Table 11-21

Summary of Average Release Rates for Humidity Cell Kinetic Tests, Pre-Tertiary Samples, Pebble East and West Z

Sample ID	Rock Type [b]	Date Test Started	Date of Last Interpretative Date Review	Test Days	Final pH
Pebble West Zone					
025-0617-0637	Diorite (D)	8-Feb-05	30-Aug-05	29	4.56
046-0113-0133	Monzodiorite (N)	8-Feb-05	30-Aug-05	29	5.65
046-0580-0600	Granodiorite (G)	8-Feb-05	30-Aug-05	29	7.73
112-0460-0480	Igneous Breccia (X)	8-Feb-05	30-Aug-05	29	6.74
117-0190-0210	Monzodiorite (N)	9-Feb-05	31-Aug-05	29	7.29
118-0468-0488	Monzonite (M)	9-Feb-05	31-Aug-05	29	8.16
3069-0927-0947	Granodiorite (G)	9-Feb-05	14-Oct-09	244	2.66
3123-0438-0458	Diorite (D)	10-Feb-05	1-Sep-05	29	7.89
3124-0872-0887	Igneous Breccia (X)	10-Feb-05	29-Jun-06	72	7.36
019-0072-0090	WY	8-Feb-05	30-Aug-05	29	5.69
033-0137-0155	Siltstone (Y)	8-Feb-05	30-Aug-05	29	7.8
047-0350-0365	WY	8-Feb-05	27-Jun-06	72	7
118-0520-0535	Siltstone (Y)	9-Feb-05	31-Aug-05	29	7.63
118-1220-1238	WY	9-Feb-05	31-Aug-05	29	7.75
3102-0568-0588	Siltstone (Y)	9-Feb-05	31-Aug-05	29	7.75
3115-0988-1008	Siltstone (Y)	10-Feb-05	29-Jun-06	72	7.09
3124-0188-0209	Siltstone (Y)	10-Feb-05	15-Oct-09	244	3.19
Pebble East Zone					
224956	Diorite (D)	17-Jan-08	15-Oct-09	91	7.19
224182	Granodiorite (G)	16-Jan-08	14-Oct-09	91	5.15
226293	Granodiorite (G)	17-Jan-08	15-Oct-09	91	7.31
406692	Granodiorite (G)	15-Jan-08	13-Oct-09	91	2.91
225026	Granodiorite (G)	15-Jan-08	13-Oct-09	91	4.55
105391	Granodiorite (G)	16-Jan-08	14-Oct-09	91	2.7
105456	Granodiorite (G)	16-Jan-08	14-Oct-09	91	3.12
220841 + 220842	Siltstone (Y)	15-Jan-08	13-Oct-09	91	3.6
406717	Siltstone (Y)	15-Jan-08	13-Oct-09	91	3.23
107326	Siltstone (Y)	16-Jan-08	14-Oct-09	91	7.63
107172	Siltstone (Y)	17-Jan-08	15-Oct-09	91	6.75
220076	Siltstone (Y)	16-Jan-08	14-Oct-09	91	3.3
Barrel Test Subsamples (Pebble West Zone)					
ARLB003	G/D/N	18-Jan-08	16-Oct-09	91	7.24
ARLB006	G/D/N	18-Jan-08	16-Oct-09	91	7.73
ARLB001	Siltstone (Y)	18-Jan-08	16-Oct-09	91	2.97
ARLB002	Siltstone (Y)	18-Jan-08	16-Oct-09	91	2.78

Notes:

a. For chemical abbreviations see Appendix D of this environmental baseline document

b. See Table 11-1. Wackestone, Sandstone (W)
mg/kg/week = milligram(s) per kilogram per week

Leachate Chemsitry (calculated)

Sample ID	Rock Type [b]	Date Test Started	Date of Last Interpretative Date Review	Test Days	Final pH
Pebble West Zone					
025-0617-0637	Diorite (D)	8-Feb-05	30-Aug-05	29	4.56
046-0113-0133	Monzodiorite (N)	8-Feb-05	30-Aug-05	29	5.65
046-0580-0600	Granodiorite (G)	8-Feb-05	30-Aug-05	29	7.73
112-0460-0480	Igneous Breccia (X)	8-Feb-05	30-Aug-05	29	6.74
117-0190-0210	Monzodiorite (N)	9-Feb-05	31-Aug-05	29	7.29
118-0468-0488	Monzonite (M)	9-Feb-05	31-Aug-05	29	8.16
3069-0927-0947	Granodiorite (G)	9-Feb-05	14-Oct-09	244	2.66
3123-0438-0458	Diorite (D)	10-Feb-05	1-Sep-05	29	7.89
3124-0872-0887	Igneous Breccia (X)	10-Feb-05	29-Jun-06	72	7.36
019-0072-0090	WY	8-Feb-05	30-Aug-05	29	5.69
033-0137-0155	Siltstone (Y)	8-Feb-05	30-Aug-05	29	7.8
047-0350-0365	WY	8-Feb-05	27-Jun-06	72	7
118-0520-0535	Siltstone (Y)	9-Feb-05	31-Aug-05	29	7.63
118-1220-1238	WY	9-Feb-05	31-Aug-05	29	7.75
3102-0568-0588	Siltstone (Y)	9-Feb-05	31-Aug-05	29	7.75
3115-0988-1008	Siltstone (Y)	10-Feb-05	29-Jun-06	72	7.09
3124-0188-0209	Siltstone (Y)	10-Feb-05	15-Oct-09	244	3.19
Pebble East Zone					
224956	Diorite (D)	17-Jan-08	15-Oct-09	91	7.19
224182	Granodiorite (G)	16-Jan-08	14-Oct-09	91	5.15
226293	Granodiorite (G)	17-Jan-08	15-Oct-09	91	7.31
406692	Granodiorite (G)	15-Jan-08	13-Oct-09	91	2.91
225026	Granodiorite (G)	15-Jan-08	13-Oct-09	91	4.55
105391	Granodiorite (G)	16-Jan-08	14-Oct-09	91	2.7
105456	Granodiorite (G)	16-Jan-08	14-Oct-09	91	3.12
220841 + 220842	Siltstone (Y)	15-Jan-08	13-Oct-09	91	3.6
406717	Siltstone (Y)	15-Jan-08	13-Oct-09	91	3.23
107326	Siltstone (Y)	16-Jan-08	14-Oct-09	91	7.63
107172	Siltstone (Y)	17-Jan-08	15-Oct-09	91	6.75
220076	Siltstone (Y)	16-Jan-08	14-Oct-09	91	3.3

Sample ID	Rock Type [b]	Date Test Started	Date of Last Interpretative Date Review	Test Days	Final pH
Pebble West Average					6.58
Pebble West Standard Deviation					1.68
Pebble East Average					4.79
Pebble East Standard Deviation					1.93

ones [a]

Alkalinity (mg/kg/week)	Cl (mg/kg/week)	F (mg/kg/week)	SO_4 (mg/kg/week)	Al (mg/kg/week)	Sb (mg/kg/week)
0.49	0.25	0.049	119	0.039	0.00067
1.1	0.25	0.047	20	0.01	0.0011
16	0.25	0.023	6.2	0.022	0.0018
2.5	0.24	0.039	21	0.0012	0.0011
4	0.25	0.061	22	0.0023	0.00064
25	0.24	0.043	7.7	0.012	0.0015
0.5	0.25	0.22	103	1.5	0.00083
12	0.25	0.034	13	0.018	0.0024
22	0.25	0.016	14	0.0073	0.0017
1	0.24	0.035	5.1	0.0048	0.0012
11	0.25	0.018	12	0.039	0.0022
4.1	0.25	0.17	20	0.0013	0.00024
10	0.25	0.052	52	0.002	0.0022
14	0.26	0.026	30	0.0063	0.0016
14	0.25	0.076	20	0.01	0.0037
13	0.25	0.01	7.9	0.022	0.0018
0.48	0.24	0.06	23	0.9	0.00038
12	0.24	0.0097	7.4	0.012	0.00013
1	0.25	0.01	3	0.0028	0.0031
19	0.24	0.017	5.2	0.01	0.00027
0	0.88	0.053	44.7	0.52	0.00007
1	0.24	0.01	6.4	0.0029	0.00026
0	1.52	0.035	79.55	0.31	0.00005
0	0.24	0.027	40.4	0.63	0.00005
0	0.23	0.016	16.9	0.055	0.00007
0	0.91	0.049	42.3	0.53	0.0001
13	0.24	0.091	2	0.05	0.00015
10	0	0.28	5.3	0.012	0.00023
1	0.24	0.035	45.8	0.056	0.00003
21	0.23	0.038	25	0.0053	0.00023
24	0.22	0.07	15.2	0.0059	0.00073
0	0.23	0.093	40.1	0.13	0.0001
0	0.23	0.17	58.3	0.66	0.00008

Alkalinity (mg/L)	Hardness (mg/L)	Cl (mg/L)	F (mg/L)	SO_4 (mg/L)	Al (mg/L)	Sb (mg/L)
1.0	227.2	0.52	0.102	247.9	0.0813	0.00140
2.3	31.7	0.52	0.098	41.7	0.0208	0.00229
33.3	41.2	0.52	0.048	12.9	0.0458	0.00375
5.2	38.5	0.50	0.081	43.8	0.0025	0.00229
8.3	49.2	0.52	0.127	45.8	0.0048	0.00133
52.1	62.2	0.50	0.090	16.0	0.0250	0.00313
1.0	22.6	0.52	0.458	214.6	3.1250	0.00173
25.0	43.0	0.52	0.071	27.1	0.0375	0.00500
45.8	71.6	0.52	0.033	29.2	0.0152	0.00354
2.1	8.9	0.50	0.073	10.6	0.0100	0.00250
22.9	43.2	0.52	0.038	25.0	0.0813	0.00458
8.5	46.9	0.52	0.354	41.7	0.0027	0.00050
20.8	125.6	0.52	0.108	108.3	0.0042	0.00458
29.2	86.1	0.54	0.054	62.5	0.0131	0.00333
29.2	66.3	0.52	0.158	41.7	0.0208	0.00771
27.1	38.0	0.52	0.021	16.5	0.0458	0.00375
1.0	4.7	0.50	0.125	47.9	1.8750	0.00079
25.0	33.3	0.50	0.020	15.4	0.0250	0.00027
2.1	4.8	0.52	0.021	6.3	0.0058	0.00646
39.6	42.0	0.50	0.035	10.8	0.0208	0.00056
0.0	5.6	1.83	0.110	93.1	1.0833	0.00014
2.1	13.2	0.50	0.021	13.3	0.0060	0.00054
0.0	2.8	3.17	0.073	165.7	0.6458	0.00011
0.0	4.6	0.50	0.056	84.2	1.3125	0.00010
0.0	10.3	0.48	0.033	35.2	0.1146	0.00014
0.0	6.5	1.90	0.102	88.1	1.1042	0.00021
27.1	29.2	0.50	0.190	4.2	0.1042	0.00031
20.8	28.6	0.00	0.583	11.0	0.0250	0.00048
2.1	81.8	0.50	0.073	95.4	0.1167	0.00006

Alkalinity (mg/L)	Hardness (mg/L)	Cl (mg/L)	F (mg/L)	SO_4 (mg/L)	Al (mg/L)	Sb (mg/L)
18.5	59.2	0.52	0.120	60.8	0.3183	0.00307
16.4	51.9	0.01	0.115	68.4	0.8507	0.00180
9.9	21.9	0.91	0.110	51.9	0.3803	0.00078
14.1	23.1	0.91	0.157	52.0	0.5078	0.00180

As (mg/kg/week)	Ba (mg/kg/week)	Be (mg/kg/week)	Bi (mg/kg/week)	B (mg/kg/week)	Cd (mg/kg/week)	Ca (mg/kg/week)
0.003	0.005	0.00045	0.00063	0.016	0.00045	13
0.00021	0.015	0.0001	0.00025	0.0088	0.0012	2.7
0.00034	0.017	0.0001	0.00025	0.0062	0.00003	4
0.00069	0.0063	0.00010	0.00024	0.0048	0.00008	4.2
0.00006	0.0087	0.00010	0.00025	0.0067	0.00007	3.5
0.00047	0.0092	0.00010	0.00024	0.0048	0.00002	6.6
0.0022	0.0021	0.00056	0.00085	0.017	0.00084	3
0.00071	0.0083	0.00010	0.00025	0.0049	0.00003	5.6
0.00027	0.0043	0.00010	0.00025	0.0049	0.00003	10
0.00006	0.0049	0.00010	0.00024	0.0088	0.00003	1.2
0.00046	0.0059	0.00010	0.00025	0.0075	0.00003	5.2
0.00005	0.0016	0.0001	0.00025	0.005	0.00014	3.6
0.00081	0.0053	0.0001	0.00025	0.0051	0.00003	15.7
0.00007	0.0032	0.0001	0.00026	0.0052	0.00003	11.4
0.0021	0.0054	0.0001	0.00025	0.005	0.00003	9.1
0.00051	0.0063	0.00010	0.00025	0.0049	0.00003	4.4
0.00017	0.0027	0.00028	0.0007	0.014	0.0002	0.6
0.00014	0.0012	0.00010	0.00024	0.0048	0.00002	4.4
0.007	0.0015	0.00010	0.00025	0.0049	0.00010	0.7
0.00063	0.0036	0.00010	0.00024	0.0049	0.00002	7.4
0.0018	0.00014	0.00039	0.00023	0.0048	0.00044	1
0.0003	0.0022	0.00010	0.00024	0.0049	0.00002	2
0.032	0.00029	0.00018	0.00046	0.0091	0.014	0.4
0.0019	0.0042	0.0001	0.00024	0.0049	0.00029	0.6
0.00017	0.0033	0.00039	0.00066	0.013	0.0023	1.8
0.0015	0.00006	0.0011	0.00026	0.0051	0.0002	0.9
0.00024	0.00016	0.00010	0.00024	0.0049	0.00003	5.5
0.00034	0.0002	0.00010	0.00024	0.0048	0.00003	5.4
0.00007	0.0092	0.00042	0.0003	0.0061	0.0011	6.2
0.00026	0.0028	0.00009	0.00023	0.0051	0.00003	12
0.0029	0.0038	0.00009	0.00022	0.0051	0.00003	8.8
0.00041	0.0031	0.00059	0.00023	0.0061	0.0006	9
0.0006	0.00097	0.0014	0.00039	0.0085	0.00069	12

As (mg/L)	Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)
0.00625	0.01042	0.00094	0.00131	0.0333	0.00094	27.1
0.00044	0.03125	0.00021	0.00052	0.0183	0.00250	5.6
0.00071	0.03542	0.00021	0.00052	0.0129	0.00005	8.3
0.00144	0.01313	0.00020	0.00050	0.0100	0.00016	8.8
0.00013	0.01813	0.00021	0.00052	0.0140	0.00015	7.3
0.00098	0.01917	0.00020	0.00050	0.0100	0.00005	13.8
0.00458	0.00438	0.00117	0.00177	0.0354	0.00175	6.3
0.00148	0.01729	0.00020	0.00052	0.0102	0.00005	11.7
0.00056	0.00896	0.00020	0.00052	0.0102	0.00005	20.8
0.00013	0.01021	0.00020	0.00050	0.0183	0.00007	2.5
0.00096	0.01229	0.00020	0.00052	0.0156	0.00005	10.8
0.00010	0.00333	0.00021	0.00052	0.0104	0.00029	7.5
0.00169	0.01104	0.00021	0.00052	0.0106	0.00005	32.7
0.00015	0.00667	0.00021	0.00054	0.0108	0.00007	23.8
0.00438	0.01125	0.00021	0.00052	0.0104	0.00005	19.0
0.00106	0.01313	0.00021	0.00052	0.0102	0.00005	9.2
0.00035	0.00563	0.00058	0.00146	0.0292	0.00042	1.3
0.00029	0.00250	0.00020	0.00050	0.0100	0.00005	9.2
0.01458	0.00313	0.00020	0.00052	0.0102	0.00020	1.5
0.00131	0.00750	0.00020	0.00050	0.0102	0.00005	15.4
0.00375	0.00029	0.00081	0.00048	0.0100	0.00092	2.1
0.00063	0.00458	0.00020	0.00050	0.0102	0.00005	4.2
0.06667	0.00060	0.00038	0.00096	0.0190	0.02917	0.8
0.00396	0.00875	0.00021	0.00050	0.0102	0.00060	1.3
0.00035	0.00688	0.00081	0.00138	0.0271	0.00479	3.8
0.00313	0.00012	0.00229	0.00054	0.0106	0.00042	1.9
0.00050	0.00033	0.00020	0.00050	0.0102	0.00006	11.5
0.00071	0.00042	0.00020	0.00050	0.0100	0.00005	11.3
0.00014	0.01917	0.00088	0.00063	0.0127	0.00229	12.9

As (mg/L)	Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)
0.00149	0.01363	0.00033	0.00069	0.01588	0.00040	12.7
0.00181	0.00870	0.00029	0.00040	0.00854	0.00070	8.9
0.00800	0.00452	0.00055	0.00063	0.01253	0.00322	6.3
0.01891	0.00556	0.00061	0.00027	0.00525	0.00829	5.3

Cr (mg/kg/week)	Co (mg/kg/week)	Cu (mg/kg/week)	Fe (mg/kg/week)	Pb (mg/kg/week)	Mg (mg/kg/week)	Mn (mg/kg/week)
0.00063	0.025	2.1	0.23	0.00011	18.67	3
0.00025	0.0053	1.8	0.015	0.00003	2.06	0.094
0.00025	0.00005	0.004	0.015	0.00003	2.39	0.0077
0.00024	0.00081	0.021	0.014	0.00002	1.95	1.1
0.00025	0.00036	0.0059	0.015	0.00003	3.63	0.16
0.00024	0.00005	0.0026	0.014	0.00002	3.26	0.0087
0.00085	0.017	5.1	12	0.00034	0.82	0.86
0.00025	0.00005	0.0015	0.015	0.00003	1.62	0.0029
0.00026	0.00007	0.0026	0.015	0.00009	2.29	0.016
0.00024	0.0018	0.083	0.015	0.00003	0.31	0.056
0.00025	0.00005	0.0017	0.015	0.00003	1.89	0.052
0.00025	0.00046	0.0074	0.015	0.00003	3.3	0.27
0.00025	0.001	0.011	0.015	0.00003	5.13	0.21
0.00026	0.0001	0.0028	0.015	0.00003	3.13	0.014
0.00025	0.00010	0.0014	0.015	0.00003	2.21	0.071
0.00025	0.00005	0.0021	0.015	0.00003	1.76	0.016
0.0007	0.0051	3.9	1.2	0.00053	0.19	0.0092
0.00024	0.00005	0.0012	0.015	0.00003	1.22	0.01
0.00025	0.00056	0.25	0.015	0.00047	0.14	0.0062
0.00024	0.00018	0.0024	0.014	0.00003	0.4	0.038
0.00051	0.0059	0.76	13	0.00011	0.05	0.006
0.00024	0.00089	0	0.016	0.00003	0.32	0.02
0.004	0.0093	2.1	23	0.00062	0.08	0.0034
0.0017	0.0057	0.43	11	0.00011	0.17	0.01
0.00066	0.017	3.3	0.6	0.00029	0.11	0.015
0.00043	0.013	1.1	11	0.00007	0.21	0.019
0.00024	0.00005	0.00049	0.015	0.00002	0.07	0.012
0.00024	0.00015	0.0033	0.015	0.00003	0.06	0.011
0.0003	0.003	0.21	0.034	0.00022	5.8	1.8
0.00023	0.00005	0.0012	0.014	0.00002	2.94	0.012
0.00024	0.00005	0.0013	0.013	0.00003	2.92	0.0054
0.00023	0.0097	0.82	0.13	0.0002	2.71	0.25
0.0004	0.01	1.8	0.62	0.00095	2.82	0.69

Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mg (mg/L)	Mn (mg/L)
0.00131	0.05208	4.37500	0.47917	0.00023	38.90	6.250
0.00052	0.01104	3.75000	0.03125	0.00006	4.29	0.196
0.00052	0.00010	0.00833	0.03125	0.00005	4.98	0.016
0.00050	0.00169	0.04375	0.02917	0.00005	4.06	2.292
0.00052	0.00075	0.01229	0.03125	0.00005	7.56	0.333
0.00050	0.00010	0.00542	0.02917	0.00005	6.79	0.018
0.00177	0.03542	10.62500	25.00000	0.00071	1.71	1.792
0.00052	0.00010	0.00313	0.03125	0.00005	3.38	0.006
0.00054	0.00014	0.00542	0.03125	0.00018	4.77	0.033
0.00050	0.00375	0.17292	0.03125	0.00005	0.65	0.117
0.00052	0.00010	0.00354	0.03125	0.00006	3.94	0.108
0.00052	0.00096	0.01542	0.03125	0.00005	6.88	0.563
0.00052	0.00208	0.02292	0.03125	0.00005	10.69	0.438
0.00054	0.00021	0.00583	0.03125	0.00005	6.52	0.029
0.00052	0.00020	0.00292	0.03125	0.00005	4.60	0.148
0.00052	0.00010	0.00438	0.03125	0.00007	3.67	0.033
0.00146	0.01063	8.12500	2.50000	0.00110	0.40	0.019
0.00050	0.00010	0.00250	0.03125	0.00005	2.54	0.021
0.00052	0.00117	0.52083	0.03125	0.00098	0.29	0.013
0.00050	0.00038	0.00500	0.02917	0.00007	0.83	0.079
0.00106	0.01229	1.58333	27.08333	0.00023	0.10	0.013
0.00050	0.00185	0.00000	0.03333	0.00006	0.67	0.042
0.00833	0.01938	4.37500	47.91667	0.00129	0.17	0.007
0.00354	0.01188	0.89583	22.91667	0.00023	0.35	0.021
0.00138	0.03542	6.87500	1.25000	0.00060	0.23	0.031
0.00090	0.02708	2.29167	22.91667	0.00014	0.44	0.040
0.00050	0.00010	0.00102	0.03125	0.00005	0.15	0.025
0.00050	0.00031	0.00688	0.03125	0.00006	0.13	0.023
0.00063	0.00625	0.43750	0.07083	0.00046	12.08	3.750

Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mg (mg/L)	Mn (mg/L)
0.00069	0.00703	1.59890	1.67132	0.00017	6.69	0.729
0.00040	0.01455	3.24694	6.04156	0.00029	8.68	1.565
0.00157	0.00968	1.41621	10.19514	0.00035	1.50	0.339
0.00230	0.01196	2.16086	16.05146	0.00041	3.40	1.074

Hg (mg/kg/week)	Mo (mg/kg/week)	Ni (mg/kg/week)	K (mg/kg/week)	Se (mg/kg/week)	Ag (mg/kg/week)	Na (mg/kg/week)
0.000005	0.00004	0.027	1.54	0.012	0.000008	0.98
0.0000050	0.00003	0.0032	0.69	0.0016	0.000005	1
0.0000050	0.00046	0.00025	0.7	0.0005	0.000005	1
0.000005	0.00007	0.0018	0.63	0.00075	0.000005	0.96
0.000005	0.00004	0.00045	0.42	0.0012	0.000005	0.99
0.000005	0.0019	0.00024	0.53	0.00064	0.000005	0.96
0.000005	0.00018	0.012	0.95	0.0022	0.00007	1
0.000005	0.00074	0.00025	1.49	0.0015	0.000005	0.98
0.000005	0.0017	0.00025	0.49	0.00049	0.000005	0.98
0.000005	0.0029	0.00049	0.38	0.0022	0.000005	0.97
0.000005	0.0012	0.00025	0.68	0.0005	0.000005	0.98
0.0000050	0.00003	0.00038	0.32	0.0013	0.000006	1
0.000008	0.00047	0.0012	0.47	0.0017	0.000005	1
0.000005	0.0016	0.00026	0.53	0.00067	0.000007	1
0.0000050	0.0013	0.00025	0.53	0.0005	0.000005	1
0.000005	0.0018	0.00026	0.59	0.00055	0.000005	0.99
0.000005	0.00008	0.007	0.57	0.0027	0.000070	0.97
0.000005	0.0068	0.00024	0.79	0.00054	0.000005	1
0.000005	0.00023	0.00037	0.18	0.0012	0.000005	1
0.000005	0.01	0.00024	1.02	0.0011	0.000005	1
0.000005	0.00003	0.0021	0.1	0.0018	0.00002	0.9
0.000005	0.00037	0.00058	0.82	0.00059	0.000005	1
0.000005	0.00041	0.0039	0.12	0.0037	0.00001	1
0.000005	0.00002	0.0062	0.16	0.0016	0.000008	1
0.000005	0.00007	0.028	0.53	0.0036	0.00001	1
0.000005	0.00004	0.011	0.29	0.0027	0.00002	1
0.000005	0.005	0.00024	0.25	0.00049	0.000005	1
0.000005	0.0016	0.00024	0.42	0.00067	0.000005	1
0.000005	0.00004	0.0073	0.86	0.00069	0.000008	1
0.000005	0.0055	0.00023	1.27	0.00086	0.000005	0.9
0.000005	0.013	0.00023	1.3	0.002	0.000005	0.9
0.000005	0.00002	0.017	0.8	0.0027	0.000006	0.92
0.000005	0.00004	0.026	1.21	0.0014	0.000010	0.9

Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	K (mg/L)	Se (mg/L)	Ag (mg/L)	Na (mg/L)
0.00001	0.00009	0.05625	3.21	0.02500	0.00002	2.0
0.00001	0.00006	0.00667	1.44	0.00333	0.00001	2.1
0.00001	0.00096	0.00052	1.46	0.00104	0.00001	2.1
0.00001	0.00015	0.00375	1.31	0.00156	0.00001	2.0
0.00001	0.00008	0.00094	0.88	0.00250	0.00001	2.1
0.00001	0.00396	0.00050	1.10	0.00133	0.00001	2.0
0.00001	0.00038	0.02500	1.98	0.00458	0.00014	2.1
0.00001	0.00154	0.00052	3.10	0.00313	0.00001	2.0
0.00001	0.00354	0.00052	1.02	0.00102	0.00001	2.0
0.00001	0.00604	0.00102	0.79	0.00458	0.00001	2.0
0.00001	0.00250	0.00052	1.42	0.00104	0.00001	2.0
0.00001	0.00006	0.00079	0.67	0.00271	0.00001	2.1
0.00002	0.00098	0.00250	0.98	0.00354	0.00001	2.1
0.00001	0.00333	0.00054	1.10	0.00140	0.00002	2.1
0.00001	0.00271	0.00052	1.10	0.00104	0.00001	2.1
0.00001	0.00375	0.00054	1.23	0.00115	0.00001	2.1
0.00001	0.00017	0.01458	1.19	0.00563	0.00015	2.0
0.00001	0.01417	0.00050	1.65	0.00113	0.00001	2.1
0.00001	0.00048	0.00077	0.38	0.00250	0.00001	2.1
0.00001	0.02083	0.00050	2.13	0.00229	0.00001	2.1
0.00001	0.00005	0.00438	0.21	0.00375	0.00004	1.9
0.00001	0.00077	0.00121	1.71	0.00123	0.00001	2.1
0.00001	0.00085	0.00813	0.25	0.00771	0.00003	2.1
0.00001	0.00005	0.01292	0.33	0.00333	0.00002	2.1
0.00001	0.00015	0.05833	1.10	0.00750	0.00003	2.1
0.00001	0.00008	0.02292	0.60	0.00563	0.00005	2.1
0.00001	0.01042	0.00050	0.52	0.00102	0.00001	2.1
0.00001	0.00333	0.00050	0.88	0.00140	0.00001	2.1
0.00001	0.00007	0.01521	1.79	0.00144	0.00002	2.1

Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	K (mg/L)	Se (mg/L)	Ag (mg/L)	Na (mg/L)
0.00001	0.00178	0.00681	1.41	0.00380	0.00003	2.1
0.00000	0.00184	0.01433	0.72	0.00566	0.00004	0.0
0.00001	0.00427	0.01049	0.96	0.00324	0.00002	2.1
0.00000	0.00699	0.01677	0.69	0.00244	0.00001	0.1

Tl (mg/kg/week)	S (mg/kg/week)	V (mg/kg/week)	Zn (mg/kg/week)
0.002	0.00008	0.00049	0.14
0.00009	0.00006	0.00025	0.073
0.00003	0.00005	0.00025	0.00062
0.00013	0.00005	0.00024	0.014
0.00004	0.00005	0.00025	0.003
0.00003	0.00005	0.00024	0.00048
0.00023	0.00018	0.00086	0.17
0.00003	0.00005	0.00025	0.00049
0.00003	0.00007	0.00025	0.00058
0.00002	0.00005	0.00024	0.011
0.00003	0.00005	0.00025	0.00074
0.00003	0.00007	0.00025	0.0034
0.00025	0.00005	0.00025	0.0031
0.00003	0.00005	0.00026	0.0017
0.00028	0.00005	0.00025	0.00081
0.00003	0.00006	0.00029	0.00063
0.00012	0.00014	0.0007	0.03
0.00002	0.0031	0.00024	0.00076
0.00003	0.00019	0.00025	0.05
0.00002	0.0017	0.00024	0.00052
0.00002	0.00012	0.0011	0.082
0.00002	0.00057	0.00029	0.002
0.00019	0.00039	0.0096	2.3
0.00002	0.00023	0.00068	0.1
0.00007	0.00001	0.00007	0.00017
0.00003	0.00021	0.00055	0.11
0.00002	0.0017	0.00048	0.00049
0.00002	0.0023	0.00024	0.00062
0.00003	0.00025	0.0003	0.11
0.00003	0.0005	0.00023	0.00058
0.00003	0.00018	0.00028	0.00054
0.00014	0.00005	0.00023	0.066
0.00015	0.00019	0.00039	0.11

Tl (mg/L)	S (mg/L)	V (mg/L)	Zn (mg/L)
0.00417	0.00017	0.00102	0.29167
0.00020	0.00012	0.00052	0.15208
0.00005	0.00010	0.00052	0.00129
0.00027	0.00010	0.00050	0.02917
0.00008	0.00010	0.00052	0.00625
0.00007	0.00010	0.00050	0.00100
0.00048	0.00038	0.00179	0.35417
0.00005	0.00010	0.00052	0.00102
0.00005	0.00014	0.00052	0.00121
0.00005	0.00010	0.00050	0.02292
0.00005	0.00010	0.00052	0.00154
0.00006	0.00014	0.00052	0.00708
0.00052	0.00011	0.00052	0.00646
0.00005	0.00011	0.00054	0.00354
0.00058	0.00010	0.00052	0.00169
0.00005	0.00012	0.00060	0.00131
0.00025	0.00029	0.00146	0.06250
0.00005	0.00646	0.00050	0.00158
0.00005	0.00040	0.00052	0.10417
0.00005	0.00354	0.00050	0.00108
0.00005	0.00025	0.00229	0.17083
0.00005	0.00119	0.00060	0.00417
0.00040	0.00081	0.02000	4.79167
0.00005	0.00048	0.00142	0.20833
0.00014	0.00003	0.00014	0.00035
0.00005	0.00044	0.00115	0.22917
0.00005	0.00354	0.00100	0.00102
0.00005	0.00479	0.00050	0.00129
0.00006	0.00052	0.00063	0.22917

Tl (mg/L)	S (mg/L)	V (mg/L)	Zn (mg/L)
0.00041	0.00014	0.00068	0.05558
0.00098	0.00008	0.00038	0.10798
0.00009	0.00187	0.00244	0.47857
0.00010	0.00215	0.00556	1.36182

TABLE 11-31

Summary of Average Release Rates for Humidity Cell Kinetic Tests, Tertiary Samples, Pebble East and West Zone

Sample ID	Rock Type [b]	Date Test Started	Date of Last Interpretative Date Review	Test Days	Final pH	Alkalinity (mg/kg/week)
Pebble West Zone						
115-0054-0066	TC	9-Feb-05	31-Aug-05	29	8.37	86
115-0054-0066	TC	22-Feb-05	30-Aug-05	27	8.32	90
115-0054-0066	TC	22-Feb-05	30-Aug-05	27	8.4	74
115-0142-0163	TC (higher S)	9-Feb-05	14-Oct-09	244	7.63	47
117-1055-1071	TB (low S)	9-Feb-05	31-Aug-05	29	8.65	65
3102-0958-0978	TB	10-Feb-05	15-Oct-09	244	7.37	22
3102-0958-0978 D1	TB	10-Feb-05	15-Oct-09	244	7.6	23
3102-0958-0978 D2	TB	10-Feb-05	15-Oct-09	244	7.56	20
3129-0253-0272	TC	10-Feb-05	29-Jun-06	72	7.67	39
3129-0417-0435	TC	10-Feb-05	1-Sep-05	29	8.28	35
4157 439-471	TF	1-Nov-05	13-Oct-09	206	7.76	52
4292 415-430	TA/TD	1-Nov-05	13-Oct-09	206	6.91	15
4292 685-695	TC	1-Nov-05	13-Oct-09	206	7.21	15
Pebble East Zone						
222788	TA/TD	16-Jan-08	14-Oct-09	91	7.54	21
226785	TB	16-Jan-08	14-Oct-09	91	7.35	21
104472	TC	15-Jan-08	13-Oct-09	91	4.15	1
406558	TC	17-Jan-08	15-Oct-09	91	7.5	20
220394	TC	17-Jan-08	15-Oct-09	91	7.61	22
104775	TD	15-Jan-08	13-Oct-09	91	7.25	13
221502	TD	20-Nov-08	15-Oct-09	47	4.09	1
219084	TF	16-Jan-08	14-Oct-09	91	7.34	25
406502	TF	17-Jan-08	15-Oct-09	91	7.47	22
219135	TY	15-Jan-08	13-Oct-09	91	7.31	24
220364	TY	15-Jan-08	13-Oct-09	91	7.58	22
219189	TY	17-Jan-08	15-Oct-09	91	7.82	47
220366	TY	20-Nov-08	15-Oct-09	47	3.33	1
Barrel Test Subsamples (Pebble East and West Zones)						
ARLB010	TA+TB	18-Jan-08	16-Oct-09	91	7.6	18
ARLB009	TD	18-Jan-08	16-Oct-09	91	7.82	26
ARLB007	TC/TF	18-Jan-08	16-Oct-09	91	7.79	51
ARLB008	TC/TF	18-Jan-08	16-Oct-09	91	8.07	69
ARLB004	TW	18-Jan-08	16-Oct-09	91	7.94	40
ARLB005	TY	18-Jan-08	16-Oct-09	91	7.68	29

Notes:

a. For chemical abbreviations see Appendix D of this environmental baseline document

b. See Table 11-1.

mg/kg/week = milligram(s) per kilogram per week

Sample ID	Rock Type [b]	Date Test Started	Date of Last Interpretative Date Review	Test Days	Final pH	Alkalinity (mg/L)
Pebble West Zone						
115-0054-0066	TC	9-Feb-05	31-Aug-05	29	8.37	179.16667
115-0054-0066	TC	22-Feb-05	30-Aug-05	27	8.32	187.5
115-0054-0066	TC	22-Feb-05	30-Aug-05	27	8.4	154.16667
115-0142-0163	TC (higher S)	9-Feb-05	14-Oct-09	244	7.63	97.91667
117-1055-1071	TB (low S)	9-Feb-05	31-Aug-05	29	8.65	135.41667
3102-0958-0978	TB	10-Feb-05	15-Oct-09	244	7.37	45.83333
3102-0958-0978 D1	TB	10-Feb-05	15-Oct-09	244	7.6	47.91667
3102-0958-0978 D2	TB	10-Feb-05	15-Oct-09	244	7.56	41.66667
3129-0253-0272	TC	10-Feb-05	29-Jun-06	72	7.67	81.25
3129-0417-0435	TC	10-Feb-05	1-Sep-05	29	8.28	72.91667
4157 439-471	TF	1-Nov-05	13-Oct-09	206	7.76	108.33333
4292 415-430	TA/TD	1-Nov-05	13-Oct-09	206	6.91	31.25
4292 685-695	TC	1-Nov-05	13-Oct-09	206	7.21	31.25
222788 Pebble East	TA/TD	16-Jan-08	14-Oct-09	91	7.54	43.75
226785	TB	16-Jan-08	14-Oct-09	91	7.35	43.75
104472	TC	15-Jan-08	13-Oct-09	91	4.15	2.08333
406558	TC	17-Jan-08	15-Oct-09	91	7.5	41.66667
220394	TC	17-Jan-08	15-Oct-09	91	7.61	45.83333
104775	TD	15-Jan-08	13-Oct-09	91	7.25	27.08333
221502	TD	20-Nov-08	15-Oct-09	47	4.09	2.08333
219084	TF	16-Jan-08	14-Oct-09	91	7.34	52.08333
406502	TF	17-Jan-08	15-Oct-09	91	7.47	45.83333
219135	TY	15-Jan-08	13-Oct-09	91	7.31	50
220364	TY	15-Jan-08	13-Oct-09	91	7.58	45.83333
219189	TY	17-Jan-08	15-Oct-09	91	7.82	97.91667
220366	TY	20-Nov-08	15-Oct-09	47	3.33	2.08333

Sample ID	Rock Type [b]	Date Test Started	Date of Last Interpretative Date Review	Test Days	Final pH	Alkalinity (mg/L)
Tertiary Average					7.23	65.94551
Tertiary Standard Deviation					1.32	51.00362

s [a]

Cl (mg/kg/week)	F (mg/kg/week)	SO_4 (mg/kg/week)	Al (mg/kg/week)	Sb (mg/kg/week)	As (mg/kg/week)
0.25	0.046	4.6	0.0018	0.0018	0.00013
0.23	0.039	4.1	0.0018	0.0018	0.00011
0.25	0.036	3.9	0.0017	0.0019	0.0001
0.24	0.046	8.4	0.0017	0.00082	0.00029
0.26	0.07	3.3	0.032	0.0036	0.0051
0.24	0.01	3.8	0.008	0.0016	0.0026
0.24	0.0099	3.2	0.0081	0.0012	0.0028
0.25	0.01	3.8	0.009	0.0016	0.0024
0.25	0.011	1.2	0.051	0.002	0.00093
0.23	0.018	2.4	0.018	0.0018	0.00063
0.24	0.037	26.8	0.0011	0.00074	0.00006
0.24	0.022	17	0.0017	0.00071	0.00006
0.25	0.0098	18	0.016	0.0025	0.00015
0.24	0.011	2.8	0.015	0.00028	0.00049
0.25	0.014	5.2	0.023	0.0011	0.00025
0.24	0.017	12.8	0.018	0.00033	0.0049
0.24	0.013	3.1	0.032	0.00056	0.00055
0.24	0.0097	0.3	0.033	0.00028	0.00034
0.25	0.01	0.2	0.062	0.00014	0.00043
0.24	0.024	6.6	0.03	0.00003	0.00008
0.24	0.0099	0.2	0.016	0.00003	0.00013
0.24	0.0097	0.3	0.029	0.00005	0.00096
0.25	0.011	2.2	0.04	0.00069	0.0082
0.25	0.01	4.1	0.012	0.00076	0.0023
0.24	0.043	2.7	0.006	0.00006	0.00006
0.52	0.23	208.1	0.53	0.00007	0.00016
0.22	0.0088	1	0.028	0.00016	0.0011
0.21	0.011	1.2	0.0067	0.00043	0.0018
0.22	0.022	7.8	0.01	0.00004	0.00014
0.24	0.023	3.1	0.0067	0.00003	0.00007
0.22	0.018	3.2	0.028	0.00028	0.0008
0.24	0.018	17.7	0.0064	0.0004	0.00043

Hardness (mg/L)	Cl (mg/L)	F (mg/L)	SO_4 (mg/L)	Al (mg/L)	Sb (mg/L)	As (mg/L)
166.0	0.52	0.096	9.6	0.00375	0.00375	0.00027
147.8	0.48	0.081	8.5	0.00375	0.00375	0.00023
144.2	0.52	0.075	8.1	0.00354	0.00396	0.00021
113.1	0.50	0.096	17.5	0.00354	0.00171	0.00060
13.6	0.54	0.146	6.9	0.06667	0.00750	0.01063
39.5	0.50	0.021	7.9	0.01667	0.00333	0.00542
42.9	0.50	0.021	6.7	0.01688	0.00250	0.00583
34.0	0.52	0.021	7.9	0.01875	0.00333	0.00500
30.0	0.52	0.023	2.5	0.10625	0.00417	0.00194
41.9	0.48	0.038	5.0	0.03750	0.00375	0.00131
154.2	0.50	0.077	55.8	0.00229	0.00154	0.00013
58.9	0.50	0.046	35.4	0.00354	0.00148	0.00013
66.1	0.52	0.020	37.5	0.03333	0.00521	0.00031
41.6	0.50	0.023	5.8	0.03125	0.00058	0.00102
50.7	0.52	0.029	10.8	0.04792	0.00229	0.00052
22.3	0.50	0.035	26.7	0.03750	0.00069	0.01021
40.2	0.50	0.027	6.5	0.06667	0.00117	0.00115
36.1	0.50	0.020	0.6	0.06875	0.00058	0.00071
21.5	0.52	0.021	0.4	0.12917	0.00029	0.00090
11.2	0.50	0.050	13.8	0.06250	0.00006	0.00017
48.3	0.50	0.021	0.4	0.03333	0.00006	0.00027
41.7	0.50	0.020	0.6	0.06042	0.00009	0.00200
43.1	0.52	0.023	4.6	0.08333	0.00144	0.01708
46.2	0.52	0.021	8.5	0.02500	0.00158	0.00479
24.0	0.50	0.090	5.6	0.01250	0.00012	0.00013
444.1	1.08	0.479	433.5	1.10417	0.00014	0.00033

Hardness (mg/L)	Cl (mg/L)	F (mg/L)	SO_4 (mg/L)	Al (mg/L)	Sb (mg/L)	As (mg/L)
74.0	0.53	0.062	28.0	0.07996	0.00212	0.00274
88.1	0.11	0.091	83.8	0.21158	0.00190	0.00419

TION-BRISTOL BAY DRAINAGES

Ba (mg/kg/week)	Be (mg/kg/week)	Bi (mg/kg/week)	B (mg/kg/week)	Cd (mg/kg/week)	Ca (mg/kg/week)	Cr (mg/kg/week)
0.13	0.00010	0.00025	0.023	0.00003	17	0.00025
0.11	0.00009	0.00023	0.021	0.00002	15	0.00023
0.11	0.00010	0.00024	0.022	0.00002	14	0.00024
0.1	0.00010	0.00024	0.01	0.00003	13	0.00025
0.0024	0.0001	0.00026	0.017	0.00003	1.8	0.00026
0.002	0.00010	0.00024	0.0049	0.00003	6	0.00024
0.0019	0.00010	0.00024	0.0049	0.00003	6.5	0.00024
0.0015	0.00010	0.00024	0.0049	0.00003	5.2	0.00025
0.014	0.00010	0.00025	0.0071	0.00003	4.3	0.00025
0.04	0.00009	0.00023	0.0094	0.00002	5.2	0.00023
0.0034	0.00010	0.00024	0.011	0.00003	6.7	0.00025
0.015	0.00010	0.00024	0.005	0.00002	4.2	0.00025
0.015	0.0001	0.00024	0.0049	0.00003	12	0.00025
0.00028	0.00010	0.00024	0.0049	0.00003	7.5	0.00024
0.018	0.0001	0.00025	0.005	0.00003	9.6	0.00025
0.0012	0.00015	0.00024	0.0048	0.0015	3.4	0.00024
0.016	0.00010	0.00025	0.0049	0.00003	7.6	0.00025
0.026	0.00010	0.00025	0.0049	0.00003	6.7	0.00025
0.00035	0.0001	0.00025	0.005	0.00003	4	0.00025
0.0017	0.00013	0.00024	0.0047	0.00006	1.7	0.00024
0.002	0.0001	0.00025	0.0051	0.00003	7.6	0.00027
0.0025	0.00010	0.00024	0.0049	0.00002	6.9	0.00024
0.00009	0.0001	0.00025	0.005	0.00003	8	0.00025
0.038	0.00010	0.00024	0.0049	0.00003	7.6	0.00024
0.05	0.00010	0.00024	0.0088	0.00002	2.2	0.00026
0.013	0.0013	0.00065	0.013	0.0006	81.9	0.00065
0.0098	0.00009	0.00022	0.0045	0.00002	5.6	0.00022
0.0076	0.00008	0.00021	0.0045	0.00002	7.6	0.00022
0.031	0.00009	0.00023	0.009	0.00002	6.3	0.00023
0.08	0.00009	0.00024	0.009	0.00002	6.5	0.00024
0.067	0.00009	0.00022	0.0066	0.00002	6	0.00023
0.012	0.00010	0.00024	0.0061	0.00003	13.5	0.00025

Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)
0.27083	0.00020	0.00052	0.04792	0.00005	35.41667	0.00052
0.22917	0.00019	0.00048	0.04375	0.00005	31.25000	0.00048
0.22917	0.00020	0.00050	0.04583	0.00005	29.16667	0.00050
0.20833	0.00020	0.00050	0.02083	0.00005	27.08333	0.00052
0.00500	0.00021	0.00054	0.03542	0.00005	3.75000	0.00054
0.00417	0.00020	0.00050	0.01021	0.00005	12.50000	0.00050
0.00396	0.00020	0.00050	0.01021	0.00005	13.54167	0.00050
0.00313	0.00020	0.00050	0.01021	0.00005	10.83333	0.00052
0.02917	0.00021	0.00052	0.01479	0.00005	8.95833	0.00052
0.08333	0.00019	0.00048	0.01958	0.00005	10.83333	0.00048
0.00708	0.00021	0.00050	0.02292	0.00005	13.95833	0.00052
0.03125	0.00021	0.00050	0.01042	0.00005	8.75000	0.00052
0.03125	0.00021	0.00050	0.01021	0.00005	25.00000	0.00052
0.00058	0.00020	0.00050	0.01021	0.00005	15.62500	0.00050
0.03750	0.00021	0.00052	0.01042	0.00005	20.00000	0.00052
0.00250	0.00031	0.00050	0.01000	0.00313	7.08333	0.00050
0.03333	0.00021	0.00052	0.01021	0.00005	15.83333	0.00052
0.05417	0.00021	0.00052	0.01021	0.00005	13.95833	0.00052
0.00073	0.00021	0.00052	0.01042	0.00005	8.33333	0.00052
0.00354	0.00027	0.00050	0.00979	0.00013	3.54167	0.00050
0.00417	0.00021	0.00052	0.01063	0.00005	15.83333	0.00056
0.00521	0.00020	0.00050	0.01021	0.00005	14.37500	0.00050
0.00019	0.00021	0.00052	0.01042	0.00005	16.66667	0.00052
0.07917	0.00020	0.00050	0.01021	0.00005	15.83333	0.00050
0.10417	0.00020	0.00050	0.01833	0.00005	4.58333	0.00054
0.02708	0.00271	0.00135	0.02708	0.00125	170.62500	0.00135

Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)
0.05724	0.00031	0.00054	0.01771	0.00022	21.28205	0.00055
0.08242	0.00049	0.00017	0.01220	0.00064	31.58837	0.00017

Co (mg/kg/week)	Cu (mg/kg/week)	Fe (mg/kg/week)	Pb (mg/kg/week)	Mg (mg/kg/week)	Mn (mg/kg/week)	Hg (mg/kg/week)
0.00005	0.00077	0.015	0.00003	9.07	0.00028	0.000005
0.00007	0.0012	0.014	0.00002	8.16	0.0046	0.000005
0.00008	0.00064	0.014	0.00002	8.35	0.0046	0.000005
0.00005	0.00063	0.015	0.00005	5.31	0.00076	0.000005
0.00005	0.00074	0.015	0.00003	0.5	0.00036	0.000005
0.00005	0.00099	0.015	0.00005	0.96	0.0016	0.0000050
0.00005	0.00069	0.015	0.00003	1.06	0.0053	0.000005
0.00005	0.00076	0.015	0.00005	0.81	0.0043	0.000005
0.00005	0.00097	0.019	0.00009	0.89	0.0004	0.0000050
0.00005	0.00091	0.014	0.00003	1.74	0.0017	0.000005
0.00005	0.0013	0.015	0.00003	13.97	0.0037	0.000005
0.00006	0.00087	0.015	0.00003	4.33	0.0061	0.000005
0.00006	0.00049	0.015	0.00003	0.42	0.016	0.000005
0.00005	0.0002	0.015	0.00002	0.3	0.0099	0.000005
0.00005	0.00026	0.015	0.00014	0.08	0.0029	0.000005
0.0081	0.0083	0.087	0.00005	0.54	0.12	0.000005
0.00005	0.00025	0.015	0.00003	0.07	0.002	0.000005
0.00005	0.00035	0.015	0.00003	0.14	0.017	0.0000050
0.00005	0.00019	0.015	0.00003	0.08	0.0035	0.000005
0.0016	0.0053	0.11	0.00016	0.27	0.053	0.000005
0.00005	0.00018	0.015	0.00003	1.02	0.0034	0.000005
0.00005	0.00019	0.015	0.00003	0.67	0.0019	0.000005
0.00005	0.00022	0.015	0.00003	0.17	0.012	0.000005
0.00006	0.00033	0.015	0.00003	0.78	0.011	0.000005
0.00005	0.00021	0.017	0.00002	1.47	0.00053	0.000005
0.038	0.013	1.2	0.00036	2.05	0.98	0.0000050
0.00004	0.0015	0.014	0.00006	0.15	0.0054	0.000004
0.00004	0.00071	0.013	0.00003	0.76	0.0027	0.000004
0.00005	0.00052	0.016	0.00003	4.34	0.0011	0.000004
0.00005	0.00034	0.014	0.00003	4.67	0.0013	0.000005
0.00005	0.00059	0.015	0.00004	1.96	0.0013	0.000005
0.00005	0.00049	0.014	0.00003	1.99	0.00075	0.000005

Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)
0.00010	0.00160	0.03125	0.00005	18.89583	0.00058	0.00001
0.00015	0.00250	0.02917	0.00005	17.00000	0.00958	0.00001
0.00016	0.00133	0.02917	0.00005	17.39583	0.00958	0.00001
0.00010	0.00131	0.03125	0.00009	11.06250	0.00158	0.00001
0.00011	0.00154	0.03125	0.00005	1.04167	0.00075	0.00001
0.00010	0.00206	0.03125	0.00011	2.00000	0.00333	0.00001
0.00010	0.00144	0.03125	0.00007	2.20833	0.01104	0.00001
0.00010	0.00158	0.03125	0.00010	1.68750	0.00896	0.00001
0.00010	0.00202	0.03958	0.00019	1.85417	0.00083	0.00001
0.00010	0.00190	0.02917	0.00007	3.62500	0.00354	0.00001
0.00010	0.00271	0.03125	0.00007	29.10417	0.00771	0.00001
0.00011	0.00181	0.03125	0.00007	9.02083	0.01271	0.00001
0.00012	0.00102	0.03125	0.00006	0.87500	0.03333	0.00001
0.00010	0.00042	0.03125	0.00005	0.62500	0.02063	0.00001
0.00010	0.00054	0.03125	0.00029	0.16667	0.00604	0.00001
0.01688	0.01729	0.18125	0.00010	1.12500	0.25000	0.00001
0.00010	0.00052	0.03125	0.00005	0.14583	0.00417	0.00001
0.00010	0.00073	0.03125	0.00005	0.29167	0.03542	0.00001
0.00010	0.00040	0.03125	0.00005	0.16667	0.00729	0.00001
0.00333	0.01104	0.22917	0.00033	0.56250	0.11042	0.00001
0.00011	0.00038	0.03125	0.00005	2.12500	0.00708	0.00001
0.00010	0.00040	0.03125	0.00006	1.39583	0.00396	0.00001
0.00011	0.00046	0.03125	0.00005	0.35417	0.02500	0.00001
0.00013	0.00069	0.03125	0.00006	1.62500	0.02292	0.00001
0.00010	0.00044	0.03542	0.00005	3.06250	0.00110	0.00001
0.07917	0.02708	2.50000	0.00075	4.27083	2.04167	0.00001

Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)
0.00392	0.00320	0.13982	0.00012	5.06490	0.10151	0.00001
0.01570	0.00611	0.48374	0.00015	7.48766	0.39900	0.00000

Mo (mg/kg/week)	Ni (mg/kg/week)	K (mg/kg/week)	Se (mg/kg/week)	Ag (mg/kg/week)	Na (mg/kg/week)	Tl (mg/kg/week)
0.0008	0.00025	3.75	0.00049	0.000006	0.98	0.00005
0.001	0.00035	3.35	0.00047	0.000005	1.8	0.00005
0.001	0.00024	3.59	0.00048	0.000005	1.1	0.00004
0.00057	0.00024	0.62	0.00056	0.000005	1.0	0.00008
0.018	0.00026	1.59	0.00051	0.000007	26	0.00003
0.0019	0.00024	0.54	0.0005	0.0000050	2.5	0.00002
0.001	0.00024	0.53	0.0005	0.000005	2.1	0.00003
0.0013	0.00025	0.46	0.00051	0.000005	2.9	0.00002
0.00023	0.00025	0.78	0.0005	0.000006	11	0.00003
0.00039	0.00023	2.08	0.00047	0.000005	6.3	0.00002
0.00005	0.00026	0.2	0.0027	0.000005	0.97	0.00005
0.0019	0.00025	0.52	0.0016	0.0000050	1.1	0.00003
0.00036	0.00025	0.32	0.00049	0.0000050	1.0	0.00003
0.029	0.00024	0.72	0.00049	0.000005	1.0	0.00002
0.0017	0.00026	0.43	0.0034	0.0000050	1.0	0.00003
0.00006	0.0085	0.5	0.0012	0.000005	1.0	0.00005
0.0018	0.00025	0.34	0.00051	0.000005	1.0	0.00003
0.00003	0.00025	0.38	0.00049	0.000005	1.0	0.00003
0.00017	0.00025	0.04	0.0005	0.0000050	1.0	0.00003
0.00002	0.00024	0.14	0.00069	0.000005	1.0	0.00002
0.00008	0.00025	0.3	0.00051	0.000005	1.0	0.00003
0.00043	0.00024	0.26	0.00049	0.000005	1.0	0.00002
0.011	0.00026	0.03	0.0005	0.000005	2.31	0.00003
0.005	0.00024	0.56	0.00049	0.000005	1.0	0.00002
0.00062	0.00024	0.66	0.00074	0.000005	18	0.00002
0.00007	0.04	0.46	0.0041	0.00001	1.0	0.00007
0.0012	0.00022	0.21	0.00044	0.000004	1.1	0.00002
0.0027	0.00024	0.51	0.00042	0.000004	1.0	0.00002
0.00081	0.00024	1.48	0.00046	0.000005	8.6	0.00002
0.00064	0.00024	1.56	0.00048	0.000005	11.6	0.00002
0.003	0.00024	0.82	0.00051	0.000005	7.6	0.00002
0.0061	0.00024	0.33	0.0006	0.000005	1.0	0.00002

Mo (mg/L)	Ni (mg/L)	K (mg/L)	Se (mg/L)	Ag (mg/L)	Na (mg/L)	Tl (mg/L)
0.00167	0.00052	7.81250	0.00102	0.00001	2.04167	0.00011
0.00208	0.00073	6.97917	0.00098	0.00001	3.75000	0.00010
0.00208	0.00050	7.47917	0.00100	0.00001	2.29167	0.00009
0.00119	0.00050	1.29167	0.00117	0.00001	2.08333	0.00016
0.03750	0.00054	3.31250	0.00106	0.00001	54.16667	0.00005
0.00396	0.00050	1.12500	0.00104	0.00001	5.20833	0.00005
0.00208	0.00050	1.10417	0.00104	0.00001	4.37500	0.00005
0.00271	0.00052	0.95833	0.00106	0.00001	6.04167	0.00005
0.00048	0.00052	1.62500	0.00104	0.00001	22.91667	0.00005
0.00081	0.00048	4.33333	0.00098	0.00001	13.12500	0.00005
0.00011	0.00054	0.41667	0.00563	0.00001	2.02083	0.00010
0.00396	0.00052	1.08333	0.00333	0.00001	2.29167	0.00005
0.00075	0.00052	0.66667	0.00102	0.00001	2.08333	0.00005
0.06042	0.00050	1.50000	0.00102	0.00001	2.08333	0.00005
0.00354	0.00054	0.89583	0.00708	0.00001	2.08333	0.00005
0.00013	0.01771	1.04167	0.00250	0.00001	2.08333	0.00011
0.00375	0.00052	0.70833	0.00106	0.00001	2.08333	0.00005
0.00007	0.00052	0.79167	0.00102	0.00001	2.08333	0.00005
0.00035	0.00052	0.08333	0.00104	0.00001	2.08333	0.00005
0.00005	0.00050	0.29167	0.00144	0.00001	2.08333	0.00005
0.00017	0.00052	0.62500	0.00106	0.00001	2.08333	0.00005
0.00090	0.00050	0.54167	0.00102	0.00001	2.08333	0.00005
0.02292	0.00054	0.06250	0.00104	0.00001	4.81250	0.00005
0.01042	0.00050	1.16667	0.00102	0.00001	2.08333	0.00005
0.00129	0.00050	1.37500	0.00154	0.00001	37.50000	0.00005
0.00014	0.08333	0.95833	0.00854	0.00003	2.08333	0.00014

Mo (mg/L)	Ni (mg/L)	K (mg/L)	Se (mg/L)	Ag (mg/L)	Na (mg/L)	Tl (mg/L)
0.00629	0.00437	1.85497	0.00191	0.00001	7.21635	0.00007
0.01378	0.01645	2.24222	0.00202	0.00000	12.45620	0.00003

Sn (mg/kg/week)	V (mg/kg/week)	Zn (mg/kg/week)
0.00005	0.00025	0.00052
0.00005	0.00023	0.00051
0.00005	0.00024	0.0005
0.00005	0.00024	0.0008
0.00005	0.0045	0.00056
0.00005	0.0022	0.00069
0.00005	0.0027	0.0008
0.00005	0.0019	0.00074
0.00005	0.0027	0.001
0.00005	0.00066	0.00056
0.00005	0.00025	0.00071
0.00005	0.00025	0.00094
0.00005	0.00025	0.00081
0.0019	0.00037	0.00049
0.0019	0.00025	0.00052
0.00014	0.00024	0.11
0.0019	0.00031	0.00052
0.0016	0.00047	0.0005
0.0013	0.00026	0.00055
0.00033	0.00024	0.06
0.0014	0.00076	0.00051
0.0014	0.00051	0.00049
0.00084	0.0012	0.00057
0.00095	0.00025	0.00052
0.0012	0.00024	0.00051
0.00013	0.00065	0.014
0.00091	0.00025	0.00059
0.00009	0.00078	0.00045
0.00034	0.00024	0.00051
0.0013	0.00024	0.00047
0.00076	0.00028	0.00055
0.00049	0.00024	0.00054

Sn (mg/L)	V (mg/L)	Zn (mg/L)
0.00010	0.00052	0.00108
0.00010	0.00048	0.00106
0.00010	0.00050	0.00104
0.00010	0.00050	0.00167
0.00011	0.00938	0.00117
0.00010	0.00458	0.00144
0.00011	0.00563	0.00167
0.00010	0.00396	0.00154
0.00011	0.00563	0.00208
0.00010	0.00138	0.00117
0.00011	0.00052	0.00148
0.00011	0.00052	0.00196
0.00011	0.00052	0.00169
0.00396	0.00077	0.00102
0.00396	0.00052	0.00108
0.00029	0.00050	0.22917
0.00396	0.00065	0.00108
0.00333	0.00098	0.00104
0.00271	0.00054	0.00115
0.00069	0.00050	0.12500
0.00292	0.00158	0.00106
0.00292	0.00106	0.00102
0.00175	0.00250	0.00119
0.00198	0.00052	0.00108
0.00250	0.00050	0.00106
0.00027	0.00135	0.02917

Sn (mg/L)	V (mg/L)	Zn (mg/L)
0.00125	0.00177	0.01589
0.00149	0.00224	0.04999

Sample ID	Final pH	Alkalinity (Hardness	Cl (mg/L)	F (mg/L)	SO4 (mg/L	Al (mg/L)
Tertiary Average	7.23346	65.94551	73.97123	0.52965	0.06226	27.97276	0.07996
Tertiary Standard Deviation	1.31771	51.00362	88.06817	0.11383	0.09141	83.76094	0.21158
Pebble West Average	6.58471	18.52574	59.24032	0.51716	0.11998	60.77206	0.31828
Pebble West Standard Deviation	1.67768	16.37715	51.91511	0.01101	0.11525	68.42064	0.85073
Pebble East Average	4.78667	9.89583	21.89809	0.90799	0.10984	51.90104	0.38033
Pebble East Standard Deviation	1.92981	14.13334	23.14911	0.90908	0.15710	51.97812	0.50777

Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)	Co (mg/L)
0.00212	0.00274	0.05724	0.00031	0.00054	0.01771	0.00022	21.28205	0.00055	0.00392
0.00190	0.00419	0.08242	0.00049	0.00017	0.01220	0.00064	31.58837	0.00017	0.01570
0.00307	0.00149	0.01363	0.00033	0.00069	0.01588	0.00040	12.72059	0.00069	0.00703
0.00180	0.00181	0.00870	0.00029	0.00040	0.00854	0.00070	8.91111	0.00040	0.01455
0.00078	0.00800	0.00452	0.00055	0.00063	0.01253	0.00322	6.30208	0.00157	0.00968
0.00180	0.01891	0.00556	0.00061	0.00027	0.00525	0.00829	5.33825	0.00230	0.01196

Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	K (mg/L)	Se (mg/L)
0.00320	0.13982	0.00012	5.06490	0.10151	0.00001	0.00629	0.00437	1.85497	0.00191
0.00611	0.48374	0.00015	7.48766	0.39900	0.0000003	0.01378	0.01645	2.24222	0.00202
1.59890	1.67132	0.00017	6.69240	0.72886	0.00001	0.00178	0.00681	1.41054	0.00380
3.24694	6.04156	0.00029	8.68302	1.56528	0.000002	0.00184	0.01433	0.72292	0.00566
1.41621	10.19514	0.00035	1.49826	0.33865	0.00001	0.00427	0.01049	0.96181	0.00324
2.16086	16.05146	0.00041	3.40051	1.07447	0.0000003	0.00699	0.01677	0.68958	0.00244

Ag (mg/L)	Na (mg/L)	Tl (mg/L)	S (mg/L)	V (mg/L)	Zn (mg/L)
0.00001	7.21635	0.00007	0.00125	0.00177	0.01589
0.000003	12.45620	0.00003	0.00149	0.00224	0.04999
0.00003	2.05392	0.00041	0.00014	0.00068	0.05558
0.00004	0.03042	0.00098	0.00008	0.00038	0.10798
0.00002	2.06597	0.00009	0.00187	0.00244	0.47857
0.00001	0.06014	0.00010	0.00215	0.00556	1.36182

TABLE 11-46

Results from Static Tests on Representative Tailings Samples, First Three Rounds of Meta

Sample ID	Product	Paste pH (Std. Units)	Total S (%)	Sulfate (%)	Sulfide (%)	AP (kg $CaCO_3$/t)
July 2004 Set						
1st Bulk Cl, Sc, TLS F66	Non-pyritic tails	7.8	0.1	0.0	0.1	2.2
1st Bulk Cl, Sc, TLS F67	Non-pyritic tails	7.8	0.1	0.1	0.1	2.8
1st Bulk Cl, Sc, TLS F68	Non-pyritic tails	7.9	0.1	0.0	0.1	3.4
1st Bulk Cl, Sc, TLS F69	Non-pyritic tails	7.7	0.1	0.0	0.1	3.1
Knelson TLS F66	Knelson TLS	8.0	0.1	0.0	0.1	2.5
Knelson TLS F67	Knelson TLS	8.2	0.1	0.0	0.1	4.1
Knelson TLS F68	Knelson TLS	8.1	0.1	0.0	0.1	3.1
Knelson TLS F69	Knelson TLS	8.0	0.1	0.0	0.1	2.5
RE 1st Bulk Cl, Sc, TLS F66	Non-pyritic tails	7.8	-	-	-	-
RE Knelson TLS F69	Knelson TLS	8.0	-	-	-	-
January 2005 Set						
Feed 1 Scavenger Tails	Scavenger	8.8	0.15	-0.01	0.15	4.7
Feed 1 Bulk Cleaner Tails	Bulk Cleaner	8.8	0.23	0.01	0.22	6.9
Feed 1 Scavenger Tails + Bulk Cleaner Tails	Non-pyritic tails	8.5	0.18	0.01	0.17	5.3
Feed 2 Scavenger Tails	Scavenger	8.6	0.17	-0.01	0.17	5.3
Feed 2 Bulk Cleaner Tails	Bulk Cleaner	8.3	0.31	-0.01	0.31	9.7
Feed 2 Scavenger + Bulk Cleaner Tails	Non-pyritic tails	8.9	0.18	0.02	0.16	5.0
November 2005 Set						
LT C1 Combined Rougher Tailir	Rougher	8.5	0.16	0.02	0.14	4.4
LT C1 Combined Pre-Cleaner Tailings	Pre-cleaner	7.8	1.82	0.09	1.73	54.1
LT C1 Calculated	Non-pyritic tails	-	0.29	0.03	0.26	8.16
LT C2 Combined Rougher Tailir	Rougher	8.6	0.09	0.01	0.08	2.5
LT C2 Combined Pre-Cleaner Tailings	Pre-cleaner	8.1	1.72	0.03	1.69	52.8
LT C2 Calculated	Non-pyritic tails	-	0.21	0.01	0.20	6.33
LT C3 Combined Rougher Tailir	Rougher	8.7	0.17	0.01	0.16	5.0
LT C3 Combined Pre-Cleaner Tailings	Pre-cleaner	7.5	3.61	0.09	3.52	110.0
LT C3 Calculated	Non-pyritic tails	-	0.43	0.02	0.42	12.99
LT C4 Combined Rougher Tailir	Rougher	8.8	0.24	-0.01	0.24	7.5
LT C4 Combined Pre-Cleaner Tailings	Pre-cleaner	7.9	4.19	0.07	4.12	128.8
LT C4 Calculated	Non-pyritic tails	-	0.54	0.00	0.54	16.73

lurgical Testing, Pebble West Zone

Fizz Rating (Unity)	$NP_{Modified}$ (kg $CaCO_3$/t)	TIC (%)	TIC (kg $CaCO_3$/t)	NP/AP (ratio)	24 hr pH	Ag (mg/kg)	As (mg/kg)	Cd (mg/kg)	Co (mg/kg)
					-				
Strong	11.6	-	-	5.3	-	0.66	15	0.24	4
Strong	11.3	-	-	4.0	-	0.68	15	0.28	4.2
Strong	12.0	-	-	3.5	-	0.76	12	0.08	7.1
Strong	8.1	-	-	2.6	-	0.69	12	0.13	8.4
Strong	7.9	-	-	3.2	-	0.39	12	0.07	2.4
Strong	9.8	-	-	2.4	-	0.51	14	0.18	2.7
Strong	10.4	-	-	3.3	-	0.38	11	0.03	5.2
Strong	6.5	-	-	2.6	-	0.37	9	0.06	6.1
Strong	11.8	-	-	-	-	-	-	-	-
Strong	6.8	-	-	-	-	-	-	-	-
None	19.9	0.35	29.2	4.2	1.76	0.49	20	0.15	4.4
None	19.6	0.36	30.0	2.9	1.85	0.82	29	0.25	5.5
None	17.4	0.34	28.3	3.3	1.87	0.52	20	0.15	4.5
None	24.4	0.48	40.0	4.6	1.80	0.42	19	0.11	4.8
None	23.3	0.46	38.3	2.4	1.78	0.84	29	0.19	6.3
None	25.9	0.49	40.8	5.2	1.86	0.52	20	0.18	5.4
None	14.8	0.3	25.0	3.4	1.58	0.47	14.8	0.06	4.3
None	16.1	0.34	28.3	0.3	1.78	2.17	50.8	0.17	28.4
None	14.90	0.30	25.25	1.8	-	0.6	18	0.07	6.13
None	16.9	0.53	44.2	6.8	1.83	0.28	8.8	0.13	5.3
None	21.8	0.75	62.5	0.4	1.87	2.04	45.9	0.4	33.6
None	17.27	0.55	45.56	2.7	-	0.41	12	0.15	7.45
None	17.2	0.46	38.3	3.4	1.80	0.26	27.2	0.09	4
None	12.5	0.45	37.5	0.1	1.77	2.12	169	0.24	45.9
None	16.84	0.46	38.27	1.3	-	0.4	38	0.10	7.19
None	24.9	0.41	34.2	3.3	1.81	0.27	13.2	0.07	3.8
None	18.6	0.32	26.7	0.1	1.76	1.3	57.9	0.11	39
None	24.42	0.40	33.60	1.5	-	0.35	17	0.07	6.48

Cr (mg/kg)	Cu (mg/kg)	Hg (mg/kg)	Mn (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Pb (mg/kg)	Sb (mg/kg)	Se (mg/kg)	Tl (mg/kg)
273	995	0.56	316	53	142.5	33.8	0.86	1	0.11
276	693	0.5	492	31	148	88.4	0.61	0.7	0.19
271	461	0.36	463	47	136	17.2	1.1	0.8	0.35
196	632	0.35	571	41	98.5	7.8	0.79	0.8	0.33
160	652	0.18	238	52	66.9	19.1	0.67	0.7	0.07
166	564	0.1	390	29	74.9	58	0.58	0.5	0.15
163	338	0.18	378	36	71.2	8.8	0.74	0.6	0.31
135	403	0.19	490	38	57.4	4.8	0.49	0.6	0.25
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
69	853	0.02	348	92	12.7	11.5	1.16	1.3	0.33
68	1,265	0.03	394	45	15.9	17.7	1.67	1.4	0.41
59	889	0.02	351	40	13.7	12.6	1.18	1.2	0.33
58	575	0.02	398	60	14.7	8.6	1.02	1	0.29
54	998	0.04	455	57	20.5	13.7	1.53	1.6	0.35
61	636	0.03	417	55	16.7	10.2	1.05	1.3	0.36
112	380	0.02	340	41.6	16.2	14.6	2	1.8	0.34
451	1,560	0.08	491	101	255	37.2	5.41	7.4	0.52
137.79	470	0.02	351.49	46	34.37	16.32	2.26	2.2	0.35
87	288	0.09	406	44.6	13.4	6.8	0.39	1	0.23
670	2,050	0.06	689	188	395	34.9	1.82	6.3	0.33
131.36	422	0.09	427.53	55	42.43	8.94	0.5	1.4	0.24
85	241	0.04	641	27.2	11.9	6.1	0.61	0.8	0.45
748	1,585	0.19	880	153	452	25.5	3.12	8.8	1.2
135.45	343	0.05	659.18	37	45.39	7.58	0.8	1.4	0.51
77	261	0.03	492	21.4	12.2	4.6	0.39	0.7	0.49
598	853	0.1	554	87.9	363	14.1	1.2	7.3	0.85
116.64	306	0.04	496.72	26	38.89	5.32	0.45	1.2	0.52

Zn (mg/kg)
44
42
45
58
30
32
33
43
-
-
38
47
38
37
45
43
29
52
31
44
97
48
39
73
42
39
48
40

TABLE 11-47

Results from Static Tests on Representative Tailings Samples, Metallurgical Testing durin

Sample ID	Paste pH	C (T) (%)	CO_2 (%)	TIC ($CaCO_3$)	S (T) (%)	S (SO_4) (%)	S (S-2) (%)
Pebble West Zone							
11840-003 bulk cleaner	7.95	0.45	1.1	25.0	0.78	0.03	0.75
11840·003 pyrite (Fig2)	6.60	0.52	1.3	29.5	1.44	0.2	1.24
11840·003 bulk float (Fig2)	7.92	0.52	1.1	25.0	0.17	0.03	0.14
11840·003 Phase II sands	8.55	0.37	1	22.7	0.26	0.01	0.25
11840·003 Phase II OF	8.33	0.48	1.1	25.0	0.1	0.01	0.09
Pebble East Zone							
PP08-3365	7.95	0.06	0.2	4.55	0.23	0.02	0.21
PP08-3607	8.11	0.07	0.3	6.82	0.17	0.02	0.15
PP08·3610	7.99	0.08	0.2	4.55	0.09	0.04	0.05
PP08·3614	8.18	0.1	0.3	6.82	0.11	0.02	0.09
PP08-3849	8.45	0.06	0.2	4.55	0.11	0.01	0.1
PP08-3850	8.58	0.05	0.2	4.55	0.29	0.02	0.27
11486-003	7.93	0.07	0.3	6.8	0.15	0.04	0.11
11486-005	7.89	0.08	0.3	6.8	0.16	0.05	0.11
11480-006	8.57	0.06	0.3	6.8	0.17	0.02	0.15
11846-003 bulk	8.41	0.06	0.3	6.8	0.12	0.01	0.11
11846·003 OF	7.85	0.07	0.3	6.8	0.17	0.06	0.11
11846·003 UF	8.72	0.05	0.2	4.5	0.21	0.01	0.2

g 2008, Pebble West and East Zones

AP ($CaCO_3$)	NP ($CaCO_3$)	Net NP	NP/AP (ratio)	Fizz Test (visual)	Ag (mg/kg)	Al (%)	As (mg/kg)	Au (mg/kg)	B (mg/kg)
23.4	17.7	-5.7	0.8	Slight	1.05	1.42	46.4	<0.2	<10
38.8	23.0	-15.8	0.6	Slight	1.46	1.27	63.2	0.2	<10
4.4	22.3	17.9	5.4	Slight	0.33	1.29	12.6	<10	<10
7.8	21.1	13.3	2.7	Slight	0.29	0.97	15.9	<0.2	<10
2.8	25.2	22.4	9.0	Slight	0.28	1.44	8.8	<0.2	<10
6.56	4.6	-2.0	0.7	None	0.57	0.93	7.4	< 0.2	< 10
4.69	5.7	1.0	1.2	None	0.75	1.1	9.1	< 0.2	< 10
1.56	6.3	4.7	4.0	None	0.44	0.48	6.4	< 0.2	< 10
2.81	5.7	2.9	2.0	None	0.3	0.33	4.2	< 0.2	< 10
3.13	6.2	3.1	2.0	None	0.23	0.44	4.2	< 0.2	< 10
8.44	6.3	-2.1	0.7	None	0.45	0.96	9	< 0.2	< 10
3.4	6.2	2.8	1.8	Slight	0.38	0.51	14	< 0.2	< 10
3.4	6.7	3.3	1.9	None	0.57	0.72	12	< 0.2	< 10
4.7	6.2	1.5	1.3	Slight	0.28	0.54	113	< 0.2	< 10
3.4	7.2	3.8	2.1	Slight	0.29	0.64	5.5	< 0.2	< 10
3.4	8.3	4.9	2.4	None	0.55	0.73	12.6	< 0.2	< 10
6.3	7.0	0.8	1.1	Slight	0.26	0.47	12.2	< 0.2	< 10

Ba (mg/kg)	Be (mg/kg)	Bi (mg/kg)	Ca (%)	Cd (mg/kg)	Ce (mg/kg)	Co (mg/kg)	Cr (mg/kg)	Cs (mg/kg)	Cu (mg/kg)
40	0.64	0.7	0.85	0.31	30.7	8.2	43	4.91	1180
40	0.53	1.03	1.06	0.19	31.2	12.7	130	4.06	506
50	0.56	0.2	1.1	0.13	28.7	4.4	53	4.02	312
40	0.34	0.25	0.8	0.16	17.7	3.4	71	2.51	476
50	0.56	0.44	1.07	0.1	29.1	4	46	4.28	142
20	0.24	0.26	0.28	0.12	16.1	4.8	33	2.46	967
20	0.29	0.76	0.3	0.11	19.75	5.1	38	2.92	788
30	0.23	0.86	0.35	0.09	11.25	3.5	11	1.64	308
20	0.2	0.28	0.29	0.08	7.97	2.5	6	1.22	323
30	0.18	0.76	0.27	0.1	7.22	2.2	141	0.84	414
20	0.26	0.41	0.25	0.1	15.4	5.3	108	1.75	1040
20	0.29	0.31	0.29	0.13	11.15	3.6	24	1.49	512
30	0.34	1.3	0.35	0.11	15.6	4.8	34	1.89	465
20	0.22	0.35	0.26	0.12	9.55	2.9	101	0.93	577
30	0.25	0.26	0.34	0.09	13.45	3	45	1.47	435
30	0.33	1.98	0.35	0.13	18.15	5.1	48	2.15	483
20	0.19	0.5	0.25	0.15	9.89	3.3	78	0.88	532

Fe (mg/kg)	Ga (mg/kg)	Ge (mg/kg)	Hf (mg/kg)	Hg (mg/kg)	In (mg/kg)	K (%)	La (mg/kg)	Li (mg/kg)	Mg (mg/kg)
3.07	6.68	0.09	0.07	0.1	0.03	0.7	15.2	7.3	1
3.97	5.26	0.1	0.08	0.08	0.032	0.67	15.1	7.2	0.92
2.8	5.53	0.09	0.06	0.03	0.019	0.73	13.7	7.5	1.05
2.15	4.47	0.06	0.06	0.04	0.014	0.61	9.1	4.5	0.8
2.65	6.03	0.06	0.07	0.03	0.017	0.72	15	6.7	1.05
1.32	4.21	0.06	0.02	< 0.01	0.015	0.43	7.5	14.9	0.8
1.44	5.19	0.06	0.02	0.01	0.016	0.51	9.3	18.4	0.91
0.85	2.01	< 0.05	0.02	< 0.01	0.014	0.17	5.7	6.1	0.28
0.59	1.39	< 0.05	0.02	< 0.01	0.01	0.11	3.9	4.7	0.19
0.57	1.64	< 0.05	0.02	< 0.01	0.009	0.19	3.6	4.4	0.17
1.18	4.6	0.05	0.03	< 0.01	0.022	0.5	7.3	15.8	0.7
0.8	2.29	0.05	0.02	< 0.01	0.011	0.19	5.4	9.6	0.31
1.1	3.1	0.06	0.02	0.01	0.012	0.26	7.5	10.8	0.42
0.68	2.12	0.05	0.02	0.01	0.009	0.24	4.6	7	0.26
0.85	2.57	< 0.05	0.02	0.01	0.009	0.28	6.8	7.8	0.37
1.2	3.19	< 0.05	0.02	0.06	0.017	0.31	9.1	9.5	0.44
0.67	1.89	< 0.05	0.02	0.01	0.01	0.23	4.9	5.3	0.24

Mn (mg/kg)	Mo (mg/kg)	Na (%)	Nb (mg/kg)	Ni (mg/kg)	P (mg/kg)	Pb (mg/kg)	Rb (mg/kg)	Re (mg/kg)	S (%)
474	65.2	0.05	0.14	22.1	850	14.8	45	0.154	0.8
607	25.4	0.04	0.18	27.8	890	16.3	36	0.049	1.45
532	24.8	0.05	0.14	13.7	1,350	3.7	39.4	0.045	0.22
394	41.7	0.03	0.14	11.3	870	3.3	37.9	0.086	0.26
520	10.5	0.03	0.13	14.1	1,320	3.7	45.3	0.022	0.1
113	59.1	0.01	0.13	20.1	290	3.9	22.4	0.104	0.24
127	55	0.01	0.2	23.5	340	5.6	25.9	0.096	0.17
126	21	0.01	0.11	8.5	320	12.6	8.4	0.036	0.1
97	14.2	0.01	0.11	6.6	270	7.5	5.6	0.025	0.09
97	21.7	0.01	0.13	6.3	240	4.3	7.8	0.03	0.1
95	70.1	0.01	0.13	20.6	260	3.7	30.1	0.111	0.29
103	31.7	0.01	0.14	8.7	270	7.9	11	0.057	0.18
131	33.3	0.01	0.17	12.2	310	13.2	12.4	0.057	0.19
93	57.9	0.01	0.11	7.8	260	5.1	11.5	0.093	0.21
116	36.8	0.01	0.12	9.3	290	3.6	15.1	0.058	0.11
133	34.5	0.01	0.17	13.6	310	13.5	18.6	0.06	0.17
84	78.6	0.01	0.11	7.1	230	6.5	11.8	0.133	0.19

Sb (mg/kg)	Sc (mg/kg)	Se (mg/kg)	Sn (mg/kg)	Sr (mg/kg)	Ta (mg/kg)	Te (mg/kg)	Th (mg/kg)	Ti (mg/kg)	Tl (mg/kg)
1.52	11.5	2.3	1.1	104	<0.01	0.46	2.6	0.075	0.49
2.06	9.2	3.1	1.7	72.8	<0.01	0.92	2.6	0.072	0.55
0.64	10.5	0.7	0.8	82.1	<0.01	0.12	2.2	0.097	0.37
0.79	8.5	0.8	0.5	41.8	<0.01	0.14	1.6	0.082	0.32
0.41	11.1	0.4	0.8	80.6	<0.01	0.12	2.3	0.09	0.34
0.33	6.6	1.6	0.6	56.2	<0.01	0.1	1.8	0.066	0.25
0.4	7.8	1.3	0.9	61	<0.01	0.1	2.2	0.071	0.27
0.37	1.9	0.8	0.7	73.5	<0.01	0.14	1.4	0.01	0.16
0.27	1.3	0.7	0.4	61.5	<0.01	0.08	1	0.009	0.11
0.2	1.4	0.8	0.2	45.3	<0.01	0.06	1	0.01	0.13
0.29	7	1.7	0.5	46.5	<0.01	0.08	1.9	0.066	0.31
0.39	2.9	1.1	0.5	53	<0.01	0.12	1.2	0.02	0.14
0.51	3.5	1.6	0.8	67.7	<0.01	0.21	1.6	0.021	0.2
0.34	2.4	1.3	0.3	39.8	<0.01	0.08	1	0.019	0.17
0.53	3.1	0.8	0.4	55.6	<0.01	0.11	1.3	0.024	0.15
0.55	3.8	1.4	0.9	66.8	<0.01	0.32	1.7	0.021	0.21
0.35	2.2	1.1	0.3	37	<0.01	0.08	1	0.017	0.14

U (mg/kg)	V (mg/kg)	W (mg/kg)	Y (mg/kg)	Zn (mg/kg)	Zr (mg/kg)
0.74	118	0.68	11.6	238	2.7
0.87	121	1.06	10.5	191	2.4
0.67	124	0.5	13.35	138	2
0.43	96	8.07	9.39	51	1.4
0.69	123	2.78	14.05	149	2
0.26	123	0.39	7.89	125	<0.5
0.29	149	0.44	8.78	155	0.5
0.28	56	0.73	6.02	146	<0.5
0.2	36	0.91	4.86	90	<0.5
0.19	38	0.74	4.24	53	0.5
0.24	112	0.83	7.63	96	0.6
0.21	57	0.8	5.16	158	0.5
0.27	81	0.79	6.48	267	0.5
0.17	51	0.82	4.49	74	<0.5
0.22	68	1.15	5.67	149	<0.5
0.31	84	29.8	7.48	260	0.6
0.17	47	3.23	4.58	71	<0.5

TABLE 11-48
Analytical Results for Representative Tailings Supernatants

Sample ID	Product	Type	pH	Sulfate (mg/L)	Alkalinity (mg $CaCO_3$/L)	Hardness mg/kg	Thiosalts (mg S_2O_3/L)
July 2004 Set							
Bulk Cl. Sc Tails F66 (3-6)	Non-pyritic	Lock-cycle Supernatant	7.87	174	51.8	178.08	-
Bulk Cl. Sc Tails F67 (3-6)	Non-pyritic	Lock-cycle Supernatant	7.96	152	55.8	164.27	-
Bulk Cl. Sc Tails F68 (3-6)	Non-pyritic	Lock-cycle Supernatant	7.96	191	74.8	203.74	-
Bulk Cl. Sc Tails F69 (3-6)	Non-pyritic	Lock-cycle Supernatant	8.15	107	95.8	138.17	-
Bulk Ro. Sc Tails F66 (3-6)	Scavenger	Lock-cycle Supernatant	7.64	216	37.5	202.186	-
Bulk Ro. Sc Tails F67 (3-6)	Scavenger	Lock-cycle Supernatant	7.8	216	42.8	193.278	-
Bulk Ro. Sc Tails F68 (3-6)	Scavenger	Lock-cycle Supernatant	7.86	214	55.5	195.827	-
Bulk Ro. Sc Tails F69 (3-6)	Scavenger	Lock-cycle Supernatant	8.08	113	83.8	125.141	-
P0410-Sample 1- Cu-Moly O/F	Copper-moly Overflow	Supernatant	7.68	1,265	51.5	406.684	146
P0410-Sample 2- Cu-Moly O/F	Copper-moly Overflow	Supernatant	7.02	2,436	29.8	1768.115	826
F97-1- Ro,Sc, T/S	Scavenger	Lock-cycle Supernatant	8.16	317	60.5	340.543	-
F97-2- Ro,Sc, T/S	Scavenger	Lock-cycle Supernatant	8.25	329	54.8	365.419	-

F97-3- Ro,Sc, T/S	Scavenger	Lock-cycle Supernatant	8.15	389	52.3	388.617	-
F97-4- Ro,Sc, T/S	Scavenger	Lock-cycle Supernatant	8.07	329	52.3	329.026	-
F97-5- Ro,Sc, T/S	Scavenger	Lock-cycle Supernatant	8.25	369	54.8	379.806	-
F97-6- Ro,Sc, T/S	Scavenger	Lock-cycle Supernatant	8.27	339	51.3	375.337	-
F97-1-1st, Bulk, Cl, Sc, T/S	Scavenger Non-pyritic	Lock-cycle Supernatant	8.22	222	72.5	236.28	-
F97-2-1st, Bulk, Cl, Sc, T/S	Non-pyritic	Lock-cycle Supernatant	8.14	282	101.5	315.67	-
F97-3-1st, Bulk, Cl, Sc, T/S	Non-pyritic	Lock-cycle Supernatant	8.27	291	87.8	331.98	-
F97-4-1st, Bulk, Cl, Sc, T/S	Non-pyritic	Lock-cycle Supernatant	8.25	292	91.3	342.8	-
F97-5-1st, Bulk, Cl, Sc, T/S	Non-pyritic	Lock-cycle Supernatant	8.21	310	101.3	389.4	-
F97-6-1st, Bulk, Cl, Sc, T/S	Non-pyritic	Lock-cycle Supernatant	8.28	298	85.0	359.48	-
January 2005 Set							
Feed 1 Bulk Cleaner	Bulk Cleaner	Supernatant	7.48	333	55.8	445.93	-10
Feed 1 Scavenger	Scavenger	Supernatant	7.32	389	68.8	425.993	-10
Feed 1 Combined Scav. & Bulk Clean.	Non-pyritic	Supernatant	7.66	383	76.8	434.29	-10
Feed 2 Scavenger	Bulk Cleaner	Supernatant	7.82	339	69.0	372.52	-10
Feed 2 Bulk Cleaner	Scavenger	Supernatant	7.34	294	55.0	354.75	-10
Feed 2 Combined Scav. & Bulk Cleaner	Non-pyritic	Supernatant	7.77	283	48.5	287.4	-10
Feed 1 Scavenger	Bulk Cleaner	Aged Supernatant	8.12	545	96.8	549.65	-10
Feed 1 Bulk Cleaner	Scavenger	Aged Supernatant	7.96	445	87.5	486.41	-10
Feed 1 Scav. & Bulk Clean.	Non-pyritic	Aged Supernatant	8.08	408	111.3	471.84	-10
Feed 2 Scavenger	Scavenger	Aged Supernatant	7.98	414	83	456.93	-10
Feed 2 Bulk Cleaner	Bulk Cleaner	Aged Supernatant	8.02	316	94.8	328.652	-10
Feed 2 Scav. & Bulk Clean.	Non-pyritic	Aged Supernatant	7.98	451	73.5	468.006	-10

Feed 1 Combined Tails	Non-pyritic	3 mo. Aged Supernatant	8.01	534	79.5	563.26	-10
Feed 2 Combined Tails	Non-pyritic	2 mo. Aged supernatant	8.19	463	106.5	565.06	-10
November 2005 Set							
LTC1 Combined Rougher	Rougher	Supernatant	7.86	66	91.5	139.785	28
LTC1 Combined Pre-Cleaner	Pre-Cleaner	Supernatant	7.45	77	77	135.799	-10
LTC1 Calculated	Non-pyritic	Supernatant	7.83	67	90.4	138.49	25
LTC2 Combined Rougher	Rougher	Supernatant	8.06	35	97.75	115.378	-10
LTC2 Combined Pre-Cleaner	Pre-Cleaner	Supernatant	7.71	59	80.25	117.925	40
LTC2 Calculated	Non-pyritic	Supernatant	8.03	37	96.4	115.87	-6
LTC3 Combined Rougher	Rougher	Supernatant	7.70	81	90.75	141.451	40
LTC3 Combined Pre-Cleaner	Pre-Cleaner	Supernatant	7.25	122	58.5	142.475	-10
LTC3 Calculated	Non-pyritic	Supernatant	7.67	84	88.3	141.73	36
LTC4 Combined Rougher	Rougher	Supernatant	7.87	61	96.75	116.329	32
LTC4 Combined Pre-Cleaner	Pre-Cleaner	Supernatant	7.63	97	77.75	130.844	28
	Non-pyritic	Supernatant	7.85	64	95.6	118.53	32
LTC4 Calculated							
Average			7.89958	318.70833	74.83854	322.81554	37.75
Standard Deviation			0.29894	372.10019	20.35322	254.81885	158.01585

Al (mg/L)	Sb (mg/L)	As (mg/L)	Ag (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)
0.115	0.013	0.028	0.0017	0.00011	65	-0.0006	0.00011	0.017
0.103	0.009	0.026	0.00003	0.00005	58	-0.0005	-0.0001	0.01
0.0283	0.013	0.015	-0.00001	0.00006	71	-0.0005	0.00011	0.008
0.0229	0.004	0.003	-0.00001	-0.00005	41	-0.0005	0.00016	0.009
0.0748	0.0109	0.0199	-0.00001	0.00011	75.2	-0.0006	0.00011	0.00896
0.0684	0.00857	0.0203	-0.00001	0.00006	69.8	-0.0006	-0.0001	0.00707
0.0309	0.0113	0.0176	-0.00001	-0.00005	71	-0.0005	0.00015	0.00626
0.0227	0.00431	0.00413	0.00002	-0.00005	40.2	-0.0005	0.00017	0.0118
0.191	0.0396	0.117	-0.0001	-0.0005	159	-0.005	-0.001	-0.001
0.185	-0.001	0.096	-0.0002	-0.001	707	-0.01	-0.002	-0.002
0.0535	0.00569	0.021	-0.00002	0.00023	126	-0.001	-0.0002	0.00917
0.0829	0.00534	0.0207	-0.00002	-0.0001	137	-0.001	-0.0002	0.00751

0.0597	0.00527	0.0192	-0.00002	0.00012	145	-0.001	-0.0002	0.00943
0.0537	0.00581	0.0202	-0.00002	-0.0001	122	-0.001	-0.0002	0.0119
0.0681	0.00552	0.0209	-0.00002	-0.0001	141	-0.001	-0.0002	0.00889
0.0889	0.00496	0.0208	0.00002	-0.0001	141	-0.001	-0.0002	0.00991
0.0508	0.006	0.029	-0.00001	0.00014	85	0.00112	0.00013	0.011
0.0447	0.006	0.03	-0.00002	-0.0001	112	0.0028	-0.0002	0.014
0.0559	0.007	0.03	-0.00002	-0.0001	120	-0.001	-0.0002	0.009
0.0525	0.006	0.029	-0.00002	-0.0001	124	-0.002	-0.0002	0.01
0.0368	0.006	0.027	-0.00002	-0.0001	141	-0.001	0.00028	0.013
0.0532	0.006	0.028	-0.00002	-0.0001	131	-0.001	-0.0002	0.008

0.0121	-0.0001	0.00388	-0.00002	-0.0001	150	-0.001	0.00026	0.00103
0.0188	0.00501	0.0023	-0.00002	0.0001	161	-0.001	-0.0002	0.013
0.0250	0	0.006	-0.00002	-0.0001	146	-0.001	0.0003	0.002
0.0130	0.00357	0.00174	-0.00002	-0.0001	129	-0.001	-0.0002	0.00826
0.0116	0.00256	0.00105	-0.00002	-0.0001	105	-0.001	0.00037	0.00644
0.0262	0.002	0.001	-0.00002	-0.0001	92	-0.001	-0.0002	0.006
0.0604	0.00823	0.0172	-0.00002	-0.0001	201	-0.001	-0.0002	0.0152
0.0220	0.00871	0.0127	-0.00002	-0.0001	178	-0.001	0.00025	0.0119
0.0278	0.00788	0.00605	-0.00002	-0.0001	152	-0.001	-0.0002	0.0142
0.0181	0.00476	0.00282	-0.00002	-0.0001	138	-0.001	0.00025	0.0115
0.0361	0.00419	0.00734	-0.00002	-0.0001	127	-0.001	-0.0002	0.00079
0.0241	0.00576	0.0055	-0.00002	-0.0001	173	-0.001	-0.0002	0.00932

0.0167	0.00534	0.00316	-0.00005	-0.00025	203	-0.0025	-0.0005	0.0171
0.0252	0.00728	0.0117	-0.00005	-0.00025	207	-0.0025	-0.0005	0.0161

0.339	0.00437	0.00887	-0.00001	-0.00005	49.6	-0.0005	-0.0001	0.00733
0.18	0.00607	0.00222	-0.00001	-0.00005	46.3	-0.0005	-0.0001	0.0042
0.37	0.004	0.008	-0.00001	-0.00005	49	-0.0005	-0.0001	0.007
0.0438	0.0012	0.00639	-0.00001	-0.00005	37	-0.0005	-0.0001	0.00193
0.0348	0.00228	0.00111	0.00004	-0.00005	36.1	-0.0005	-0.0001	0.00677
0.043	0.001	0.006	-0.00001	-0.00005	37	-0.0005	-0.0001	0.002
0.0885	0.00309	0.0127	-0.00001	-0.00005	48.2	0.00058	-0.0001	0.00159
0.0381	0.00388	0.00212	-0.00001	-0.00005	45.1	-0.0005	0.00013	0.00155
0.085	0.003	0.012	-0.00001	-0.00005	48	0.0005	-0.00008	0.002
0.138	0.00362	0.0201	-0.00001	-0.00005	41.3	-0.0005	-0.0001	0.00283
0.0749	0.00387	0.00137	0.00004	-0.00005	44.4	-0.0005	-0.0001	0.00274
0.13	0.004	0.019	-0.00001	-0.00005	42	-0.0005	-0.0001	0.003

0.07177	0.00600	0.01719	0.00002	-0.00008	116.00417	-0.00099	-0.00012	0.00776
0.07454	0.00582	0.02122	0.00025	0.00018	101.15904	0.00167	0.00036	0.00485

Fe (mg/L)	Pb (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	K (mg/L)	Se (mg/L)
-0.03	0.00032	3.8	0.0375	0.00002	0.265	-0.0005	21	0.014
-0.03	0.00013	4.7	0.0487	-0.00001	0.051	-0.0005	24	0.007
-0.03	0.00009	6.4	0.0488	-0.00001	0.053	-0.0005	26	0.009
-0.03	0.00016	8.7	0.0736	-0.00001	0.034	-0.0005	31	0.009
-0.03	0.00007	3.46	0.0535	-0.00001	0.353	-0.0005	25.4	0.0171
-0.03	0.00005	4.58	0.0656	-0.00001	0.0706	-0.0005	31.4	0.0095
-0.03	0.00006	4.47	0.0347	-0.00001	0.065	-0.0005	32.5	0.0102
-0.03	0.00014	6.01	0.0578	-0.00001	0.0408	-0.0005	35.1	0.0099
-0.03	-0.0005	2.24	0.00521	-0.0005	0.0426	-0.005	4.47	-0.01
-0.15	-0.001	0.15	0.0024	-0.0005	0.14	-0.01	8	-0.02
-0.03	0.00131	6.23	0.088	0.00002	0.0694	-0.001	27.9	0.0131
-0.03	0.00045	5.59	0.043	0.00002	0.0685	-0.001	27.9	0.014

-0.03	0.00038	6.37	0.0865	-0.00001	0.0761	-0.001	30	0.0161
-0.03	0.00049	5.86	0.085	0.00001	0.0688	-0.001	28.7	0.0142
-0.03	0.0002	6.66	0.0631	-0.00001	0.0732	-0.001	30.1	0.0161
-0.03	0.00023	5.57	0.0457	0.00002	0.07	-0.001	29.6	0.0152
-0.03	0.00015	5.8	0.0656	-0.00001	0.042	-0.0005	18	0.009
-0.03	0.00017	8.7	0.111	-0.00001	0.054	-0.001	24	0.011
-0.03	0.00018	7.8	0.0723	-0.00001	0.056	-0.001	24	0.012
-0.03	-0.0001	8.0	0.103	0.00002	0.053	-0.001	25	0.013
-0.03	0.00011	9.0	0.144	-0.00001	0.056	-0.001	26	0.013
-0.03	0.00011	7.8	0.0836	-0.00001	0.053	-0.001	24	0.012

0.155	0.00152	17.3	0.148	-0.0001	0.0438	0.001	30.3	0.0046
-0.03	-0.0001	5.73	0.065	-0.0001	0.0451	-0.001	35.1	0.0068
2.15	0.0033	16.9	0.149	-0.0001	0.05	-0.001	30	0.007
-0.03	-0.0001	12.2	0.153	-0.0001	0.0443	-0.001	30.5	0.0064
-0.03	-0.0001	22.5	0.27	-0.0001	0.0806	0.002	29.3	0.0034
-0.03	-0.0001	14.0	0.0402	-0.0001	0.025	-0.001	27	0.005
-0.03	-0.0001	11.5	0.0763	-0.00001	0.102	-0.001	40.1	0.0083
-0.03	0.00019	10.1	0.1	-0.00001	0.109	-0.001	38.0	0.0070
-0.03	-0.0001	22.4	0.159	-0.00001	0.0775	-0.001	34.6	0.0042
-0.03	-0.0001	27.3	0.288	-0.00001	0.0671	-0.001	34.3	0.0046
-0.03	0.00013	2.72	0.00637	-0.00001	0.0328	-0.001	28.3	0.0075
-0.03	-0.0001	8.66	0.0839	-0.00001	0.0847	-0.001	40.5	0.0072

-0.03	-0.00025	13.6	0.15	-0.00001	0.0661	-0.0025	38.4	0.0102
-0.03	-0.00025	11.6	0.122	-0.00001	0.0623	-0.0025	31.7	0.0054

-0.03	0.00018	3.85	0.0207	0.00002	0.0588	-0.0005	16.1	0.009
-0.03	0.00014	4.89	0.0213	-0.00001	0.0675	0.0009	13.6	0.0071
-0.03	0.00018	3.9	0.021	0.00001	0.059	-0.00039	16	0.009
-0.03	0.00013	5.58	0.00402	-0.00001	0.058	-0.0005	12.2	0.0041
-0.03	0.00019	6.75	0.0254	-0.00001	0.0903	0.00153	12.9	0.0045
-0.03	0.00013	5.7	0.0056	-0.00001	0.06	-0.00035	12	0.004
-0.03	0.00029	5.11	0.0123	-0.00001	0.0254	-0.0005	24.4	0.0052
-0.03	0.00007	7.25	0.055	-0.00001	0.0568	0.00198	23.5	0.0039
-0.03	0.00027	5.3	0.016	-0.00001	0.028	-0.00031	24	0.005
-0.03	0.00123	3.19	0.00594	-0.00001	0.0181	0.00083	22	0.0037
-0.03	0.00006	4.84	0.0253	-0.00001	0.0594	0.00115	24.8	0.0038
-0.03	0.0011	3.3	0.0074	-0.00001	0.021	0.00085	22	0.004

0.01677	0.00023	8.00125	0.07186	-0.00004	0.06974	-0.00079	25.95146	0.00761
0.31609	0.00062	5.52964	0.06307	0.00010	0.05602	0.00177	8.15573	0.00623

Na (mg/L)	Tl (mg/L)	Zn (mg/L)
9	0.00015	0.0064
8	0.00018	0.0029
13	0.00013	0.0026
14	0.00011	0.0017
11.9	0.00013	0.0015
10.7	0.00018	0.0022
15.7	0.00011	0.0048
16.6	0.00011	0.0025
573	-0.0005	0.033
757	-0.001	0.037
11	0.00017	0.0042
11.9	0.00016	0.0047

12.5	0.0002	-0.002
11	0.00019	-0.002
12.1	0.00018	-0.002
12.2	0.00019	-0.002
7	0.000146	-0.001
9	0.00022	-0.002
9	0.00020	-0.002
10	0.00022	-0.002
11	0.00022	-0.002
10	0.00021	-0.002

20.0	-0.0001	0.0027
18.8	-0.0001	0.0056
19	-0.0001	0.0043
20.8	-0.0001	0.0103
24.4	-0.0001	-0.002
18	-0.0001	0.0037
22.5	0.00019	0.0035
21.7	0.00014	0.0054
19.2	-0.0001	0.0025
27.1	-0.0001	-0.002
19.6	-0.0001	0.011
29	-0.0001	0.0032

30.8	-0.00025	0.0092
20.3	-0.00025	-0.005

15.5	0.00005	0.0021
19	-0.00005	0.0021
16	0.00004	0.0021
15.4	-0.00005	0.0036
22.5	-0.00005	0.0032
16	-0.00005	0.0036
17.2	0.00010	0.0074
22.7	0.00008	0.0027
18	0.00009	0.007
22.6	0.00006	0.0184
26.8	0.00005	0.0015
23	0.00006	0.017

43.78125	0.00002	0.00433
132.40085	0.00021	0.00798

TABLE 11-49

Summary of Average Release Rates for Humidity Cells, Representative Tailings Samples, Pebble East and West Zo

Sample ID	Date Started	Date of Last Interpretative Data Review	Alkalinity (mg/kg/week)	Hardness (mg/kg/week)
S2-Scavenger Tails	11-Feb-05	7-Oct-05	33	36.5
S2-Bulk Cleaner Tails	11-Feb-05	16-Oct-09	34	39.4
S1-Scavenger Tails	11-Feb-05	7-Oct-05	21	24.9
S1-Bulk Cleaner Tails	11-Feb-05	16-Oct-09	24	27.8
PP08-3365	23-Apr-08	14-Oct-09	24	32.0
PP08-3607	23-Apr-08	14-Oct-09	26	37.7
PP08-3610	23-Apr-08	14-Oct-09	26	32.5
PP08-3614	23-Apr-08	14-Oct-09	26	29.4
PP08-3849	23-Apr-08	14-Oct-09	22	22.1
PP08-3850	23-Apr-08	14-Oct-09	22	25.0
11486-003 bulk	22-Oct-08	14-Oct-09	26	27.1
11486-003 OF	22-Oct-08	14-Oct-09	27	40.5
11486-003 UF	22-Oct-08	14-Oct-09	24	24.1
11840-003 bulk float	10-Sep-08	14-Oct-09	42	38.6
11840-003 Phase II sands	22-Oct-08	14-Oct-09	39	36.9
11840-003 OF	22-Oct-08	14-Oct-09	45	41.5
Average			28.8	32.2
Standard Deviation			7.5	6.5

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Cl (mg/kg/week)	F (mg/kg/week)	SO_4 (mg/kg/week)	Al (mg/kg/week)	Sb (mg/kg/week)	As (mg/kg/week)	Ba (mg/kg/week)
0.26	0.087	8.9	0.012	0.0011	0.0041	0.0072
0.24	0.044	11	0.0053	0.00049	0.00072	0.0027
0.25	0.067	7.3	0.067	0.0035	0.017	0.0018
0.26	0.03	7.9	0.014	0.0017	0.0035	0.003
0.23	0.077	9.9	0.0073	0.0004	0.00051	0.0014
0.23	0.085	14	0.0072	0.0005	0.0005	0.0016
0.23	0.57	8.8	0.007	0.00047	0.00035	0.0052
0.23	0.49	5.4	0.0065	0.00045	0.00029	0.0058
0.23	0.35	3.5	0.011	0.00039	0.00033	0.0058
0.24	0.063	7.3	0.0089	0.00035	0.00026	0.0011
0.23	0.49	7.6	0.0066	0.00041	0.0022	0.0039
0.24	0.55	19	0.006	0.00049	0.0027	0.0033
0.24	0.4	4.6	0.0084	0.00068	0.0027	0.0061
0.39	0.066	5.7	0.0053	0.00088	0.0022	0.0071
0.24	0.023	5	0.0056	0.0016	0.0028	0.0086
0.24	0.089	8.8	0.0044	0.00052	0.002	0.0068
0.25	0.218	8.4	0.0114	0.00087	0.00264	0.0045
0.04	0.213	3.9	0.0151	0.00082	0.00404	0.0024

Be (mg/kg/week)	Bi (mg/kg/week)	B (mg/kg/week)	Cd (mg/kg/week)	Ca (mg/kg/week)	Cr (mg/kg/week)	Co (mg/kg/week)
0.00010	0.00025	0.0049	0.00003	11	0.00025	0.00005
0.00010	0.00024	0.0048	0.00002	11	0.00024	0.00005
0.00010	0.00025	0.0049	0.00003	8.6	0.00025	0.00005
0.00010	0.00024	0.0048	0.00002	8.5	0.00024	0.00005
0.00009	0.00023	0.0048	0.00003	12	0.00023	0.00009
0.00009	0.00023	0.0047	0.00003	14	0.00023	0.00010
0.00010	0.00025	0.0053	0.00003	12	0.00025	0.00013
0.00010	0.00024	0.0051	0.00003	11	0.00025	0.00008
0.00010	0.00024	0.0052	0.00003	8.4	0.00024	0.00007
0.00010	0.00024	0.0051	0.00003	9.5	0.00024	0.00009
0.00009	0.00023	0.005	0.00002	10	0.00024	0.00007
0.00010	0.00024	0.0067	0.00002	15	0.00024	0.00018
0.00009	0.00024	0.0057	0.00003	9.1	0.00026	0.00033
0.00009	0.00023	0.0052	0.00002	11	0.00024	0.00005
0.00010	0.00024	0.0049	0.00002	11	0.00025	0.00005
0.00009	0.00023	0.0053	0.00002	12	0.00023	0.00005
0.000095	0.00024	0.0052	0.000025	10.9	0.00024	0.000093
0.000003	0.00001	0.0005	0.000002	1.9	0.00001	0.000073

Cu (mg/kg/week)	Fe (mg/kg/week)	Pb (mg/kg/week)	Mg (mg/kg/week)	Mn (mg/kg/week)	Hg (mg/kg/week)	Mo (mg/kg/week)
0.0027	0.016	0.00003	2.2	0.033	0.000005	0.0051
0.0019	0.015	0.00003	2.9	0.03	0.000005	0.011
0.0014	0.015	0.00003	0.83	0.0079	0.000006	0.0044
0.0026	0.015	0.00003	1.6	0.013	0.000005	0.0079
0.0035	0.014	0.00003	0.49	0.022	0.000005	0.014
0.0047	0.014	0.00003	0.65	0.03	0.000005	0.02
0.0029	0.014	0.00003	0.6	0.033	0.000005	0.017
0.0028	0.014	0.00003	0.46	0.023	0.000005	0.0097
0.0021	0.014	0.00004	0.27	0.026	0.000005	0.0052
0.0029	0.014	0.00004	0.31	0.018	0.000005	0.014
0.0027	0.014	0.00003	0.5	0.024	0.000005	0.014
0.0042	0.014	0.00003	0.72	0.04	0.000005	0.032
0.003	0.014	0.00003	0.34	0.02	0.000005	0.015
0.00093	0.014	0.00003	2.7	0.0029	0.000005	0.03
0.0018	0.014	0.00003	2.3	0.004	0.000005	0.047
0.001	0.014	0.00003	2.8	0.014	0.000005	0.012
0.00257	0.014	0.000031	1.23	0.021	0.0000048	0.0161
0.00104	0.001	0.000004	1.00	0.011	0.0000002	0.0114

Ni (mg/kg/week)	K (mg/kg/week)	Se (mg/kg/week)	Ag (mg/kg/week)	Na (mg/kg/week)	Tl (mg/kg/week)	Sn (mg/kg/week)
0.0003	3.4	0.0005	0.000005	1.1	0.00003	0.00005
0.00028	1.9	0.00053	0.000005	1.1	0.00002	0.00005
0.00025	2.6	0.00049	0.000005	0.99	0.00003	0.00005
0.00026	1.3	0.00048	0.000005	0.96	0.00003	0.00005
0.00025	2.1	0.00098	0.000005	0.92	0.00002	0.00005
0.00029	2.3	0.0012	0.000005	0.94	0.00002	0.00005
0.00029	1.9	0.0011	0.000005	0.96	0.00003	0.00005
0.00028	1.6	0.00092	0.000005	0.94	0.00003	0.00005
0.00025	0.64	0.00053	0.000005	0.93	0.00002	0.00005
0.00026	0.91	0.00055	0.000005	0.95	0.00002	0.00005
0.00023	1.7	0.00076	0.000005	0.93	0.00002	0.0027
0.00026	2.2	0.0013	0.000005	1	0.00002	0.0022
0.00024	0.75	0.00063	0.000005	0.94	0.00002	0.0032
0.00023	2.7	0.00047	0.000005	1.3	0.00002	0.005
0.00024	1.7	0.00047	0.000005	0.95	0.00002	0.0041
0.00024	3.3	0.00054	0.000005	1.3	0.00002	0.0049
0.00026	1.94	0.00072	0.0000048	1.01	0.000024	0.0014125625
0.00002	0.82	0.00029	0.0000001	0.12	0.000002	0.0019371772

V (mg/kg/week)	Zn (mg/kg/week)
0.0006	0.00071
0.00024	0.00061
0.0017	0.00066
0.00062	0.00066
0.00023	0.0018
0.00024	0.0021
0.00025	0.0019
0.00024	0.0018
0.00025	0.0015
0.00025	0.0021
0.00023	0.002
0.00024	0.0027
0.00024	0.0033
0.00024	0.00078
0.00025	0.00091
0.00023	0.00083
0.00038	0.00152
0.00037	0.00082

Table 11-25

Particle Size Analysis of Barrel Test Samples - Tertiary, Pebble East and West Zones

		Screen Assay Results-Percent Retained (by Particle Size)						
Sample ID	**Rock Type[a]**	**1 inch**	**3/4 inch**	**1/2 inch**	**3/8 inch**	**1/4 inch**	**4.75 mm**	**2 mm**
ARLB003	G/D/N	45.10%	16.50%	19.10%	6.80%	5.90%	2.10%	2.30%
ARLB006	G/D/N	48.30%	17.70%	13.20%	5.00%	6.40%	2.50%	3.00%
ARLB001	Y	24.40%	12.40%	20.40%	11.90%	12.00%	62%	7.80%
ARLB002	Y	22.90%	25.30%	22.50%	10.20%	9.20%	3.90%	4.20%

a. See Table 11-1.

mm = millimeter(s).

Table 11-35

Particle Size Analysis of Barrel Test Samples - Tertiary, Pebble East and West Zones

		Screen Assay Results-Percent Retained (by Particle Size)						
Sample ID	**Rock Type[a]**	**1 inch**	**3/4 inch**	**1/2 inch**	**3/8 inch**	**1/4 inch**	**4.75 mm**	**2 mm**
ARLB004	TW	37.3	21.4	15.2	4.8	5.5	2.2	4.3
ARLB005	TY	39.8	18.7	20.5	6.1	5.1	1.9	3.8
ARLB007	TC/TF	34.1	23.8	14.1	7.1	7	3.5	5
ARLBOOS	TC/TF	11.6	22.2	17.6	9.5	10.2	4	9.1
ARLB009	TD	26.2	30.1	18.7	8.1	8.4	3.1	4.4
ARLB010	TA+TB	23.6	17.4	15.8	12.1	11.1	7	8.7

Notes:

a. See Table 11-1.

mm = millimeter(s).

0.86 mm	0.425 mm	0.250 mm	0.150 mm	0.075 mm	<0.075 mm
0.40%	0.60%	0.30%	0.10%	0.40%	0.40%
0.80%	1.40%	0.60%	0.20%	0.60%	0.60%
1.20%	1.40%	0.50%	0.20%	0.80%	1.00%
0.50%	0.50%	0.20%	0.00%	0.30%	0.40%

0.86 mm	0.425 mm	0.250 mm	0.150 mm	0.075 mm	<0.075 mm
1.3	3.3	1.5	0.7	1.5	0.9
0.8	1.2	0.4	0.2	0.6	0.9
1.1	1.9	0.7	0.3	0.8	0.5
2.8	5.4	2.2	1.1	2.5	1.7
0.5	0.4	0.1	0	0.1	0.1
1.6	1.6	0.3	0.1	0.3	0.3