APPENDIX 6B-1

GEOCHEMICAL EVALUATION OF ORE AND WASTE ROCK

INTERIM REPORT ON ML/ARD CHARACTERIZATION
MARY RIVER PROJECT, DEPOSIT NO.1

Submitted to:
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Attention: Mr. Dick Matthews
Vice President of Technical Services

Re: Interim Report – ML/ARD Characterization Deposit No.1, Mary River Project Rev.1, Issued in Support of DEIS

Please find attached a final interim report on the metal leaching and acid rock drainage (ML/ARD) characterization of materials from Mary River Deposit No. 1 of Baffinland Iron Mine site.

The report presents the results and interpretation of geochemical analyses of samples and results available to November 2010.

Please do not hesitate to contact the undersigned should you have any questions.

Yours very truly,

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EXECUTIVE SUMMARY

AMEC was retained by Baffinland Iron Mines Corporation (Baffinland) to conduct environmental studies in support of an environmental impact assessment (EIA) for their proposed iron mine at the Mary River Site. AMEC's work included a metal leaching / acid rock drainage (ML/ARD) characterization study for the project to assist with the management of future ore and waste rock at the site. This report summarizes data collected to date, documents the findings of this work and presents a summary of future and on-going work.

AMEC has evaluated existing geochemical studies and completed additional sampling of rock materials from drill core that are expected to be representative of the waste rock produced during mining. Geochemical characterization of rock materials from this and previous studies has been completed using standardized ML/ARD assessment techniques. In addition, AMEC has evaluated drainage and runoff data from existing stockpiles at the site in order to assess the potential mine drainage quality at the site during mine operations and closure.

A total of 277 drill core waste rock samples (including an additional 180 samples from the current study) were submitted for Acid-base Accounting (ABA) testing. Results of this testing has determined that approximately 86% of the waste rock samples are unlikely to generate acidic drainage in the future. The remainder of the samples were classified as potentially acid generating (PAG) materials.

Based on testing using short term leaching tests, metal leaching from the waste rock materials is expected to be low. Drainage quality expected at the site, based on monitoring of existing ore stockpiles, is expected to be circum-neutral to mildly acidic (pH 5.5 to 6) with generally low metal concentrations. Some elevated metal concentrations observed on site, and particularly manganese, may be related to manganese-bearing siderite that is present in some of the ore stockpiles.

The current mine plan includes encapsulation of the PAG rock within the core of the waste rock stockpile. Based on the proportion of PAG samples and the findings of the ML/ARD characterization study, this proposed approach appears to be a viable method for minimizing any ML/ARD impacts on the environment. Additional geochemical studies including further kinetic testing are continuing to evaluate and refine this option. Additional testing is planned to better understand the kinetics of potential acid leaching behaviour and further refine the expected drainage quality and metal leaching behaviour from materials at the site.

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1.0 INTRODUCTION

AMEC was retained by Baffinland Iron Mines Corporation (Baffinland) to conduct environmental studies in support of an environmental impact assessment (EIA). AMEC conducted this additional geochemical study to expand the geochemistry knowledgebase for the project.

1.1 Site Description

Baffinland is planning to mine iron ore at their Mary River site located on the northern half of Baffin Island, approximately 160 km south of Mittimatalik (Pond Inlet), 270 km south-east of Nanisivik, 300 km north of Hall Beach, and 1000 km north-west of Iqaluit, the capital of Nunavut Territory, Canada. This area experiences a mean annual temperature of approximately -12^{o}C and monthly averages below -20^{o}C from December to March. Above freezing temperatures occur only from June to August, with an average high of 4.4^{o}C in July.

There are currently five deposits of potential economic interest identified at the site. The current mine development relates to Deposit No.1, which is the largest and best known of the economic deposits at the site.

The current projected life of mine is about 21 years based on reserves in Deposit No.1. The proposed mine will include the open pit, crushing and screening facilities, and the ore and waste rock storage facilities. The dimension of the ultimate open pit will be approximately 2,000 m in length, 1,200 m in width and range from 195 m on the south side to 465 m on the north side in depth (Aker Kaeverner, 2008).

The economic iron deposits at the Mary River project represent high-grade examples of Algoma-type iron formation. Approximately 365 Mt of ore will be produced at the Mary River Project (Aker Kaeverner, 2008). Deposit No. 1 ores contain magnetite and hematite in different proportions. About 640 Mt of waste rock are anticipated to be produced during the life of the mine.

1.2 Objectives and Scope of Work

The objective of this assessment was to characterize the metal leaching and acid rock drainage (ML/ARD) characteristics of the mine rocks that will be produced from the proposed open pit. The ML/ARD assessment results will provide the input for the management of the mine rock and also the management of the seepage and runoff from the mine rock stockpiles and open pit.

Materials characterized in this study include rock core samples that represent rock types that will be placed in waste rock stockpiles and potentially exposed on pit walls. To further improve

the understanding of the potential for acid and metal leaching from the mine rock, the seepage and run off quality of mine rock stockpiles that have been monitored over the last few years by Baffinland were also reviewed.

This report summarizes the understanding of the geochemistry of the mine rock from the Mary River Deposit No.1 based on results available up to November 2010.

1.3 Proposed Waste Rock Management Plan

The waste rock to be produced from the mine has been interpreted on the basis of the hanging wall and footwall zones of the deposit. It is estimated that approximately 640 Mt of waste rock will be produced, consisting of 400 Mt (63%) footwall and 240 Mt (37%) of hanging wall material (Wahl, 2010).

Results of the previous geochemical study (Knight Piésold, 2008a) indicated that some waste rock generated from the proposed open pit is potentially acid generating (PAG) material. However, the limited number of samples in the 2008 program restricted the ability to estimate the proportion of PAG waste rock. For the purpose of the waste rock stockpile design, the mine plan assumed that 20% of waste rock generated during the mine life will be PAG materials (AMEC, 2010) on the basis of the Knight Piésold work.

The current waste rock stockpile design calls for placement of PAG material as a cell encapsulated within the non-PAG waste rock stockpile. With containment of the PAG cell in this manner, it is expected that reactivity of the PAG material will be substantially reduced by introducing and maintaining permafrost conditions within the core of the waste rock stockpile.

2.0 GEOLOGY

2.1 Regional Geology

The northern part of Baffin Island consists of the ca. 3.0-2.5 Ga Committee Fold belt which lies within the Rae domain of the western Churchill Province (Jackson and Berman, 2000). The Committee belt extends north-east for around 2000 km from south-west of Baker Lake, Nunavut Territory to northwestern Greenland. Four major assemblages of Precambrian rocks have been identified within the Committee Belt. The iron ore deposits occur as part of the supra-crustal rocks of the Neoarchean aged (2.76-2.71 Ga) Mary River Group in the region. The Central Borden Fault Zone passes within 1 km to the south-west of the site. This fault separates the highly deformed Precambrian rocks to the north-west from the early Paleozoic relatively flat lying sedimentary rocks to the southwest.

The generalized stratigraphic sequence of the Mary River group from base to top according to Young *et al*. (2004) and Johns and Young (2006) is:

- psammite and sedimentary migmatite;
- amphibolite;
- Algoma–type oxide– and silicate–facies iron formation;
- quartzite; and
- interbedded ultramafic and intermediate volcanic rocks.

The thickness of individual units varies considerably across the area. Ultramafic and gabbroic intrusions in the form of small sills and dykes (<10 m in thickness) may occur within the sedimentary rocks, iron formation and amphibolite units (Johns and Young, 2006). Locally these intrusions have been observed to contain thin sulphide veinlets and disseminated sulphides. At the deposit scale, the overall sequence can be complicated by inferred early isoclinal folds and ramp and flat thrust faults (Young *et al*., 2004) which create complex and variable stratigraphic relationships. The contact between the Mary River group and gneiss basement rock are generally not directly exposed, being obscured by younger granitic intrusions.

Iron formation within the Mary River Group occurs as an oxide- and silicate- facies unit. Oxide facies iron formations vary from lean magnetite-chert to iron-ore quality deposits of magnetite and hematite (Johns and Young, 2006). Genesis of high grade iron ores is the result of the Hudsonian age deformation and metamorphism of enriched Archean Banded Iron Formation. The silicate–facies iron formation is generally thin and found in association with the oxide–facies, although it also occurs on its own. It commonly contains coarse garnet, anthophyllite, cummingtonite, and actinolite porphyroblasts.

2.2 Deposit Geology

Deposit No.1 occurs at the nose of a syncline plunging steeply to the north-east (Aker Kvaerner, 2008). The iron formation occupies the nose and two limbs of this feature with an ~1300 m long northern portion and an ~700 m long southern portion. The footwall to the iron formation mainly consists of gneiss with minor schist, psammitic gneiss (psammite) and amphibolite. The hanging wall is primarily composed of schist and volcanic tuff with lesser amphibolite and metasediment.

The hanging wall primarily encompasses chlorite–actinolite schist and garnetiferous amphibolites. Volcanic tuff is also a significant lithology identified in the hanging wall. The footwall mainly consists of quartz-feldspar-mica gneiss with lesser psammitic gneiss and quartz-

mica schist. Microcline and albite are the predominant feldspar within the gneiss and biotite is generally more abundant than muscovite.

The iron ore deposits at the Mary River project represent high-grade examples of Algoma-type iron formation and are composed of hematite, magnetite and mixed hematite-magnetite-specular hematite varieties of ore (Aker Kvaerner, 2008). The iron deposits consist of a number of lensoidal bodies that vary in their proportions of the main iron oxide minerals and impurity content of sulphur and silica in the ore. The massive hematite ore is the highest grade ore and also has the fewest impurities, which may indicate it was derived from relatively pure magnetite or that chert, quartzite and sulphides were leached and oxidized during alteration of the iron formation.

3.0 REVIEW OF PREVIOUS GEOCHEMICAL TESTWORK

3.1 Static Testing

Previous geochemical studies (Knight Piésold, 2008a) included analysis of 97 waste rock samples, 21 ore samples and 7 overburden samples. Waste rock and ore samples were collected from rock cores at 34 boreholes drilled in 2004, 2005 and 2006. All samples underwent Acid Base Accounting (ABA) analysis, total element analysis by aqua-regia leach, and whole rock analysis by X-ray Fluorescence (XRF). ABA analysis included assessment of acid potential (AP) on the basis of measured total sulphur and calculated sulphide sulphur concentrations. Assessment of neutralization potential (NP) was on the basis of total neutralization potential determined by the modified Sobek method and carbonate NP (CaNP) by measurement of total inorganic carbon.

Selected samples were additionally analysed using the Net Acid Generation (NAG) test, mineralogy by XRD, and short-term leaching tests using Standard (USEPA 1312) Synthetic Precipitation Leaching Procedure (SPLP) at pH 4.5, a modified SPLP procedure and the Toxic Characteristic Leaching Procedure (USEPA 1311). The modified SPLP procedure used deionized water at pH 5.5 and a liquid to solid ratio of 1:3 rather than 1:20 for the standard SPLP.

This report indicated that 21 of 23 (91%) footwall rock samples, 65 of 74 (88%) hanging wall samples, 11 of 16 (69%) ore samples, and all overburden samples had NPR >2 for NPR calculated using modified Sobek NP and AP based on sulphide sulphur. This suggests most samples are non-potentially acid generating (non-PAG).

Results of short-term leaching tests (SPLP and modified SPLP) indicated that several metal parameters such as aluminum, barium, iron and manganese were susceptible to leaching at concentrations greater than 1 mg/L from footwall and hanging wall samples (Knight Piésold,

2008a). However, concentrations of major and trace metals in humidity cell leachate were low to negligible.

3.2 Kinetic Testing

A humidity cell testing program was conducted on ten rock samples from the Mary River project in early 2008 (Knight Piésold, 2008a). The humidity cell testing consisted of: three humidity cells containing footwall samples; and seven humidity cells containing hanging wall samples. Two samples of footwall rocks and five samples of hanging wall rock that underwent the humidity cell testing had values of NPR less than 2. The humidity cells were operated for 53 weeks. The preliminary results of humidity cell test that covered 20 week operation were reported by Knight Piésold (2008a). The complete results of the humidity cell testing including previously unreported results are presented in Appendix A.

- The pH of humidity cell leachate from week 20 until the end of the test was generally circum-neutral (Figure A-1). Leachates from four cells (two samples of footwall rocks and two samples of the hanging wall rocks) had pH somewhat lower (5.5 to 6.5) than the majority of samples. One of the samples among the set with slightly lower pH includes a sample with an NPR of 3.1. None of the samples produced strongly acidic drainage over the course of the 53 weeks of testing.
- The sulphate release rate decreased steadily during the first 20 weeks of cell operation. After this point, the rates were generally steady until the end of operation for the majority of the cells (Figure A-2). The sulphate release rates from the footwall samples were low and in a narrow range 2.8 to 3.8 mg/kg/week. The hanging wall rock also had low sulphate release rates, but exhibited greater variation ranging from 0.7 to 38 mg/kg/week. The highest sulphate loading rates were recorded from the amphibolite rock sample.
- Metal concentrations in the humidity cell leachates were relatively low. Concentrations of arsenic, chromium, copper, mercury, and silver were lower than method detection limit in most samples. Arsenic and copper concentrations were only detected in one gneiss footwall sample and one hanging wall schist sample, respectively.
- In general, the metal loading rates decreased or remained relatively stable after 20 weeks of cell operation. In contrast to these general trends, the loading rates of cadmium, cobalt, manganese, nickel and zinc from one footwall gneiss rock sample increased in the last 20 weeks of operation (Figures A-8, A-9, A-14, A-15, and A-19).
- Prediction of the lag time until acid generation begins in the PAG waste rock humidity cells was calculated based on the estimated rates of NP depletion measured from the cells. Acidic conditions were assumed to occur once all the NP in the sample had been depleted. NP depletion was calculated based on average release rate of calcium and magnesium during the last 10 weeks of the cell operation, assuming carbonate is the

only source for NP, and near-steady state conditions had been reached. The initial Sobek NP values from the ABA testing were used to calculate carbonate depletion. Based on these calculations, the NP depletion time varied from 1 to 416 years with median of 41 years (Table A -1).

- Sulphide depletion in the humidity cells was calculated based on the average sulphate release rates measured during the steady release rates operation and the initial sulphide content of the sample from the results of ABA. Based on these calculations, the sulphide depletion time ranged from 16 to 165 years (Table A-1).
- The NP and sulphide depletion results suggest that for 8 of 10 of the samples the estimated NP depletion time was shorter than the estimated sulphide depletion time, indicating that these samples could potentially generate acid in the future. The ARD onset time varied widely, ranging from 1 to 416 years with a median of 29 years.

3.3 2008 Bulk Ore Sample Testing Program

Another geochemical testing program was conducted in 2008 as a part of the bulk ore sampling program (Knight Piésold, 2009). Twenty-three rock samples were collected from 130,000 tonnes of blasted rock from the west side of Deposit No.1. These samples represented three different ore types and varieties, including weathered ore, representative ore and non-representative high manganese ore. All of these samples were subjected to the same testing as the waste rock samples, namely ABA, total elements by aqua regia, whole rock analyses, and modified SPLP testing.

The content of sulphide sulphur in all samples was below the method detection limit (<0.01%) with the exception of one sample. The carbonate NP generally exceeded the Sobek NP. Twenty-two of 23 samples had NPR >2, indicating that the majority of these samples were Non-PAG material. However, the NP of the materials was generally very low ranging from 1 to 4.5 kg $CaCO_3$/t.

Besides iron, manganese was generally the only parameter in the ore samples that was enriched (more than ten times higher) relative to an average basalt composition (Price 1997). Results of the SPLP testing showed that concentrations of arsenic, copper, nickel, lead, and zinc were lower in the leachates than values of the Metal Mine Effluent Regulations (MMER) SOR/2002-222 Schedule 4 and the Water License 2BB-MRY0710.

4.0 2010 TESTING PROGRAM

Based on the review of previous geochemical studies, AMEC developed a geochemical testing program to augment the geochemical database for the project. The program included the collection and analysis of additional samples to increase the representativity of the data.

The approach and methodology for the collection and characterization of mine waste materials was based upon the following documents:

- Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials. MEND Report 1.20.1. (MEND, 2009); and
- Guidelines for ARD Prediction in the North (INAC, 1992).

The documents represent best practice and industry standard approaches and methodologies for ML/ARD sampling and characterization.

4.1 Sample Collection

The objective of the 2010 sampling program for ML/ARD characterization was to obtain samples that accurately represent the geochemical variation of the rock types to be mined. Samples were selected to capture both the spatial and geochemical variability of the proposed open pit. The pit limit, existing borehole locations and geology are provided in Figure 1.

The sampling program conducted by AMEC in July 2010 targeted the most recently recovered drill core from 2008 and 2009 drilling programs. AMEC identified that a limited number of footwall samples were collected during the previous geochemical investigation program, and this limitation was inherent in the ore delineation drilling approach utilized for resource development. Drilling that focused on ore delineation, penetrated only limited sections of footwall material. To partially address the limited number of footwall samples, AMEC also collected additional footwall samples from 2007 core. Further, in August 2010 under AMEC's direction, Baffinland drilled three new boreholes that specifically targeted the footwall region of the proposed pit (Figure 1).

In total, 180 drill core samples were collected during the 2010 sampling program. Sampled intervals were approximately 1 m lengths of core. The collected drill core consisted of 84 samples representing the footwall and 96 samples representing the hanging wall. Lithological information was established from original core logs. A description of each sample confirming lithology and identifying the presence of sulphides and/or visible alteration was made at the time of sampling.

4.2 Sample Analysis

The collected mine rock samples were shipped to SGS Lakefield, Ontario for laboratory testing. The analyses for the samples were comparable to those completed in the previous geochemical investigations and described below.

4.2.1 Acid Base Accounting

Acid Base Accounting (ABA) analyses were performed on all rock samples. The ABA testing consisted of total sulphur, sulphate sulphur, sulphide sulphur by difference, total carbon (TC), total inorganic carbon (TIC), modified Sobek neutralization potential (NP), and paste pH. Selected sample details and results are presented in Table B-1 (Appendix B), laboratory certificates are provided in Appendix C1.

Total sulphur in the samples was determined by Leco furnace. Sulphate sulphur was determined by dilute hydrochloric acid digestion and colorimetry. Sulphide sulphur was determined by difference between the two analyses. Measurement of TIC was used to determine the carbonate NP (CaNP).

4.2.2 Net Acid Generation testing

The single addition Net Acid Generation (NAG) test was conducted on all rock samples. In addition the sequential NAG test was performed on any samples with total sulphur of more than 1%. Laboratory certificates are provided in Appendix C2.

The NAG test is a complimentary test to ABA which provides an assessment of the potential of a sample to generate acid (AMIRA, 2000). The simplicity of the NAG_{pH} test may make it suitable as a screening tool for field characterization of rock materials, where it is sufficiently calibrated against more comprehensive ABA data. Values for NAG_{pH} greater than 4.5 indicate that a sample has little potential to produce net acidity in the future. .

The sequential NAG test was conducted on samples with total sulphur more than 1%, since sulphur at these concentrations may not be completed oxidized when using the single addition test. The sequential NAG test consists of a series of single addition NAG tests. The NAG test cycle was repeated until the NAG_{pH} of the final solution is greater than 4.5. The resulting NAG value was determined by summing the values from each cycle of the single addition NAG test.

4.2.3 Total element analyses

All rock samples were analysed for concentrations of a standard suite of elements (primarily metals) in aqua regia leachate with ICP/MS quantification. Laboratory certificates are provided in Appendix C3. Aqua regia digestion is considered a partial dissolution method since some resistant minerals (e.g., silicates) are not decomposed or only partially decomposed by the aqua regia leach. However, concentrations of most environmentally important metals are expected to be adequately determined by this technique.

4.2.4 Leachable metals

Shake flask extraction (SFE) tests were conducted on selected rock samples to assess the presence of potentially soluble elements and their release during initial stages of weathering. Laboratory certificates are presented in Appendix C4. Testing was conducted using a 3:1 deionised water to solid ratio agitated for 24 hours (MEND, 2009). The modified SPLP test used in the previous study (Knight Piesold, 2008a) is similar to this test method. The resulting leachates were then analysed for pH and for concentrations of dissolved metals by ICP-MS. Nineteen samples representing 10 samples of footwall rocks and nine samples of hanging wall rocks sample were selected to undergo SFE testing after reviewing the results of the total elemental analysis.

4.2.5 Mineralogy (Rietvield XRD)

Based on the results of ABA testing, nine samples were selected for mineralogical analysis by Reitveld XRD. Laboratory certificates are provided in Appendix C5. This technique provides a semi-quantitative to quantitative assessment of the mineral composition of a sample. Sub-samples of the selected samples were crushed to less than 10 µm then analysed as random powder mounts using an x-ray diffractometer equipped with a step-scanning goniometer. The amounts reported represent the relative amounts of crystalline mineral phases in the mounted specimens normalized to 100%. This method is effective at identifying crystalline phases present in abundance greater than a few weight percent. With favourable peak profiles and minimal overlapping peaks, phases may be detected at less than 1 weight percent.

4.3 Additional Humidity Cell Testing

Based on the static testing results on the 180 samples collected in 2010, samples have been selected for kinetic testing using standard humidity cells. The tests will be used to evaluate the acid and metal leaching characteristics of the deposit waste rock materials. The samples were selected to represent the major rock types within the range of critical acid generation potentials. The tests will be operated for a minimum period of 26 weeks or until the observed rates from the cells stabilize.

In addition to the standard humidity cells, specialized NP-depleted humidity cells have also been initiated. These cells are to be operated to assess the drainage chemistry of waste rock devoid of neutralization capacity and to simulate drainage under acidic conditions.

4.4 Stockpile Drainage Sampling

In order to better assess actual site drainage quality, AMEC evaluated site drainage data collected and analysed by Baffinland (Table 8, Appendix D). Monitoring of runoff and seepage from ore stockpiles has been completed by Baffinland since 2008. The monitoring data is limited to the short summer period in a given year due to the short annual melt and runoff period at the site. The existing stockpiles at the site include the following:

- Weathered ore and minor waste rock excavated from the surface of Deposit No. 1 (adjacent to the bulk sample pit);
- Lump and fine ore from bulk sample pit of Deposit No. 1 (site of crusher); and
- Ore grade material stored at Milne Inlet.

Initial data from these stockpiles has been previously reported (Knight Piésold, 2009). This data was for surface seepage and runoff collected directly at surface. However, for some locations it became necessary to measure the drainage by placing sampling locations into the active layer in the shallow subsurface. Thus, since 2009 a number of additional sampling strategies have been employed.

Water was sampled from a corner of the waste rock/weathered ore stockpile in 2009 and 2010. The water samples were inferred to mainly contain surface runoff with a lesser amount of seepage. Test pits were installed to the base of the active layer around the ore stored at the bulk sample crushing facility in 2009. Samples of drainage into these pits were collected in 2009 and 2010. In addition, two field lysimeters were constructed in the vicinity of the crusher stockpile in August 2010 by placing lump and fine ore on a geosynthetic liner. This allowed direct sampling of drainage from each of these materials. Three drive points were installed in 2010 to the base of the active layer around the ore-grade material stored at Milne Inlet.

In addition, a natural seep from the vicinity of the bulk sample pit has also been sampled on a two occasions.

5.0 GEOCHEMICAL TESTING RESULTS

The following sections discuss the static testing results carried out on the waste rock samples. The summary of results includes the geochemical results from the previous testing program (Knight Piésold, 2008a) when applicable. The overall analysis continues to be evaluated on the basis of hanging wall and footwall materials for which estimated tonnages are available. Sampling by lithology continues to evolve on the basis of observed borehole information with the recognition that significant volumes of material, particularly in the footwall, are presently unsampled.

The 170 hanging wall rock samples consisted of approximately 41% schist, 31% volcanic tuff, and 10% amphibolite. The rest of the samples were composed of metasediment (a minor component of core sampling to date) and thin zones of mixed schist, volcanic tuff, and amphibolite.

The 107 samples of footwall rocks consisted of 57% gneiss, 26% schist, and 14% metasediment (psammitic gneiss). The remaining samples included minor footwall lithologies including amphibolite and volcanic tuff.

5.1 Acid Base Accounting (ABA)

A statistical summary of ABA results for waste rock samples are presented in Table 1. The statistical analyses represent the combined ABA results of 2010 sampling and previous sampling (Knight Piésold 2008a). Detailed ABA analytical results are presented in Appendix B (Table B-1). Statistical summaries of single addition NAG and sequential additional NAG test results are presented in Table 2 and the detailed data are presented in Appendix B (Table B-2).

Overall results are discussed first, followed by more detailed descriptions of hanging wall and footwall results.

The relationship of total sulphur and sulphide sulphur (Figure 2) confirms that sulphide is the main source of sulphur above 0.4% total sulphur and the relationship is similar overall between hanging wall and footwall rocks. At lower concentrations, data suggests that sulphate sulphur is a significant component in some samples.

The range in modified Sobek neutralization potential (NP) for the entire sample set is typically between 4 and 100 kg $CaCO_3$/t (Figure 2), with the NP of footwall samples on average lower than the NP of hanging wall samples. There appears to be a small population of hanging wall samples that have very low NP (<1 kg $CaCO_3$/t); however, these samples also exhibit a very wide range in sulphide content (and acid potential) and were reported from amphibolite, schist, and a Knight Piésold composite sample of mixed amphibolite/volcanic tuff/greywacke.

For the majority of samples, carbonate neutralization potential (CaNP) was lower compared to the Sobek NP (Table B-1) indicating that silicates may be important in providing neutralilzation capacity in most samples. The presence of a few samples with carbonate NP greater than Sobek NP suggests the likely presence of iron carbonates in some samples that will provide no net neutralizing potential under oxidizing conditions.

The neutralization potential ratio (NPR) which expresses the ratio of NP/AP ranged from 0.001 to 400 with a mean and median of 32 and 22 respectively. Approximately 14% of the samples

had an NPR of <2 indicating the presence of potentially acid generating (PAG) material (MEND, 2009).

5.1.1 Hanging wall

Paste pH of the hanging wall samples ranged from 5.7 to 10.2 with a median paste pH of 9.5. A single outlier had a paste pH of 4.3. This low pH sample contained anomalous sulphur (12.4%) for this data set.

Concentrations of total sulphur of the hanging wall samples ranged from below the Method Detection Limit (MDL) of 0.005% to 12.4%, with mean and median values of 0.29% and 0.07%, respectively. Approximately 5% of the samples (8 of 170 samples) had a sulphur content below the MDL. Concentrations of sulphate sulphur in the hanging wall rock samples were reported from below MDL (0.01%) to 2.6%. The resulting calculated concentrations of sulphide sulphur ranged from <0.01% to 9.8% with mean and median values of 0.20% and 0.02% respectively.

Neutralization potential of hanging wall rock samples ranged from 0.2 to 129 kg $CaCO_3$/t, with a mean and median of 22 and 17 kg $CaCO_3$/t, respectively. CaNP for the hanging wall rock samples varied from 0.4 to 356 kg $CaCO_3$/t, with a mean value of 9.8 kg $CaCO_3$/t and median value of 1.7 kg $CaCO_3$/t.

The NPR of hanging wall rock samples varied from 0.001 to 413 with mean and median values of 3.5 and 34, respectively. Approximately 14% of the samples (24 of 170 samples) had NPR <2 with 16 samples (9%) having an NPR <1 (Figure 2).

NAG_{pH} less than 4.5 was measured from 18 of 111 (16 %) hanging wall rock samples. The NAG_{pH} of those 18 samples varied from 1.84 to 4.47 and the NAG values ranged from 0.3 to 131 kg H_2SO_4/t. The hanging wall rock samples with NPR <2 consistently reported the NAG_{pH} less than 4.5. NAG_{pH} less than 4.5 was observed in four hanging wall rock samples with NPR >2.

Sequential NAG tests were conducted on the four hanging wall samples that contained total sulphur greater than 1%. The NAG result for the Sequential NAG test was almost double the NAG value of Single Addition NAG test for the sample with total sulphur content of 12.4%. For the other 3 hanging wall samples (total sulphur from 1.2 to 1.3%) the NAG values of the sequential NAG test were similar to the NAG values from the single addition NAG test.

5.1.2 Footwall

Paste pH of the footwall samples ranged from 6.5 to 10.2 with the exception of an outlier at pH 5.5. This low pH sample contained anomalous sulphur (10%) for this data set. The median paste pH was 9.5.

Concentrations of total sulphur in the footwall samples ranged from below MDL (0.005%), to 6.13%, with mean and median values of 0.21% and 0.04% respectively. Approximately 12% of footwall samples had sulphur content below the MDL. Concentrations of sulphate ranged from below MDL (0.01%) to 0.06%. Sulphide sulphur ranged from <0.01% to 5.96% with mean and median values of 0.16% and 0.01% respectively.

Neutralization potential ranged from 3.7 to 64 kg $CaCO_3$/t, with a mean and median of 12 and 10 kg $CaCO_3$/t, respectively. CaNP for the footwall samples ranged from 0.4 to 54.5 kg $CaCO_3$/t, with a mean and median of 2.7 and 1.3 kg $CaCO_3$/t.

The NPR of footwall rock samples ranged from 0.08 to 100 with mean and median values of 2.6 and 33, respectively. Approximately 14% of footwall samples (15 of 107 samples) had an NPR <2, with eight of these 15 samples having an NPR <1 (Figure 2).

From the 89 footwall rock samples that underwent the NAG testing, 12 samples (13%) had NAG_{pH} less than 4.5. The NAG_{pH} and the NAG values of these 12 samples ranged from 2.31 to 4.45 and from 0.3 to 65 kg H_2SO_4/t, respectively. NAG_{pH} results are generally consistent with ABA results. All footwall samples with NPR <2 had NAG_{pH} less than 4.5. A NAG_{pH} of less than 4.5 was observed in two samples with NPR greater than 2.

The Sequential NAG test was conducted on three footwall samples that contained total sulphur greater than 1%. The NAG values of Sequential NAG test was 40% higher compared to the NAG value of Single Addition NAG test for the sample with 6.1% total sulphur. The NAG values from single addition and sequential NAG tests were similar for 2 samples with the total sulphur of 1.1 and 1.5% suggesting the total sulphur was completed oxidized with the single addition test.

5.2 Total Metals

In order to identify potential metals of environmental significance, the total metals from aqua regia leach results were screened against the average elemental abundance (Price, 1997) in a typical basalt for the amphibolite, schist, and volcanic tuff lithologies and the average crustal abundance for the gneiss and metasediment lithologies. For the purpose of the screening assessment, the concentration of an element was considered enriched if concentrations were

greater than ten times the average composition of basalt or crustal abundance as appropriate. It should be noted that the total concentration of an element does not determine the metal leaching potential of that element.

Statistical summaries of total metal contents for all waste rock samples are presented in Table 3 and complete data is presented in Table B-3 (Appendix B). The data includes results for rock samples that were previously reported (Knight Piésold, 2008a). For several metal parameters such as arsenic, bismuth, cadmium, antimony, selenium, tin, thallium and uranium the MDL for previous results (Knight Piesold, 2008a) were sometimes higher than those in the 2010 testing program.

5.2.1 Hanging wall

Some hanging wall samples were enriched in antimony, arsenic, bismuth, cadmium, chromium, lead, lithium, manganese, molybdenum, nickel, and selenium as summarized in Table 4.

Approximately 34% and 12% of hanging wall samples were enriched in bismuth and selenium respectively. The MDL for these parameters were at or above the ten times comparison values. Therefore the screening may underestimate the percentage of samples enriched in bismuth and selenium.

Approximately 10% (17 samples) were enriched in antimony with around half of these samples from volcanic tuff. Approximately 9% (16 samples) and 8% (13 samples) were enriched in molybdenum and arsenic respectively.

A small proportion of the samples were also enriched in cadmium (1 sample), chromium (1 sample), lead (2 samples), lithium (2 samples), manganese (1 sample), and nickel (2 samples).

5.2.2 Footwall

Some footwall samples were enriched in antimony, bismuth, cadmium, chromium, lead, molybdenum, and selenium (Table 5).

Approximately 38% and 20% of footwall samples were enriched in bismuth and selenium respectively. As noted above, the MDL for these parameters were at or above the ten times comparison values. Therefore the screening may underestimate the percentage of samples enriched in bismuth and selenium.

Approximately 7% (8 samples) were enriched in antimony. Molybdenum was enriched at a similar frequency (7%) in footwall samples. Enrichment in comparison to screening criteria was also observed for cadmium (3 samples), chromium (1 sample), and lead (5 samples).

5.3 Leachable Metals

Ten samples representing hanging wall rocks and nine samples representing footwall rock were selected for Shake Flask Extraction (SFE) testing. Samples were selected on the basis of total metal screening results. Samples with typical and enriched concentrations were chosen for analysis among the different rock types.

The SFE testing results are presented in Table 6a along with comparison to regulated effluent discharge values (MMER, 2002). More stringent guideline values are also provided for reference purposes only. Guidelines for the protection of aquatic life and the drinking water guidelines (e.g. CWQG-PAL and CDWG guidelines in Table 6a), which are focused on the preservation of water quality in the receiving waterbody for specific receptors (i.e., aquatic life, drinking water) are conservative since these values represent concentrations at point of use or exposure, not point of discharge. These guidelines are useful to identify parameters of interest when evaluating final discharge to receiving waters.

The modified SPLP leachate results from the previous investigations (Knight Piésold, 2008a) are presented in Table 6b. The modified SPLP testing is a method roughly comparable with the SFE test. The results from the standard SPLP and TCLP testing in previous work cannot be compared with the current results of leachable metals due to the difference in the testing method.

5.3.1 Hanging wall

Results of SFE analyses (Table 6a) for all hanging wall samples except one (see below), had a final pH that was neutral to alkaline with low concentrations of metals and no exceedances of MMER limits. A schist sample (MR-ARD-10-001) that contained a number of enriched metals in aqua regia leach also contained slightly elevated metal concentrations in SFE leachate. However, most were present at very low concentrations. Arsenic is perhaps most notably elevated for this sample, but is still an order of magnitude lower than the MMER limit.

The pH in SFE leachates for a number of these samples exceeded the MMER limit of 9.5. This is not unexpected for freshly exposed rock materials under agitation and at the high solid-solution ratios of the test. The high pH (and corresponding elevated aluminum concentrations) were likely related to the weak alkalinity associated with aluminosilicate mineral dissolution. It is unlikely the elevated pH (and associated aluminum) will be observed under field conditions.

The final pH of one SFE analysis was acidic (pH 4.7). This result was for rock logged as oxidized garnetiferous amphibolite at a gradational contact with high grade hematite iron formation, which reported in one sample a very low NP (0.3 kg $CaCO_3$/t), low NPR (0.6), moderate CaNP (34), total sulphur of 0.4% and trace sulphide. Concentrations of some metals were elevated in comparison to the rest of the pH neutral to alkaline SFE samples. Elevated metals included cadmium, cobalt, copper, iron, lithium, manganese, nickel, thallium, uranium, and zinc. Concentrations of cadmium and thallium were present at very low concentrations <0.001mg/L. The concentration of nickel (0.81 mg/L) slightly exceeded the MMER limit of 0.5 mg/L.

Results of the previous (Knight Piésold, 2008a) modified SPLP results (Table 6b) are very similar to the SFE results presented above. As with the SFE data, a single sample had a similar final leachate pH of 4.5. This sample exhibited very similar elevated metal contents to the low pH sample from the SFE test including a nickel concentration that exceeded the MMER limit. This sample with low final pH, like the similar sample from the SFE testing, is from waste material in the vicinity of the ore zone.

5.3.2 Footwall

Results of SFE analyses for all footwall samples (Table 6a) had leachate pH values that were neutral to alkaline with low concentrations of metals below the MMER limits. SFE leachate metal concentrations were all lower than the few somewhat elevated hanging wall results described above. The relationship described above for pH and aluminum in hanging wall samples was similarly observed for almost all footwall samples. In fact pH exceeds the MMER upper limit of 9.5 for 7 of the 9 samples. This relationship is likely related to the predominance of felsic rocks and associated aluminosilicate minerals observed in the footwall zone.

There is no evidence to suggest that the elevated total concentrations of certain metals will result in short-term leaching of those elements. Molybdenum had perhaps the most notably elevated concentrations in several of these samples; however, leached concentrations were <0.04 ppm.

Modified SPLP results from the previous investigation (Table 6b) are similar to those described above for footwall sample SFE data.

5.4 Mineralogy

Seven samples consisting of four footwall and three hanging wall samples expected to be fairly typical of the lithological units were analyzed by Rietveld XRD (Table 7).

5.4.1 Hanging wall

The three samples from the hanging wall group consisted of a single sample each of schist, volcanic tuff and amphibolite.

Sulphide bearing minerals were absent in the three hanging wall samples. Carbonate was identified only in the volcanic tuff sample with a calcite content around 0.4%. There were a number of silicate minerals with potentially acid consuming properties identified in the hanging wall samples including feldspars, and a number of phyllosilicates including phlogopite and chlorite. The hanging wall samples, particularly amphibolite and schist, also contained iron oxide.

5.4.2 Footwall

The four footwall samples consisted of a single sample each of gneiss, psammite, schist and volcanic tuff.

Sulphides and carbonates were not identified in the footwall samples. Quartz was the major mineral constituent identified in gneiss, psammite, and volcanic tuff samples, ranging between approximately 29 and 39%. The footwall gneiss and the footwall psammite samples shared similar major mineral constituents but in different proportions. Both consisted of a broad range of feldspars and phyllosilicates as well as pyroxenes and amphiboles. Trace magnetite (0.1%) was also identified in both the gneiss and psammite samples. The volcanic tuff sample contained a range of phyllosilicate minerals in addition to the quartz. The fourth footwall sample (schist) was mainly composed of phylosilicates including phlogopite (44%), muscovite (22%) and chlorite (17%).

5.5 Stockpile Drainage

Monitoring of results from several ore and a single mixed ore and waste rock stockpile has been conducted by Baffinland since 2008, following completion of a bulk ore sampling program. Results are provided in Table 8 and Appendix D. In general, results indicate circum-neutral (ca. pH 7) drainage with little evidence of metal leaching adjacent to these stockpiles and no concentrations reported in excess of MMER limits.

Two field lysimeters constructed in 2010, one each for lump and fine ore, offer the most direct assessment of drainage quality (Table 8). Data collected indicated sulphate concentrations of 500 to 1000 mg/L and neutral to mildly acidic pH (pH 5.8 to 6.7). The origin of the sulphate may be in part from gypsum known to be present in some ore; however, high molar sulphur to calcium ratios and the mildly acidic pH is evidence that at least some of the sulphate is likely due to sulphide oxidation. It should be noted that this monitoring includes only two rounds of

sampling conducted in the months following construction of the cells, and may represent at least in part a flushing of the ore material that had been recently disturbed for the purposes of constructing the lysimeters.

Metal concentrations were all below MMER limits. Concentrations of manganese and nickel were noticeably elevated in comparison to samples from other stockpile sampling data. A single high Fe result was noted in an initial unfiltered sampling from the lump ore stockpile. This may indicate the presence of fine particulate iron or colloidal iron that was subsequently attenuated within the stockpile during later sampling events. The elevated manganese may be related to non-representative manganese ore used in bed material for construction of the crusher pad at this location. This non-representative manganese ore contains a high fraction of Mn in siderite (iron carbonate) that is expected to be relatively soluble. The nickel may be similarly related to this non-representative ore (and perhaps even the siderite) or perhaps results from sulphide oxidation that may be occurring in this ore stockpile. Higher concentrations of cadmium (<0.0006 mg/L) than noted elsewhere, were also observed in drainage from both lysimeters.

Samples from an intermittent seep from a rock face near the Bulk Sample pit (Appendix D, Table D-4) had elevated copper (0.4 mg/L to 1 mg/L) and selenium (1 mg/L). Copper concentrations were slightly in excess of the MMER limit of 0.3. These anomalous concentrations were higher than reported from any other data at the site. However, additional information is required on the location, source and flow rate of this seep in order to understand its relevance to future mining at the site.

6.0 DISCUSSION

6.1 Waste Rock

Characterization of the net acid potential of the rock follows the criteria outlined in MEND (2009). The threshold between potentially acid generating (PAG) and non potentially acid generating (Non-PAG) materials is defined by the net potential ratio (NPR), a measure of the ratio of the acid potential (AP) to neutralization potential (NP). Using the guidance of MEND (2009), mine rock materials with NPR >2 are classified as Non-PAG. Mine rock samples with NPR <1 are considered PAG and materials with NPR between 1 and 2 are classified as having an uncertain potential of generating acid.

Approximately 86% of the hanging wall rock samples and a similar percentage of footwall rock samples had NPR >2, suggesting that the majority of samples are Non-PAG. However, 9% of hanging wall samples and 7% of footwall samples had an NPR <1 indicating that some of the waste rock has the potential to generate acid. The PAG rock samples were widely distributed in the proposed open pit.

The major lithologies in the hanging wall samples, schist, volcanic tuff and amphibolite, reported 7 to 18% of the samples as PAG (NPR <2) with the lowest proportion identified from the volcanic tuff lithology. The gneiss and schist lithologies from the footwall had 20 and 12% of their samples classified as PAG, respectively. All psammitic gneiss samples (14 samples) had NPR >2.

NAG_{pH} results using the standard cut-off of pH 4.5, were reasonably predictive of standard ABA results. The technique slightly over predicted the number of samples that were determined to have an NPR <2, suggesting the method may be useful as a screening tool to support the more comprehensive ABA results. In addition, for samples analysed to date, sulphide sulphur in excess of 0.3 to 0.4% appears to be a strong indicator of the potential for a sample to have an NPR <2 (Figure 4).

The 2010 testing program included fresh rock core samples from the 2010 drill holes and also core samples that had been stored onsite for several years. Assessment of the sulphur speciation indicated that the distribution of sulphur and sulphate in fresh and older core was similar, suggesting that significant sulphide oxidation had not occurred in the core samples which had been in storage.

The primary source of neutralization potential for the majority of the samples appeared to be non-carbonate minerals. The CaNP of approximately three-quarters (78%) of the rock samples only contributed up to 30% of the Sobek NP.

A very small subset of hanging wall rocks with very low neutralization potentials are all from locations in close proximity to the ore zone. Additional work is required to confirm the extent of this type of material near the ore zone and the importance in terms of potential for ML/ARD. Two samples of these materials also exhibited low pH and some elevated metals in short term leach tests and are discussed in more detail below.

The majority of the waste rock samples demonstrated little enrichment of elements compared to the average composition of basalt or continental crustal. Assessment of the content of metals identified 12% of the hanging wall and 19% of the footwall samples were enriched in selenium. The SFE results suggest that the selenium was not readily leachable from the rock samples with leachate concentrations of selenium below or near MDL. The small proportion of the hanging wall and footwall rock samples were also enriched in antimony, arsenic, and molybdenum. However, the results of SFE testing on the hanging wall and footwall samples had very low leachate concentrations.

In general metals were not leachable from the nineteen samples that underwent the SFE testing, with the exception of a single amphibolite sample. Leachate from the amphibolite sample was acidic (pH 4.7) and also had more elevated concentrations of copper, iron, nickel

and manganese compared to those metal concentrations in the leachate from the other rock samples. The nickel concentration in the amphibolite leachate was slightly higher than the MMER value. The sample was classified as PAG (NPR = 0.6). Notable the SFE results from another PAG sample (NPR = 0.7) did not produce an acidic leachate or elevated metals.

The preceding result is similar to a result from previous investigations (Knight Piésold 2008a), where a leachate sample from a similar procedure to the SFE previously described above also exhibited a low final pH with elevated metal concentrations. This sample was also from near the ore zone and in particular exhibited nickel at concentrations above the MMER limit.

The current waste rock stockpile design assumes that approximately 20% of the projected waste rock volume will be managed as PAG material. Current results, based on numbers of samples, indicate that approximately 14% of the waste rock may be classified as having NPR <2. Additional kinetic testing will be used to further refine this number.

The current geochemical results indicated that NP in the rock samples is distributed in a relatively narrow range with non-carbonate minerals as the primary NP source. Sulphur speciation results show a strong correlation between the total sulphur and sulphide content particularly at concentrations above approximately 0.3% S. These results suggest that the total sulphur content may be useful as an indicator to classify the acid generation potential of waste rock.

Results of analysis of field cell drainage of selected hanging wall and footwall materials (Knight Piésold, 2008a) are presented in Table 9. The data collected from the Mary River site reports circum-neutral pH and low dissolved metal contents all well below MMER limits. However, since these cells only underwent a single sampling round, reactivation of these tests with additional sampling or construction of new replacement cells would be necessary to better evaluate the long-term drainage quality.

6.2 Pit

Sampling and testing to date has identified PAG materials within the proposed pit volume. These samples are distributed through the currently sampled pit volume with no apparent control on their distribution. Therefore, it is uncertain if PAG waste rock will be exposed on the final pit walls in any significant amount. Under the mine plan, the proposed open pit will be allowed to flood after cessation of mining, with an estimated flooding time of 85 to 147 years Knight Piésold (2008b). It is currently anticipated that the discharge from the open pit will not require treatment. However, due to the pit configuration, the upper level of the south-west side of the open pit will not be flooded and will remain exposed to weathering. It is possible that PAG materials may be exposed on the final pit walls. Depending upon the areal exposure of

these materials there is the potential for ML/ARD to be produced from the walls that could negatively impact the pit lake water quality.

At the present time there is no information on projected water quality from waste rock under acid drainage conditions Additional humidity cell testing is being initiated to further assess the lag time until acid generation in the waste rock and pit walls, and to provide information on the water quality of acid generating PAG materials.

6.3 Drainage Quality

Evaluation and estimation of drainage quality has been completed for site stockpile drainage data collected by Baffinland since 2008 (Section 5.5). In addition, humidity cells were operated for 53 weeks on selected samples of waste rock (Section 3.2). Some initial monitoring of field cells of hanging wall and footwall material has also been completed. In summary, drainage quality from onsite monitoring and laboratory testing suggests the following:

- Results of the single sampling round of the field cells (Knight Piésold, 2008a) that contained selected hanging wall and footwall rocks showed circum-neutral pH and low dissolved metal contents all well below MMER limits. Existing humidity cell data consistently indicates slow onset of acid conditions in waste rock, suggesting that there is likely little concern for the rapid onset of ARD in PAG waste rock. However, it is possible that localized volumes of PAG materials in the waste rock stockpile could generate localized acidity and enhanced metal leaching that are not accounted for in current evaluations.
- Ore stockpile drainage quality is expected to be circum-neutral to mildly acidic (pH 5.5 to 6) with low dissolved metal concentrations below MMER limits. The elevated sulphate content and the slightly depressed pH were measured in lysimeters seepage at the ore stockpile that was exposed to the environment for more than two years. These results suggest the presence of sulphide oxidation in the ore stockpile. For planning purposes, drainage from PAG waste rock stored under the same conditions is assumed to be similar; however, the higher NP of the waste rock and the planned PAG management within a permafrost core is expected to result in better drainage quality than that observed in the ore stockpiles over the longer term.

7.0 CONCLUSIONS

A ML/ARD characterization program has been conducted on a total of 277 samples including 180 rock core samples representing hanging wall and footwall rock samples collected in July and August 2010. Based on the results of the 2010 testing program and the previous

geochemical testing program conducted by Knight Piésold, and the seepage quality data from the waste/ore stockpiles the following conclusions are made.

- Around 49% of rock samples had low sulphide-sulphur concentrations with values of 0.01% or less. The results suggest that about 86% of hanging wall and a similar percentage of footwall rock samples were non-PAG materials. The PAG samples were distributed widely in the open pit and were present in all major rock lithologies (ranging from 7 to 20% of samples) with the only exception being psammitic gneiss from footwall material.
- Metal enrichment was not generally observed in the majority of waste rock samples with the exception of selenium. The selenium concentrations that were greater than 10 times the average concentration of basalt or crustal abundance were also close to method detection limits. A smaller proportion of rock samples were also enriched in antimony, arsenic, and molybdenum.
- Short-term metal leaching tests (SFE) indicate only very low concentrations of leachable metals including the enriched metals identified above. Some waste material in close proximity to the ore zone appears to leach metals at more elevated concentrations. Two samples reported nickel concentrations in leachate that exceeded MMER limits.
- Evaluation of drainage from existing site stockpiles suggests circum-neutral to mildly acidic pH (pH 5.5 to 6) can be expected. Drainage measured from field lysimeters suggests some evidence of localized oxidation of sulphides. Metal concentrations are typically highest at this location; however, all were below MMER limits. Manganese may be locally present in drainage where non-representative manganese-rich ore is present.
- For planning purposes at this stage of the project, waste-rock drainage should be assumed to be similar to that predicted by ore lysimeter testing, since both are expected to be driven by localized oxidation of sulphides.
- The results of humidity cell testing suggest that the ARD onset time ranged from 1 to 416 years with a median of 29 years. Due to climatic conditions, a longer lag time is expected from the waste rock at site conditions.
- The low quantities of PAG material identified in hanging wall and footwall rocks, and the apparently slow sulphide reactivity, supports the planned management of PAG materials by encapsulation within a permafrost core of the constructed stockpile. However, due to uncertainties in the current kinetic database, there remains some risk of enhanced metal leaching and lower pH drainage from the PAG materials prior to the formation of permafrost. This risk can likely be better qualified by additional characterization and managed effectively by modifying deposition methods that would enhance permafrost aggradation into the waste rock stockpile.

8.0 FUTURE WORK

- Operation of additional humidity cells including cells for major waste rock lithologies with potential acid generation risk (NPR <2) and also NP depleted cells are currently being initiated. Results of these humidity cells will improve the understanding of the long-term ML/ARD behaviour of hanging wall and footwall waste rocks. Additional humidity cells may be warranted to assess low grade or uneconomic iron formation rock.
- A program of field test pads and laboratory columns will be initiated to simulate and predict drainage chemistry from the proposed waste rock stockpile. Existing field test pads will be reactivated and additional pads can be constructed subject to availability of suitable material. It is recommended that leachate volumes collected in the field cells be consistently recorded to accompany analyses of samples collected for chemical analysis. Laboratory column experiments can be initiated in parallel to assess drainage chemistry without the restriction of the short summer period.
- Knowledge gained through this investigation program is being applied to the approximately 8,000 samples of the Baffinland ore delineation database that includes both ore and waste material. Application of the detailed ABA and metals interpretation from this geochemical investigation program to the ore delineation database may provide an increased understanding of ML/ARD across this much larger sample set. If necessary, selected additional analyses may be possible from archived sample material.

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TABLES

Table 1. Summary of Acid Base Accounting Results of Rock Samples

	Paste pH	Total Sulphur	Sulphate Sulphur	Sulphide Sulphur*	Total Carbon	AP	NP	Ca-NP	NPR	Ca-NPR
		(wt.%)				(kg $CaCO_3$/tonne)				
All Waste Rock										
No. of sample	277	277	277	277	277	277	277	277	277	277
Minimum	4.3	<0.005	0.01	0.01	0.01	0.03	0.2	0.4	0.0	0.002
Maximum	10.2	12.4	2.63	9.77	4.27	305	129	356	413	285
Mean		0.26	0.08	0.18	0.08	5.6	18	7.0	32	9
Median	8.8	0.06	0.03	0.01	0.02	0.4	14	1.5	22	2.7
Standard Deviation	0.9	0.93	0.18	0.77	0.31	24	16	26	43	27
10^{th} Percentile	7.9	0.01	0.01	0.01	0.01	0.1	7.4	0.6	1.3	0.2
90^{th} Percentile	9.9	0.46	0.18	0.29	0.13	9.2	31	11	76	13
Hanging Wall										
No. of sample	170	170	170	170	170	170	170	170	170	170
Minimum	4.3	<0.005	0.010	0.01	0.01	0.03	0.2	0.4	0.001	0.01
Maximum	10.2	12.4	2.6	9.8	4.3	305	129	356	413	285
Mean		0.29	0.096	0.20	0.12	6.1	22	9.8	3.5	1.6
Median	8.4	0.07	0.040	0.02	0.02	0.5	17	1.7	34	3.3
Standard Deviation	0.8	1.05	0.223	0.84	0.39	26	19	32	52	34
10^{th} Percentile	7.9	0.01	0.01	0.01	0.01	0.1	8.2	0.7	1.3	0.2
90^{th} Percentile	9.7	0.56	0.231	0.31	0.21	9.7	37	18	83	19
Footwall										
No. of sample	107	107	107	107	107	107	107	107	107	107
Minimum	5.5	<0.005	0.01	0.01	0.01	0.03	3.7	0.4	0.08	0.002
Maximum	10.2	6.13	0.63	5.96	0.65	186	64	54.5	100	60
Mean		0.21	0.06	0.16	0.03	4.8	12	2.69	2.6	0.6
Median	9.5	0.04	0.03	0.01	0.02	0.3	10.4	1.33	33	4.3
Standard Deviation	0.8	0.69	0.09	0.64	0.07	20	7.5	6.0	22	8
10^{th} Percentile	8.3	0.01	0.01	0.01	0.01	0.1	6.8	0.50	1.5	0.14
90^{th} Percentile	10.0	0.35	0.12	0.23	0.05	7.2	22.1	4.50	50	7

Notes:

AP = Acid potential in tonnes $CaCO_3$ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - $S(SO_4)$.

NP = Neutralization potential in tonnes $CaCO_3$ equivalent per 1000 tonnes of material.

Ca-NP = Carbonate NP is calculated from TC originating from carbonates and is expressed in kg $CaCO_3$/tonne.

NPR = Net Potential Ratio = NP/AP; Carb-NPR = Carb-NP/AP

*Where NP or AP values are equal to or less than zero, NPR is calculated assuming detection limit (NP = 0.2 kg $CaCO_3$/tonne, AP = 0.03 kg $CaCO_3$/tonne).

Table 2. Summary of Net Acid Generation Testing Results of Rock Samples

	NAG_{pH}	NAG (pH 4.5) kg H2SO4/tonne	NAG (pH 7) kg H2SO4/tonne
All Waste Rock			
No. of sample	200	180	180
Minimum	1.8	0	0
Maximum	11	131	165
Mean	6.7	1.8	3.0
Median	7.2	0	0
Standard Deviation	1.7	11	16
10^{th} Percentile	3.4	0	0
90^{th} Percentile	8.0	0.3	3.3
Hanging Wall			
No. of sample	111	96	96
Minimum	1.8	0	0
Maximum	11	131	165
Mean	6.8	2.2	3.2
Median	7.3	0	0
Standard Deviation	1.9	14	17
10^{th} Percentile	3.1	0	0
90^{th} Percentile	8.3	0.2	1.8
Footwall			
No. of sample	89	84	84
Minimum	2.3	0	0
Maximum	11	65	117
Mean	6.7	1.4	2.8
Median	7.1	0	0
Standard Deviation	1.6	7.5	13
10^{th} Percentile	4.3	0	0
90^{th} Percentile	7.7	0.58	4.3

Table 3. Summary of Total Metal Content of Rock Samples

	Hg	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo	Na	Ni	Pb	Sb	Se	Sn	Sr	Ti	Tl	U	V	Zn
	µg/g	%	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g	%	%	µg/g	%	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g
All Waste Rock																													
No. of sample	216	277	276	277	276	276	277	276	276	276	276	277	277	276	277	277	275	216	276	276	276	276	276	276	277	276	277	277	276
Minimum	0.10	0.001	0.5	0.01	0.1	0.01	0.003	<0.02	0.3	0.5	0.1	0.003	0.0001	2.0	0.002	1.0	0.1	0.001	0.1	0.4	0.1	0.7	0.3	0.2	0.00001	0.02	0.02	1.0	<0.7
Maximum	0.20	13	154	3000	19	34	10	6.0	110	2200	300	61	6.5	370	15	32000	177	2.20	2410	410	25	20	12	410	0.67	20	100	460	722
Mean	0.10	5.5	5.5	320	1.2	2.9	0.8	0.6	30	274	52	9.6	1.3	26	3.9	1216	6.0	0.06	141	14.2	3.5	3.2	2.6	20	0.19	2.4	20	108	70
Median	0.10	5.9	1.2	130	0.7	0.1	0.2	0.2	24	140	30	7.0	0.9	19	3.4	590	2.0	0.03	76	5.7	0.8	0.7	1.6	7.8	0.13	0.4	2.5	73	52
Standard Deviation	0.01	2.8	15	537	1.6	8.4	1.6	1.1	23	343	57	8.7	1.3	36	2.9	2201	15	0.17	235	36	7.0	5.2	2.3	40	0.17	5.0	33	99	75
10th Percentile	0.10	1.7	0.5	3.7	0.1	0.1	0.05	0.1	6.8	43	2.7	2.6	0.02	3.5	1.0	280	0.3	0.01	7.3	1.7	0.8	0.7	0.5	2.9	0.02	0.03	0.2	16	16
90th Percentile	0.10	9.0	7.3	900	2.7	3.0	2.1	1.5	63	665	140	19	3.3	47	7.7	2576	13	0.08	345	27	13	10	6.0	45	0.46	5.0	75	290	120
Hanging Wall																													
No. of sample	129	170	169	170	169	169	170	169	169	169	169	170	170	169	170	170	169	129	169	169	169	169	169	169	170	169	170	170	169
Minimum	0.10	0.001	0.50	0.01	0.05	0.01	0.003	0.06	0.3	0.5	0.1	0.003	0.0001	2.00	0.002	1.0	0.1	0.001	0.10	0.4	0.1	0.7	0.3	0.2	0.00001	0.02	0.02	1.0	<0.7
Maximum	0.20	13	154	2500	19	34	10	4.9	110	2100	300	61	4.70	370	14	32000	177	2.20	2410	230	25	20	12	410	0.67	20	100	460	490
Mean	0.10	6.1	7.8	187	1.3	2.5	1.1	0.6	40	357	64	12	0.77	30	4.9	1663	6.8	0.06	206	7.9	3.7	3.4	2.6	24	0.16	2.2	20	140	71
Median	0.10	6.7	2.6	47	0.8	0.2	0.2	0.2	37	240	47	9.4	0.38	21	4.6	1000	2.0	0.02	140	4.6	0.8	0.7	1.6	8.7	0.09	0.2	1.8	110	55
Standard Deviation	0.01	2.8	19	375	1.9	7.6	2.0	1.0	23	360	60	9.1	0.98	42	2.8	2704	17.4	0.21	275	19	7.1	5.0	2.3	47	0.18	4.6	34	110	62
10th Percentile	0.1	1.8	0.5	2.2	0.1	0.1	0.03	0.2	13	54	2.7	4.3	0.01	4.0	1.8	329	0.3	0.01	34	1.4	0.4	0.7	0.5	2.5	0.01	0.02	0.08	28	18
90th Percentile	0.1	9.2	13	452	2.8	3.0	3.8	1.3	69	922	140	22	2.2	49.2	8.4	3310	13.2	0.09	422	14	14	10	6	68	0.49	5.0	75	340	122
Footwall																													
No. of sample	87	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	106	87	107	107	107	107	107	107	107	107	107	107	107
Minimum	<0.1	0.6	0.5	2.4	0.07	0.1	0.007	<0.02	2	14	0.7	0.7	0.01	3.0	0.4	100	0.1	0.003	3.5	0.6	0.8	0.7	0.5	1.6	0.01	0.02	0.03	1.0	5.7
Maximum	<0.1	9.2	16	1470	5.1	28	4.0	6.0	73	2200	260	60	6.00	140	8.6	2600	53	0.37	620	120	3.2	1.4	11	49	0.63	1.6	15	170	722
Mean	<0.1	3.7	0.9	263	0.8	0.6	0.4	0.3	14	143	36	5.5	1.72	25	2.4	491	4.5	0.05	40	14	0.9	0.8	1.8	8.2	0.22	0.6	3.3	57	74
Median	<0.1	3.1	0.5	160	0.6	0.1	0.2	0.2	10	79	18	4.1	1.60	22	1.6	430	1.5	0.04	13	7.5	0.8	0.7	1.3	5.7	0.21	0.6	2.6	38	50
Standard Deviation	0	2.3	2.2	268	0.9	3.1	0.6	0.8	11	264	50	6.8	1.14	21	2.0	364	9.5	0.05	82	20	0.4	0.1	1.7	8.3	0.14	0.4	2.7	47	102
10th Percentile	<0.1	1.5	0.5	52.3	0.2	0.1	0.1	0.0	5	44	2.3	2.1	0.36	7.0	0.8	230	0.3	0.02	5.3	2.5	0.8	0.7	0.5	2.9	0.04	0.1	0.8	11	15
90th Percentile	<0.1	7.4	0.8	554	2.1	0.7	0.6	0.4	26	241	104	9.3	3.28	43	5.3	784	9.6	0.08	107	29	0.8	0.9	3.6	14.7	0.40	1.1	7.1	140	117

Table 4. Summary of Metals Enrichment of Hanging Wall Rock Samples

Metal Parameter	Basalt Average*	Ten Times Basalt Average	Continental Crust Average*	Ten Times Continental Crust Average	Number of samples	Samples exceeding 10X basalt average		Number of samples	Samples exceeding 10X continental crust average		Number of samples	Samples exceeding 10X basalt/continental crust average	
	ppm	ppm	ppm	ppm		Number of samples	%		Number of samples	%		Number of samples	%
Arsenic	2	20	1.8	18	166	13	8	3	0	0	169	13	8
Bismuth**	0.007	0.07	0.0085	0.085	166	57	34	3	0	0	169	57	34
Cadmium	0.22	2.22	0.15	1.5	166	1	0.6	3	0	0	169	1	1
Chromium	170	1700	102	1020	166	1	0.6	3	0	0	169	1	1
Lithium	17	170	20	200	166	2	1.2	3	0	0	169	2	1
Manganese	1500	1500	9500	95000	167	1	1	3	0	0	170	1	1
Molybdenum	1.5	15	1.2	12	166	15	9.0	3	1	33	169	16	9
Nickel	130	1300	84	840	166	2	1.2	3	0	0	169	2	1
Lead	6	60	14	140	166	2	1.2	3	0	0	169	2	1
Antimony	0.2	2	0.2	2	166	17	10	3	0	0	169	17	10
Selenium	0.05	0.5	0.05	0.5	166	21	13	3	0	0	169	21	12

Note :

* Price (1997)

** Detection limit of Bi for many samples is above 10x screening criteria

Table 5. Summary of Metals Enrichment of Footwall Rock Samples

Metal Parameter	Basalt Average*	Ten Times Basalt Average	Continental Crust Average*	Ten Times Continental Crust Average	Number of samples	Samples exceeding 10X basalt average		Number of samples	Samples exceeding 10X continental crust average		Number of samples	Samples exceeding 10X continental crust average	
	ppm	ppm	ppm	ppm		Number of samples	%		Number of samples	%		Number of samples	%
Bismuth**	0.007	0.07	0.0085	0.085	39	19	49	68	19	28	107	38	36
Cadmium	0.22	2.22	0.15	1.5	39	2	5.1	68	1	1	107	3	3
Chromium	170	1700	102	1020	39	1	3	68	0	0	107	1	1
Molybdenum	1.5	15	1.2	12	39	4	10	68	4	6	107	8	7
Lead	6	60	14	140	39	1	3	68	4	6	107	5	5
Antimony	0.2	2	0.2	2	39	3	8	68	5	7	107	8	7
Selenium	0.05	0.5	0.05	0.5	39	9	23	68	11	16	107	20	19

Note :

* Price (1997)

** Detection limit of Bi for many samples is above 10x screening criteria

Table 6.A. Shake Flask Extraction Results of Rock Samples

Sample ID	Unit	MMER	CWQG (PAL)	CDWQ	NWB	Hanging wall									
						Amphibolite		Volcanic Tuff			Schist				Gneiss
						MR ARD 10-039	MR ARD 10-091	MR ARD 10-023	MR ARD 10-083	MR ARD 10-098	MR ARD 10-036	MR ARD 10-001	MR ARD 10-097	MR ARD 10-028	MR ARD 10-115
Sample	weight(g)					250	250	250	250	250	250	250	250	250	250
Volume mL	D.I. H2O					750	750	750	750	750	750	750	750	750	750
InitialpH	units					4.31	6.93	8.78	9.02	9.65	7.31	7.06	9.74	7.38	9.23
Final pH	units	6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5	**4.70**	7.33	9.34	8.99	**9.70**	7.95	7.63	9.73	8.16	**9.74**
Mercury (Hg)	mg/L	-	0.026	0.001		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Aluminum (Al)	mg/L	-	0.005-0.1[a)]	-		1.22	0.02	< 0.01	0.03	0.88	< 0.01	< 0.01	0.55	0.06	2.15
Antimony (Sb)	mg/L	-		0.006		< 0.0002	< 0.0002	0.0008	< 0.0002	< 0.0002	< 0.0002	0.0003	< 0.0002	0.0003	< 0.0002
Arsenic (As)	mg/L	0.5	0.005	0.005		0.0020	< 0.0002	0.0005	0.0006	0.0003	< 0.0002	0.0405	0.0004	0.0005	< 0.0002
Barium (Ba)	mg/L	-	-	1		0.0120	0.00102	0.00539	0.00176	0.00121	0.00321	0.0197	0.00057	0.0184	0.00324
Beryllium (Be)	mg/L	-	-	-		0.00157	0.00004	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00003
Bismuth (Bi)	mg/L	-	-	-		< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium (Ca)	mg/L	-	-	-		42.5	2.62	9.55	13.0	3.56	32.2	24.7	4.14	7.32	0.04
Cadmium (Cd)	mg/L	-	0.000017	0.005		0.000912	< 0.000003	< 0.000003	0.000003	< 0.000003	< 0.000003	0.000047	< 0.000003	< 0.000003	< 0.000003
Cobalt (Co)	mg/L	-	-	-		0.420	0.00177	0.000320	0.000117	0.000071	0.000307	0.00248	0.000068	0.000065	0.000037
Chromium (Cr)	mg/L	-	0.001	0.051		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper (Cu)	mg/L	0.3	0.002-0.004[b)]	≤1.0		0.0259	< 0.0005	< 0.0005	0.0006	< 0.0005	< 0.0005	0.0005	< 0.0005	< 0.0005	0.0006
Iron (Fe)	mg/L	-	0.3	<0.3		21.5	0.026	< 0.002	0.009	0.035	0.007	0.006	0.048	0.037	0.151
Lead (Pb)	mg/L	0.2	0.001-0.007[b)]	0.01		0.00065	0.00058	0.00024	0.00019	0.00041	0.00015	0.00023	0.00042	0.00029	0.00114
Lithium (Li)	mg/L	-	-	-		0.889	0.038	0.006	0.010	0.018	0.013	0.008	0.004	0.003	0.003
Magnesium (Mg)	mg/L	-	-	-		193	8.49	13.8	9.75	0.513	42.8	118	0.931	7.15	0.139
Manganese (Mn)	mg/L	-	-	≤0.05		39.7	0.179	0.0256	0.0109	0.00371	0.0725	0.739	0.00503	0.0117	0.00164
Molybdenum (Mo)	mg/L	-	0.073	-		0.00024	0.00021	0.00031	0.00687	0.00062	0.00173	0.0540	0.00176	0.00534	0.00101
Nickel (Ni)	mg/L	0.5	0.025-0.15[b)]	-		**0.808**	0.0037	0.0010	0.0004	< 0.0001	0.0006	0.0306	0.0002	0.0003	< 0.0001
Potassium (K)	mg/L	-	-	-		8.75	4.15	1.06	11.2	17.8	3.26	22.4	8.05	9.00	4.96
Selenium (Se)	mg/L	-	0.001	-		0.002	< 0.001	< 0.001	< 0.001	< 0.001	0.003	0.001	< 0.001	0.006	< 0.001
Sodium (Na)	mg/L	-	-	-		93.4	1.71	0.46	5.49	4.27	0.59	13.9	7.74	0.97	9.28
Strontium (Sr)	mg/L	-		-		0.0908	0.0032	0.0520	0.0545	0.0144	0.0174	0.156	0.0168	0.0180	0.0005
Thallium (Tl)	mg/L	-		-		0.00077	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00004	< 0.00002	< 0.00002	< 0.00002
Tin (Sn)	mg/L	-		-		< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Titanium (Ti)	mg/L	-		-		0.0019	0.0006	< 0.0001	0.0004	0.0039	0.0007	0.0005	0.0045	0.0007	0.0099
Uranium (U)	mg/L	-		-		0.00132	0.000075	0.000005	0.000011	0.000002	0.000005	0.000003	0.000006	0.000007	0.000088
Vanadium (V)	mg/L	-		-		0.00012	0.00023	0.00009	0.00460	0.0459	0.00049	0.00019	0.0353	0.00048	0.00668
Zinc (Zn)	mg/L	0.5	0.03	≤5.0		0.132	0.001	0.002	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001

Table 6.A. Shake Flask Extraction Results of Rock Samples (continued)

Sample ID	Unit	MMER	CWQG (PAL)	CDWQ	NWB	Footwall								
						Gneiss			Psammite		Schist		Volcanic tuff	
						5164	5171	MR ARD 10-019	5145	5169	5181	5153	MR ARD 10-077	MR ARD 10-079
Sample	weight(g)					250	250	250	250	250	250	250	250	250
Volume mL	D.I. H2O					750	750	750	750	750	750	750	750	750
InitialpH	units					9.20	9.68	7.80	9.20	9.58	8.91	9.18	8.52	9.74
Final pH	units	6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5	**9.87**	**9.57**	8.74	**9.78**	**9.71**	9.47	**9.76**	**9.64**	**9.73**
Mercury (Hg)	mg/L	-	0.026	0.001		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Aluminum (Al)	mg/L	-	0.005-0.1[a)]	-		1.50	0.62	0.12	1.24	0.82	0.65	0.43	2.70	0.87
Antimony (Sb)	mg/L	-		0.006		0.0003	0.0004	0.0004	< 0.0002	0.0017	< 0.0002	0.0005	< 0.0002	0.0003
Arsenic (As)	mg/L	0.5	0.005	0.005		0.0012	0.0016	0.0010	< 0.0002	0.0042	0.0004	< 0.0002	0.0003	0.0003
Barium (Ba)	mg/L	-	-	1		0.00231	0.00272	0.00506	0.00111	0.00174	0.00119	0.00265	0.0136	0.00209
Beryllium (Be)	mg/L	-	-	-		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00004	< 0.00002
Bismuth (Bi)	mg/L	-	-	-		< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium (Ca)	mg/L	-	-	-		0.73	3.90	18.8	0.16	2.51	1.67	0.77	0.07	6.69
Cadmium (Cd)	mg/L	-	0.000017	0.005		0.000004	< 0.000003	0.000030	0.000003	0.000013	< 0.000003	0.000010	0.000007	< 0.000003
Cobalt (Co)	mg/L	-	-	-		0.000078	0.000073	0.000040	0.000119	0.000126	0.000029	0.000037	0.000187	0.000024
Chromium (Cr)	mg/L	-	0.001	0.051		< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper (Cu)	mg/L	0.3	0.002-0.004[b)]	≤1.0		< 0.0005	0.0006	< 0.0005	0.0007	0.0011	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron (Fe)	mg/L	-	0.3	<0.3		0.112	0.076	< 0.002	0.148	0.096	0.069	0.068	0.452	0.010
Lead (Pb)	mg/L	0.2	0.001-0.007[b)]	0.01		0.00025	0.00058	0.00020	0.00128	0.00302	0.00030	0.00041	0.00073	0.00018
Lithium (Li)	mg/L	-	-	-		0.011	0.008	0.001	0.008	0.004	0.016	0.003	0.002	0.005
Magnesium (Mg)	mg/L	-	-	-		0.188	0.464	14.0	0.127	0.353	0.383	0.302	0.226	0.643
Manganese (Mn)	mg/L	-	-	≤0.05		0.00180	0.00221	0.00535	0.00244	0.00220	0.00081	0.00117	0.00218	0.00105
Molybdenum (Mo)	mg/L	-	0.073	-		0.00553	0.00383	0.0361	0.00187	0.00819	0.00409	0.0160	0.0110	0.00052
Nickel (Ni)	mg/L	0.5	0.025-0.15[b)]	-		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0001	< 0.0001
Potassium (K)	mg/L	-	-	-		16.1	11.2	4.90	9.97	7.80	10.4	19.3	23.3	8.33
Selenium (Se)	mg/L	-	0.001	-		< 0.001	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Sodium (Na)	mg/L	-	-	-		3.67	7.83	1.52	3.94	8.16	2.78	2.21	1.78	4.38
Strontium (Sr)	mg/L	-		-		0.0025	0.0206	0.137	0.0010	0.0158	0.0161	0.0039	0.0007	0.0133
Thallium (Tl)	mg/L	-		-		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Tin (Sn)	mg/L	-		-		< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Titanium (Ti)	mg/L	-		-		0.0096	0.0036	0.0002	0.0139	0.0075	0.0027	0.0068	0.0271	0.0008
Uranium (U)	mg/L	-		-		0.000584	0.0119	0.000126	0.000316	0.0115	0.000246	0.000020	0.000093	0.000007
Vanadium (V)	mg/L	-		-		0.00635	0.00436	0.00023	0.0156	0.00557	0.00183	0.00884	0.0171	0.0278
Zinc (Zn)	mg/L	0.5	0.03	≤5.0		< 0.001	0.002	< 0.001	< 0.001	0.002	< 0.001	< 0.001	0.001	0.001

Note:
Bold value indicates exceedance of MMER limit
MMER = Metal Mining Effluent Regulation
CWGQ (PAL) = Canadian Council of Minister of the Environment (CCME) Canadian Water Quality Guideline for the protection of Aquatic Life
CDWQ = Health Canada - Canadian Drinking Water Quality Guideline
CWGQ (PAL) and CDWQ guidelines shown for reference purpose only (see text)
NWB = Nunavut Water Board Wastewater Criterion
a) varies with pH
b) varies with hardness
c) aesthetic objective

Table 6.B. Modified Synthetic Precipitation Leaching Procedure Results of Rock Samples (Knight Piésold, 2008a)

Sample ID	Unit	MMER	CWQG (PAL)	CDWQ	NWB	Hanging wall									
						Amphibolite			Amphibolite/ Schist	Gneiss/ Amphibolite	Amphibolite/ Schist	Schist	Schist	Schist	Schist/ Amphibolite
						07ARD11	07ARD17	07ARD27	07ARD07	07ARD21	07ARD 25	07ARD06	07ARD16	07ARD34	07ARD20
Sample	weight(g)					250	250	250	250	250	250	250	250	250	250
Volume mL	D.I. H2O					750	750	750	750	750	750	750	750	750	750
InitialpH	units														
Final pH	units	6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5	7.64	8.34	8.08	8.77	7.19	8.12	8.54	8.85	**4.50**	7.79
Mercury (Hg)	mg/L	-	0.026	0.001		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Aluminum (Al)	mg/L	-	0.005-0.1[a)]	-		0.09	0.07	0.36	1.12	0.01	0.04	0.84	1.25	0.02	3.84
Antimony (Sb)	mg/L	-		0.006		0.0006	0.0005	0.0005	0.0029	< 0.0002	0.0007	0.0015	0.0022	< 0.0002	0.0003
Arsenic (As)	mg/L	0.5	0.005	0.005		0.0006	0.0014	0.0019	0.0013	0.0004	0.0759	0.0024	0.0026	0.0009	0.0009
Barium (Ba)	mg/L	-	-	1		0.475	0.676	0.256	0.456	0.0913	0.220	0.400	0.675	0.0977	0.128
Beryllium (Be)	mg/L	-	-	-		< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	0.0004	< 0.0004
Bismuth (Bi)	mg/L	-	-	-		0.00004	0.00003	< 0.00002	0.00008	0.00002	< 0.00002	0.00011	0.00005	< 0.00002	0.00006
Calcium (Ca)	mg/L	-	-	-		9.33	7.27	9.60	2.59	34.5	4.94	8.13	4.35	41.7	5.66
Cadmium (Cd)	mg/L	-	0.000017	0.005		0.00008	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	0.00011	< 0.00006
Cobalt (Co)	mg/L	-	-	-		0.000316	0.000056	0.000244	0.000564	0.00260	0.000284	0.000801	0.000687	0.556	0.00179
Chromium (Cr)	mg/L	-	0.001	0.051		0.0006	0.0006	0.0007	0.0126	< 0.0003	0.0004	0.0015	0.0145	< 0.0003	0.0045
Copper (Cu)	mg/L	0.3	0.002-0.004[b)]	≤1.0		0.0007	0.0007	0.0019	0.0015	0.0009	0.0006	0.0022	0.0019	0.0008	0.0009
Iron (Fe)	mg/L	-	0.3	<0.3		0.02	0.01	1.19	1.88	< 0.01	0.01	3.19	2.57	0.75	6.17
Lead (Pb)	mg/L	0.2	0.001-0.007[b)]	0.01		0.00107	0.00038	0.00055	0.00059	0.00039	0.00036	0.00068	0.00056	0.00044	0.00071
Lithium (Li)	mg/L	-	-	-		0.0771	0.0049	0.0033	0.0030	0.0600	0.0023	0.0046	0.0035	0.0643	0.0055
Magnesium (Mg)	mg/L	-	-	-		8.77	28.1	22.3	6.10	158	18.3	12.0	7.45	240	48.3
Manganese (Mn)	mg/L	-	-	≤0.05		0.0294	0.00791	0.103	0.0348	0.0878	0.00598	0.0532	0.0339	7.51	0.154
Molybdenum (Mo)	mg/L	-	0.073	-		0.00728	0.0158	0.0136	0.0893	0.00083	0.0295	0.0874	0.0320	0.00273	0.00458
Nickel (Ni)	mg/L	0.5	0.025-0.15[b)]	-		0.0016	< 0.0007	0.0011	0.0039	0.0084	0.0027	0.0021	0.0088	**2.05**	0.0062
Potassium (K)	mg/L	-	-	-		2.91	1.08	1.56	5.73	4.09	1.00	6.13	4.22	1.78	2.44
Selenium (Se)	mg/L	-	0.001	-		0.002	< 0.001	0.018	0.001	0.008	0.002	0.002	< 0.001	0.008	0.004
Sodium (Na)	mg/L	-	-	-		11.6	16.2	14.4	14.0	21.0	8.79	14.5	15.2	14.0	14.7
Strontium (Sr)	mg/L	-		-		0.0841	0.0588	0.0321	0.0220	0.0308	0.0358	0.0348	0.0456	0.0147	0.0356
Thallium (Tl)	mg/L	-		-		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Tin (Sn)	mg/L	-		-		0.0004	0.0005	0.0004	0.0005	0.0005	0.0004	0.0011	0.0006	0.0006	0.0004
Titanium (Ti)	mg/L	-		-		0.0008	0.0007	0.0013	0.0054	0.0013	0.0005	0.0065	0.0069	0.0012	0.0547
Uranium (U)	mg/L	-		-		< 0.00002	< 0.00002	< 0.00002	0.00005	< 0.00002	< 0.00002	0.00006	0.00002	0.00091	0.00006
Vanadium (V)	mg/L	-		-		0.00008	0.00008	0.00052	0.00258	< 0.00006	0.00023	0.00195	0.00364	0.00008	0.00381
Zinc (Zn)	mg/L	0.5	0.03	≤5.0		0.0814	0.0793	0.0389	0.152	0.0906	0.0429	0.106	0.134	0.416	0.0495

Table 6.B. Modified Synthetic Precipitation Leaching Procedure Results of Rock Samples (continued) (Knight Piésold, 2008a)

Sample ID	Unit	MMER	CWQG (PAL)	CDWQ	NWB	Hanging wall									
						Volcanic tuff									
						UCS2	UCS15	UCS16	UCS17	UCS18	UCS19	UCS20	UCS21	UCS25	UCS26
Sample	weight(g)					300	300	300	300	300	100	300	100	300	100
Volume mL	D.I. H2O					1	1	1	1	1	1		1		1
InitialpH	units					900	900	900	900	900	300	900	300	900	300
Final pH	units	6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5	**5.78**	**9.99**	9.19	**10.2**	**9.74**	9.45	9.4	9.49	**9.55**	9.1
Mercury (Hg)	mg/L	-	0.026	0.001		-	-	-	-	-	-	-	-	-	-
Aluminum (Al)	mg/L	-	0.005-0.1[a)]	-		0.05	0.89	0.56	1.6	4.23	11.1	0.18	4.7	0.43	0.21
Antimony (Sb)	mg/L	-		0.006		< 0.0002	0.0063	< 0.0002	0.0023	0.0072	0.0004	0.0009	0.0004	0.0004	0.0006
Arsenic (As)	mg/L	0.5	0.005	0.005		< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	0.0006	< 0.0002	0.0005	< 0.0002	0.0002
Barium (Ba)	mg/L	-	-	1		0.0044	0.329	0.338	0.355	0.279	0.865	0.529	0.729	0.0111	0.701
Beryllium (Be)	mg/L	-	-	-		< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004
Bismuth (Bi)	mg/L	-	-	-		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Calcium (Ca)	mg/L	-	-	-		281	7.41	1.06	2.79	11.8	11.6	10.4	10.2	2.05	2.57
Cadmium (Cd)	mg/L	-	0.000017	0.005		0.00048	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Cobalt (Co)	mg/L	-	-	-		0.055	0.000239	0.000245	0.000563	0.00208	0.00888	0.000031	0.00278	< 0.000007	0.000165
Chromium (Cr)	mg/L	-	0.001	0.051		< 0.0003	0.0009	0.0012	0.0055	0.0106	0.0317	0.0006	0.0102	0.0004	0.0039
Copper (Cu)	mg/L	0.3	0.002-0.004[b)]	≤1.0		0.0011	0.001	0.0013	0.001	0.0112	0.0164	0.0005	0.0078	0.0003	0.0007
Iron (Fe)	mg/L	-	0.3	<0.3		1.26	0.32	0.35	0.41	3.11	10.4	0.05	4.51	< 0.01	0.33
Lead (Pb)	mg/L	0.2	0.001-0.007[b)]	0.01		< 0.00002	< 0.00002	< 0.00002	0.00004	0.00042	0.00067	< 0.00002	0.00012	0.00002	< 0.00002
Lithium (Li)	mg/L	-	-	-		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Magnesium (Mg)	mg/L	-	-	-		153	0.674	1.04	0.446	2.18	4.94	1.83	3.25	0.741	1.44
Manganese (Mn)	mg/L	-	-	≤0.05		24.8	0.0139	0.00238	0.0121	0.104	0.305	0.00316	0.168	0.00037	0.00271
Molybdenum (Mo)	mg/L	-	0.073	-		0.00009	0.00062	0.00028	0.00029	0.00026	0.00139	0.00048	0.00087	0.00029	0.00028
Nickel (Ni)	mg/L	0.5	0.025-0.15[b)]	-		0.454	0.0016	0.0009	0.0019	0.0106	0.0204	< 0.0007	0.008	< 0.0007	0.0014
Potassium (K)	mg/L	-	-	-		1	2.09	4.92	10.8	2.92	3.1	8.3	3.57	15.6	1.35
Selenium (Se)	mg/L	-	0.001	-		0.002	0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Sodium (Na)	mg/L	-	-	-		5.57	8.3	8.83	11.8	8.22	9.52	7.55	9.88	1.96	7.21
Strontium (Sr)	mg/L	-		-		0.0453	0.0271	0.0196	0.0192	0.066	0.0336	0.0355	0.0514	0.0079	0.035
Thallium (Tl)	mg/L	-		-		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Tin (Sn)	mg/L	-		-		< 0.0003	< 0.0003	0.0003	0.0005	0.0004	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Titanium (Ti)	mg/L	-		-		0.0051	0.0127	0.0088	0.047	0.0397	0.54	0.002	0.115	0.0011	0.0051
Uranium (U)	mg/L	-		-		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00002	< 0.00002	< 0.00002	< 0.00002	0.0001
Vanadium (V)	mg/L	-		-		0.00062	0.0216	0.00285	0.0409	0.0189	0.0555	0.0572	0.0269	0.00159	0.00134
Zinc (Zn)	mg/L	0.5	0.03	≤5.0		0.004	0.0038	0.0136	0.0054	0.0111	0.184	0.0059	0.129	0.0004	0.0928

Table 6.B. Modified Synthetic Precipitation Leaching Procedure Results of Rock Samples (continued) (Knight Piésold, 2008a)

Sample ID	Unit	MMER	CWQG (PAL)	CDWQ	NWB	Hanging wall										
						Volcanic tuff										
						UCS28	UCS29	UCS30	UCS31	UCS32	UCS33	UCS34	UCS35	UCS36	UCS37	UCS38
Sample	weight(g)					100	300	100	100	100	100	100	100	100	100	100
Volume mL	D.I. H2O					1		1	1	1	1	1	1	1	1	1
InitialpH	units					300	900	300	300	300	300	300	300	300	300	300
Final pH	units	6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5	9.49	**10.03**	**9.71**	**9.6**	9.43	9.41	**9.66**	9.41	9.45	9.48	**9.51**
Mercury (Hg)	mg/L	-	0.026	0.001		-	-	-	-	-	-	-	-	-	-	-
Aluminum (Al)	mg/L	-	0.005-0.1[a)]	-		9.38	1.12	9.28	5.12	6.02	4.94	7.84	3.3	2.04	3.01	6.14
Antimony (Sb)	mg/L	-		0.006		0.0007	0.0013	0.0006	0.0011	0.0009	0.0004	0.0003	< 0.0002	< 0.0002	0.0003	< 0.0002
Arsenic (As)	mg/L	0.5	0.005	0.005		0.0003	< 0.0002	0.0004	0.0003	0.0003	0.0003	0.0005	< 0.0002	< 0.0002	0.0002	0.0003
Barium (Ba)	mg/L	-	-	1		1.14	0.365	0.954	0.882	0.752	0.818	1.13	0.938	0.837	0.945	1.14
Beryllium (Be)	mg/L	-	-	-		< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004
Bismuth (Bi)	mg/L	-	-	-		< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00002	0.00004	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Calcium (Ca)	mg/L	-	-	-		8.79	1.81	8.38	8.76	9.13	4.6	4.89	5.58	5.47	5.81	5.26
Cadmium (Cd)	mg/L	-	0.000017	0.005		< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Cobalt (Co)	mg/L	-	-	-		0.00431	0.000602	0.00719	0.00258	0.00374	0.004	0.00862	0.00186	0.0012	0.00226	0.00608
Chromium (Cr)	mg/L	-	0.001	0.051		0.0304	0.0034	0.0352	0.019	0.0236	0.0241	0.0397	0.0107	0.0072	0.0108	0.0303
Copper (Cu)	mg/L	0.3	0.002-0.004[b)]	≤1.0		0.0085	0.001	0.0077	0.0105	0.007	0.008	0.013	0.0022	0.0023	0.0035	0.0029
Iron (Fe)	mg/L	-	0.3	<0.3		5.63	0.9	6.76	2.66	3.75	2.69	7.34	1.73	1.06	1.72	4.24
Lead (Pb)	mg/L	0.2	0.001-0.007[b)]	0.01		0.00168	0.00009	0.00032	0.00022	0.00018	0.00092	0.00099	0.00012	0.00011	0.0001	0.00042
Lithium (Li)	mg/L	-	-	-		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Magnesium (Mg)	mg/L	-	-	-		4.99	0.544	3.83	2.13	2.27	2.31	6.51	2.11	1.45	2.35	3.56
Manganese (Mn)	mg/L	-	-	≤0.05		0.158	0.0185	0.132	0.0703	0.12	0.0548	0.142	0.0648	0.0469	0.0609	0.0901
Molybdenum (Mo)	mg/L	-	0.073	-		0.00098	0.00019	0.0008	0.00105	0.00125	0.00039	0.00032	0.0004	0.00017	0.00043	0.00024
Nickel (Ni)	mg/L	0.5	0.025-0.15[b)]	-		0.0135	0.0023	0.0222	0.0082	0.0121	0.0103	0.021	0.0043	0.0029	0.0049	0.0152
Potassium (K)	mg/L	-	-	-		4.6	5.94	8.68	2.99	2.56	4.58	8.7	4.73	4.58	6.7	7.99
Selenium (Se)	mg/L	-	0.001	-		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Sodium (Na)	mg/L	-	-	-		11.5	11.4	12.4	10.7	10.4	9.28	14.8	9.15	9.86	12.7	13.5
Strontium (Sr)	mg/L	-		-		0.0439	0.0189	0.0346	0.0584	0.0513	0.0451	0.0623	0.0408	0.0405	0.0448	0.0447
Thallium (Tl)	mg/L	-		-		0.0003	< 0.0001	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Tin (Sn)	mg/L	-		-		< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Titanium (Ti)	mg/L	-		-		0.63	0.0628	0.788	0.207	0.244	0.285	1.07	0.309	0.182	0.205	0.574
Uranium (U)	mg/L	-		-		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Vanadium (V)	mg/L	-		-		0.0549	0.0178	0.0578	0.0304	0.0328	0.0294	0.06	0.0206	0.0189	0.0267	0.049
Zinc (Zn)	mg/L	0.5	0.03	≤5.0		0.177	0.0143	0.189	0.155	0.127	0.132	0.215	0.146	0.116	0.166	0.194

Table 6.B. Modified Synthetic Precipitation Leaching Procedure Results of Rock Samples (continued) (Knight Piésold, 2008a)

Sample ID	Unit	MMER	CWQG (PAL)	CDWQ	NWB	Hanging wall							Footwall		
						Volcanic Tuff		Volcanic tuff/Schist			Volcanic tuff / Chert /Schist	Mafic Volc. Dyke	Gneiss	Gneiss	Gneiss
						UCS39	**UCS40**	**07ARD23**	**07ARD24**	**07ARD41**	**07ARD31**	**07ARD08**	**UCS10**	**UCS12**	**UCS13**
Sample	weight(g)					100	100	250	250	250	250	250	300	300	300
Volume mL	D.I. H2O					1	1	1	1	1	1	1	900	900	900
InitialpH	units					300	300	750	750	750	750	750	5.2	7.4	9.6
Final pH	units	6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5	9.2	9.27	8.40	8.48	8.43	7.98	8.44	**5.94**	8.33	8.57
Mercury (Hg)	mg/L	-	0.026	0.001		-	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001			
Aluminum (Al)	mg/L	-	0.005-0.1[a)]	-		10.7	28.4	0.29	1.60	1.35	0.04	0.02	0.01	0.66	0.1
Antimony (Sb)	mg/L	-		0.006		0.0003	0.0002	0.0010	0.0008	0.0008	0.0011	0.0017	< 0.0002	< 0.0002	0.003
Arsenic (As)	mg/L	0.5	0.005	0.005		0.0002	< 0.0002	0.0004	0.0008	0.0003	0.0045	0.0022	< 0.0002	< 0.0002	< 0.0002
Barium (Ba)	mg/L	-	-	1		1.57	2.32	0.467	0.674	0.939	0.625	0.301	0.0344	0.223	0.108
Beryllium (Be)	mg/L	-	-	-		< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004
Bismuth (Bi)	mg/L	-	-	-		0.00009	0.00004	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00007	< 0.00002	< 0.00002	< 0.00002
Calcium (Ca)	mg/L	-	-	-		1.37	1.35	3.47	2.55	3.83	19.3	26.5	60.2	2.62	21.3
Cadmium (Cd)	mg/L	-	0.000017	0.005		0.00008	0.00009	< 0.00006	< 0.00006	< 0.00006	< 0.00006	< 0.00006	0.00057	< 0.00006	< 0.00006
Cobalt (Co)	mg/L	-	-	-		0.0144	0.0373	0.000107	0.000683	0.00102	0.000210	0.000139	0.0269	0.000231	0.000048
Chromium (Cr)	mg/L	-	0.001	0.051		0.0668	0.125	0.0016	0.0137	0.0044	0.0005	0.0006	< 0.0003	0.0008	0.0003
Copper (Cu)	mg/L	0.3	0.002-0.004[b)]	≤1.0		0.0375	0.0512	0.0006	0.0008	0.0028	0.0005	0.0014	0.0013	0.0016	0.0012
Iron (Fe)	mg/L	-	0.3	<0.3		13.1	31.3	0.33	3.17	1.49	0.02	< 0.01	0.23	0.29	< 0.01
Lead (Pb)	mg/L	0.2	0.001-0.007[b)]	0.01		0.00205	0.00114	0.00043	0.00077	0.00055	0.00045	0.00059	< 0.00002	0.00024	< 0.00002
Lithium (Li)	mg/L	-	-	-		< 0.002	< 0.002	0.0028	0.0027	0.0253	0.0118	0.0048	0.003	< 0.002	< 0.002
Magnesium (Mg)	mg/L	-	-	-		6.34	16.9	16.3	11.7	6.29	40.7	31.1	80.4	6.46	14.9
Manganese (Mn)	mg/L	-	-	≤0.05		0.161	0.34	0.00972	0.0555	0.0160	0.158	0.0137	10.4	0.0532	0.0103
Molybdenum (Mo)	mg/L	-	0.073	-		0.00034	0.00019	0.0305	0.0339	0.0435	---	0.105	0.0001	0.00093	0.01927
Nickel (Ni)	mg/L	0.5	0.025-0.15[b)]	-		0.0428	0.0937	< 0.0007	0.0034	0.0038	12.2	< 0.0007	0.0267	< 0.0007	0.0007
Potassium (K)	mg/L	-	-	-		8.07	15.4	2.73	1.58	12.7	4.79	9.51	49.9	9.03	19.6
Selenium (Se)	mg/L	-	0.001	-		< 0.001	< 0.001	0.006	0.001	0.002	0.002	0.008	0.005	0.003	0.003
Sodium (Na)	mg/L	-	-	-		10.6	10.8	14.6	14.5	17.9	0.0325	22.7	2.33	14.5	7.6
Strontium (Sr)	mg/L	-		-		0.0294	0.0341	0.0312	0.0400	0.0447	0.162	0.218	0.0049	0.02	0.0234
Thallium (Tl)	mg/L	-		-		0.0001	0.0003	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Tin (Sn)	mg/L	-		-		< 0.0003	0.0004	0.0005	0.0007	0.0009	0.0004	0.0008	< 0.0003	< 0.0003	< 0.0003
Titanium (Ti)	mg/L	-		-		0.652	1.71	0.0027	0.0176	0.0229	0.0009	0.0007	0.0049	0.013	0.0015
Uranium (U)	mg/L	-		-		< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00003	< 0.00002	0.00016	0.00003	0.0002	0.00113
Vanadium (V)	mg/L	-		-		0.0963	0.198	0.00036	0.00227	0.00521	0.00018	0.00057	0.00056	0.00081	0.00079
Zinc (Zn)	mg/L	0.5	0.03	≤5.0		0.232	0.265	0.111	0.139	0.137	0.0539	0.0457	0.0023	0.0106	0.0023

Table 6.B. Modified Synthetic Precipitation Leaching Procedure Results of Rock Samples (continued) (Knight Piésold, 2008a)

Sample ID	Unit	MMER	CWQG (PAL)	CDWQ	NWB	Footwall					
						Gneiss	Gneiss	Gneiss	Gneiss	Amphibolite	Volcanic tuff / Schist
						UCS23	**UCS24**	**UCS49**	**UCS51**	**UCS9**	**UCS27**
Sample	weight(g)					300	300	300	300	300	300
Volume mL	D.I. H2O					900	900	900	900	900	900
InitialpH	units					9	9.2	9	8.9	7.2	9.6
Final pH	units	6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5	9.21	**9.58**	**9.51**	9.31	8.47	8.95
Mercury (Hg)	mg/L	-	0.026	0.001							
Aluminum (Al)	mg/L	-	0.005-0.1[a)]	-		0.75	0.47	1.91	0.89	0.41	0.14
Antimony (Sb)	mg/L	-		0.006		0.0003	0.0005	0.0003	0.0002	< 0.0002	0.0003
Arsenic (As)	mg/L	0.5	0.005	0.005		< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Barium (Ba)	mg/L	-	-	1		0.312	0.0162	0.422	0.336	0.00055	0.00967
Beryllium (Be)	mg/L	-	-	-		< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004
Bismuth (Bi)	mg/L	-	-	-		< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Calcium (Ca)	mg/L	-	-	-		2.73	23.3	0.73	1.88	1.75	3.29
Cadmium (Cd)	mg/L	-	0.000017	0.005		< 0.00006	0.00076	< 0.00006	< 0.00006	< 0.00006	< 0.00006
Cobalt (Co)	mg/L	-	-	-		0.000158	0.000031	0.000689	0.000225	0.000049	< 0.000007
Chromium (Cr)	mg/L	-	0.001	0.051		0.0008	0.0004	0.0018	0.001	< 0.0003	< 0.0003
Copper (Cu)	mg/L	0.3	0.002-0.004[b)]	≤1.0		0.0014	0.0012	0.0015	0.0013	0.001	0.0005
Iron (Fe)	mg/L	-	0.3	<0.3		0.83	< 0.01	2.22	0.51	0.07	< 0.01
Lead (Pb)	mg/L	0.2	0.001-0.007[b)]	0.01		0.00034	0.00081	0.00136	0.00153	< 0.00002	0.00043
Lithium (Li)	mg/L	-	-	-		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Magnesium (Mg)	mg/L	-	-	-		2.04	7.17	0.776	0.706	7.08	1.07
Manganese (Mn)	mg/L	-	-	≤0.05		0.0076	0.0055	0.0237	0.0101	0.0395	0.00033
Molybdenum (Mo)	mg/L	-	0.073	-		0.00074	0.00057	0.00585	0.00497	0.00293	0.00012
Nickel (Ni)	mg/L	0.5	0.025-0.15[b)]	-		< 0.0007	0.0012	0.001	0.0008	< 0.0007	< 0.0007
Potassium (K)	mg/L	-	-	-		13.9	14.9	5.89	6.77	0.9	6.9
Selenium (Se)	mg/L	-	0.001	-		< 0.001	< 0.001	< 0.001	< 0.001	0.001	< 0.001
Sodium (Na)	mg/L	-	-	-		13.2	2.1	16.3	15.7	0.39	1.62
Strontium (Sr)	mg/L	-		-		0.018	0.0336	0.0127	0.0177	0.0061	0.0235
Thallium (Tl)	mg/L	-		-		< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Tin (Sn)	mg/L	-		-		0.0004	0.0003	< 0.0003	0.0005	< 0.0003	< 0.0003
Titanium (Ti)	mg/L	-		-		0.0422	0.0012	0.0921	0.0122	0.0003	< 0.0002
Uranium (U)	mg/L	-		-		0.0005	0.00526	0.00041	0.00031	< 0.00002	< 0.00002
Vanadium (V)	mg/L	-		-		0.00187	0.00047	0.00456	0.0033	0.00067	0.00167
Zinc (Zn)	mg/L	0.5	0.03	≤5.0		0.0105	0.0004	0.0202	0.0088	0.0013	0.0007

Note:
Bold value indicates exceedance of MMER limit
MMER = Metal Mining Effluent Regulation
CWGQ (PAL) = Canadian Council of Minister of the Environment (CCME) Canadian Water Quality Guideline for the protection of Aquatic Life
CDWQ = Health Canada - Canadian Drinking Water Quality Guideline
CWGQ (PAL) and CDWQ guidelines shown for reference purpose only (see text)
NWB = Nunavut Water Board Wastewater Criterion
a) varies with pH
b) varies with hardness
c) aesthetic objective

Table 7. Summary of Mineralogy of Rock Samples

Mineral/Compound		Ideal Formula	Footwall				Hanging wall		
			Gneiss	Psammite	Schist	Volcanic Tuff	Amphibolite	Volcanic Tuff	Schist
			5164 (wt %)	5145 (wt %)	5181 (wt %)	MR ARD 10-077 (wt %)	MR ARD 10-091 (wt %)	MR ARD 10-083 (wt %)	MR ARD 10-036 (wt %)
Calcite		$CaCO_3$	--	--	--	--	--	0.4	--
Quartz		SiO_2	39.7	28.5	3.6	38.5	3.8	15.1	43.9
Orthoclase	Feldspars	$KAlSi_3O_8$	7.9	8.4	2.8	--	--	5.5	--
Microcline	Feldspars	$KAlSi_3O_8$	3.3	2.8	--	--	--	0.8	--
Albite	Feldspars	$NaAlSi_3O_5$	7.2	3.5	2.8	--	--	12.3	--
Anorthite	Feldspars	$CaAl_2Si_20_8$	17.7	24.5	--	--	--	9.4	--
Enstatite (orthopyroxene)		$(Mg, Fe)_2Si_2O_6$	1.1	0.8	--	--	--	--	--
Diopside (clinopyroxene)		$CaMgSi_2O_5$	5.1	5.8	5.0	--	--	14.7	--
Actinolite (amphibole)		$Ca_2(Mg,Fe^{2+})_5Si_8O_{22}(OH)_2$	1.1	1.3	--	--	--	17.0	--
Muscovite	Phyllosilicates	$KAl_3(AlSi_3O_{10})(OH)_2$	1.2	0.3	22.9	5.3	--	--	--
Biotite	Phyllosilicates	$K(Mg,Fe^{2+})_3AlSi_3O_{10}(OH)_2$	0.6	0.6	1.5	0.5	4.5	3.3	--
Phlogopite	Phyllosilicates	$KMg_3(AlSi_3O_{10})(OH)_3$	15.0	23.3	44.1	40.7	--	--	--
Clinochlore	Phyllosilicates	$(Mg, Fe)_5(Si_3Al)0_{10}(0H)_8$	--	--	16.7	7.7	67.7	5.8	44.3
Kaolinite	Phyllosilicates	$Al_2Si_2O_5(OH)_4$	--	--	0.6	--	3.3	--	--
Andalusite		$Al_2(SiO_4)O$	--	--	--	7.4	--	--	--
Epidote		$Ca_2Al_2Fe(SiO_4)(Si_2O_7)(O,OH)_2$	--	--	--	--	--	15.5	--
Spinel		$MgAl_2O_4$	--	--	--	--	--	--	3.1
Magnetite		Fe_3O_4	0.1	0.1	--	--	3.6	0.2	4.3
Hematite		Fe_2O_3	--	--	--	--	17.2	--	3.9
Chromite		$FeCr_2O_4$	--	--	--	--	--	--	0.5
TOTAL			100	100	100	100	100	100	100

Table 8. Ore Stockpile Drainage Data

PARAMETER	UNITS	MMER	CWQG (PAL)	CDWQ	NWB	822547	827287	827280	830899	830888	827288	827281	830900	830889	Ore Stock Pile Water Quality Data All Sampling Locations (Appendix D*)	
						2010-08-17	2010-09-07	2010-09-07	2010-09-19	2010-09-19	2010-09-07	2010-09-07	2010-09-19	2010-09-19		
						MRY-11-LS-Lump Ore	MRY-11-LS-Lump Ore	MRY-11-LS-Lump Ore	MRY-11-LS-Lump Ore	MRY-11-LS-Lump Ore	MRY-11-LS-Fine Ore	MRY-11-LS-Fine Ore	MRY-11-LS-Fine Ore	MRY-11-LS-Fine Ore		
						Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Max**	Min
Chloride	mg/L		230	<250		14		14				20		15	272	1
N-NH3 (Ammonia)	mg/L		1.73-38.6[d]			3.42						0.78			3.42	0.24
N-NO3 (Nitrate)	mg/L		13	10		4.97		5				12.1		14.5	15.2	2.13
pH		6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5	**5.76**		**5.93**				6.68		6.48	8.15	**5.76**
Sulphate	mg/L			<500[c]		500		490				999		799	999	5
Total Suspended Solids	mg/L	15	5		120	11		3				<2		<2	15	3
Hardness as CaCO3 (Dissolved)	mg/L					536	223	534	153	532	308	942	695	698	942	12
Aluminum	mg/L	-	0.005-0.1[a]	-		16.3	0.0063	0.127	<0.015	<0.015	<0.02	<0.02	<0.15	<0.06	16.3	0.0030
Antimony	mg/L	-		0.006		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.005	<0.002	0.00017	<0.0001
Arsenic	mg/L	0.5	0.005	0.005		0.00236	<0.0005	<0.0005	<0.0005	<0.0005	<0.002	<0.002	<0.005	<0.002	0.00236	<0.0001
Barium	mg/L	-	-	1		0.0497	0.0236	0.0236	0.0215	0.0251	0.0191	0.0213	0.0104	0.0115	0.0556	0.0011
Cadmium	mg/L	-	0.000017	0.005		0.000331	0.000214	0.000203	0.000213	0.000198	<0.0002	<0.0002	<0.0005	0.00057	0.001	0.000011
Chromium	mg/L	-	0.001	0.051		0.0345	<0.0025	<0.0025	<0.0025	<0.0025	<0.01	<0.01	<0.025	<0.01	0.0345	0.00050
Copper	mg/L	0.3	0.002-0.004[b]	≤1.0		0.0613	0.00124	0.00183	<0.0025	<0.0025	<0.002	<0.002	<0.025	<0.01	0.0613	0.00026
Iron	mg/L	-	0.3	<0.3		122	<0.03	0.825	<0.03	0.031	<0.03	0.041	<0.03	0.082	122	0.0003
Lead	mg/L	0.2	0.001-0.007[b]	0.01		0.0125	<0.0003	<0.0003	<0.0003	0.001	<0.001	<0.001	<0.003	<0.001	0.0125	0.0001
Manganese	mg/L	-	-	≤0.05		15.2	18.1	18.4	17.8	21.5	59.7	65.5	104	112	112	0.0007
Molybdenum	mg/L	-	0.073	-		0.00082	<0.00025	<0.00025	0.00034	<0.00025	<0.001	<0.001	<0.0025	0.0012	0.00551	0.00019
Nickel	mg/L	0.5	0.025-0.15[b]	-		0.185	0.0961	0.0977	0.0923	0.107	0.028	0.035	0.101	0.113	0.185	0.0011
Selenium	mg/L	-	0.001	-		<0.005	<0.005	<0.005	<0.005	0.0051	<0.02	<0.02	<0.05	<0.02	0.005	<0.001
Zinc	mg/L	0.5	0.03	≤5.0		0.046	<0.005	<0.005	<0.015	<0.015	<0.02	<0.02	<0.15	<0.06	0.046	0.0019

Note:

Bold value is outside of MMER limits

* See Tables D1 to D3. Concentrations from limited pit seep sampling (Table D4) has copper in excess of MMER limit and elevated Se, but relevance of this seepage to ore stock pile drainage is yet to be determined.

** Max of all data from lysimeters and other stockpile sampling locations (Tables D1 to D3). Underlined values are from lysimeter data.

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CDWQ = Health Canada - Canadian Drinking Water Guideline

CWGQ (PAL) and CDWQ guidelines shown for reference purposes only (see text).

NWB = Nunavut Water Board Wastewater Criteria

a) varies with pH

b) varies with hardness

c) aesthetic objective

d) varies with pH and temperature

Table 9. Waste Rock Drainage Data
(Knight Piésold, 2008a)

PARAMETER	UNITS	MMER	CWQG (PAL)	CDWQ	NWB	Field Cell No.1 Footwall		Field Cell No.2 Hanging wall	
						Total	Dissolved	Total	Dissolved
Alkalinity as CaCO3	mg/L								
Chemical Oxygen Demand	mg/L								
Chloride	mg/L		230	<250				230	
Conductivity	uS/cm								
N-NH3 (Ammonia)	mg/L		1.73-38.6[d]						
N-NO3 (Nitrate)	mg/L		13	10					
NO2 + NO3 as N	mg/L								
pH		6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5			7.03	
Sulphate	mg/L			<500[c]				78	
Total Dissolved Solids (COND - CAL	mg/L								
Total Kjeldahl Nitrogen	mg/L								
Total Phosphorus	mg/L					0.03	0.02	0.01	0.01
Total Suspended Solids	mg/L	15	5		120				
Turbidity	NTU								
CO3 as CaCO3	mg/L								
Hardness as CaCO3 (Dissolved)	mg/L					291	278	375	361
HCO3 as CaCO3	mg/L								
Calcium	mg/L								
Magnesium	mg/L					34.1	32.0	46.3	44.1
Potassium	mg/L					6.8	6.13	5.44	5.28
Sodium	mg/L					16.7	15.8	27.60	26.30
Aluminum	mg/L	-	0.005-0.1[a]	-		0.14	<0.01	0.16	<0.01
Antimony	mg/L	-		0.006		0.0004	0.0005	0.0014	0.0015
Arsenic	mg/L	0.5	0.005	0.005		0.0008	0.0008	0.0189	0.0188
Barium	mg/L	-	-	1		0.0274	0.0256	0.0121	0.0119
Beryllium	mg/L	-	-	-		<0.00004	<0.00004	<0.00004	<0.00004
Bismuth	mg/L	-	-	-		<0.00002	<0.00002	<0.00002	<0.00002
Boron	mg/L					0.053	0.052	0.097	0.094
Cadmium	mg/L	-	0.000017	0.005		0.00010	0.00009	<0.00006	<0.00006
Chromium	mg/L	-	0.001	0.051		0.0014	0.0028	0.0011	0.0009
Cobalt	mg/L	-	-	-		0.00171	0.00153	0.000602	0.000348
Copper	mg/L	0.3	0.002-0.004[b]	≤1.0		0.0104	0.0088	0.0062	0.0054
Iron	mg/L	-	0.3	<0.3		0.23	<0.01	0.24	<0.01
Lead	mg/L	0.2	0.001-0.007[b]	0.01		0.0005	0.00008	0.00035	<0.00002
Lithium	mg/L	-	-	-		<0.002	<0.002	<0.002	<0.002
Manganese	mg/L	-	-	≤0.05		0.343	0.319	0.173	0.162
Mercury	mg/L	-	0.026	0.001		<0.0001	<0.0001	<0.0001	<0.0001
Molybdenum	mg/L	-	0.073	-		0.00224	0.00274	0.0153	0.0109
Nickel	mg/L	0.5	0.025-0.15[b]	-		0.0278	0.0264	0.0044	0.0048
Selenium	mg/L	-	0.001	-		<0.001	<0.001	0.003	0.003
Silicon	mg/L					1.64	1.35	1.72	1.51
Silver	mg/L					<0.00003	<0.00003	0.00004	<0.00003
Strontium	mg/L	-		-					
Thallium	mg/L	-		-		0.130	0.126	0.256	0.251
Tin	mg/L	-		-		<0.0003	<0.0003	<0.0003	<0.0003
Titanium	mg/L	-		-		0.0043	0.0003	0.0036	<0.0002
Uranium	mg/L	-		-		0.0009	0	0.000090	<0.00002
Vanadium	mg/L	-		-		0.00063	0.00229	0.00194	0.00124
Zinc	mg/L	0.5	0.03	≤5.0		0.0188	0.0227	0.0064	0.0043

Note:

Bold value indicates exceedance of MMER limit

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a) varies with pH

b) varies with hardness

c) aesthetic objective

d) varies with pH and temperature

FIGURES

7,913,500 N
7,914,000 N
7,914,500 N
7,915,000 N
7,915,500 N
563,000 E
563,500 E
564,000 E

LEGEND

BOREHOLES

- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010

- BOREHOLES SAMPLED BY KP
- BOREHOLES SAMPLED BY AMEC
- HIGH GRADE IRON FORMATION
- BANDED IRON FORMATION
- SCHIST
- GNEISS
- PROPOSED PIT LIMIT ON SURFACE
- ROAD

ARD-2A-NW
ARD-2A-SE
ARD-2B-NW

MR1-07-118 MR1-07-112 MR1-07-138 MR1-07-128 MR1-07-126 MR1-07-110 MR1-05-63 MR1-06-84 MR1-06-90 MR1-06-110 MR1-06-107 MR1-06-104 MR1-06-87 MR1-06-98 MR1-07-129 MR1-05-60 MR1-06-93 MR1-06-96 MR1-09-179 MR1-09-178 MR1-07-123 MR1-07-127 MR1-07-117 MR1-05-66 MR1-05-69 MR1-07-124 MR1-07-121 MR1-08-145 MR1-05-52 MR1-05-71 MR1-05-70 MR1-05-177 MR1-06-109 MR1-07-119 MR1-05-57 MR1-08-164 MR1-04-45 MR1-05-50 MR1-08-140 MR1-07-115 MR1-05-75 MR1-08-160 MR1-04-39 MR1-04-37 MR1-05-46 MR1-06-83 MR1-04-34 MR1-07-111 MR1-08-149 MR1-05-49 MR1-06-103 MR1-05-55 MR1-06-105 MR1-07-139 MR1-05-58 MR1-08-154 MR1-05-53 MR1-05-47 MR1-05-54 MR1-06-94 MR1-08-166 MR1-08-162 MR1-09-168 MR1-08-141 MR1-05-56 MR1-05-65 MR1-06-102 MR1-08-163 MR1-04-35 MR1-05-64 MR1-05-62 MR1-06-80 MR1-08-161 MR1-08-165 MR1-05-61 MR1-05-51 MR1-06-86 MR1-06-91 MR1-09-171 MR1-05-48 MR1-06-95 MR1-06-101 MR1-05-59 MR1-08-148 MR1-06-81 MR1-06-89 MR1-09-172 MR1-09-176 MR1-08-151 MR1-08-142 MR1-05-78 MR1-09-170 MR1-08-156 MR1-04-41 MR1-04-38 MR1-09-167 MR1-08-146 MR1-04-43 MR1-08-147 MR1-08-157 MR1-04-36 MR1-09-173 MR1-08-155 MR1-08-150 MR1-08-144 MR1-08-159 MR1-04-33 MR1-09-169 MR1-08-152 MR1-09-175 MR1-04-31 MR1-09-174 MR1-04-32 MR1-08-158 MR1-04-40

0 100 200 400m
1:7500 SCALE

CLIENT LOGO

CLIENT:
BAFFINLAND IRON MINES CORPORATION

AMEC Earth & Environmental
160 Traders Boulevard East
Mississauga, Ontario, Canada L4Z 3K7

DWN BY: NR
CHK'D BY: JA
DATUM: UTM NAD 83
PROJECTION: ZONE 17
SCALE: AS SHOWN

PROJECT: BAFFINLAND EIS SUPPORT

TITLE: BOREHOLE LOCATIONS SAMPLED FOR ML / ARD ASSESSMENT

DATE: DECEMBER 2010
PROJECT NO: TC101507
REV. NO.: A
FIGURE No. 1

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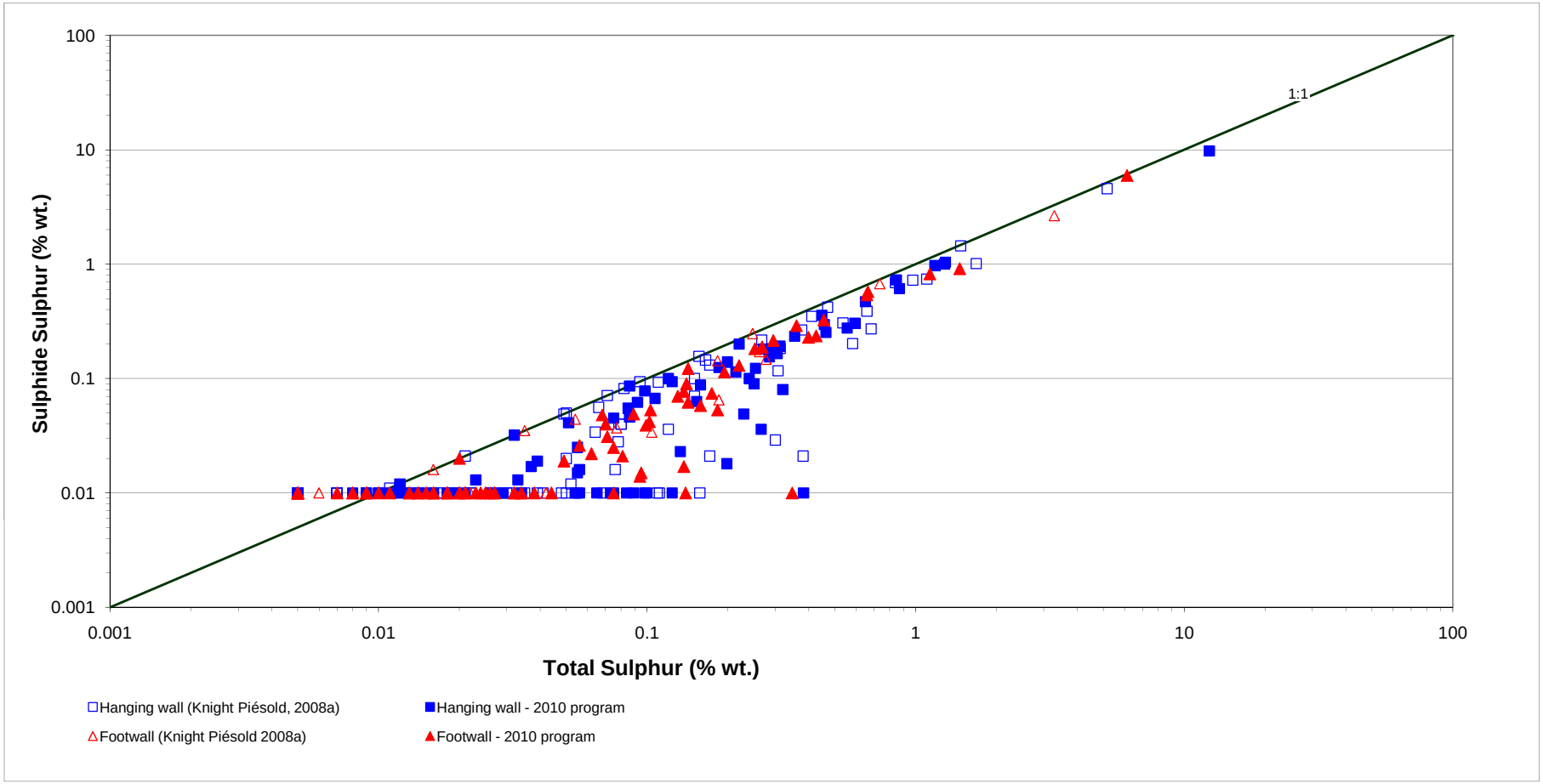

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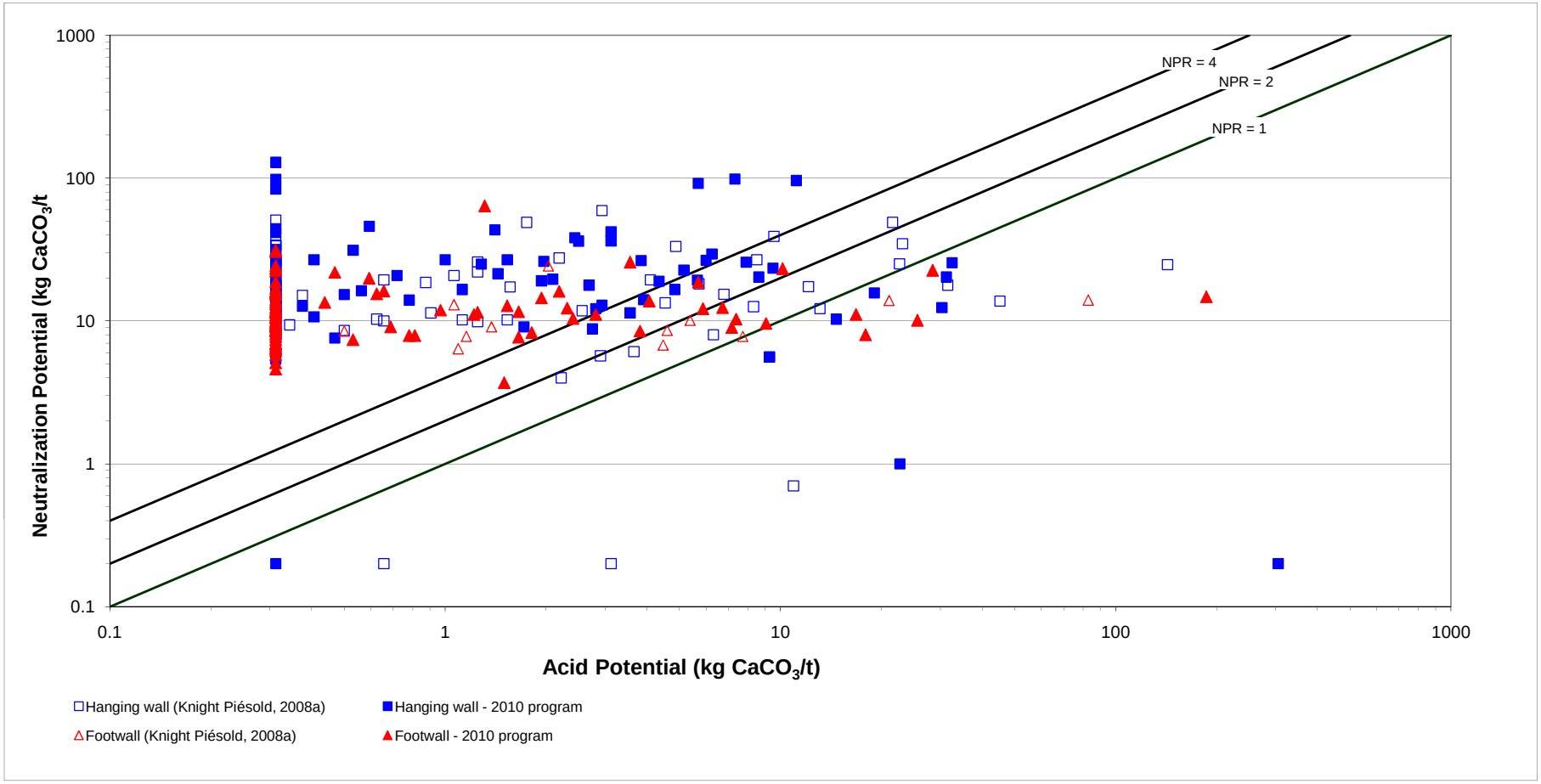
Waste Rock Samples
Neutralization Potential vs. Acid Potential

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE 2



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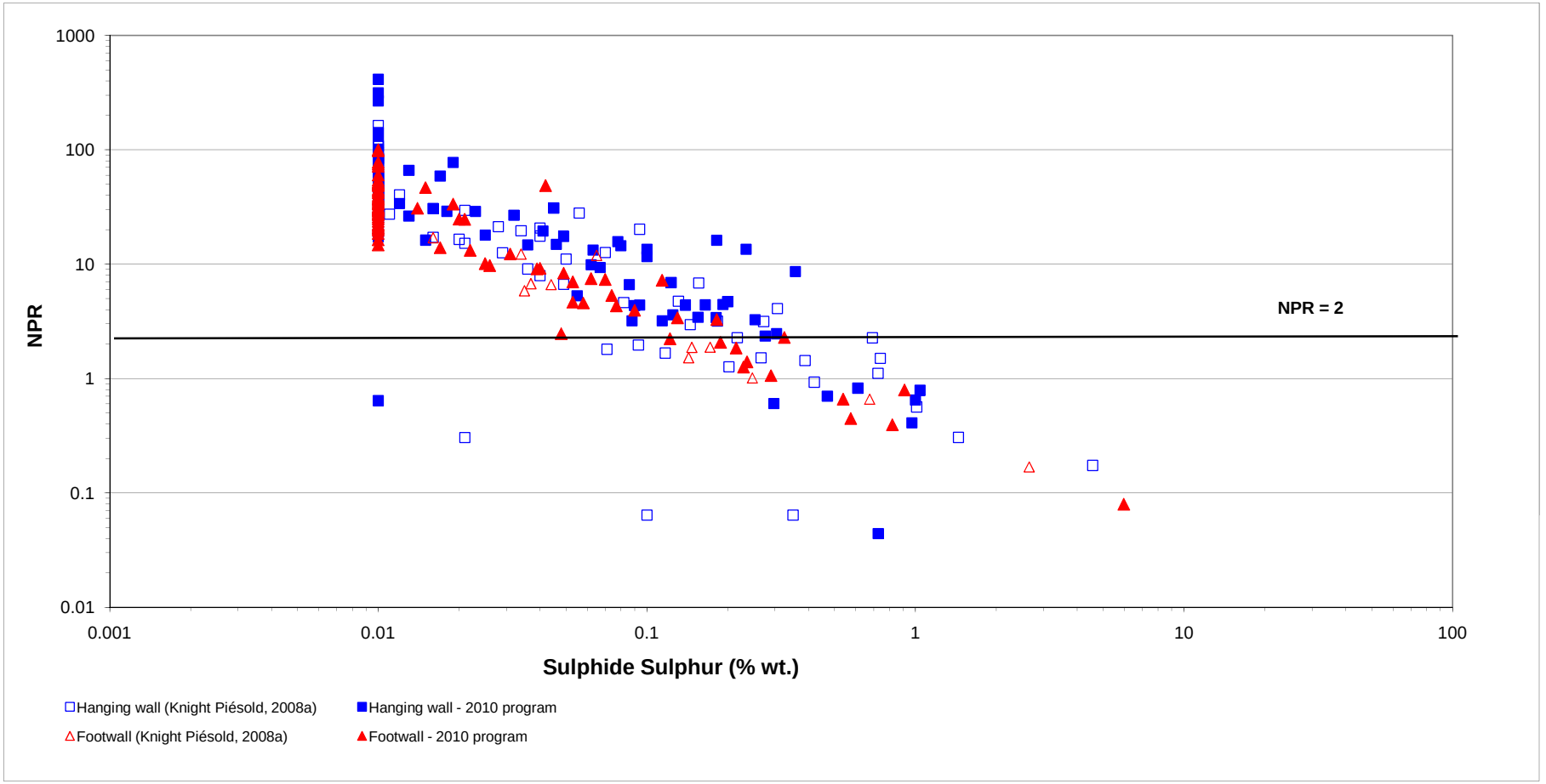
Mary River Project

Waste Rock Samples
Neutralization Potential vs. Acid Potential

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE 3



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Mary River Project

Waste Rock Samples
NPR vs. Sulphide Sulphur

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE 4

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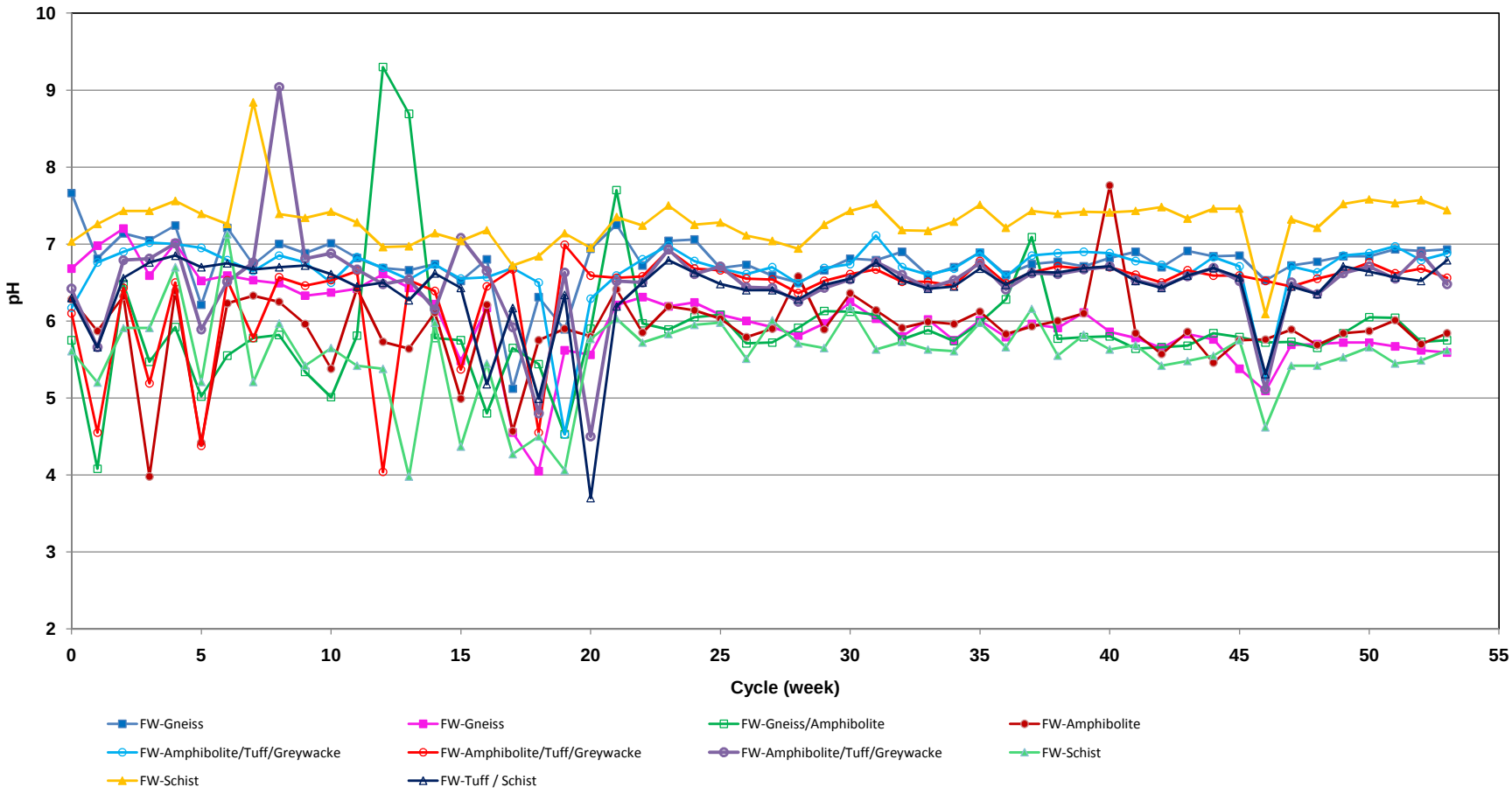
APPENDICES

APPENDIX A

PREVIOUS KINETIC TESTING RESULTS

LIST OF FIGURES



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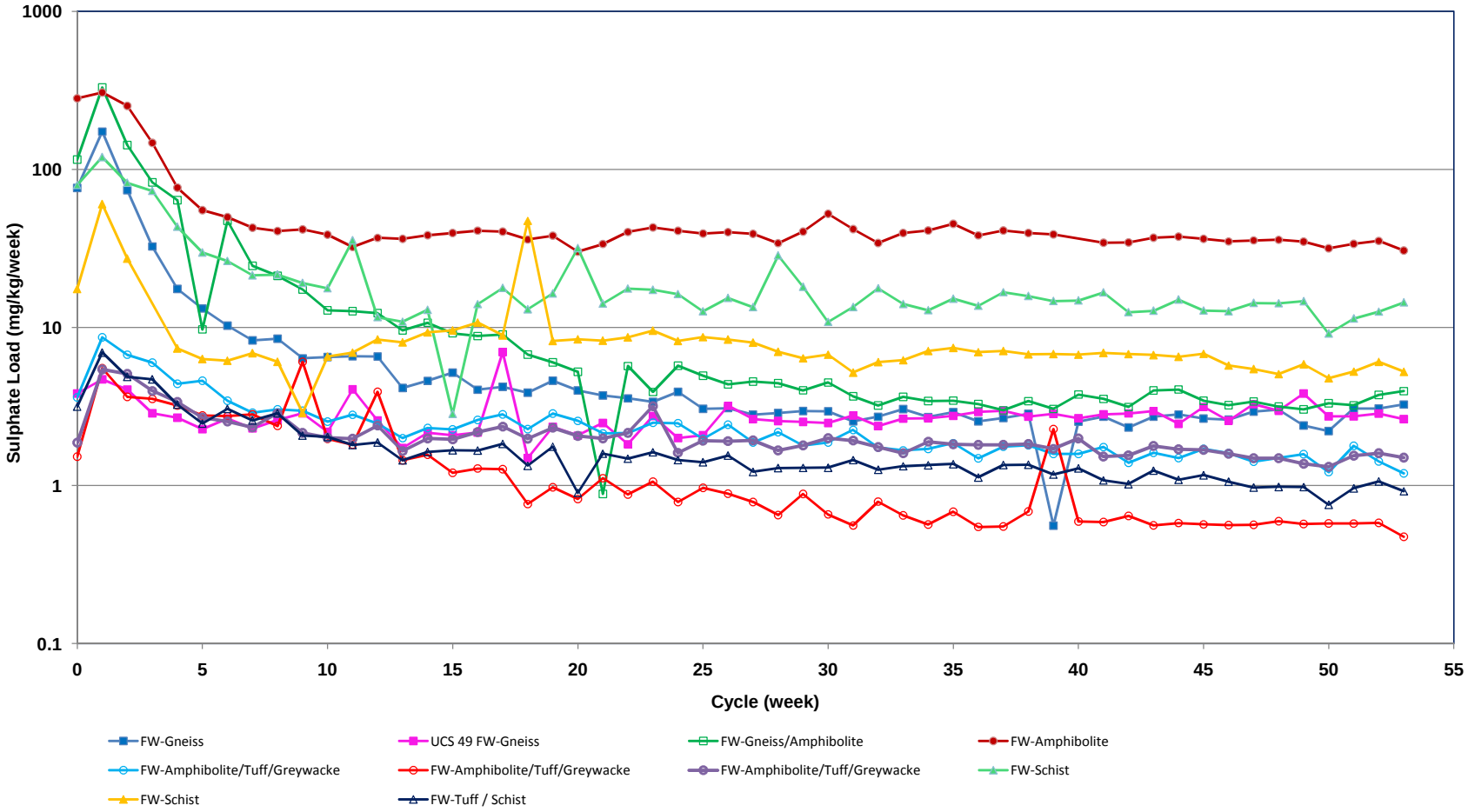
Mary River Project

Humidity Cells - 2008 Testing Program
pH

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-1



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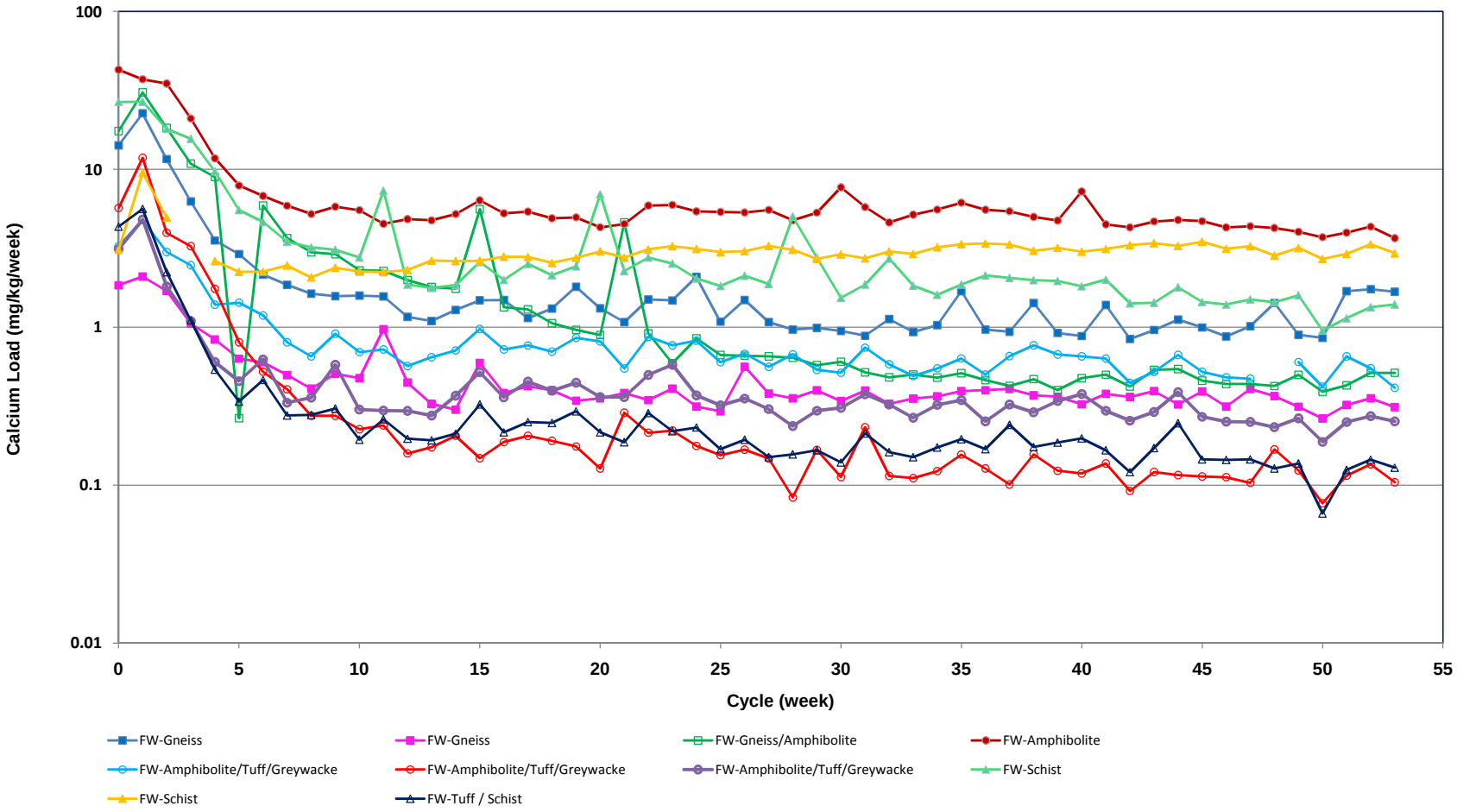
Mary River Project

Humidity Cells - 2008 Testing Program
Sulphate

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-2



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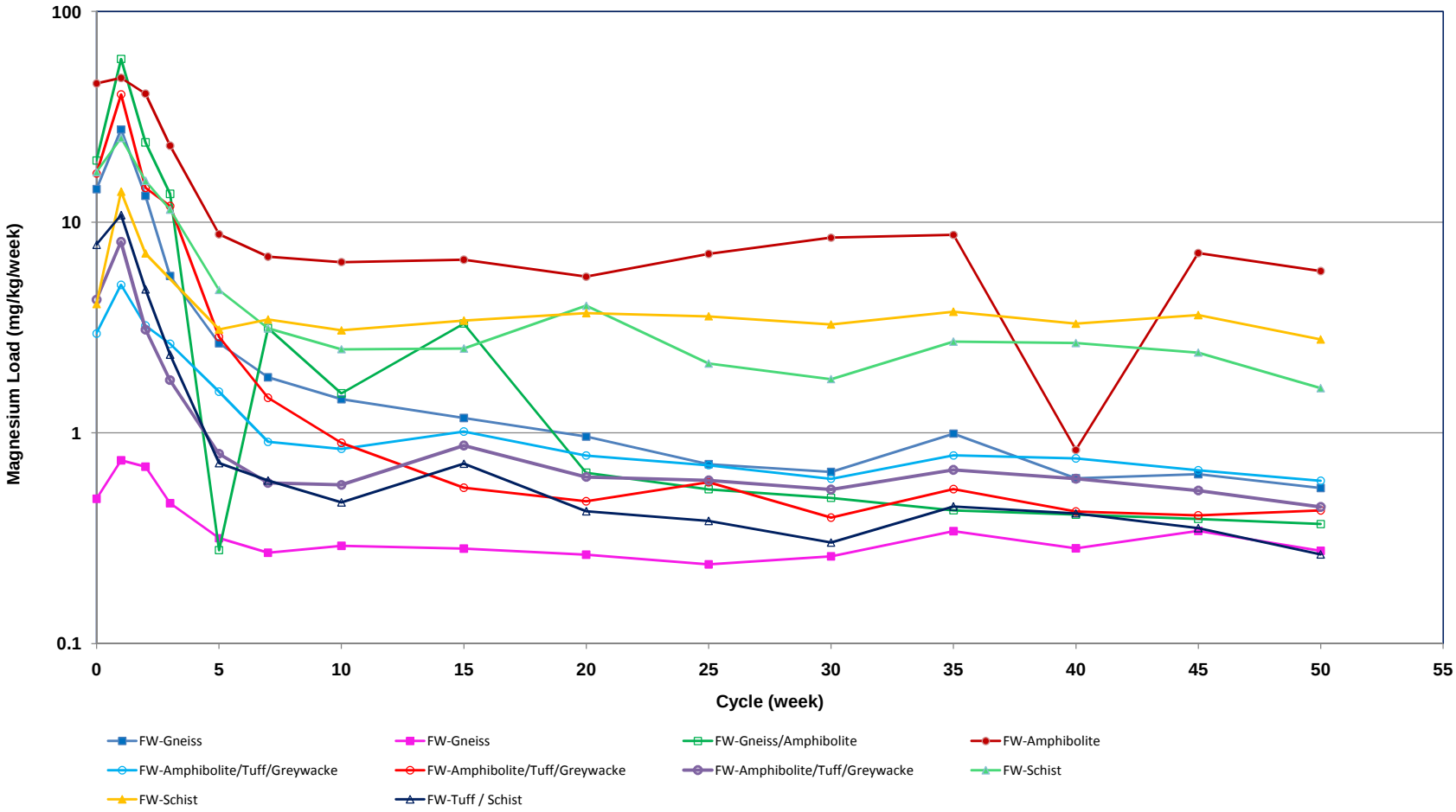
Mary River Project

Humidity Cells - 2008 Testing Program
Calcium

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-3



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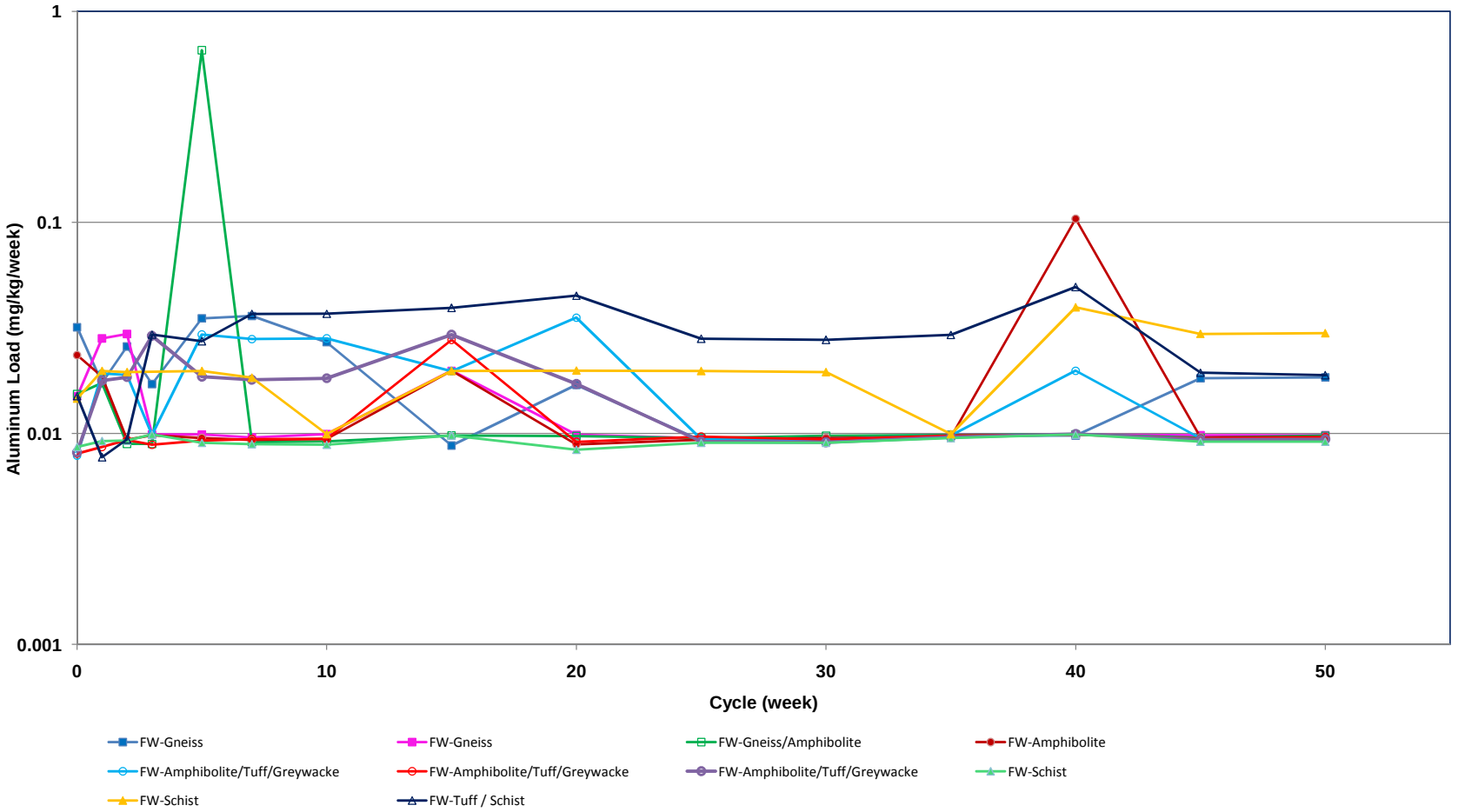
Mary River Project

Humidity Cells - 2008 Testing Program
Magnesium

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-4



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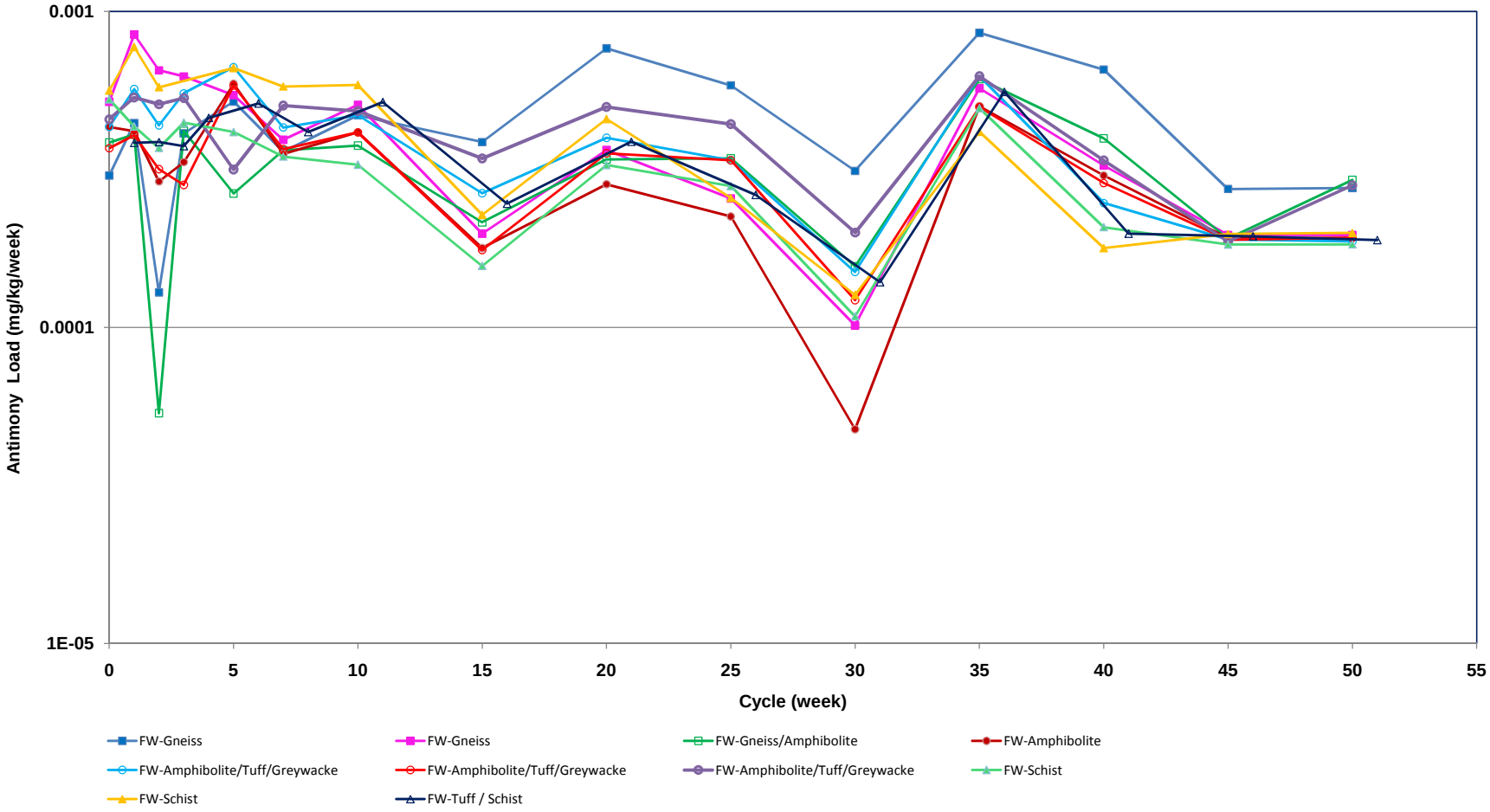
Mary River Project

Humidity Cells - 2008 Testing Program
Aluminum

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-5



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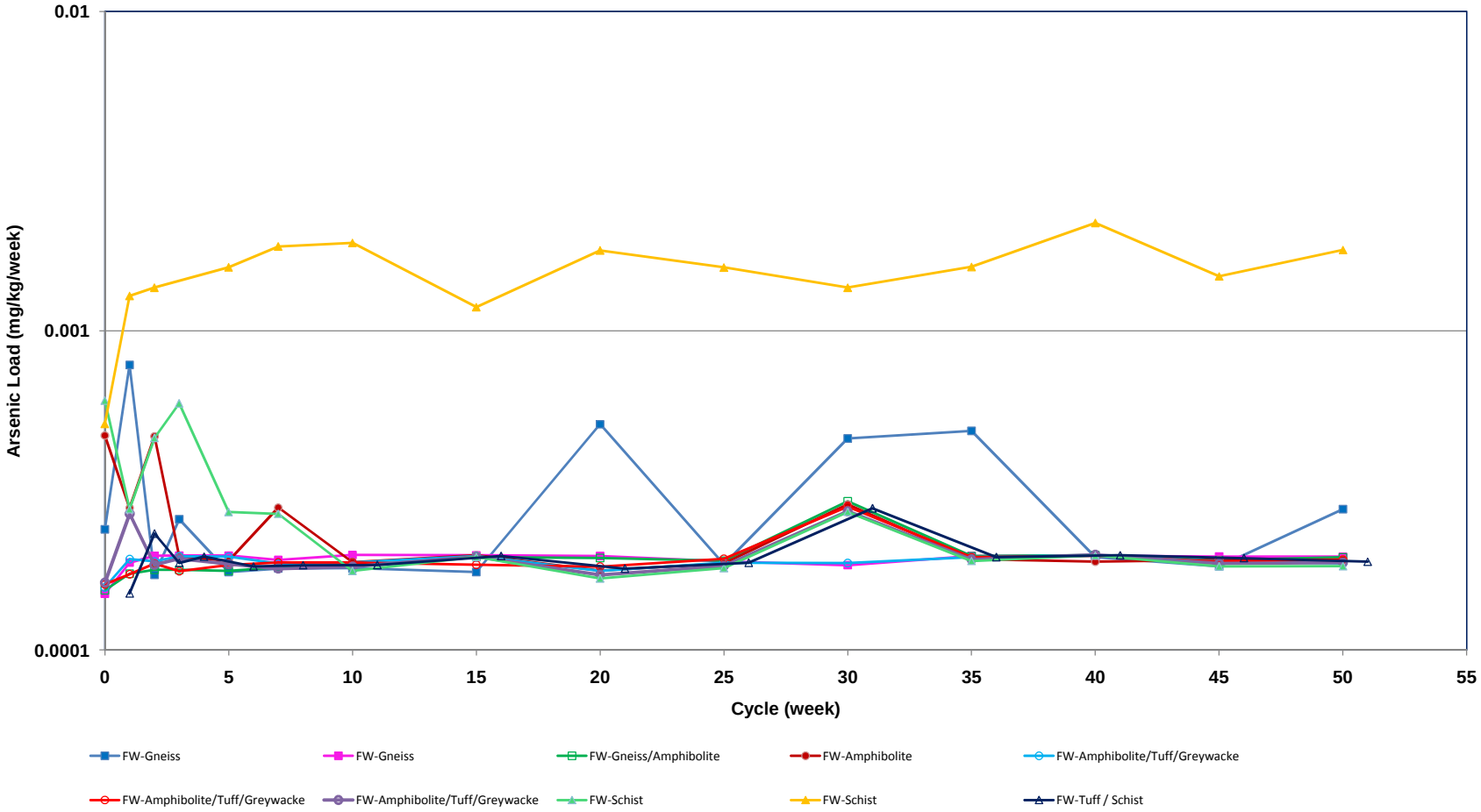
Mary River Project

Humidity Cells - 2008 Testing Program
Antimony

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-6



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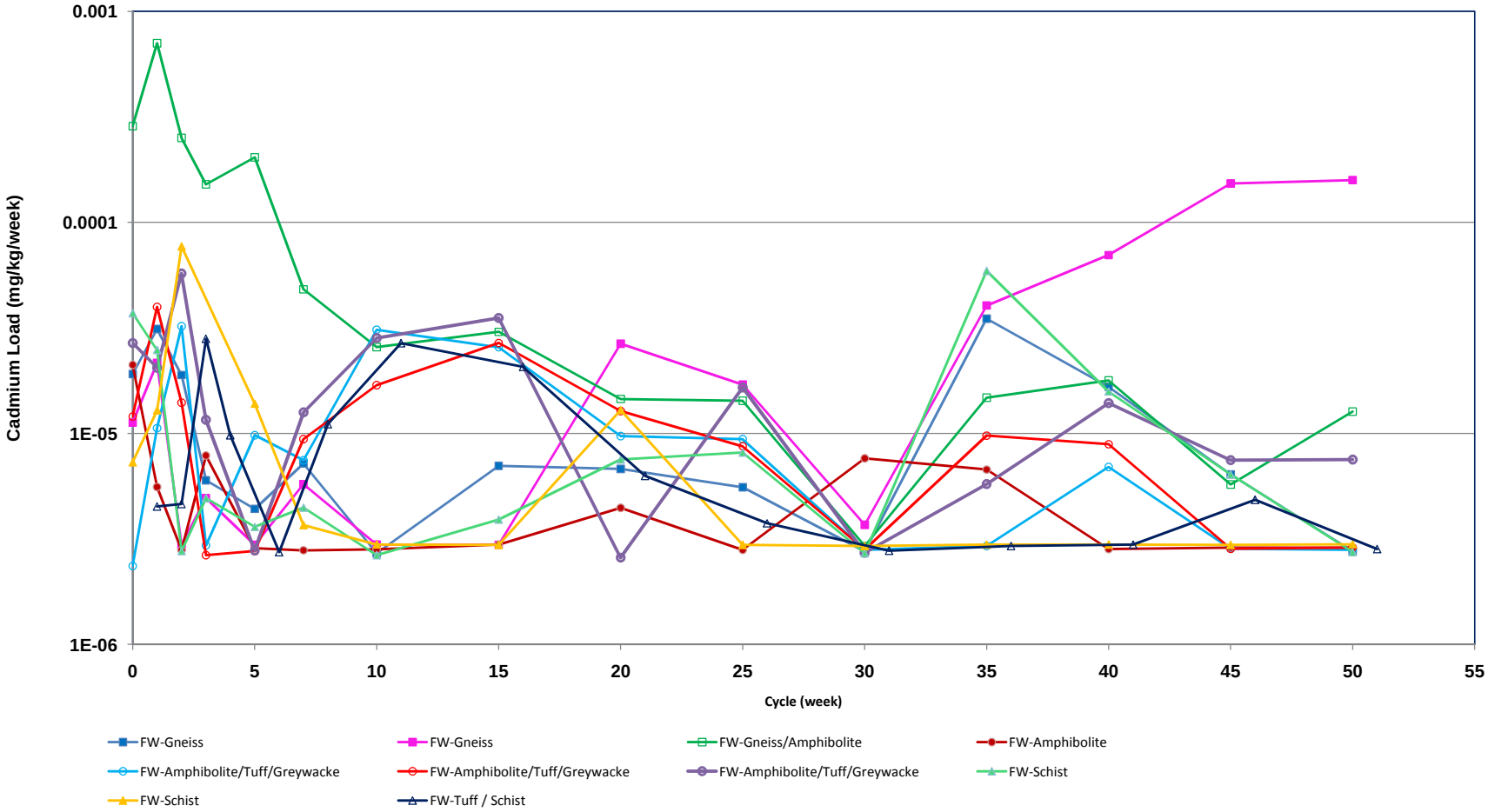
Mary River Project

Humidity Cells - 2008 Testing Program
Arsenic

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-7



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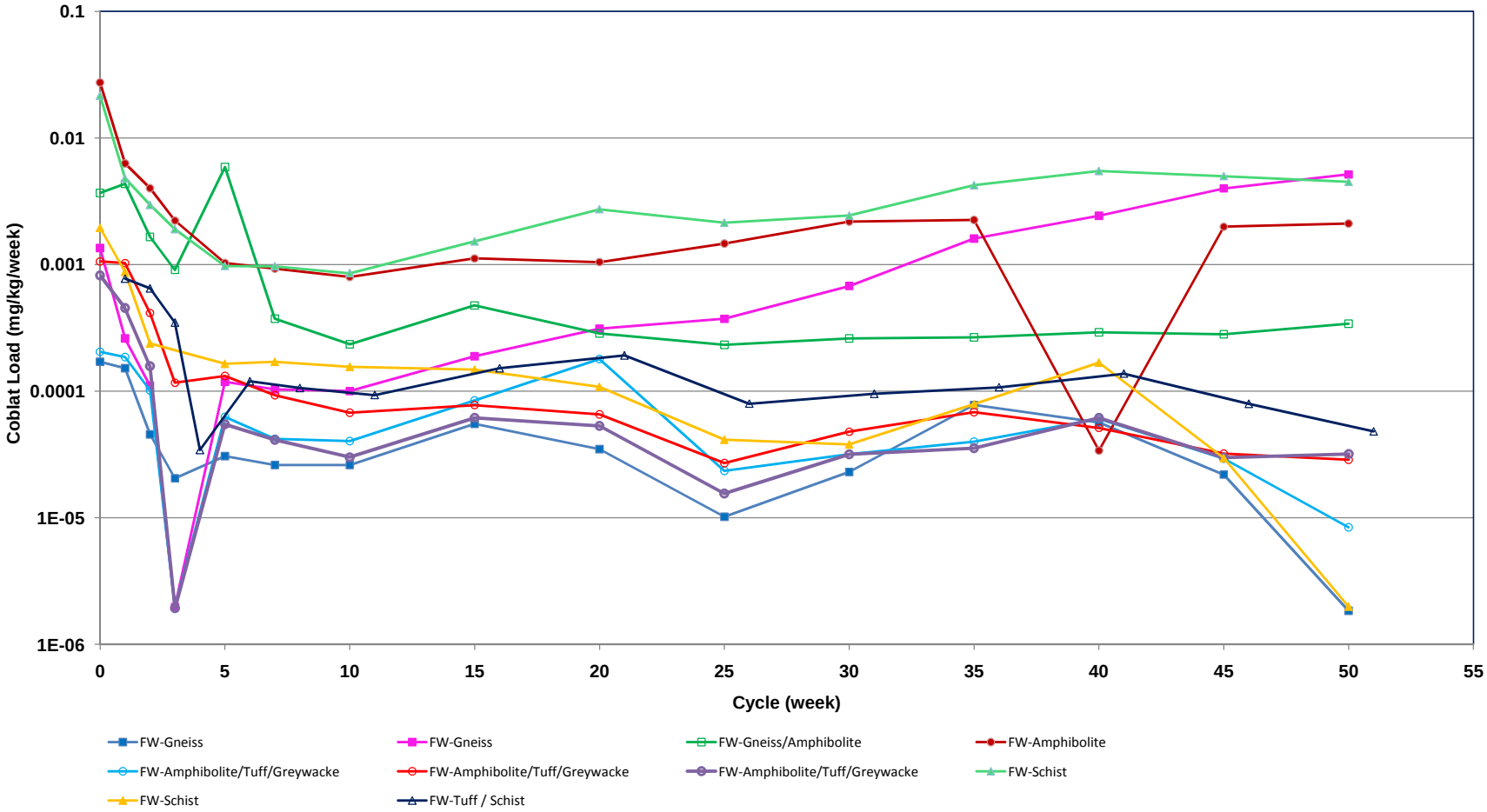
Mary River Project

Humidity Cells - 2008 Testing Program
Cadmium

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-8



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Mary River Project

Humidity Cells - 2008 Testing Program
Cobalt

Drawn by: JA	Checked by: SW	Date: December 2010
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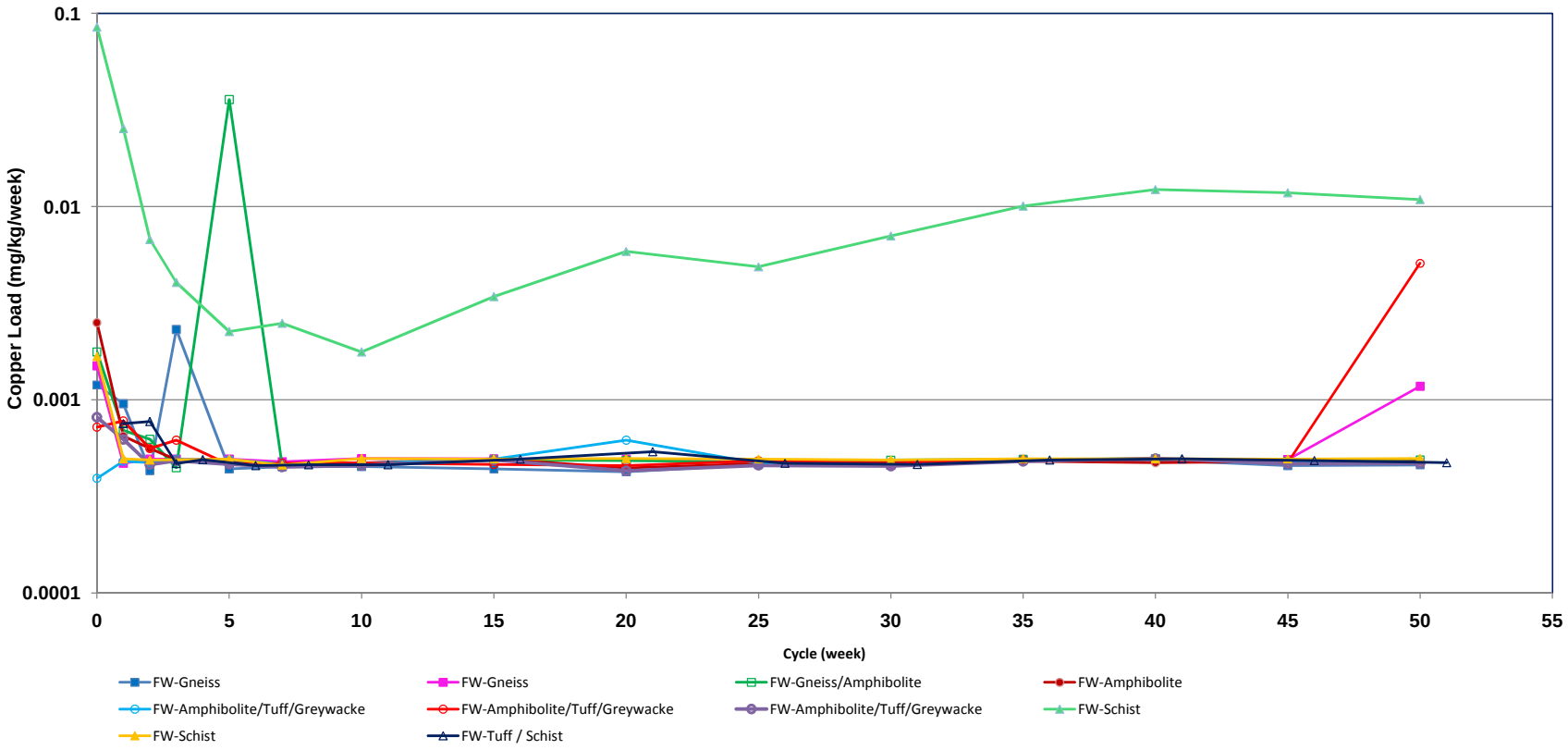

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Mary River Project

Humidity Cells - 2008 Testing Program
Copper

Drawn by: JA	Checked by: SW	Date: December 2010
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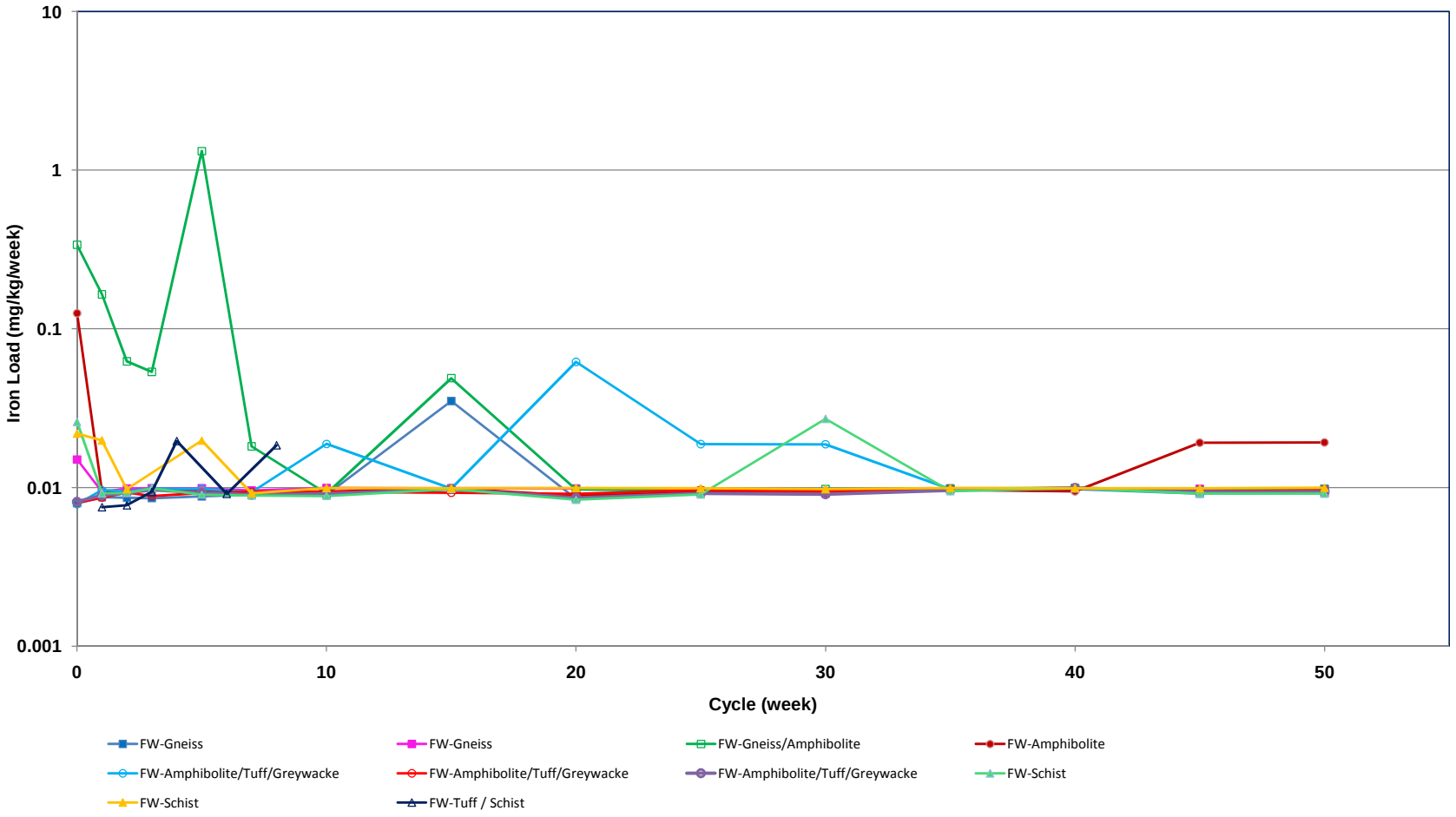

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Mary River Project

Humidity Cells - 2008 Testing Program
Iron

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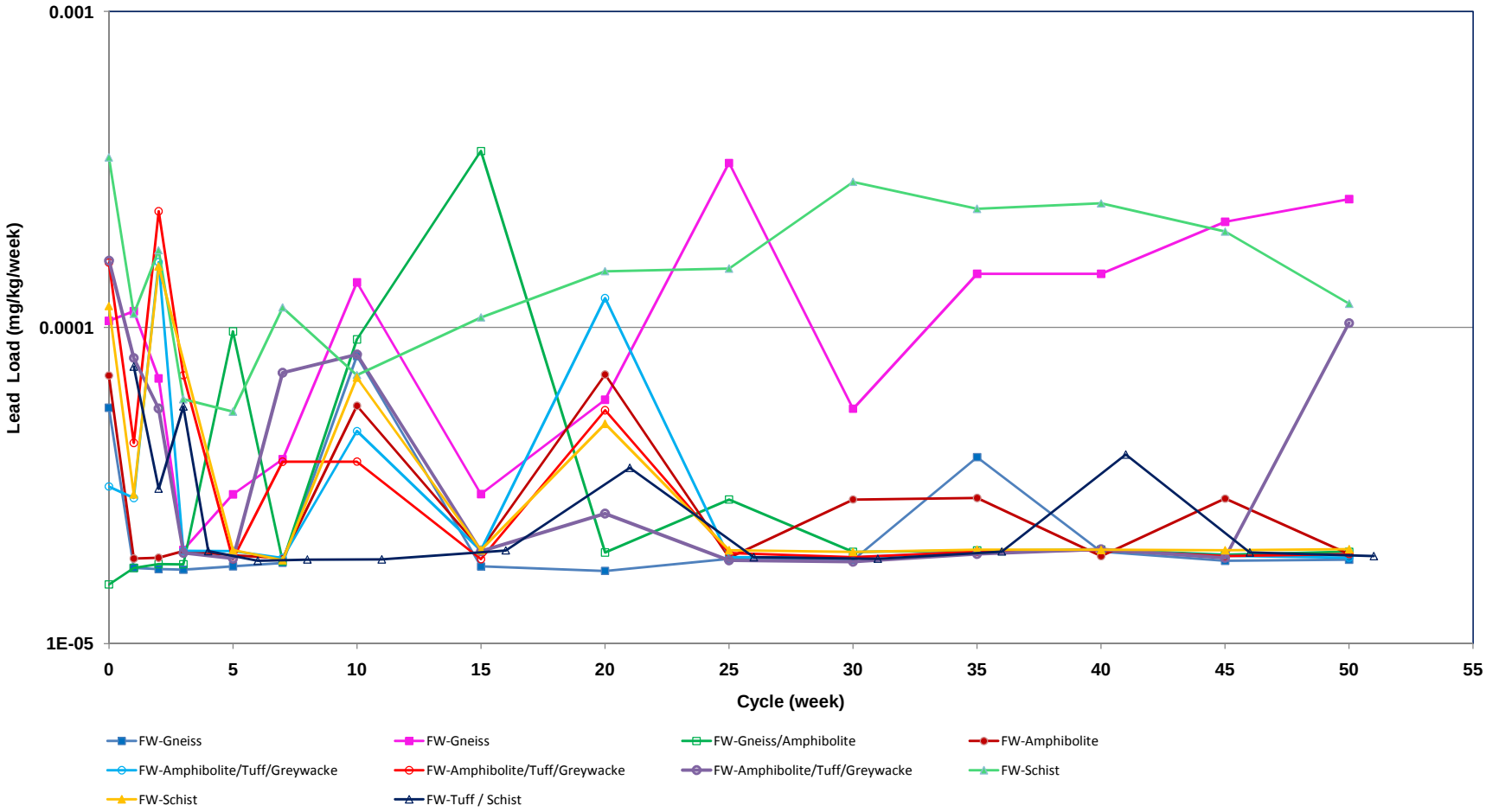

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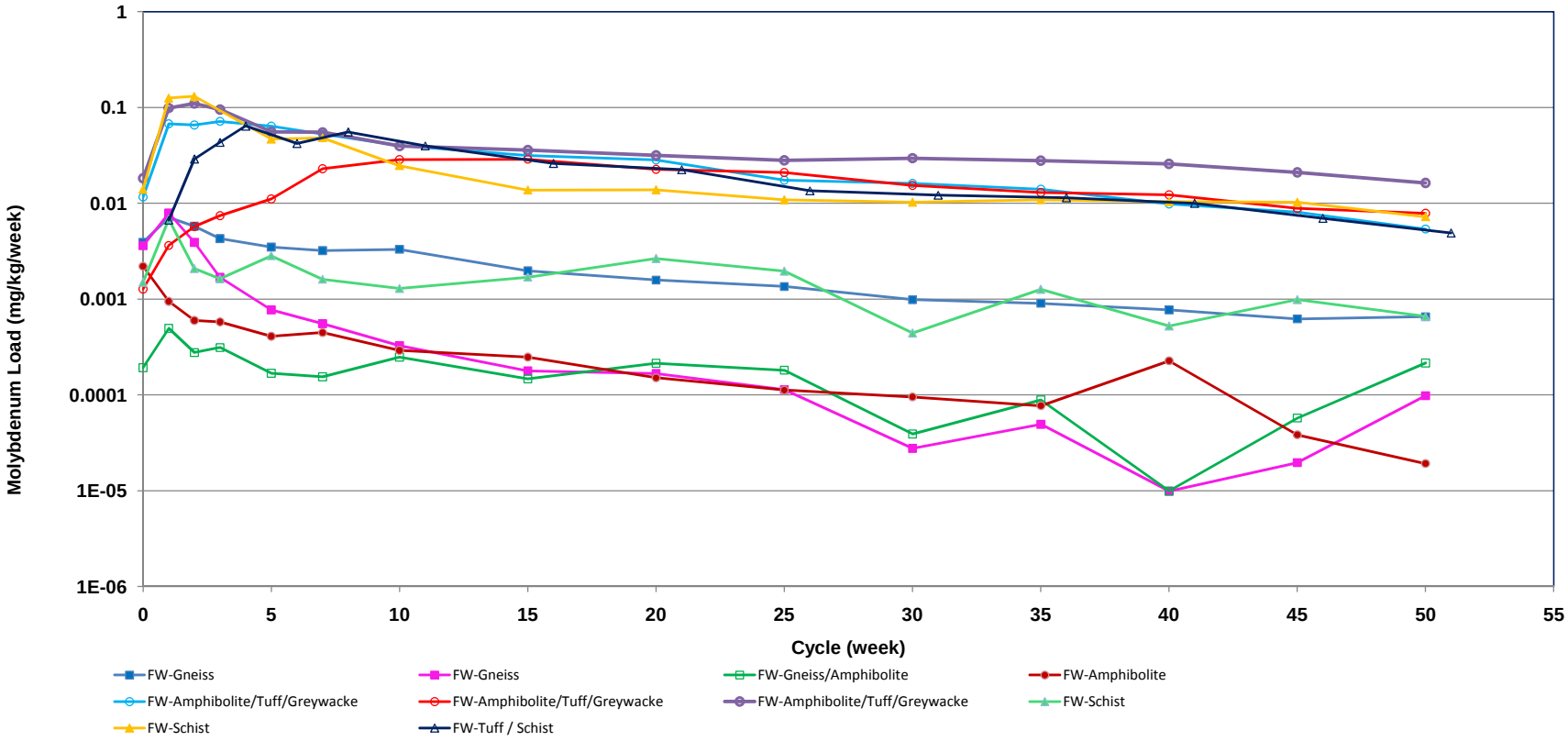
Mary River Project

Humidity Cells - 2008 Testing Program
Lead

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-12



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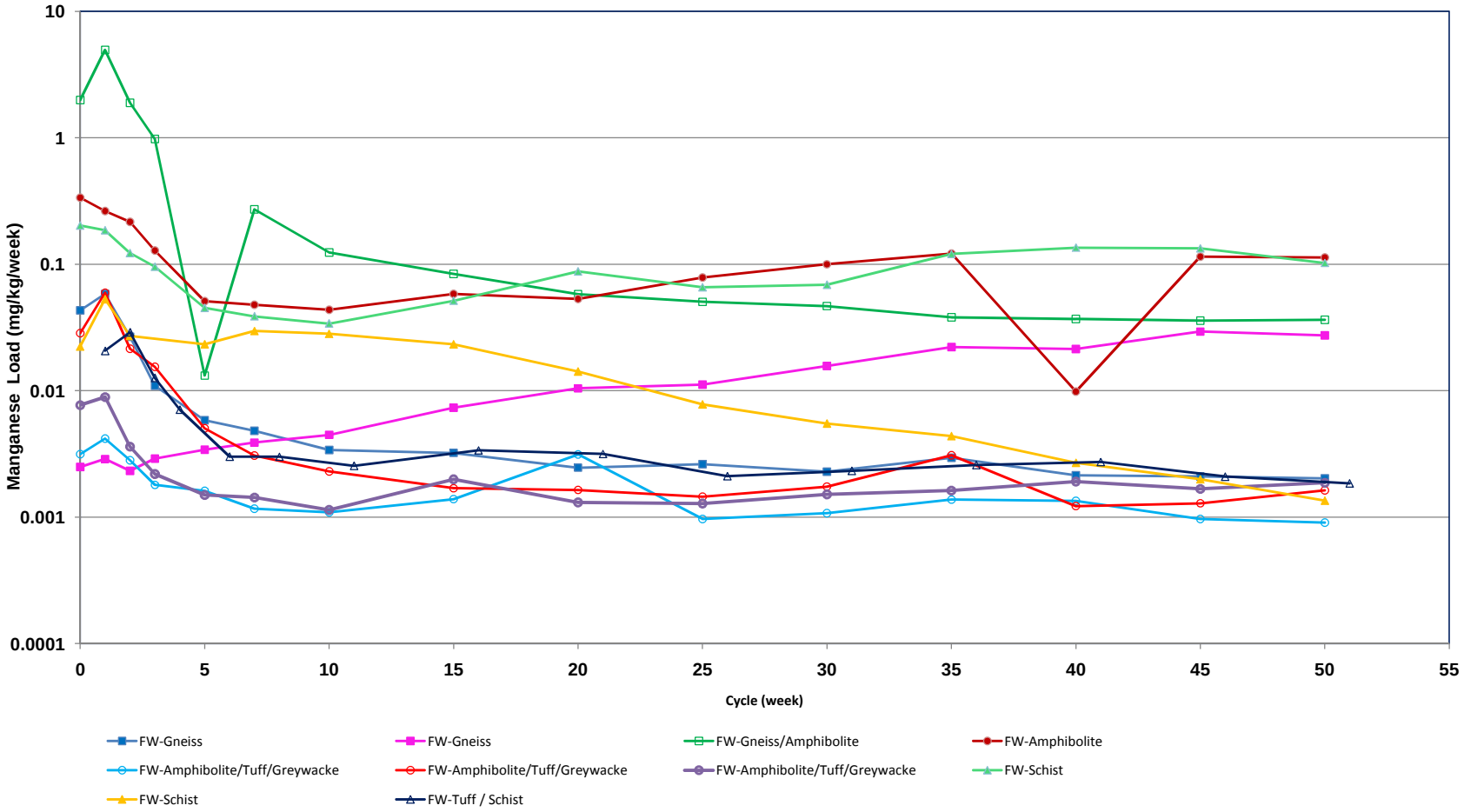
Mary River Project

Humidity Cells - 2008 Testing Program
Molybdenum

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-13



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Mary River Project

Humidity Cells - 2008 Testing Program
Manganese

Drawn by: JA	Checked by: SW	Date: December 2010
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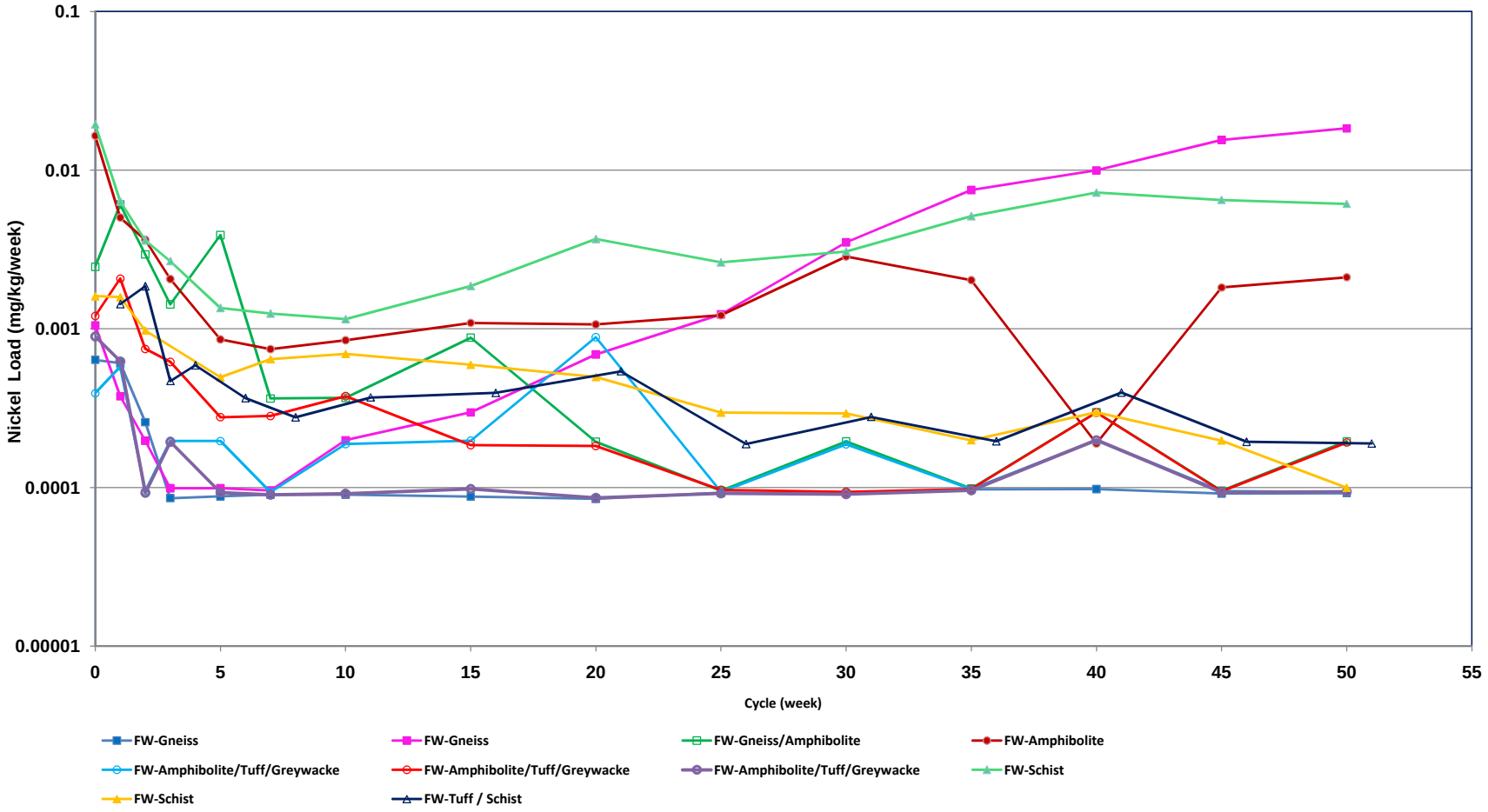

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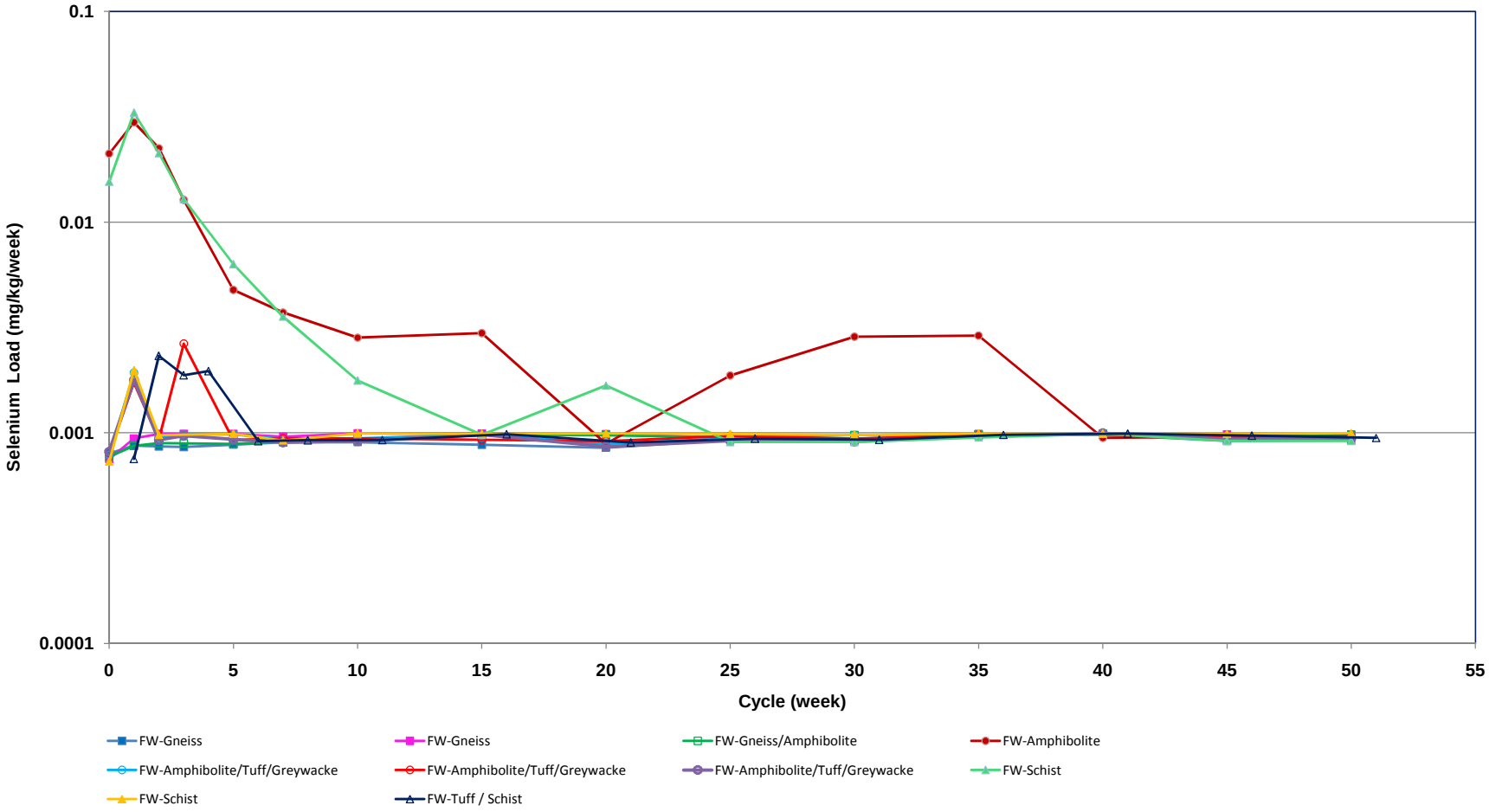
Mary River Project

Humidity Cells - 2008 Testing Program
Nickel

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-15



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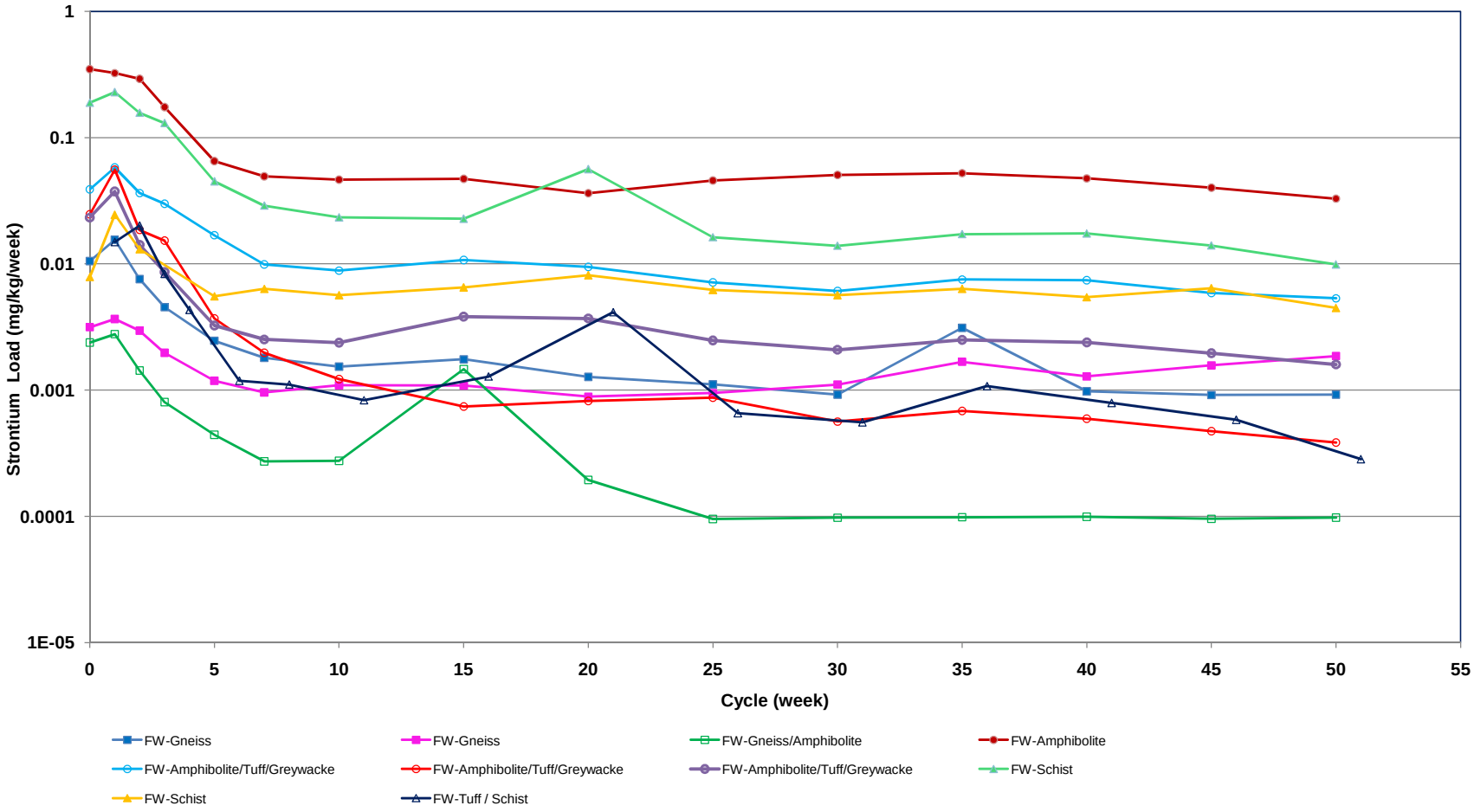
Mary River Project

Humidity Cells - 2008 Testing Program
Selenium

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-16



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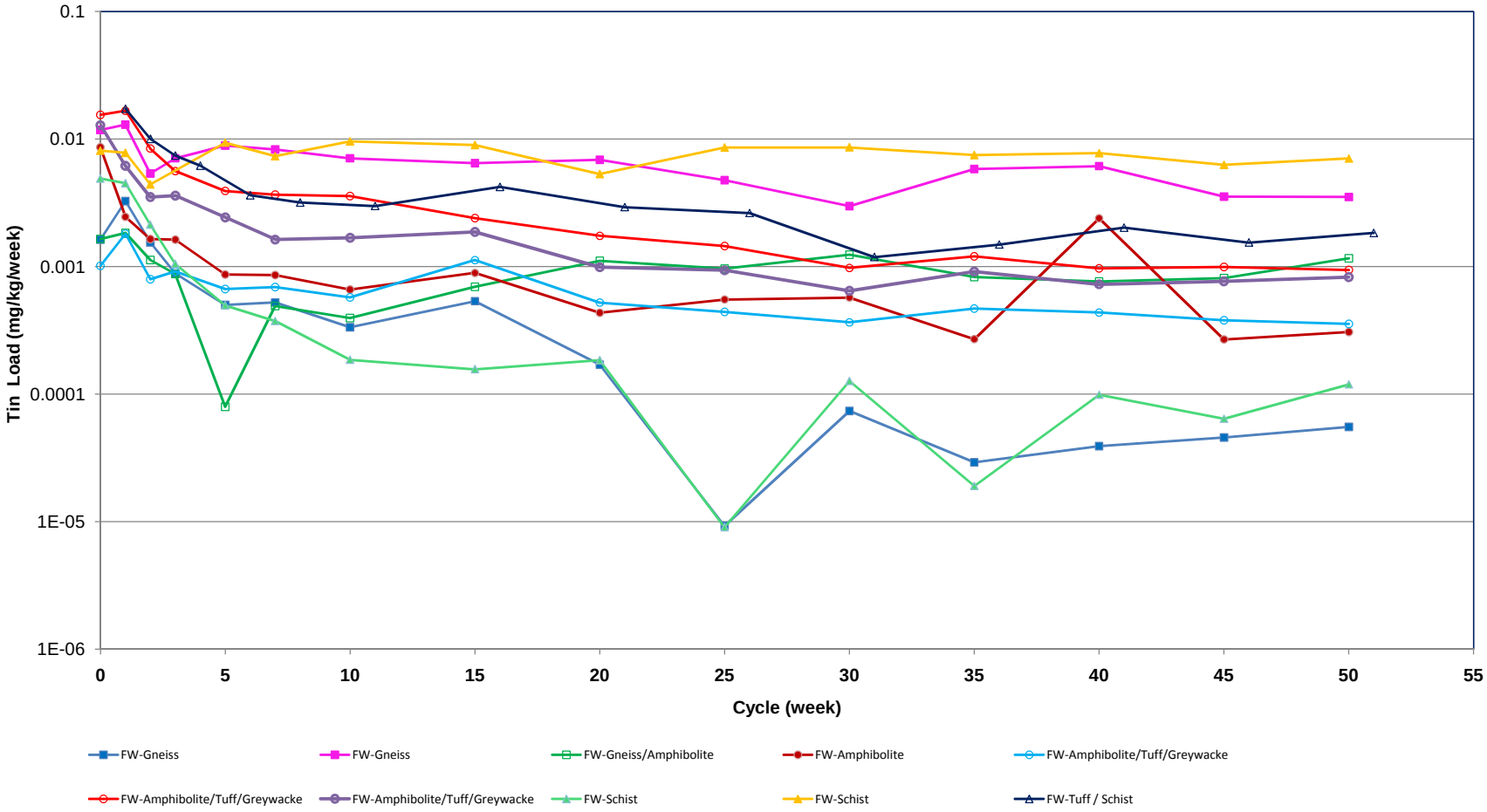
Mary River Project

Humidity Cells - 2008 Testing Program
Strontium

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-17



Baffinland Iron Mines Corporation

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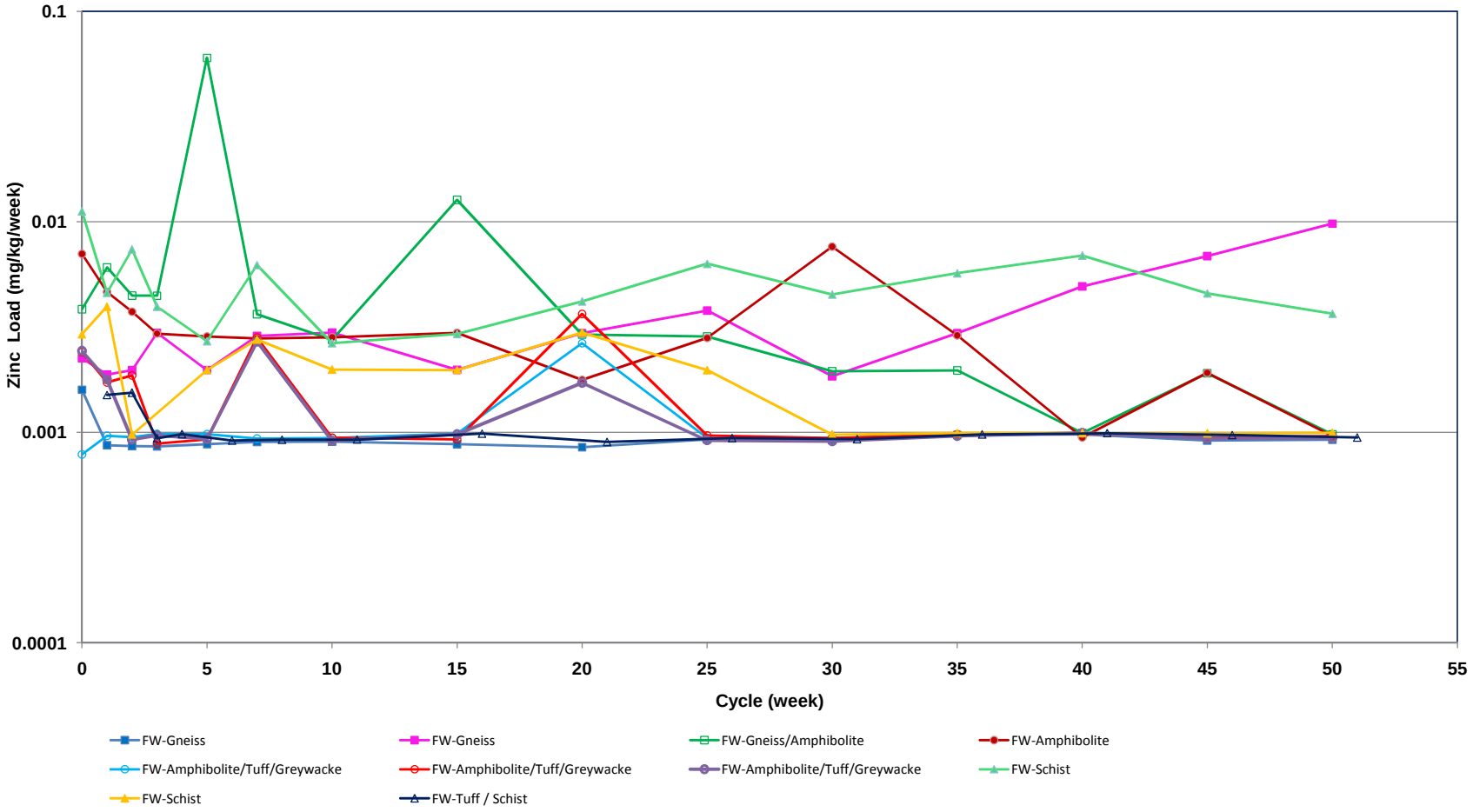
Mary River Project

Humidity Cells - 2008 Testing Program
Tin

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-18



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Mary River Project

Humidity Cells - 2008 Testing Program
Zinc

Drawn by: JA	Checked by: SW	Date: December 2010
Project: TC101507		FIGURE A-19

LIST OF TABLES

Table A-1. Depletion Time Calculation

Rock Type	Sample ID	Borehole ID	Lithology	Sulphide	Acid Potential (AP)	Neutralization Potential (NP)	NPR	Sulphide Depletion Time	NP Depletion Time	Rock Classification
				%	$tCaCO_3/1000t$	$tCaCO_3/1000t$		years	years	
Footwall	UCS13	MR1-06-81	Gneiss	0.67	23	13.9	0.61	156.2	47.2	PAG
	UCS11	MR1-06-81	Gneiss/Amphibolite	0.17	2.8	10.1	3.61	39.9	62.1	NAG
	UCS49	MR1-06-105	Gneiss	0.26	7.70	7.8	1.0	50.7	69.8	NAG
Hangingwall	07ARD10	MR1-05-53	Amphib.	4.57	143	24.8	0.17	433.5	21.9	PAG
	07ARD13	MR1-06-84	Amphibolite/Tuff/Greywacke	0.10	3.2	-14.5	-4.6	67.2	0.9	PAG
	07ARD30	MR1-05-51	Amhibolite/Schist/Tuff	0.31	9.6	39.1	4.09	164.1	163.0	PAG
	ARD 19	MR1-05-47	Schist	1.45	45.3	13.8	0.3	22.3	6.8	PAG
	07ARD06	MR1-04-39	Schist	0.69	21.6	49.0	2.3	657.3	416.1	PAG
	07ARD41	MR1-06-95	Tuff/Schist	0.12	3.8	6.1	1.6	95.8	35.5	PAG
	07ARD12	MR1-05-46	Amphibolite/Tuff/Greywacke	0.35	11.0	0.70	0.06	15.5	0.9	PAG

Note :
Sulphide depeletion time was calculated based on average sulphate loadings
NP depletion time was calculated based on average calcium and magnesium loadings

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Table A-2. Results of Waste Rock Humidity Cells - HC 1
Footwall - Gneiss (UCS13)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	1000	796	7.66	284	7	< 2	96	17.8	< 0.0001	< 0.00001	0.04	0.0003
16-Jan-08	1	1000	868	6.81	437	5	< 2	200	26.1	< 0.0001	< 0.00001	0.02	0.0009
23-Jan-08	2	1000	860	7.14	226	7	< 2	86	13.5	< 0.0001	< 0.00001	0.03	< 0.0002
30-Jan-08	3	1000	856	7.05	105	5	< 2	38	7.32	< 0.0001	< 0.00001	0.02	0.0003
6-Feb-08	4	1000	877	7.24	62	6	< 2	20	4.04	---	---	---	---
13-Feb-08	5	1000	878	6.21	62	< 2	2	15	3.31	< 0.0001	< 0.00001	0.04	< 0.0002
20-Feb-08	6	1000	857	7.21	41	6	< 2	12	2.51	---	---	---	---
27-Feb-08	7	1000	900	6.73	38	3	< 2	9.2	2.06	< 0.0001	< 0.00001	0.04	0.0002
05-Mar-08	8	1000	849	7.00	41	5	< 2	10	1.92	---	---	---	---
12-Mar-08	9	1000	899	6.88	30	4	< 2	7.1	1.75	---	---	---	---
19-Mar-08	10	1000	902	7.01	37	4	< 2	7.2	1.76	< 0.0001	< 0.00001	0.03	< 0.0002
26-Mar-08	11	1000	926	6.82	30	4	< 2	7.1	1.69	---	---	---	---
2-Apr-08	12	1000	923	6.69	22	4	< 2	7.1	1.26	---	---	---	---
9-Apr-08	13	1000	920	6.66	24	3	< 2	4.5	1.19	---	---	---	---
16-Apr-08	14	1000	938	6.74	24	4	< 2	4.9	1.37	---	---	---	---
23-Apr-08	15	1000	877	6.52	28	3	< 2	5.9	1.69	< 0.0001	< 0.00001	< 0.01	< 0.0002
30-Apr-08	16	1000	961	6.80	23	4	< 2	4.2	1.55	---	---	---	---
7-May-08	17	1000	936	5.12	26	< 2	< 2	4.5	1.22	---	---	---	---
14-May-08	18	1000	966	6.31	22	5	< 2	4	1.36	---	---	---	---
21-May-08	19	1000	980	5.89	35	2	5	4.7	1.84	---	---	---	---
28-May-08	20	1000	849	6.94	28	4	< 2	4.7	1.55	< 0.0001	< 0.00001	0.02	0.0006
4-Jun-08	21	1000	928	7.25	29	8	< 2	4	1.16	---	---	---	---
11-Jun-08	22	1000	962	6.72	21	4	< 2	3.7	1.56	---	---	---	---
18-Jun-08	23	1000	966	7.04	21	4	< 2	3.5	1.53	---	---	---	---
25-Jun-08	24	1000	978	7.06	23	6	< 2	4	2.13	---	---	---	---
2-Jul-08	25	1000	926	6.69	17	3	< 2	3.3	1.17	< 0.0001	< 0.00001	0.01	< 0.0002
9-Jul-08	26	1000	965	6.73	21	4	< 2	3.2	1.54	---	---	---	---
16-Jul-08	27	1000	936	6.59	16	3	< 2	3	1.15	---	---	---	---
23-Jul-08	28	1000	928	6.5	16	3	< 2	3.1	1.04	---	---	---	---
30-Jul-08	29	1000	925	6.66	16	3	< 2	3.2	1.07	---	---	---	---
6-Aug-08	30	1000	920	6.81	15	3	< 2	3.2	1.03	< 0.0001	< 0.00001	< 0.01	0.0005
13-Aug-08	31	1000	910	6.79	13	3	< 2	2.8	0.97	---	---	---	---
20-Aug-08	32	1000	879	6.9	104	4	< 2	3.1	1.28	---	---	---	---
27-Aug-08	33	1000	895	6.59	16	3	< 2	3.4	1.04	---	---	---	---
3-Sep-08	34	1000	936	6.7	16	3	<2	2.9	1.1	---	---	---	---
10-Sep-08	35	1000	972	6.89	17	5	<2	3	1.74	< 0.0001	0.00003	< 0.01	0.0005

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Table A-2. Results of Waste Rock Humidity Cells - HC 1
Footwall - Gneiss (UCS13)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
9-Jan-08	0	0.0143	0.00002	0.0057	0.00002	0.000024	0.000215	< 0.0005	0.0015	< 0.01	4.90	< 0.002	18.0	0.0542	0.0049
16-Jan-08	1	0.00855	< 0.00002	0.0062	< 0.00001	0.000036	0.000175	< 0.0005	0.0011	< 0.01	3.83	< 0.002	31.7	0.0671	0.0082
23-Jan-08	2	0.00546	< 0.00002	0.008	< 0.00001	0.000022	0.000053	< 0.0005	0.0005	0.01	3.05	< 0.002	15.5	0.03103	0.0067
30-Jan-08	3	0.00352	< 0.00002	0.0064	< 0.00001	0.000007	0.000024	< 0.0005	0.0027	< 0.01	2.22	< 0.002	6.49	0.0128	0.005
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.00279	< 0.00002	0.0051	0.00002	0.000005	0.000035	< 0.0005	< 0.0005	< 0.01	1.53	< 0.002	3.03	0.00665	0.004
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.00229	< 0.00002	0.0048	< 0.00001	0.000008	0.000029	< 0.0005	< 0.0005	0.01	1.01	< 0.002	2.04	0.00536	0.0036
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.00232	< 0.00002	0.0034	< 0.00001	0.000003	0.000029	< 0.0005	< 0.0005	0.01	0.88	< 0.002	1.6	0.00376	0.0037
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.00265	< 0.00002	0.01	< 0.00001	0.000008	0.000063	< 0.0005	< 0.0005	0.04	0.79	0.003	1.34	0.00367	0.0023
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.00234	< 0.00002	0.0019	0.00001	0.000008	0.000041	< 0.0005	< 0.0005	< 0.01	0.69	< 0.002	1.13	0.0029	0.0019
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.00198	< 0.00002	0.0014	< 0.00001	0.000006	0.000011	< 0.0005	< 0.0005	< 0.01	0.58	< 0.002	0.767	0.00283	0.0015
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.00193	< 0.00002	0.0009	0.00007	< 0.000003	0.000025	< 0.0005	< 0.0005	< 0.01	0.54	< 0.002	0.709	0.00249	0.0011
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.00246	0.00003	0.0015	0.00001	0.000036	0.00008	< 0.0005	< 0.0005	< 0.01	0.6	< 0.002	1.02	0.00303	0.0009

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Table A-2. Results of Waste Rock Humidity Cells - HC 1
Footwall - Gneiss (UCS13)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
9-Jan-08	0	1.23	0.00080	< 0.01	0.00007	0.0004	< 0.001	0.56	0.00204	0.0132	0.0002	0.00003	0.00037	0.00014	0.002
16-Jan-08	1	1.74	0.00070	0.01	< 0.00002	0.001	< 0.001	0.22	0.00376	0.0179	< 0.0001	0.00001	0.00382	0.00012	0.001
23-Jan-08	2	0.92	0.0003	< 0.01	< 0.00002	0.00015	< 0.001	0.25	0.0018	0.0088	< 0.0001	0.000002	0.003538	0.00007	< 0.001
30-Jan-08	3	0.41	< 0.0001	0.02	< 0.00002	0.00048	< 0.001	0.25	0.00103	0.0053	0.0001	< 0.000002	0.00064	0.00007	< 0.001
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.17	< 0.0001	0.02	0.00002	0.00059	< 0.001	0.26	0.00057	0.0028	0.0001	< 0.000002	0.000458	0.00008	< 0.001
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.1	< 0.0001	0.01	0.00002	0.0004	< 0.001	0.17	0.00058	0.002	0.0001	< 0.000002	0.00028	0.00006	0.001
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.07	< 0.0001	< 0.01	0.00009	0.00052	< 0.001	0.2	0.00037	0.0017	0.0002	< 0.000002	0.000219	0.00009	0.001
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.04	0.0001	< 0.01	< 0.00002	0.00044	< 0.001	0.16	0.00061	0.002	0.0001	0.000094	0.000425	0.00012	0.001
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.01	< 0.0001	< 0.01	0.00002	0.0009	< 0.001	0.16	0.0002	0.0015	< 0.0001	< 0.000002	0.000317	0.00006	< 0.001
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.02	< 0.0001	< 0.01	< 0.00002	0.00063	< 0.001	0.16	< 0.00001	0.0012	< 0.0001	0.000003	0.000325	0.00004	< 0.001
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.02	< 0.0001	< 0.01	0.00002	0.00034	< 0.001	0.12	0.00008	0.001	0.0001	< 0.000002	0.000201	0.00005	< 0.001
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.05	< 0.0001	< 0.01	0.00004	0.00088	< 0.001	0.23	0.00003	0.0032	< 0.0001	0.00007	0.000349	0.00004	0.001

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Table A-2. Results of Waste Rock Humidity Cells - HC 1
Footwall - Gneiss (UCS13)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	1000	879	6.6	15	3	<2	2.9	1.1	---	---	---	---
24-Sep-08	37	1000	892	6.74	15	3	<2	3	1.05	---	---	---	---
1-Oct-08	38	1000	980	6.77	15	20	< 2	2.9	1.45	---	---	---	---
8-Oct-08	39	1000	928	6.71	15	3	<2	0.6	0.99	---	---	---	---
15-Oct-08	40	1000	977	6.82	14	3	< 2	2.6	0.9	< 0.0001	0.00002	< 0.01	< 0.0002
22-Oct-08	41	1000	973	6.9	19	4	< 2	2.8	1.42	---	---	---	---
29-Oct-08	42	1000	897	6.7	17	< 2	< 2	2.6	0.94	---	---	---	---
5-Nov-08	43	1000	881	6.91	22	3	< 2	3.1	1.09	---	---	---	---
12-Nov-08	44	1000	938	6.84	14	3	< 2	3.0	1.19	---	---	---	---
19-Nov-08	45	1000	914	6.85	13	3	< 2	2.9	1.09	< 0.0001	< 0.00001	0.02	< 0.0002
26-Nov-08	46	1000	900	6.53	13	3	< 2	2.9	0.97	---	---	---	---
3-Dec-08	47	1000	890	6.72	16	2	< 2	3.3	1.14	---	---	---	---
10-Dec-08	48	1000	976	6.77	22	4	< 2	3.1	1.46	---	---	---	---
17-Dec-08	49	1000	923	6.84	13	3	< 2	2.6	0.97	---	---	---	---
24-Dec-08	50	1000	921	6.84	13	3	< 2	2.4	0.93	0.0001	< 0.00001	0.02	0.0003
30-Dec-08	51	1000	989	6.93	19	5	< 2	3.1	1.71	---	---	---	---
7-Jan-09	52	1000	990	6.91	19	5	< 2	3.1	1.76	---	---	---	---
14-Jan-09	53	1000	987	6.93	18	4	< 2	3.3	1.70	---	---	---	---

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Table A-2. Results of Waste Rock Humidity Cells - HC 1
Footwall - Gneiss (UCS13)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.00177	0.00002	0.0006	< 0.00001	0.000017	0.000058	< 0.0005	< 0.0005	< 0.01	0.5	< 0.002	0.623	0.00219	0.0008
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.00201	< 0.00002	0.001	< 0.00001	0.000007	0.000024	< 0.0005	< 0.0005	< 0.01	0.56	< 0.002	0.696	0.0023	0.0007
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.00188	< 0.00002	0.0004	< 0.00001	< 0.000003	< 0.000002	< 0.0005	< 0.0005	< 0.01	0.5	< 0.002	0.594	0.0022	0.0007
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-2. Results of Waste Rock Humidity Cells - HC 1
Footwall - Gneiss (UCS13)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.01	0.0001	0.01	< 0.00002	0.00067	< 0.001	0.15	0.00004	0.001	0.0001	0.000026	0.000483	< 0.00003	< 0.001
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.02	< 0.0001	< 0.01	< 0.00002	0.0003	< 0.001	0.16	0.00005	0.001	< 0.0001	< 0.000002	0.000186	< 0.00003	< 0.001
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	< 0.01	< 0.0001	< 0.01	< 0.00002	0.0003	< 0.001	0.15	0.00006	0.001	< 0.0001	< 0.000002	0.000233	< 0.00003	< 0.001
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-3. Results of Waste Rock Humidity Cells - HC 2
Footwall - Gneiss/Amphibolite (UCS 11)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	1000	769	5.75	379	< 2	6	150	22.7	< 0.0001	< 0.00001	0.02	< 0.0002
16-Jan-08	1	1000	867	4.08	809	< 2	12	380	35.4	< 0.0001	< 0.00001	0.02	< 0.0002
23-Jan-08	2	1000	892	6.48	365	< 2	4	160	20.5	< 0.0001	< 0.00001	< 0.01	< 0.0002
30-Jan-08	3	1000	891	5.47	214	< 2	3	93	12.2	< 0.0001	< 0.00001	0.01	< 0.0002
6-Feb-08	4	1000	901	5.92	162	< 2	3	71	9.92	---	---	---	---
13-Feb-08	5	1000	884	5.02	129	7	4	11	0.3	< 0.0001	< 0.00001	0.74	< 0.0002
20-Feb-08	6	1000	830	5.55	120	< 2	< 2	57	7.11	---	---	---	---
27-Feb-08	7	1000	909	5.78	75	< 2	3	27	4.04	< 0.0001	< 0.00001	0.01	< 0.0002
05-Mar-08	8	1000	884	5.82	68	< 2	3	24	3.37	---	---	---	---
12-Mar-08	9	1000	914	5.34	51	< 2	3	19	3.17	---	---	---	---
19-Mar-08	10	1000	917	5.01	42	< 2	2	14	2.5	< 0.0001	< 0.00001	< 0.01	< 0.0002
26-Mar-08	11	1000	906	5.81	42	< 2	3	14	2.51	---	---	---	---
2-Apr-08	12	1000	948	9.3	106	15	< 2	13	2.1	---	---	---	---
9-Apr-08	13	1000	960	8.69	56	3	< 2	10	1.87	---	---	---	---
16-Apr-08	14	1000	974	5.78	34	< 2	3	11	1.8	---	---	---	---
23-Apr-08	15	1000	977	5.75	29	< 2	< 2	9.4	5.72	< 0.0001	< 0.00001	< 0.01	< 0.0002
30-Apr-08	16	1000	970	4.8	35	< 2	3	9.1	1.38	---	---	---	---
7-May-08	17	1000	981	5.65	28	< 2	2	9.2	1.32	---	---	---	---
14-May-08	18	1000	937	5.44	26	< 2	2	7.2	1.13	---	---	---	---
21-May-08	19	1000	925	4.53	42	< 2	< 2	6.5	1.04	---	---	---	---
28-May-08	20	1000	971	5.9	22	< 2	2	5.4	0.92	< 0.0001	< 0.00001	< 0.01	< 0.0002
4-Jun-08	21	1000	884	7.7	58	29	< 2	1	5.22	---	---	---	---
11-Jun-08	22	1000	982	5.97	35	< 2	< 2	5.8	0.93	---	---	---	---
18-Jun-08	23	1000	953	5.89	15	< 2	< 2	4.1	0.62	---	---	---	---
25-Jun-08	24	1000	988	6.05	17	< 2	< 2	5.8	0.86	---	---	---	---
2-Jul-08	25	1000	952	6.08	19	< 2	< 2	5.2	0.7	< 0.0001	< 0.00001	< 0.01	< 0.0002
9-Jul-08	26	1000	971	5.71	16	< 2	< 2	4.5	0.68	---	---	---	---
16-Jul-08	27	1000	948	5.72	17	< 2	3	4.8	0.69	---	---	---	---
23-Jul-08	28	1000	987	5.91	15	< 2	3	4.5	0.65	---	---	---	---
30-Jul-08	29	1000	976	6.13	15	< 2	< 2	4.1	0.59	---	---	---	---
6-Aug-08	30	1000	975	6.12	15	< 2	< 2	4.6	0.62	< 0.0001	< 0.00001	< 0.01	0.0003
13-Aug-08	31	1000	942	6.08	13	3	<2	3.9	0.55	---	---	---	---
20-Aug-08	32	1000	845	5.76	24	< 2	< 2	3.8	0.57	---	---	---	---
27-Aug-08	33	1000	983	5.88	21	3	<2	3.7	0.51	---	---	---	---
3-Sep-08	34	1000	978	5.74	13	< 2	< 2	3.5	0.49	---	---	---	---
10-Sep-08	35	1000	984	5.98	13	2	< 2	3.5	0.52	< 0.0001	0.00001	< 0.01	< 0.0002

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Table A-3. Results of Waste Rock Humidity Cells - HC 2
Footwall - Gneiss/Amphibolite (UCS 11)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
9-Jan-08	0	0.0219	0.00006	0.0051	0.00002	0.000372	0.00478	< 0.0005	0.0023	0.44	6.77	< 0.002	25.5	2.59	0.00025
16-Jan-08	1	0.0138	0.00003	0.0111	< 0.00001	0.000815	0.00501	< 0.0005	0.0008	0.19	5.6	0.002	68.6	5.72	0.00057
23-Jan-08	2	0.00672	0.00003	0.0088	< 0.00001	0.000282	0.001857	< 0.0005	0.0007	0.07	4.75	< 0.002	26.8	2.12	0.00031
30-Jan-08	3	0.00441	0.00003	0.0068	< 0.00001	0.00017	0.00102	< 0.0005	< 0.0005	0.06	3.89	< 0.002	15.3	1.1	0.00035
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.00161	0.00006	< 0.0002	< 0.00001	0.00023	0.00667	< 0.0005	0.0405	1.49	0.05	< 0.002	0.314	0.0149	0.00019
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.00263	< 0.00002	0.0043	< 0.00001	0.000053	0.000412	< 0.0005	< 0.0005	0.02	2.28	< 0.002	3.46	0.299	0.00017
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.00216	< 0.00002	0.0026	< 0.00001	0.000028	0.000256	< 0.0005	< 0.0005	0.01	1.7	< 0.002	1.68	0.135	0.00027
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.00176	< 0.00002	0.0051	< 0.00001	0.000031	0.000487	< 0.0005	< 0.0005	0.05	2.76	< 0.002	3.38	0.0859	0.00015
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.00145	< 0.00002	0.0014	< 0.00001	0.000015	0.000295	< 0.0005	< 0.0005	< 0.01	1.18	< 0.002	0.665	0.0598	0.00022
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.0014	< 0.00002	0.0013	< 0.00001	0.000015	0.000244	< 0.0005	< 0.0005	< 0.01	1.06	< 0.002	0.567	0.053	0.0002
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.00121	< 0.00002	0.0009	0.00002	< 0.000003	0.000268	< 0.0005	< 0.0005	< 0.01	0.98	< 0.002	0.504	0.0479	4E-05
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.00117	< 0.00002	0.001	< 0.00001	0.000015	0.000271	< 0.0005	< 0.0005	< 0.01	0.87	< 0.002	0.436	0.0387	9E-05

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Table A-3. Results of Waste Rock Humidity Cells - HC 2
Footwall - Gneiss/Amphibolite (UCS 11)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
9-Jan-08	0	0.94	0.0032	< 0.01	< 0.00002	0.0005	< 0.001	0.26	0.00214	0.0031	< 0.0001	0.000044	0.000147	0.00007	0.005
16-Jan-08	1	2.06	0.007	< 0.01	< 0.00002	0.00047	< 0.001	0.4	0.00212	0.0032	< 0.0001	0.000015	0.000142	0.00005	0.007
23-Jan-08	2	0.81	0.0033	< 0.01	0.00002	0.00006	< 0.001	0.55	0.00126	0.0016	< 0.0001	0.000006	0.000142	0.00005	0.005
30-Jan-08	3	0.45	0.0016	0.01	< 0.00002	0.00047	< 0.001	0.54	0.00098	0.0009	0.0002	< 0.000002	0.000046	0.00004	0.005
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.03	0.0044	< 0.01	0.00011	0.0003	< 0.001	0.33	0.00009	0.0005	< 0.0001	< 0.000002	0.000136	< 0.00003	0.068
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.11	0.0004	0.01	< 0.00002	0.0004	< 0.001	0.63	0.00054	0.0003	< 0.0001	< 0.000002	0.000046	0.00003	0.004
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.06	0.0004	< 0.01	0.0001	0.00041	< 0.001	0.72	0.00043	0.0003	< 0.0001	< 0.000002	0.000051	0.00007	0.003
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.07	0.0009	0.02	0.00037	0.00022	< 0.001	2.19	0.00071	0.0015	0.0001	0.000126	0.000046	0.00006	0.013
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	< 0.01	0.0002	< 0.01	< 0.00002	0.00035	< 0.001	0.67	0.00114	0.0002	< 0.0001	0.000002	0.00002	0.00007	0.003
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.02	0.0001	< 0.01	0.00003	0.00036	< 0.001	0.62	0.00101	0.0001	< 0.0001	< 0.000002	0.000018	< 0.00003	0.003
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.02	0.0002	< 0.01	< 0.00002	0.00016	< 0.001	0.62	0.00127	0.0001	< 0.0001	< 0.000002	0.000022	< 0.00003	0.002
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	< 0.01	0.0001	< 0.01	< 0.00002	0.00062	< 0.001	0.55	0.00084	< 0.0001	< 0.0001	0.000025	0.000054	< 0.00003	0.002

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Table A-3. Results of Waste Rock Humidity Cells - HC 2
Footwall - Gneiss/Amphibolite (UCS 11)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	1000	964	6.28	14	< 2	< 2	3.4	0.48	---	---	---	---
24-Sep-08	37	1000	965	7.09	59	8	<2	3.1	0.44	---	---	---	---
1-Oct-08	38	1000	977	5.77	11	3	<2	3.5	0.48	---	---	---	---
8-Oct-08	39	1000	954	5.79	11	2	< 2	3.2	0.42	---	---	---	---
15-Oct-08	40	1000	991	5.8	13	< 2	3	3.8	0.48	< 0.0001	< 0.00001	< 0.01	< 0.0002
22-Oct-08	41	1000	981	5.64	14	< 2	3	3.6	0.51	---	---	---	---
29-Oct-08	42	1000	981	5.66	14	< 2	2	3.2	0.43	---	---	---	---
5-Nov-08	43	1000	975	5.68	18	< 2	2	4.1	0.55	---	---	---	---
12-Nov-08	44	1000	988	5.84	12	< 2	14	4.1	0.55	---	---	---	---
19-Nov-08	45	1000	955	5.79	18	< 2	< 2	3.6	0.48	< 0.0001	< 0.00001	< 0.01	< 0.0002
26-Nov-08	46	1000	949	5.72	10	< 2	< 2	3.4	0.46	---	---	---	---
3-Dec-08	47	1000	972	5.73	12	< 2	3	3.5	0.45	---	---	---	---
10-Dec-08	48	1000	987	5.65	16	< 2	< 2	3.2	0.43	---	---	---	---
17-Dec-08	49	1000	978	5.84	12	< 2	< 2	3.1	0.51	---	---	---	---
24-Dec-08	50	1000	976	6.05	11	< 2	2	3.4	0.4	< 0.0001	0.00003	< 0.01	< 0.0002
30-Dec-08	51	1000	975	6.04	11	< 2	< 2	3.3	0.44	---	---	---	---
7-Jan-09	52	1000	986	5.73	13	< 2	4	3.8	0.52	---	---	---	---
14-Jan-09	53	1000	989	5.75	12	< 2	< 2	4	0.52	---	---	---	---

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Table A-3. Results of Waste Rock Humidity Cells - HC 2
Footwall - Gneiss/Amphibolite (UCS 11)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.0011	0.00002	0.0005	< 0.00001	0.000018	0.000295	< 0.0005	< 0.0005	< 0.01	0.8	< 0.002	0.413	0.0373	< 0.00001
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.00115	< 0.00002	0.0008	< 0.00001	0.000006	0.000295	< 0.0005	< 0.0005	< 0.01	0.85	< 0.002	0.409	0.0375	6E-05
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.00132	< 0.00002	0.0005	0.00001	0.000013	0.00035	< 0.0005	< 0.0005	< 0.01	0.79	< 0.002	0.378	0.0373	0.0002
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-3. Results of Waste Rock Humidity Cells - HC 2
Footwall - Gneiss/Amphibolite (UCS 11)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.01	0.0003	0.01	< 0.00002	0.0004	< 0.001	0.51	0.00077	< 0.0001	< 0.0001	0.000012	0.00005	< 0.00003	0.001
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.02	0.0001	< 0.01	< 0.00002	0.0002	< 0.001	0.46	0.00085	< 0.0001	< 0.0001	0.000014	0.000016	< 0.00003	0.002
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	< 0.01	0.0002	< 0.01	< 0.00002	0.0003	< 0.001	0.42	0.00119	< 0.0001	0.0001	< 0.000002	0.000116	< 0.00003	0.001
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-4. Results of Waste Rock Humidity Cells - HC 3
Footwall - Gneiss (UCS 49)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	1000	750	6.68	68	3	< 2	5.1	2.46	< 0.0001	< 0.00001	0.02	< 0.0002
16-Jan-08	1	1000	939	6.98	56	7	< 2	5	2.23	< 0.0001	< 0.00001	0.03	< 0.0002
23-Jan-08	2	1000	986	7.2	39	7	5	4.1	1.72	< 0.0001	< 0.00001	0.03	< 0.0002
30-Jan-08	3	1000	988	6.59	25	4	< 2	2.9	1.07	< 0.0001	< 0.00001	0.01	< 0.0002
6-Feb-08	4	1000	995	7.01	18	5	< 2	2.7	0.84	---	---	---	---
13-Feb-08	5	1000	988	6.52	16	12	2	2.3	0.64	< 0.0001	< 0.00001	< 0.01	< 0.0002
20-Feb-08	6	1000	983	6.59	14	2	< 2	2.7	0.61	---	---	---	---
27-Feb-08	7	1000	957	6.53	14	2	< 2	2.4	0.52	< 0.0001	< 0.00001	0.01	< 0.0002
05-Mar-08	8	1000	929	6.49	15	2	< 2	2.8	0.44	---	---	---	---
12-Mar-08	9	1000	956	6.33	14	< 2	< 2	3	0.53	---	---	---	---
19-Mar-08	10	1000	992	6.37	13	< 2	< 2	2.2	0.48	< 0.0001	< 0.00001	0.01	< 0.0002
26-Mar-08	11	1000	990	6.42	18	< 2	< 2	4.1	0.98	---	---	---	---
2-Apr-08	12	1000	991	6.61	12	< 2	< 2	2.6	0.45	---	---	---	---
9-Apr-08	13	1000	961	6.43	15	< 2	< 2	1.8	0.34	---	---	---	---
16-Apr-08	14	1000	938	6.22	12	< 2	< 2	2.3	0.32	---	---	---	---
23-Apr-08	15	1000	990	5.48	13	< 2	3	2.1	0.6	< 0.0001	< 0.00001	0.02	< 0.0002
30-Apr-08	16	1000	983	6.17	11	< 2	< 2	2.2	0.39	---	---	---	---
7-May-08	17	1000	984	4.55	27	< 2	5	7.1	0.43	---	---	---	---
14-May-08	18	1000	996	4.05	54	< 2	7	1.5	0.4	---	---	---	---
21-May-08	19	1000	979	5.62	16	< 2	2	2.4	0.35	---	---	---	---
28-May-08	20	1000	985	5.56	14	< 2	2	2.1	0.36	< 0.0001	< 0.00001	< 0.01	< 0.0002
4-Jun-08	21	1000	956	6.21	14	< 2	< 2	2.6	0.4	---	---	---	---
11-Jun-08	22	1000	960	6.31	11	< 2	< 2	1.9	0.36	---	---	---	---
18-Jun-08	23	1000	950	6.19	12	< 2	< 2	2.9	0.43	---	---	---	---
25-Jun-08	24	1000	952	6.24	8	< 2	2	2.1	0.33	---	---	---	---
2-Jul-08	25	1000	947	6.08	9	< 2	< 2	2.2	0.31	< 0.0001	< 0.00001	< 0.01	< 0.0002
9-Jul-08	26	1000	967	6	14	< 2	< 2	3.3	0.58	---	---	---	---
16-Jul-08	27	1000	975	5.92	11	< 2	3	2.7	0.39	---	---	---	---
23-Jul-08	28	1000	984	5.81	8	< 2	3	2.6	0.36	---	---	---	---
30-Jul-08	29	1000	971	5.97	9	< 2	< 2	2.6	0.41	---	---	---	---
6-Aug-08	30	1000	922	6.25	13	< 2	< 2	2.7	0.37	< 0.0001	< 0.00001	< 0.01	< 0.0002
13-Aug-08	31	1000	992	6.03	10	< 2	3	2.8	0.4	---	---	---	---
20-Aug-08	32	1000	992	5.8	15	< 2	< 2	2.4	0.33	---	---	---	---
27-Aug-08	33	1000	981	6.02	11	< 2	2	2.7	0.36	---	---	---	---
3-Sep-08	34	1000	987	5.75	11	<2	3	2.7	0.37	---	---	---	---
10-Sep-08	35	1000	985	6.01	11	<2	2	2.8	0.4	< 0.0001	< 0.00001	< 0.01	< 0.0002

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Table A-4. Results of Waste Rock Humidity Cells - HC 3
Footwall - Gneiss (UCS 49)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
9-Jan-08	0	0.00153	0.00002	0.001	0.00002	0.000015	0.0018	< 0.0005	0.002	0.02	10	< 0.002	0.649	0.00333	0.0048
16-Jan-08	1	0.00125	< 0.00002	0.0028	< 0.00001	0.000023	0.000278	< 0.0005	0.0005	< 0.01	6.9	< 0.002	0.788	0.00307	0.00841
23-Jan-08	2	0.00102	< 0.00002	0.0022	< 0.00001	< 0.000003	0.000112	< 0.0005	< 0.0005	< 0.01	5.22	< 0.002	0.701	0.00236	0.00397
30-Jan-08	3	0.00086	< 0.00002	0.0016	< 0.00001	0.000005	<	< 0.0005	< 0.0005	< 0.01	3.41	< 0.002	0.469	0.00294	0.00171
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.0007	< 0.00002	0.0009	0.00005	0.000003	0.00012	< 0.0005	< 0.0005	< 0.01	1.98	< 0.002	0.32	0.00346	0.00078
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.00066	< 0.00002	0.0008	< 0.00001	0.000006	0.000108	< 0.0005	< 0.0005	< 0.01	1.59	< 0.002	0.282	0.00406	0.00058
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.00053	< 0.00002	0.0006	< 0.00001	< 0.000003	0.000101	< 0.0005	< 0.0005	< 0.01	1.36	< 0.002	0.293	0.00451	0.00033
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.00055	< 0.00002	0.0026	< 0.00001	< 0.000003	0.000191	< 0.0005	< 0.0005	< 0.01	1.04	< 0.002	0.285	0.00741	0.00018
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.00073	< 0.00002	0.0004	< 0.00001	0.000027	0.000317	< 0.0005	< 0.0005	< 0.01	0.81	< 0.002	0.268	0.0106	0.00017
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.00081	< 0.00002	0.0003	< 0.00001	0.000018	0.00039	< 0.0005	< 0.0005	< 0.01	0.73	< 0.002	0.251	0.0118	0.0001
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.00108	< 0.00002	< 0.0002	< 0.00001	0.000004	0.00074	< 0.0005	< 0.0005	< 0.01	0.71	< 0.002	0.281	0.017	3E-05
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.0019	< 0.00002	0.0004	< 0.00001	0.000041	0.00163	< 0.0005	< 0.0005	< 0.01	0.73	< 0.002	0.347	0.0225	5E-05

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Table A-4. Results of Waste Rock Humidity Cells - HC 3
Footwall - Gneiss (UCS 49)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
9-Jan-08	0	1.69	0.0014	0.04	0.00014	0.00069	< 0.001	0.31	0.0157	0.0042	0.0003	0.000027	0.000053	0.00021	0.003
16-Jan-08	1	1.03	0.0004	0.01	0.00012	0.0009	< 0.001	0.44	0.0138	0.0039	< 0.0001	0.000015	0.000585	0.00015	0.002
23-Jan-08	2	0.68	0.0002	< 0.01	0.00007	0.00066	< 0.001	0.52	0.00544	0.003	< 0.0001	0.00001	0.000427	0.00009	0.002
30-Jan-08	3	0.33	0.0001	0.02	< 0.00002	0.00063	< 0.001	0.61	0.00715	0.002	0.0001	< 0.000002	0.000371	0.00013	0.003
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.17	< 0.0001	0.02	0.00003	0.00055	< 0.001	0.59	0.009	0.0012	< 0.0001	0.000002	0.000401	0.00012	0.002
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.11	< 0.0001	0.02	0.00004	0.00041	< 0.001	0.52	0.00866	0.001	< 0.0001	< 0.000002	0.000258	0.00012	0.003
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.11	0.0002	< 0.01	0.00014	0.00051	< 0.001	0.8	0.00712	0.0011	< 0.0001	< 0.000002	0.000192	0.00015	0.003
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.09	0.0003	< 0.01	0.00003	0.0002	< 0.001	0.7	0.00653	0.0011	< 0.0001	0.0001	0.000125	0.00008	0.002
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.02	0.0007	< 0.01	0.00006	0.00037	< 0.001	0.66	0.00698	0.0009	< 0.0001	0.000003	0.000092	0.00004	0.003
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.04	0.0013	< 0.01	0.00035	0.00027	< 0.001	0.61	0.00502	0.001	< 0.0001	< 0.000002	0.0011	0.00003	0.004
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.04	0.0038	< 0.01	0.00006	0.00011	< 0.001	0.51	0.00323	0.0012	< 0.0001	< 0.000002	0.000098	< 0.00003	0.002
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	< 0.01	0.0076	< 0.01	0.00015	0.00058	< 0.001	0.66	0.0059	0.0017	< 0.0001	0.000021	0.000162	< 0.00003	0.003

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Table A-4. Results of Waste Rock Humidity Cells - HC 3
Footwall - Gneiss (UCS 49)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	1000	974	5.79	11	<2	2	3	0.41	---	---	---	---
24-Sep-08	37	1000	990	5.96	10	< 2	< 2	3	0.41	---	---	---	---
1-Oct-08	38	1000	976	5.91	10	<2	2	2.8	0.38	---	---	---	---
8-Oct-08	39	1000	980	6.11	8	< 2	< 2	2.9	0.37	---	---	---	---
15-Oct-08	40	1000	986	5.86	9	< 2	2	2.7	0.33	< 0.0001	< 0.00001	< 0.01	< 0.0002
22-Oct-08	41	1000	971	5.78	12	< 2	4	2.9	0.39	---	---	---	---
29-Oct-08	42	1000	953	5.65	14	< 2	< 2	3	0.38	---	---	---	---
5-Nov-08	43	1000	985	5.83	16	< 2	3	3	0.4	---	---	---	---
12-Nov-08	44	1000	982	5.76	8	< 2	4	2.5	0.33	---	---	---	---
19-Nov-08	45	1000	981	5.38	43	< 2	< 2	3.2	0.4	< 0.0001	< 0.00001	< 0.01	< 0.0002
26-Nov-08	46	1000	952	5.09	8	2	3	2.7	0.33	---	---	---	---
3-Dec-08	47	1000	991	5.69	11	< 2	3	3.3	0.41	---	---	---	---
10-Dec-08	48	1000	989	5.7	16	< 2	3	3	0.37	---	---	---	---
17-Dec-08	49	1000	980	5.72	7	< 2	3	3.9	0.32	---	---	---	---
24-Dec-08	50	1000	980	5.72	9	< 2	2	2.8	0.27	< 0.0001	< 0.00001	< 0.01	0.0002
30-Dec-08	51	1000	946	5.67	11	< 2	4	2.9	0.34	---	---	---	---
7-Jan-09	52	1000	985	5.62	10	< 2	< 2	2.9	0.36	---	---	---	---
14-Jan-09	53	1000	974	5.59	9	< 2	2	2.7	0.32	---	---	---	---

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Table A-4. Results of Waste Rock Humidity Cells - HC 3
Footwall - Gneiss (UCS 49)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.00182	< 0.00002	< 0.0002	< 0.00001	0.000071	0.00247	< 0.0005	< 0.0005	< 0.01	0.64	< 0.002	0.287	0.0217	< 0.00001
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.00299	< 0.00002	0.0004	< 0.00001	0.000156	0.00408	< 0.0005	0.0006	0.01	0.71	< 0.002	0.349	0.0299	2E-05
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.00307	< 0.00002	< 0.0002	< 0.00001	0.000162	0.00526	< 0.0005	0.0012	0.01	0.65	< 0.002	0.281	0.0279	0.0001
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-4. Results of Waste Rock Humidity Cells - HC 3
Footwall - Gneiss (UCS 49)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.02	0.0101	< 0.01	0.00015	0.00033	< 0.001	0.58	0.00622	0.0013	< 0.0001	0.000017	0.000158	< 0.00003	0.005
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.02	0.0158	< 0.01	0.00022	< 0.0002	< 0.001	0.59	0.0036	0.0016	< 0.0001	0.00002	0.000204	< 0.00003	0.007
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	< 0.01	0.0187	< 0.01	0.00026	< 0.0002	< 0.001	0.52	0.00358	0.0019	< 0.0001	< 0.000002	0.000267	< 0.00003	0.01
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-5. Results of Waste Rock Humidity Cells - HC 4
Hanging wall - Amphibolite (07ARD10)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	1000	783	6.28	795	4	5	360	54.5	< 0.0001	0.00001	0.03	0.0006
16-Jan-08	1	1000	929	5.87	673	< 2	8	330	40	< 0.0001	< 0.00001	0.02	0.0003
23-Jan-08	2	1000	934	6.32	574	< 2	8	270	37.4	< 0.0001	< 0.00001	< 0.01	0.0005
30-Jan-08	3	1000	981	3.98	365	< 2	13	150	21.4	< 0.0001	< 0.00001	< 0.01	< 0.0002
6-Feb-08	4	1000	947	6.39	188	< 2	4	81	12.4	---	---	---	---
13-Feb-08	5	1000	952	4.42	161	< 2	7	58	8.29	< 0.0001	< 0.00001	< 0.01	< 0.0002
20-Feb-08	6	1000	979	6.23	112	< 2	< 2	51	6.93	---	---	---	---
27-Feb-08	7	1000	931	6.33	119	< 2	4	46	6.32	< 0.0001	< 0.00001	< 0.01	0.0003
05-Mar-08	8	1000	926	6.25	111	< 2	< 2	44	5.63	---	---	---	---
12-Mar-08	9	1000	971	5.96	102	< 2	4	43	5.97	---	---	---	---
19-Mar-08	10	1000	942	5.38	93	< 2	4	41	5.85	< 0.0001	< 0.00001	< 0.01	< 0.0002
26-Mar-08	11	1000	923	6.42	92	2	2	35	4.89	---	---	---	---
2-Apr-08	12	1000	946	5.73	90	< 2	3	39	5.11	---	---	---	---
9-Apr-08	13	1000	956	5.64	101	4	4	38	4.97	---	---	---	---
16-Apr-08	14	1000	958	6.11	104	< 2	2	40	5.44	---	---	---	---
23-Apr-08	15	1000	990	4.99	104	< 2	3	40	6.43	< 0.0001	< 0.00001	0.02	< 0.0002
30-Apr-08	16	1000	953	6.21	106	< 2	< 2	43	5.52	---	---	---	---
7-May-08	17	1000	962	4.57	115	< 2	5	42	5.6	---	---	---	---
14-May-08	18	1000	948	5.75	99	< 2	2	38	5.17	---	---	---	---
21-May-08	19	1000	977	5.9	100	< 2	3	39	5.08	---	---	---	---
28-May-08	20	1000	887	5.8	101	3	< 2	34	4.84	< 0.0001	< 0.00001	< 0.01	< 0.0002
4-Jun-08	21	1000	937	6.41	97	< 2	< 2	36	4.81	---	---	---	---
11-Jun-08	22	1000	980	5.85	109	< 2	3	41	6.02	---	---	---	---
18-Jun-08	23	1000	955	6.19	115	< 2	2	45	6.23	---	---	---	---
25-Jun-08	24	1000	998	6.14	86	< 2	43	41	5.43	---	---	---	---
2-Jul-08	25	1000	935	6.03	106	< 2	2	42	5.75	< 0.0001	< 0.00001	< 0.01	< 0.0002
9-Jul-08	26	1000	977	5.79	108	< 2	< 2	41	5.46	---	---	---	---
16-Jul-08	27	1000	954	5.9	106	< 2	3	41	5.8	---	---	---	---
23-Jul-08	28	1000	923	6.58	101	4	3	37	5.16	---	---	---	---
30-Jul-08	29	1000	941	5.89	103	< 2	3	43	5.65	---	---	---	---
6-Aug-08	30	1000	952	6.36	130	< 2	< 2	55	8.07	< 0.0001	< 0.00001	< 0.01	0.0003
13-Aug-08	31	1000	974	6.14	105	< 2	2	43	5.92				
20-Aug-08	32	1000	900	5.91	135	< 2	2	38	5.12	---	---	---	---
27-Aug-08	33	1000	942	5.99	105	< 2	3	42	5.47	---	---	---	---
3-Sep-08	34	1000	954	5.96	108	< 2	< 2	43	5.83	---	---	---	---
10-Sep-08	35	1000	963	6.12	117	3	< 2	47	6.38	< 0.0001	< 0.00001	< 0.01	< 0.0002

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Table A-5. Results of Waste Rock Humidity Cells - HC 4
Hanging wall - Amphibolite (07ARD10)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
9-Jan-08	0	0.0117	0.00003	0.0144	0.00002	0.000027	0.035	< 0.0005	0.0032	0.16	6.01	< 0.002	58.1	0.43	0.00281
16-Jan-08	1	0.00635	< 0.00002	0.0117	< 0.00001	0.000006	0.00678	< 0.0005	0.0007	0.01	3.8	0.002	52.1	0.284	0.00102
23-Jan-08	2	0.00551	< 0.00002	0.0128	< 0.00001	< 0.000003	0.004292	< 0.0005	0.0006	0.01	3.36	< 0.002	43.6	0.232	0.00064
30-Jan-08	3	0.00393	< 0.00002	0.0122	< 0.00001	0.000008	0.00227	< 0.0005	< 0.0005	< 0.01	2.57	< 0.002	23.5	0.131	0.00059
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.00192	< 0.00002	0.0079	< 0.00001	< 0.000003	0.00108	< 0.0005	< 0.0005	< 0.01	1.41	< 0.002	9.2	0.0537	0.00043
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.00176	< 0.00002	0.0073	< 0.00001	0.000003	0.001	< 0.0005	< 0.0005	< 0.01	1.13	< 0.002	7.36	0.0514	0.00048
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.00153	< 0.00002	0.0045	< 0.00001	< 0.000003	0.000849	< 0.0005	< 0.0005	< 0.01	0.9	< 0.002	6.86	0.0463	0.00031
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.0014	< 0.00002	0.0052	< 0.00001	< 0.000003	0.00113	< 0.0005	< 0.0005	< 0.01	0.66	< 0.002	6.7	0.0589	0.00025
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.00128	< 0.00002	0.0023	< 0.00001	0.000005	0.00118	< 0.0005	< 0.0005	< 0.01	0.52	< 0.002	6.21	0.06	0.00017
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.00139	< 0.00002	0.0024	< 0.00001	< 0.000003	0.00157	< 0.0005	< 0.0005	0.01	0.42	< 0.002	7.56	0.0841	0.0001
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.00172	< 0.00002	0.0026	< 0.00001	0.000008	0.0023	< 0.0005	< 0.0005	0.01	0.38	< 0.002	8.86	0.105	0.0001
13-Aug-08	31														
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.00157	< 0.00002	0.0026	< 0.00001	0.000007	0.00234	< 0.0005	< 0.0005	< 0.01	0.28	< 0.002	9.03	0.126	8E-05

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Table A-5. Results of Waste Rock Humidity Cells - HC 4
Hanging wall - Amphibolite (07ARD10)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
9-Jan-08	0	12.7	0.021	0.02	0.00009	0.00055	0.027	1.06	0.011	0.445	0.0002	0.00015	0.000065	0.00131	0.009
16-Jan-08	1	8.85	0.0054	< 0.01	< 0.00002	0.00045	0.032	0.86	0.00264	0.349	< 0.0001	0.00006	0.000017	0.00085	0.005
23-Jan-08	2	6.7	0.0039	< 0.01	0.00002	0.00031	0.024	1.03	0.00176	0.313	0.0001	0.000045	0.00002	0.00076	0.004
30-Jan-08	3	3.78	0.0021	< 0.01	0.00002	0.00034	0.013	1.25	0.00166	0.178	0.0001	0.000029	0.000027	0.00076	0.003
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	1.52	0.0009	0.02	< 0.00002	0.00062	0.005	1.2	0.00091	0.0685	0.0003	0.000016	0.00001	0.00074	0.003
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.95	0.0008	0.01	< 0.00002	0.00038	0.004	1.1	0.00092	0.053	< 0.0001	0.000021	0.000013	0.00069	0.003
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.46	0.0009	< 0.01	0.00006	0.00044	0.003	1.18	0.0007	0.0493	0.0001	0.000008	0.000033	0.00052	0.003
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.28	0.0011	< 0.01	0.00002	0.00018	0.003	1.09	0.0009	0.0476	0.0001	0.000108	0.000009	0.00033	0.003
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.08	0.0012	< 0.01	0.00008	0.00032	< 0.001	0.9	0.00049	0.0409	< 0.0001	0.000008	0.000001	0.00027	0.002
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.06	0.0013	< 0.01	< 0.00002	0.00024	0.002	1.14	0.00059	0.049	< 0.0001	0.000006	0.000035	0.00022	0.003
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.14	0.003	< 0.01	0.00003	0.00005	0.003	1.13	0.0006	0.0532	< 0.0001	0.000163	0.000011	0.00015	0.008
13-Aug-08	31														
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.02	0.0021	< 0.01	0.00003	0.00052	0.003	1.39	0.00028	0.0543	0.0002	0.000028	0.000023	0.00009	---

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Table A-5. Results of Waste Rock Humidity Cells - HC 4
Hanging wall - Amphibolite (07ARD10)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	1000	933	5.83	110	2	< 2	41	5.95	---	---	---	---
24-Sep-08	37	1000	979	5.93	103	3	< 2	42	5.54	---	---	---	---
1-Oct-08	38	1000	991	6	94	3	< 2	40	5.04	---	---	---	---
8-Oct-08	39	1000	995	6.1	95	3	< 2	39	4.76	---	---	---	---
15-Oct-08	40	1000	945	7.76	51	23	< 2	1.8	7.66	< 0.0001	< 0.00001	0.11	< 0.0002
22-Oct-08	41	1000	982	5.84	89	< 2	4	35	4.56	---	---	---	---
29-Oct-08	42	1000	933	5.57	99	< 2	3	37	4.6	---	---	---	---
5-Nov-08	43	1000	948	5.86	102	< 2	3	39	4.93	---	---	---	---
12-Nov-08	44	1000	990	5.46	89	< 2	< 2	38	4.83	---	---	---	---
19-Nov-08	45	1000	958	5.75	96	< 2	19	38	4.9	< 0.0001	< 0.00001	< 0.01	< 0.0002
26-Nov-08	46	1000	946	5.76	87	< 2	3	37	4.53	---	---	---	---
3-Dec-08	47	1000	961	5.89	94	< 2	5	37	4.54	---	---	---	---
10-Dec-08	48	1000	944	5.69	94	< 2	4	38	4.51	---	---	---	---
17-Dec-08	49	1000	970	5.84	87	< 2	2	36	4.14	---	---	---	---
24-Dec-08	50	1000	960	5.87	82	< 2	2	33	3.87	< 0.0001	< 0.00001	< 0.01	< 0.0002
30-Dec-08	51	1000	965	6.01	86	< 2	3	35	4.11	---	---	---	---
7-Jan-09	52	1000	954	5.7	92	< 2	3	37	4.54	---	---	---	---
14-Jan-09	53	1000	929	5.84	81	< 2	< 2	33	3.94	---	---	---	---

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Table A-5. Results of Waste Rock Humidity Cells - HC 4
Hanging wall - Amphibolite (07ARD10)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.00061	< 0.00002	0.0004	< 0.00001	< 0.000003	0.000036	< 0.0005	< 0.0005	< 0.01	0.41	< 0.002	0.878	0.0104	0.0002
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.00117	< 0.00002	0.0016	< 0.00001	0.000003	0.00208	< 0.0005	< 0.0005	0.02	0.18	< 0.002	7.45	0.12	4E-05
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.001	< 0.00002	0.0013	< 0.00001	< 0.000003	0.002198	< 0.0005	< 0.0005	0.02	0.11	< 0.002	6.1	0.118	2E-05
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-5. Results of Waste Rock Humidity Cells - HC 4
Hanging wall - Amphibolite (07ARD10)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	0.003
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.15	0.0002	0.03	0.00002	0.00032	< 0.001	0.55	0.00253	0.0503	< 0.0001	0.000004	0.000077	0.00316	< 0.001
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.04	0.0019	< 0.01	0.00003	< 0.0002	0.001	1.23	0.00028	0.0418	< 0.0001	0.000006	0.000006	0.00004	0.002
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.03	0.0022	< 0.01	< 0.00002	< 0.0002	0.001	1.2	0.00032	0.0342	0.0002	< 0.000002	0.000015	< 0.00003	0.001
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-6. Results of Waste Rock Humidity Cells - HC 5
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD13)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	1000	802	6.1	278	< 2	3	1.9	7.1	< 0.0001	< 0.00001	< 0.01	< 0.0002
16-Jan-08	1	1000	863	4.55	609	< 2	6	6.4	13.7	< 0.0001	< 0.00001	< 0.01	0.0002
23-Jan-08	2	1000	932	6.43	196	< 2	3	3.9	4.25	< 0.0001	< 0.00001	< 0.01	< 0.0002
30-Jan-08	3	1000	883	5.19	169	< 2	< 2	4	3.69	< 0.0001	< 0.00001	< 0.01	< 0.0002
6-Feb-08	4	1000	866	6.5	91	< 2	< 2	3.7	2.02	---	---	---	---
13-Feb-08	5	1000	924	4.38	62	< 2	7	3	0.87	< 0.0001	< 0.00001	< 0.01	< 0.0002
20-Feb-08	6	1000	886	6.53	33	< 2	< 2	3.1	0.59	---	---	---	---
27-Feb-08	7	1000	940	5.78	32	< 2	< 2	3	0.43	< 0.0001	< 0.00001	< 0.01	< 0.0002
05-Mar-08	8	1000	916	6.57	21	2	< 2	2.6	0.3	---	---	---	---
12-Mar-08	9	1000	947	6.46	16	< 2	< 2	6.4	0.29	---	---	---	---
19-Mar-08	10	1000	941	6.53	15	< 2	< 2	2.1	0.24	< 0.0001	< 0.00001	0.01	< 0.0002
26-Mar-08	11	1000	954	6.65	16	3	< 2	1.9	0.25	---	---	---	---
2-Apr-08	12	1000	934	4.04	50	< 2	7	4.2	0.17	---	---	---	---
9-Apr-08	13	1000	964	6.53	14	3	< 2	1.5	0.18	---	---	---	---
16-Apr-08	14	1000	978	6.39	15	3	< 2	1.6	0.21	---	---	---	---
23-Apr-08	15	1000	925	5.37	13	< 2	67	1.3	0.16	< 0.0001	< 0.00001	0.03	< 0.0002
30-Apr-08	16	1000	986	6.45	11	3	< 2	1.3	0.19	---	---	---	---
7-May-08	17	1000	977	6.67	14	3	< 2	1.3	0.21	---	---	---	---
14-May-08	18	1000	954	4.55	35	< 2	4	0.8	0.2	---	---	---	---
21-May-08	19	1000	976	6.99	14	3	< 2	1	0.18	---	---	---	---
28-May-08	20	1000	912	6.59	13	< 2	< 2	0.9	0.14	< 0.0001	< 0.00001	< 0.01	< 0.0002
4-Jun-08	21	1000	927	6.56	13	< 2	< 2	1.2	0.31	---	---	---	---
11-Jun-08	22	1000	976	6.58	9	3	< 2	0.9	0.22	---	---	---	---
18-Jun-08	23	1000	962	6.92	13	4	< 2	1.1	0.23	---	---	---	---
25-Jun-08	24	1000	984	6.68	8	3	56	0.8	0.18	---	---	---	---
2-Jul-08	25	1000	966	6.66	11	3	< 2	1	0.16	< 0.0001	< 0.00001	< 0.01	< 0.0002
9-Jul-08	26	1000	986	6.55	8	2	< 2	0.9	0.17	---	---	---	---
16-Jul-08	27	1000	983	6.54	8	3	< 2	0.8	0.15	---	---	---	---
23-Jul-08	28	1000	928	6.36	6	2	< 2	0.7	0.09	---	---	---	---
30-Jul-08	29	1000	983	6.52	7	3	< 2	0.9	0.17	---	---	---	---
6-Aug-08	30	1000	938	6.61	6	2	< 2	0.7	0.12	< 0.0001	< 0.00001	< 0.01	0.0003
13-Aug-08	31	1000	931	6.67	6	< 2	< 2	0.6	0.25	---	---	---	---
20-Aug-08	32	1000	879	6.51	10	3	< 2	0.9	0.13	---	---	---	---
27-Aug-08	33	1000	924	6.51	7	2	< 2	0.7	0.12	---	---	---	---
3-Sep-08	34	1000	944	6.46	7	< 2	< 2	0.6	0.13	---	---	---	---
10-Sep-08	35	1000	976	6.78	7	2	<2	0.7	0.16	< 0.0001	< 0.00001	< 0.01	< 0.0002

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Table A-6. Results of Waste Rock Humidity Cells - HC 5
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD13)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
9-Jan-08	0	0.00199	< 0.00002	0.0024	0.00001	0.000015	0.00132	< 0.0005	0.0009	< 0.01	1.32	< 0.002	21.2	0.0356	0.00159
16-Jan-08	1	0.00272	< 0.00002	0.0026	< 0.00001	0.000046	0.00119	< 0.0005	0.0009	< 0.01	1.27	< 0.002	46.8	0.0689	0.00421
23-Jan-08	2	0.00111	< 0.00002	0.003	< 0.00001	0.000015	0.000445	< 0.0005	0.0006	< 0.01	1	< 0.002	15.6	0.02302	0.00615
30-Jan-08	3	0.0009	< 0.00002	0.0028	< 0.00001	< 0.000003	0.000132	< 0.0005	0.0007	< 0.01	0.93	< 0.002	13.5	0.0175	0.0084
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.00029	< 0.00002	0.0026	< 0.00001	< 0.000003	0.000143	< 0.0005	< 0.0005	< 0.01	0.54	< 0.002	3.09	0.00545	0.012
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.00017	< 0.00002	0.0024	< 0.00001	0.00001	0.000099	< 0.0005	< 0.0005	< 0.01	0.4	< 0.002	1.56	0.00327	0.0244
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.00012	< 0.00002	0.002	< 0.00001	0.000018	0.000072	< 0.0005	< 0.0005	< 0.01	0.37	< 0.002	0.952	0.00244	0.0304
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.00011	< 0.00002	0.0024	< 0.00001	0.000029	0.000084	< 0.0005	< 0.0005	< 0.01	0.29	< 0.002	0.594	0.00183	0.0312
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.00008	< 0.00002	0.0011	< 0.00001	0.000014	0.000072	< 0.0005	< 0.0005	< 0.01	0.3	< 0.002	0.519	0.0018	0.0248
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.00009	< 0.00002	0.0013	< 0.00001	0.000009	0.000028	< 0.0005	< 0.0005	< 0.01	0.34	< 0.002	0.604	0.0015	0.0217
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.00006	< 0.00002	0.0005	< 0.00001	< 0.000003	0.000051	< 0.0005	< 0.0005	< 0.01	0.29	< 0.002	0.422	0.00186	0.0164
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.00011	< 0.00002	0.0012	< 0.00001	0.00001	0.00007	< 0.0005	< 0.0005	< 0.01	0.33	< 0.002	0.554	0.00316	0.0133

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Table A-6. Results of Waste Rock Humidity Cells - HC 5
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD13)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
9-Jan-08	0	2.24	0.0015	0.03	0.0002	0.00046	< 0.001	0.2	0.0193	0.0308	< 0.0001	0.000054	0.000003	0.00016	0.003
16-Jan-08	1	3.23	0.0024	0.02	0.00005	0.00047	0.002	0.18	0.0193	0.0647	< 0.0001	0.000012	< 0.000001	0.00019	0.002
23-Jan-08	2	1.93	0.0008	< 0.01	0.00025	0.00034	0.001	0.26	0.00904	0.0199	< 0.0001	0.000015	0.000002	0.00021	0.002
30-Jan-08	3	1.69	0.0007	0.01	0.00008	0.00032	0.003	0.23	0.00635	0.0173	< 0.0001	0.000006	0.000001	0.00026	0.001
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.72	0.0003	0.02	< 0.00002	0.00063	0.001	0.27	0.00424	0.004	< 0.0001	< 0.000002	0.000002	0.00036	< 0.001
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.55	0.0003	< 0.01	0.00004	0.00039	< 0.001	0.19	0.00389	0.0021	< 0.0001	< 0.000002	0.000004	0.00045	0.003
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.38	0.0004	< 0.01	0.00004	0.00044	< 0.001	0.3	0.00379	0.0013	< 0.0001	< 0.000002	0.000021	0.00065	< 0.001
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.28	0.0002	0.01	< 0.00002	0.00019	< 0.001	0.19	0.00259	0.0008	< 0.0001	0.000095	< 0.000001	0.00052	< 0.001
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.18	0.0002	< 0.01	0.00006	0.00039	< 0.001	0.21	0.00191	0.0009	< 0.0001	< 0.000002	< 0.000001	0.00073	0.004
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.17	< 0.0001	< 0.01	< 0.00002	0.00035	< 0.001	0.27	0.0015	0.0009	< 0.0001	< 0.000002	0.000078	0.00077	< 0.001
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.13	0.0001	< 0.01	< 0.00002	0.00013	< 0.001	0.19	0.00104	0.0006	< 0.0001	< 0.000002	< 0.000001	0.0008	< 0.001
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.09	< 0.0001	< 0.01	< 0.00002	0.00051	< 0.001	0.27	0.00123	0.0007	< 0.0001	0.000017	0.000009	0.00073	< 0.001

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Table A-6. Results of Waste Rock Humidity Cells - HC 5
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD13)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	1000	912	6.49	6	< 2	< 2	0.6	0.14	---	---	---	---
24-Sep-08	37	1000	918	6.63	5	2	<2	0.6	0.11	---	---	---	---
1-Oct-08	38	1000	980	6.71	6	3	<2	0.7	0.16	---	---	---	---
8-Oct-08	39	1000	948	6.68	6	2	<2	2.4	0.13	---	---	---	---
15-Oct-08	40	1000	987	6.7	6	2	< 2	0.6	0.12	< 0.0001	< 0.00001	< 0.01	< 0.0002
22-Oct-08	41	1000	980	6.6	7	2	< 2	0.6	0.14	---	---	---	---
29-Oct-08	42	1000	918	6.5	7	< 2	< 2	0.7	0.1	---	---	---	---
5-Nov-08	43	1000	932	6.66	7	< 2	< 2	0.6	0.13	---	---	---	---
12-Nov-08	44	1000	965	6.59	5	< 2	< 2	0.6	0.12	---	---	---	---
19-Nov-08	45	1000	946	6.59	5	< 2	< 2	0.6	0.12	< 0.0001	< 0.00001	< 0.01	< 0.0002
26-Nov-08	46	1000	936	6.52	5	< 2	< 2	0.6	0.12	---	---	---	---
3-Dec-08	47	1000	940	6.45	6	< 2	3	0.6	0.11	---	---	---	---
10-Dec-08	48	1000	991	6.55	13	2	< 2	0.6	0.17	---	---	---	---
17-Dec-08	49	1000	952	6.63	5	< 2	< 2	0.6	0.13	---	---	---	---
24-Dec-08	50	1000	960	6.76	8	2	< 2	0.6	0.08	< 0.0001	< 0.00001	0.01	< 0.0002
30-Dec-08	51	1000	958	6.62	5	< 2	< 2	0.6	0.12	---	---	---	---
7-Jan-09	52	1000	968	6.68	6	2	< 2	0.6	0.14	---	---	---	---
14-Jan-09	53	1000	948	6.56	5	< 2	< 2	0.5	0.11	---	---	---	---

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Table A-6. Results of Waste Rock Humidity Cells - HC 5
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD13)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.00006	< 0.00002	0.0006	< 0.00001	0.000009	0.000052	< 0.0005	< 0.0005	< 0.01	0.3	< 0.002	0.429	0.00124	0.0124
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.0001	< 0.00002	0.0007	< 0.00001	< 0.000003	0.000034	< 0.0005	< 0.0005	< 0.01	0.29	< 0.002	0.429	0.00136	0.0093
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.00002	< 0.00002	0.0003	< 0.00001	< 0.000003	0.00003	< 0.0005	0.0053	< 0.01	0.27	< 0.002	0.446	0.0017	0.0082
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-6. Results of Waste Rock Humidity Cells - HC 5
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD13)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.08	0.0003	0.01	< 0.00002	0.00029	< 0.001	0.22	0.00098	0.0006	< 0.0001	0.000003	0.000059	0.00077	< 0.001
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.07	< 0.0001	< 0.01	< 0.00002	< 0.0002	< 0.001	0.22	0.00105	0.0005	< 0.0001	< 0.000002	< 0.000001	0.00073	< 0.001
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.05	0.0002	< 0.01	< 0.00002	< 0.0002	< 0.001	0.23	0.00098	0.0004	0.0033	< 0.000002	0.000011	0.00073	< 0.001
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-7. Results of Waste Rock Humidity Cells - HC 6
Hanging wall - Amphibolite/Schist/Volcanic Tuff (07ARD30)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	1000	813	6.42	105	< 2	< 2	2.3	3.85	< 0.0001	< 0.00001	0.01	0.0002
16-Jan-08	1	1000	890	5.66	157	< 2	5	6.1	5.41	< 0.0001	< 0.00001	0.02	0.0003
23-Jan-08	2	1000	924	6.79	65	4	< 2	5.5	1.96	< 0.0001	< 0.00001	0.02	< 0.0002
30-Jan-08	3	1000	967	6.81	35	4	< 2	4.1	1.13	< 0.0001	< 0.00001	0.03	< 0.0002
6-Feb-08	4	1000	912	7.01	22	4	< 2	3.7	0.66	---	---	---	---
13-Feb-08	5	1000	929	5.89	23	44	8	2.9	0.49	< 0.0001	< 0.00001	0.02	< 0.0002
20-Feb-08	6	1000	978	6.51	18	2	< 2	2.6	0.64	---	---	---	---
27-Feb-08	7	1000	899	6.76	20	3	< 2	2.6	0.37	< 0.0001	< 0.00001	0.02	< 0.0002
05-Mar-08	8	1000	896	9.04	38	7	< 2	3.2	0.4	---	---	---	---
12-Mar-08	9	1000	980	6.81	17	4	< 2	2.2	0.59	---	---	---	---
19-Mar-08	10	1000	913	6.88	16	3	< 2	2.2	0.33	< 0.0001	< 0.00001	0.02	< 0.0002
26-Mar-08	11	1000	900	6.67	14	2	< 2	2.2	0.33	---	---	---	---
2-Apr-08	12	1000	922	6.48	12	< 2	< 2	2.6	0.32	---	---	---	---
9-Apr-08	13	1000	918	6.54	13	2	< 2	1.8	0.3	---	---	---	---
16-Apr-08	14	1000	945	6.15	17	< 2	< 2	2.1	0.39	---	---	---	---
23-Apr-08	15	1000	979	7.08	19	27	< 2	2	0.53	< 0.0001	< 0.00001	0.03	< 0.0002
30-Apr-08	16	1000	947	6.65	13	3	< 2	2.3	0.38	---	---	---	---
7-May-08	17	1000	944	5.92	19	< 2	< 2	2.5	0.48	---	---	---	---
14-May-08	18	1000	942	4.8	27	< 2	4	2.1	0.42	---	---	---	---
21-May-08	19	1000	967	6.63	17	3	< 2	2.4	0.46	---	---	---	---
28-May-08	20	1000	859	4.5	31	< 2	4	2.4	0.42	< 0.0001	< 0.00001	0.02	< 0.0002
4-Jun-08	21	1000	903	6.52	14	< 2	< 2	2.2	0.4	---	---	---	---
11-Jun-08	22	1000	978	6.5	16	3	< 2	2.2	0.51	---	---	---	---
18-Jun-08	23	1000	964	6.93	19	4	< 2	3.3	0.6	---	---	---	---
25-Jun-08	24	1000	948	6.61	11	2	45	1.7	0.39	---	---	---	---
2-Jul-08	25	1000	916	6.71	14	3	< 2	2.1	0.35	< 0.0001	< 0.00001	< 0.01	< 0.0002
9-Jul-08	26	1000	955	6.44	12	2	< 2	2	0.37	---	---	---	---
16-Jul-08	27	1000	918	6.43	11	< 2	< 2	2.1	0.33	---	---	---	---
23-Jul-08	28	1000	877	6.25	8	< 2	< 2	1.9	0.27	---	---	---	---
30-Jul-08	29	1000	897	6.43	8	< 2	< 2	2	0.33	---	---	---	---
6-Aug-08	30	1000	907	6.54	10	< 2	< 2	2.2	0.34	< 0.0001	< 0.00001	< 0.01	0.0003
13-Aug-08	31	1000	963	6.77	11	3	< 2	2	0.39	---	---	---	---
20-Aug-08	32	1000	876	6.6	22	< 2	< 2	2	0.37	---	---	---	---
27-Aug-08	33	1000	889	6.43	11	2	< 2	1.8	0.3	---	---	---	---
3-Sep-08	34	1000	947	6.53	11	2	<2	2	0.34	---	---	---	---
10-Sep-08	35	1000	960	6.75	12	3	<2	1.9	0.36	< 0.0001	< 0.00001	< 0.01	< 0.0002

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Table A-7. Results of Waste Rock Humidity Cells - HC 6
Hanging wall - Amphibolite/Schist/Volcanic Tuff (07ARD30)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
9-Jan-08	0	0.0006	< 0.00002	0.0064	0.00001	0.000033	0.00101	< 0.0005	0.001	0.01	2.62	< 0.002	5.27	0.00945	0.0225
16-Jan-08	1	0.00064	< 0.00002	0.0075	< 0.00001	0.000023	0.000511	< 0.0005	0.0007	< 0.01	1.97	< 0.002	9.05	0.01	0.111
23-Jan-08	2	0.00028	< 0.00002	0.0089	< 0.00001	0.000062	0.000171	< 0.0005	< 0.0005	< 0.01	1.38	< 0.002	3.34	0.00391	0.119
30-Jan-08	3	0.00018	< 0.00002	0.0091	< 0.00001	0.000012	< 0.000002	< 0.0005	< 0.0005	< 0.01	1.14	< 0.002	1.84	0.00227	0.0984
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.00008	< 0.00002	0.0051	< 0.00001	< 0.000003	0.000059	< 0.0005	< 0.0005	< 0.01	0.76	< 0.002	0.857	0.00161	0.0599
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.0001	< 0.00002	0.0046	< 0.00001	0.000014	0.000046	< 0.0005	< 0.0005	< 0.01	0.61	< 0.002	0.644	0.00159	0.0613
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.00009	< 0.00002	0.0033	< 0.00001	0.000031	0.000033	< 0.0005	< 0.0005	< 0.01	0.57	< 0.002	0.62	0.00125	0.0433
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.00012	< 0.00002	0.0046	< 0.00001	0.000036	0.000063	< 0.0005	< 0.0005	< 0.01	0.64	< 0.002	0.89	0.00203	0.0367
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.0004	< 0.00002	0.0026	< 0.00001	< 0.000003	0.000062	< 0.0005	< 0.0005	< 0.01	0.67	< 0.002	0.719	0.00152	0.0369
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.0001	< 0.00002	0.0024	< 0.00001	0.000018	0.000017	< 0.0005	< 0.0005	< 0.01	0.57	< 0.002	0.649	0.0014	0.0306
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.0001	< 0.00002	0.0017	< 0.00001	0.000003	0.000035	< 0.0005	< 0.0005	< 0.01	0.54	< 0.002	0.593	0.00167	0.0326
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.00018	< 0.00002	0.0024	< 0.00001	0.000006	0.000037	< 0.0005	< 0.0005	< 0.01	0.57	< 0.002	0.695	0.00169	0.0291

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Table A-7. Results of Waste Rock Humidity Cells - HC 6
Hanging wall - Amphibolite/Schist/Volcanic Tuff (07ARD30)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
9-Jan-08	0	3.05	0.0011	< 0.01	0.0002	0.00056	< 0.001	0.24	0.0158	0.0286	< 0.0001	0.000056	0.000005	0.00029	0.003
16-Jan-08	1	3.74	0.0007	0.01	0.00009	0.0006	0.002	0.22	0.00693	0.0421	< 0.0001	0.000024	0.000009	0.0003	0.002
23-Jan-08	2	2.09	< 0.0001	0.01	0.00006	0.00055	0.001	0.28	0.0038	0.0153	< 0.0001	0.00002	0.000007	0.0003	0.001
30-Jan-08	3	1.3	0.0002	0.02	< 0.00002	0.00055	< 0.001	0.4	0.00372	0.0089	0.0001	< 0.000002	0.000007	0.00035	< 0.001
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.66	< 0.0001	0.02	< 0.00002	0.00034	< 0.001	0.29	0.00261	0.0035	< 0.0001	< 0.000002	< 0.000001	0.00043	< 0.001
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.46	< 0.0001	0.02	0.00008	0.00056	< 0.001	0.22	0.00181	0.0028	< 0.0001	0.000003	0.000012	0.00049	0.003
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.32	0.0001	< 0.01	0.00009	0.00053	< 0.001	0.26	0.00184	0.0026	0.0002	< 0.000002	0.000017	0.00048	0.001
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.2	0.0001	< 0.01	< 0.00002	0.00035	< 0.001	0.32	0.00191	0.0039	< 0.0001	0.000098	0.000006	0.00043	< 0.001
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.13	0.0001	< 0.01	0.00003	0.00058	< 0.001	0.27	0.00115	0.0043	< 0.0001	0.000004	0.000013	0.00049	0.002
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.09	< 0.0001	< 0.01	< 0.00002	0.00048	< 0.001	0.27	0.00102	0.0027	< 0.0001	< 0.000002	0.000004	0.00053	0.001
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.09	0.0001	< 0.01	< 0.00002	0.00022	< 0.001	0.23	0.00071	0.0023	< 0.0001	< 0.000002	0.000001	0.00052	0.001
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.03	< 0.0001	< 0.01	< 0.00002	0.00065	< 0.001	0.33	0.00095	0.0026	< 0.0001	0.000013	0.000014	0.00046	< 0.001

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Table A-7. Results of Waste Rock Humidity Cells - HC 6
Hanging wall - Amphibolite/Schist/Volcanic Tuff (07ARD30)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	1000	904	6.41	8	< 2	< 2	2	0.28	---	---	---	---
24-Sep-08	37	1000	952	6.62	10	2	<2	1.9	0.34	---	---	---	---
1-Oct-08	38	1000	964	6.61	9	< 2	< 2	1.9	0.3	---	---	---	---
8-Oct-08	39	1000	948	6.67	11	2	2	1.8	0.36	---	---	---	---
15-Oct-08	40	1000	994	6.71	11	2	< 2	2	0.38	< 0.0001	< 0.00001	0.01	< 0.0002
22-Oct-08	41	1000	954	6.53	11	< 2	5	1.6	0.31	---	---	---	---
29-Oct-08	42	1000	914	6.45	12	< 2	< 2	1.7	0.28	---	---	---	---
5-Nov-08	43	1000	936	6.58	12	< 2	< 2	1.9	0.31	---	---	---	---
12-Nov-08	44	1000	996	6.69	9	< 2	< 2	1.7	0.39	---	---	---	---
19-Nov-08	45	1000	934	6.52	8	< 2	< 2	1.8	0.29	< 0.0001	< 0.00001	< 0.01	< 0.0002
26-Nov-08	46	1000	935	5.11	8	< 2	< 2	1.7	0.27	---	---	---	---
3-Dec-08	47	1000	931	6.5	7	< 2	< 2	1.6	0.27	---	---	---	---
10-Dec-08	48	1000	930	6.35	12	< 2	< 2	1.6	0.25	---	---	---	---
17-Dec-08	49	1000	981	6.62	6	< 2	< 2	1.4	0.27	---	---	---	---
24-Dec-08	50	1000	939	6.71	13	< 2	< 2	1.4	0.2	< 0.0001	0.00004	< 0.01	< 0.0002
30-Dec-08	51	1000	965	6.55	8	< 2	< 2	1.6	0.26	---	---	---	---
7-Jan-09	52	1000	942	6.88	11	3	< 2	1.7	0.29	---	---	---	---
14-Jan-09	53	1000	939	6.48	7	< 2	< 2	1.6	0.27	---	---	---	---

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Table A-7. Results of Waste Rock Humidity Cells - HC 6
Hanging wall - Amphibolite/Schist/Volcanic Tuff (07ARD30)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.00009	< 0.00002	0.0015	< 0.00001	0.000014	0.000062	< 0.0005	< 0.0005	< 0.01	0.5	< 0.002	0.609	0.00192	0.026
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.00012	< 0.00002	0.0014	< 0.00001	0.000008	0.000032	< 0.0005	< 0.0005	< 0.01	0.48	< 0.002	0.57	0.00179	0.0225
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.00025	< 0.00002	0.0012	0.00003	0.000008	0.000034	< 0.0005	< 0.0005	< 0.01	0.4	< 0.002	0.474	0.00199	0.0173
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-7. Results of Waste Rock Humidity Cells - HC 6
Hanging wall - Amphibolite/Schist/Volcanic Tuff (07ARD30)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.06	0.0002	< 0.01	< 0.00002	0.00034	< 0.001	0.33	0.00073	0.0024	< 0.0001	0.00001	0.00006	0.00046	< 0.001
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.03	< 0.0001	< 0.01	< 0.00002	0.0002	< 0.001	0.28	0.00082	0.0021	< 0.0001	0.000003	0.000007	0.00041	< 0.001
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.02	< 0.0001	< 0.01	0.00011	0.0003	< 0.001	0.25	0.00088	0.0017	0.0001	< 0.000002	0.000114	0.00045	< 0.001
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-8. Results of Waste Rock Humidity Cells - HC 7
Hanging wall - Schist (ARD19)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As	Ba
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	1000	864	5.61	395	< 2	4	92	30.9	< 0.0001	0.00001	< 0.01	0.0007	0.0053
16-Jan-08	1	1000	920	5.2	452	< 2	< 2	130	29.1	< 0.0001	< 0.00001	< 0.01	0.0003	0.00323
23-Jan-08	2	1000	924	5.91	286	< 2	4	89	19.5	< 0.0001	< 0.00001	< 0.01	0.0005	0.00217
30-Jan-08	3	1000	988	5.91	195	< 2	2	74	15.8	< 0.0001	< 0.00001	0.01	0.0006	0.00188
6-Feb-08	4	1000	922	6.7	141	3	3	47	10.5	---	---	---	---	---
13-Feb-08	5	1000	902	5.21	104	< 2	2	33	6.12	< 0.0001	< 0.00001	< 0.01	0.0003	0.00077
20-Feb-08	6	1000	975	7.13	86	4	5	27	4.76	---	---	---	---	---
27-Feb-08	7	1000	890	5.21	72	< 2	3	24	3.9	< 0.0001	< 0.00001	< 0.01	0.0003	0.00064
05-Mar-08	8	1000	864	5.97	71	< 2	< 2	25	3.71	---	---	---	---	---
12-Mar-08	9	1000	956	5.42	53	< 2	3	20	3.24	---	---	---	---	---
19-Mar-08	10	1000	884	5.65	50	< 2	2	20	3.13	< 0.0001	< 0.00001	< 0.01	< 0.0002	0.00047
26-Mar-08	11	1000	912	5.42	100	< 2	3	39	8.02	---	---	---	---	---
2-Apr-08	12	1000	894	5.38	36	< 2	2	13	2.08	---	---	---	---	---
9-Apr-08	13	1000	906	3.98	86	< 2	11	12	1.96	---	---	---	---	---
16-Apr-08	14	1000	923	5.98	40	< 2	< 2	14	2	---	---	---	---	---
23-Apr-08	15	1000	978	4.37	72	< 2	5	2.9	2.65	< 0.0001	< 0.00001	< 0.01	< 0.0002	0.00049
30-Apr-08	16	1000	936	5.45	41	< 2	2	15	2.13	---	---	---	---	---
7-May-08	17	1000	936	4.27	69	< 2	5	19	2.69	---	---	---	---	---
14-May-08	18	1000	930	4.5	60	< 2	4	14	2.3	---	---	---	---	---
21-May-08	19	1000	966	4.06	84	< 2	7	17	2.52	---	---	---	---	---
28-May-08	20	1000	837	5.77	104	< 2	< 2	38	8.29	< 0.0001	< 0.00001	< 0.01	< 0.0002	0.0012
4-Jun-08	21	1000	884	6.03	49	< 2	< 2	16	2.57	---	---	---	---	---
11-Jun-08	22	1000	978	5.72	53	< 2	< 2	18	2.83	---	---	---	---	---
18-Jun-08	23	1000	962	5.83	51	< 2	< 2	18	2.63	---	---	---	---	---
25-Jun-08	24	1000	956	5.95	37	< 2	3	17	2.13	---	---	---	---	---
2-Jul-08	25	1000	903	5.98	41	< 2	< 2	14	2.02	< 0.0001	< 0.00001	< 0.01	< 0.0002	0.00043
9-Jul-08	26	1000	960	5.51	47	< 2	3	16	2.21	---	---	---	---	---
16-Jul-08	27	1000	896	6.01	44	< 2	< 2	15	2.1	---	---	---	---	---
23-Jul-08	28	1000	840	5.71	81	< 2	4	34	5.97	---	---	---	---	---
30-Jul-08	29	1000	862	5.65	57	< 2	3	21	3.21	---	---	---	---	---
6-Aug-08	30	1000	903	6.18	34	< 2	< 2	12	1.7	< 0.0001	< 0.00001	< 0.01	0.0003	0.00065
13-Aug-08	31	1000	962	5.63	39	< 2	3	14	1.94	---	---	---	---	---
20-Aug-08	32	1000	842	5.73	81	< 2	< 2	21	3.23	---	---	---	---	---
27-Aug-08	33	1000	880	5.63	43	< 2	< 2	16	2.08	---	---	---	---	---
3-Sep-08	34	1000	918	5.61	39	< 2	< 2	14	1.75	---	---	---	---	---
10-Sep-08	35	1000	950	5.98	43	<2	3	16	1.96	< 0.0001	0.00005	< 0.01	< 0.0002	0.00076

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Table A-8. Results of Waste Rock Humidity Cells - HC 7
Hanging wall - Schist (ARD19)

Date	Cycle No.	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo	Na	Ni
		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
9-Jan-08	0	0.00002	0.0161	< 0.00001	0.000043	0.0251	< 0.0005	0.0985	0.03	3.13	< 0.002	20	0.235	0.00173	3.63	0.0225
16-Jan-08	1	< 0.00002	0.0253	< 0.00001	0.000027	0.00522	0.0198	0.0276	< 0.01	2.44	< 0.002	27.3	0.202	0.0074	4.03	0.0069
23-Jan-08	2	< 0.00002	0.0245	< 0.00001	< 0.000003	0.003202	< 0.0005	0.0073	< 0.01	1.78	< 0.002	17	0.133	0.00225	2.29	0.0039
30-Jan-08	3	< 0.00002	0.0255	< 0.00001	0.000005	0.00193	< 0.0005	0.0041	< 0.01	1.59	< 0.002	11.6	0.0967	0.00165	1.38	0.0027
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	< 0.00002	0.0146	< 0.00001	0.000004	0.00108	< 0.0005	0.0025	< 0.01	0.9	< 0.002	5.28	0.0501	0.00314	0.62	0.0015
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	< 0.00002	0.0142	< 0.00001	0.000005	0.00109	< 0.0005	0.0028	< 0.01	0.66	< 0.002	3.52	0.0435	0.00181	0.35	0.0014
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	< 0.00002	0.0099	< 0.00001	< 0.000003	0.000967	< 0.0005	0.002	< 0.01	0.53	< 0.002	2.82	0.0384	0.00146	0.16	0.0013
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	< 0.00002	0.0091	< 0.00001	0.000004	0.00156	< 0.0005	0.0035	< 0.01	0.44	0.002	2.57	0.0526	0.00173	0.08	0.0019
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	< 0.00002	0.0085	< 0.00001	0.000009	0.00327	< 0.0005	0.007	< 0.01	0.62	< 0.002	4.79	0.105	0.00317	0.04	0.0044
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	< 0.00002	0.0056	< 0.00001	0.000009	0.00237	< 0.0005	0.0054	< 0.01	0.33	< 0.002	2.36	0.0729	0.0022	0.03	0.0029
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	< 0.00002	0.0043	< 0.00001	< 0.000003	0.0027	< 0.0005	0.0078	0.03	0.27	< 0.002	1.99	0.0763	0.0005	0.05	0.0034
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.00009	0.005	0.00004	0.000062	0.00446	< 0.0005	0.0106	< 0.01	0.29	< 0.002	2.85	0.127	0.0013	< 0.01	0.0054

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Table A-8. Results of Waste Rock Humidity Cells - HC 7
Hanging wall - Schist (ARD19)

Date	Cycle No.	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	0.01	0.0004	0.00061	0.018	0.29	0.00567	0.219	0.0001	0.000133	0.000083	0.00014	0.013
16-Jan-08	1	0.01	0.00012	0.00047	0.036	0.29	0.00489	0.249	< 0.0001	0.000055	0.000034	0.00003	0.005
23-Jan-08	2	0.01	0.00019	0.0004	0.023	0.32	0.0023	0.17	< 0.0001	0.000036	0.000017	0.00013	0.008
30-Jan-08	3	0.01	0.00006	0.00045	0.013	0.54	0.00106	0.132	0.0001	0.000014	0.000021	0.00012	0.004
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.02	0.00006	0.00046	0.007	0.32	0.00055	0.0499	0.0002	0.000007	0.000028	0.0001	0.003
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.03	0.00013	0.00039	0.004	0.25	0.00042	0.0325	< 0.0001	0.000009	0.000018	0.00008	0.007
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	< 0.01	0.00008	0.00037	0.002	0.27	0.00021	0.0264	< 0.0001	< 0.000002	0.000012	0.00011	0.003
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	< 0.01	0.00011	0.00016	0.001	0.51	0.00016	0.0233	< 0.0001	0.000104	0.000014	0.00006	0.003
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	< 0.01	0.00018	0.00039	0.002	0.35	0.00022	0.0672	< 0.0001	0.00001	0.000032	0.00005	0.005
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	< 0.01	0.00017	0.00031	< 0.001	0.35	< 0.00001	0.018	< 0.0001	0.000019	0.00001	< 0.00003	0.007
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	< 0.01	0.00032	0.00012	0.001	0.31	0.00014	0.0154	0.0001	0.000003	0.00002	< 0.00003	0.005
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	< 0.01	0.00025	0.00052	0.001	0.58	0.00002	0.0181	< 0.0001	0.000094	0.000129	0.00008	0.006

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Table A-8. Results of Waste Rock Humidity Cells - HC 7
Hanging wall - Schist (ARD19)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As	Ba
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	1000	913	5.66	44	<2	3	15	2.33	---	---	---	---	---
24-Sep-08	37	1000	983	6.16	44	< 2	< 2	17	2.09	---	---	---	---	---
1-Oct-08	38	1000	988	5.55	43	<2	3	16	2.01	---	---	---	---	---
8-Oct-08	39	1000	980	5.82	42	<2	7	15	2	---	---	---	---	---
15-Oct-08	40	1000	988	5.63	44	< 2	6	15	1.84	< 0.0001	< 0.00001	< 0.01	< 0.0002	0.0005
22-Oct-08	41	1000	980	5.69	48	< 2	5	17	2.04	---	---	---	---	---
29-Oct-08	42	1000	892	5.42	41	< 2	3	14	1.59	---	---	---	---	---
5-Nov-08	43	1000	911	5.48	42	< 2	< 2	14	1.57	---	---	---	---	---
12-Nov-08	44	1000	1000	5.55	38	< 2	2	15	1.79	---	---	---	---	---
19-Nov-08	45	1000	914	5.75	38	< 2	2	14	1.58	< 0.0001	< 0.00001	< 0.01	< 0.0002	0.00042
26-Nov-08	46	1000	904	4.62	31	< 2	2	14	1.54	---	---	---	---	---
3-Dec-08	47	1000	893	5.42	44	< 2	9	16	1.68	---	---	---	---	---
10-Dec-08	48	1000	888	5.42	47	< 2	4	16	1.62	---	---	---	---	---
17-Dec-08	49	1000	977	5.53	40	< 2	2	15	1.63	---	---	---	---	---
24-Dec-08	50	1000	915	5.66	30	< 2	< 2	10	1.04	< 0.0001	< 0.00001	< 0.01	< 0.0002	0.00043
30-Dec-08	51	1000	949	5.45	32	< 2	3	12	1.2	---	---	---	---	---
7-Jan-09	52	1000	899	5.49	38	< 2	2	14	1.49	---	---	---	---	---
14-Jan-09	53	1000	900	5.62	42	< 2	2	16	1.55	---	---	---	---	---

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Table A-8. Results of Waste Rock Humidity Cells - HC 7
Hanging wall - Schist (ARD19)

Date	Cycle No.	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo	Na	Ni
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.00002	0.0037	< 0.00001	0.000016	0.00556	< 0.0005	0.0124	< 0.01	0.24	< 0.002	2.7	0.137	0.0005	0.04	0.0073
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	< 0.00002	0.0028	< 0.00001	0.000007	0.00547	< 0.0005	0.0129	0.01	0.18	< 0.002	2.63	0.146	0.0011	0.02	0.0071
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	< 0.00002	0.0018	< 0.00001	< 0.000003	0.00493	< 0.0005	0.0119	< 0.01	0.11	< 0.002	1.78	0.112	0.0007	< 0.01	0.0067
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-8. Results of Waste Rock Humidity Cells - HC 7
Hanging wall - Schist (ARD19)

Date	Cycle No.	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.02	0.00025	0.00021	< 0.001	0.78	0.0001	0.0176	< 0.0001	0.000032	0.000047	< 0.00003	0.007
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	< 0.01	0.00022	< 0.0002	< 0.001	0.38	0.00007	0.0153	< 0.0001	< 0.000002	0.000068	< 0.00003	0.005
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	< 0.01	0.00013	< 0.0002	0.001	0.34	0.00013	0.0108	0.0001	< 0.000002	0.000078	< 0.00003	0.004
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-9. Results of Waste Rock Humidity Cells - HC 8
Hanging wall - Schist (07ARD06)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As	Ba
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	1000	730	7.03	111	8	< 2	24	4.24	< 0.0001	< 0.00001	0.02	0.0007	0.00505
16-Jan-08	1	1000	989	7.26	211	16	< 2	61	9.64	< 0.0001	< 0.00001	0.02	0.0013	0.0107
23-Jan-08	2	1000	975	7.43	115	16	< 2	28	5.09	< 0.0001	< 0.00001	0.02	0.0014	0.00743
30-Jan-08	3	1000	*	7.43	85	33	< 2	15	4.24	< 0.0001	< 0.00001	0.03	0.0018	0.00723
6-Feb-08	4	1000	983	7.56	51	16	< 2	7.5	2.67	---	---	---	---	---
13-Feb-08	5	1000	988	7.39	52	14	< 2	6.4	2.27	< 0.0001	< 0.00001	0.02	0.0016	0.00379
20-Feb-08	6	1000	978	7.26	44	12	< 2	6.3	2.3	---	---	---	---	---
27-Feb-08	7	1000	918	8.84	66	23	< 2	7.5	2.68	< 0.0001	< 0.00001	0.02	0.002	0.00469
05-Mar-08	8	1000	995	7.39	50	15	< 2	6.1	2.08	---	---	---	---	---
12-Mar-08	9	1000	993	7.34	45	15	< 2	2.9	2.4	---	---	---	---	---
19-Mar-08	10	1000	992	7.42	44	15	< 2	6.6	2.27	< 0.0001	< 0.00001	0.01	0.0019	0.00356
26-Mar-08	11	1000	990	7.28	47	13	< 2	7	2.26	---	---	---	---	---
2-Apr-08	12	1000	988	6.96	44	13	< 2	8.5	2.33	---	---	---	---	---
9-Apr-08	13	1000	972	6.97	52	15	< 2	8.3	2.72	---	---	---	---	---
16-Apr-08	14	1000	990	7.14	55	13	< 2	9.4	2.65	---	---	---	---	---
23-Apr-08	15	1000	988	7.04	49	12	< 2	9.7	2.67	< 0.0001	< 0.00001	0.02	0.0012	0.00326
30-Apr-08	16	1000	976	7.18	57	13	< 2	11	2.87	---	---	---	---	---
7-May-08	17	1000	890	6.72	61	10	< 2	10	3.13	---	---	---	---	---
14-May-08	18	1000	983	6.84	50	12	< 2	48	2.6	---	---	---	---	---
21-May-08	19	1000	990	7.14	47	14	< 2	8.3	2.78	---	---	---	---	---
28-May-08	20	1000	992	6.95	64	9	< 2	8.5	3.05	< 0.0001	< 0.00001	0.02	0.0018	0.00327
4-Jun-08	21	1000	996	7.35	52	15	< 2	8.3	2.77	---	---	---	---	---
11-Jun-08	22	1000	973	7.24	56	15	< 2	8.9	3.2	---	---	---	---	---
18-Jun-08	23	1000	956	7.5	60	14	< 2	10	3.41	---	---	---	---	---
25-Jun-08	24	1000	989	7.25	47	14	< 2	8.3	3.17	---	---	---	---	---
2-Jul-08	25	1000	987	7.28	53	14	< 2	8.8	3.03	< 0.0001	< 0.00001	0.02	0.0016	0.00277
9-Jul-08	26	1000	988	7.11	55	15	< 2	8.5	3.07	---	---	---	---	---
16-Jul-08	27	1000	980	7.04	54	15	< 2	8.2	3.34	---	---	---	---	---
23-Jul-08	28	1000	989	6.94	47	16	< 2	7.1	3.13	---	---	---	---	---
30-Jul-08	29	1000	819	7.25	52	17	< 2	7.8	3.31	---	---	---	---	---
6-Aug-08	30	1000	975	7.43	48	15	< 2	6.9	2.97	< 0.0001	< 0.00001	0.02	0.0014	0.00242
13-Aug-08	31	1000	979	7.52	42	14	< 2	5.3	2.79	---	---	---	---	---
20-Aug-08	32	1000	990	7.18	69	15	< 2	6.1	3.05	---	---	---	---	---
27-Aug-08	33	1000	986	7.17	45	16	< 2	6.3	2.95	---	---	---	---	---
3-Sep-08	34	1000	986	7.29	49	16	<2	7.2	3.26	---	---	---	---	---
10-Sep-08	35	1000	991	7.51	52	16	<2	7.5	3.39	< 0.0001	< 0.00001	0.01	0.0016	0.00255

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Table A-9. Results of Waste Rock Humidity Cells - HC 8
Hanging wall - Schist (07ARD06)

Date	Cycle No.	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo	Na	Ni
		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
9-Jan-08	0	< 0.00002	0.0083	0.00001	0.00001	0.00268	< 0.0005	0.0023	0.03	4.05	< 0.002	5.6	0.0306	0.0191	1.81	0.0022
16-Jan-08	1	< 0.00002	0.0153	< 0.00001	0.000013	0.000883	< 0.0005	0.0005	0.02	4.81	< 0.002	14.1	0.0536	0.127	2.79	0.0016
23-Jan-08	2	< 0.00002	0.0146	< 0.00001	0.000079	0.000244	< 0.0005	< 0.0005	0.01	3.46	< 0.002	7.28	0.02782	0.134	1.75	0.001
30-Jan-08	3	< 0.00002	0.0135	< 0.00001	< 0.000003	0.000075	< 0.0005	< 0.0005	0.01	3.39	< 0.002	6.06	0.0356	0.108	1.31	0.0011
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	< 0.00002	0.006	< 0.00001	0.000014	0.000167	< 0.0005	< 0.0005	0.02	1.78	< 0.002	3.13	0.0236	0.0474	0.57	0.0005
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	< 0.00002	0.0069	< 0.00001	0.000004	0.000186	< 0.0005	< 0.0005	0.01	1.89	< 0.002	3.76	0.0323	0.0526	0.52	0.0007
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	< 0.00002	0.0044	< 0.00001	< 0.000003	0.000157	< 0.0005	< 0.0005	< 0.01	1.47	< 0.002	3.09	0.0284	0.0249	0.3	0.0007
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	< 0.00002	0.0031	< 0.00001	< 0.000003	0.00015	< 0.0005	< 0.0005	< 0.01	1.48	< 0.002	3.45	0.0236	0.0139	0.21	0.0006
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	< 0.00002	0.0024	< 0.00001	0.000013	0.000109	< 0.0005	< 0.0005	< 0.01	1.43	< 0.002	3.73	0.0143	0.0139	0.14	0.0005
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	< 0.00002	0.002	< 0.00001	< 0.000003	0.000042	< 0.0005	< 0.0005	< 0.01	1.27	< 0.002	3.62	0.00791	0.011	0.12	0.0003
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	< 0.00002	0.0014	< 0.00001	< 0.000003	0.000039	< 0.0005	< 0.0005	< 0.01	1.3	< 0.002	3.35	0.00565	0.0105	0.08	0.0003
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	< 0.00002	0.0017	< 0.00001	< 0.000003	0.00008	< 0.0005	< 0.0005	< 0.01	1.24	< 0.002	3.79	0.00442	0.011	0.04	0.0002

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Table A-9. Results of Waste Rock Humidity Cells - HC 8
Hanging wall - Schist (07ARD06)

Date	Cycle No.	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	0.03	0.00016	0.00077	< 0.001	1.13	0.0111	0.0108	0.0002	0.000007	0.000028	0.00191	0.004
16-Jan-08	1	0.02	0.00003	0.00078	0.002	1.87	0.00787	0.0248	0.0001	0.000008	0.000612	0.00308	0.004
23-Jan-08	2	< 0.01	0.00016	0.00059	< 0.001	2.07	0.00453	0.0134	0.0001	0.000008	0.000255	0.00463	0.001
30-Jan-08	3	0.02	< 0.00002	0.00058	< 0.001	2.55	0.0127	0.0113	0.0002	< 0.000002	0.000341	0.00498	0.003
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.02	< 0.00002	0.00067	< 0.001	1.73	0.00947	0.0056	< 0.0001	< 0.000002	0.000143	0.00473	0.002
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.01	0.00002	0.00063	< 0.001	1.72	0.00798	0.0069	< 0.0001	< 0.000002	0.00024	0.00554	0.003
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	< 0.01	0.00007	0.00059	< 0.001	1.83	0.00965	0.0057	0.0002	< 0.000002	0.000135	0.0047	0.002
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	< 0.01	< 0.00002	0.00023	< 0.001	1.52	0.00909	0.0066	0.0001	0.000093	0.000135	0.00373	0.002
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	< 0.01	0.00005	0.00046	< 0.001	1.62	0.00536	0.0082	< 0.0001	< 0.000002	0.000165	0.0047	0.003
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	< 0.01	< 0.00002	0.00026	< 0.001	1.62	0.00869	0.0063	0.0001	< 0.000002	0.000087	0.00405	0.002
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	< 0.01	< 0.00002	0.00013	< 0.001	1.51	0.00882	0.0058	< 0.0001	< 0.000002	0.00011	0.00338	< 0.001
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	< 0.01	< 0.00002	0.00042	< 0.001	1.72	0.00755	0.0064	< 0.0001	0.000008	0.00014	0.00384	0.001

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Table A-9. Results of Waste Rock Humidity Cells - HC 8
Hanging wall - Schist (07ARD06)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As	Ba
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	1000	984	7.21	52	16	<2	7.1	3.45	---	---	---	---	---
24-Sep-08	37	1000	987	7.43	50	16	<2	7.2	3.38	---	---	---	---	---
1-Oct-08	38	1000	980	7.39	45	15	<2	6.9	3.11	---	---	---	---	---
8-Oct-08	39	1000	985	7.42	46	14	<2	6.9	3.23	---	---	---	---	---
15-Oct-08	40	1000	990	7.41	48	15	< 2	6.8	3.04	< 0.0001	< 0.00001	0.04	0.0022	0.00204
22-Oct-08	41	1000	987	7.43	49	15	< 2	7	3.17	---	---	---	---	---
29-Oct-08	42	1000	983	7.48	56	16	< 2	6.9	3.37	---	---	---	---	---
5-Nov-08	43	1000	985	7.33	54	17	< 2	6.8	3.46	---	---	---	---	---
12-Nov-08	44	1000	989	7.46	45	12	< 2	6.6	3.31	---	---	---	---	---
19-Nov-08	45	1000	987	7.46	50	16	< 2	6.9	3.53	< 0.0001	< 0.00001	0.03	0.0015	0.00198
26-Nov-08	46	1000	991	6.09	27	14	< 2	5.8	3.17	---	---	---	---	---
3-Dec-08	47	1000	994	7.32	46	16	< 2	5.5	3.28	---	---	---	---	---
10-Dec-08	48	1000	994	7.21	45	14	< 2	5.1	2.86	---	---	---	---	---
17-Dec-08	49	1000	993	7.52	46	15	< 2	5.9	3.2	---	---	---	---	---
24-Dec-08	50	1000	995	7.58	46	14	< 2	4.8	2.72	< 0.0001	< 0.00001	0.03	0.0018	0.00157
30-Dec-08	51	1000	992	7.53	43	14	< 2	5.3	2.94	---	---	---	---	---
7-Jan-09	52	1000	994	7.57	47	15	< 2	6.1	3.37	---	---	---	---	---
14-Jan-09	53	1000	991	7.44	41	14	< 2	5.3	2.97	---	---	---	---	---

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Table A-9. Results of Waste Rock Humidity Cells - HC 8
Hanging wall - Schist (07ARD06)

Date	Cycle No.	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo	Na	Ni
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	< 0.00002	0.0009	< 0.00001	< 0.000003	0.00017	< 0.0005	< 0.0005	< 0.01	1.15	< 0.002	3.33	0.00272	0.0105	0.06	0.0003
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	< 0.00002	0.0012	< 0.00001	< 0.000003	0.00003	< 0.0005	< 0.0005	< 0.01	1.18	< 0.002	3.67	0.00202	0.0104	0.06	0.0002
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	< 0.00002	0.0005	< 0.00001	< 0.000003	< 0.000002	< 0.0005	< 0.0005	< 0.01	0.98	< 0.002	2.79	0.00136	0.0073	0.03	0.0001
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-9. Results of Waste Rock Humidity Cells - HC 8
Hanging wall - Schist (07ARD06)

Date	Cycle No.	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.02	< 0.00002	0.00018	< 0.001	1.65	0.00782	0.0055	< 0.0001	0.000007	0.000194	0.00398	< 0.001
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	< 0.01	< 0.00002	< 0.0002	< 0.001	1.66	0.00637	0.0065	< 0.0001	< 0.000002	0.000144	0.00377	< 0.001
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	< 0.01	< 0.00002	< 0.0002	< 0.001	1.26	0.00707	0.0045	< 0.0001	< 0.000002	0.000112	0.00369	< 0.001
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-10. Results of Waste Rock Humidity Cells - HC 9
Hanging wall - Volcanic tuff/Schist (07 ARD 06)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	1000	752	6.3	170	< 2	2	4.2	5.76	< 0.0001	< 0.00001	0.02	< 0.0002
16-Jan-08	1	1000	772	5.66	215	< 2	4	9	7.28	< 0.0001	< 0.00001	0.01	0.0003
23-Jan-08	2	1000	937	6.56	81	2	< 2	5.2	2.38	< 0.0001	< 0.00001	< 0.01	< 0.0002
30-Jan-08	3	1000	980	6.76	41	3	< 2	4.8	1.13	< 0.0001	< 0.00001	0.03	0.0002
6-Feb-08	4	1000	929	6.85	24	3	< 2	3.5	0.58	---	---	---	---
13-Feb-08	5	1000	913	6.7	20	2	< 2	2.7	0.37	< 0.0001	< 0.00001	0.03	< 0.0002
20-Feb-08	6	1000	986	6.75	19	3	< 2	3.1	0.47	---	---	---	---
27-Feb-08	7	1000	922	6.67	17	< 2	< 2	2.8	0.3	< 0.0001	< 0.00001	0.04	< 0.0002
05-Mar-08	8	1000	897	6.7	19	3	< 2	3.2	0.31	---	---	---	---
12-Mar-08	9	1000	986	6.72	14	3	< 2	2.1	0.31	---	---	---	---
19-Mar-08	10	1000	923	6.61	14	2	< 2	2.2	0.21	< 0.0001	< 0.00001	0.04	< 0.0002
26-Mar-08	11	1000	902	6.45	13	< 2	< 2	2	0.29	---	---	---	---
2-Apr-08	12	1000	937	6.5	12	3	< 2	2	0.21	---	---	---	---
9-Apr-08	13	1000	963	6.27	13	< 2	2	1.5	0.2	---	---	---	---
16-Apr-08	14	1000	961	6.62	13	3	< 2	1.7	0.22	---	---	---	---
23-Apr-08	15	1000	985	6.43	15	2	< 2	1.7	0.33	< 0.0001	< 0.00001	0.04	< 0.0002
30-Apr-08	16	1000	981	5.18	17	< 2	4	1.7	0.22	---	---	---	---
7-May-08	17	1000	966	6.17	14	< 2	< 2	1.9	0.26	---	---	---	---
14-May-08	18	1000	954	4.99	31	< 2	3	1.4	0.26	---	---	---	---
21-May-08	19	1000	979	6.34	19	2	< 2	1.8	0.3	---	---	---	---
28-May-08	20	1000	899	3.7	96	< 2	13	1	0.24	< 0.0001	< 0.00001	0.05	< 0.0002
4-Jun-08	21	1000	936	6.19	13	< 2	< 2	1.7	0.2	---	---	---	---
11-Jun-08	22	1000	986	6.5	16	3	< 2	1.5	0.29	---	---	---	---
18-Jun-08	23	1000	956	6.79	12	3	< 2	1.7	0.23	---	---	---	---
25-Jun-08	24	1000	966	6.63	11	3	44	1.5	0.24	---	---	---	---
2-Jul-08	25	1000	938	6.48	9	< 2	< 2	1.5	0.18	< 0.0001	< 0.00001	0.03	< 0.0002
9-Jul-08	26	1000	969	6.4	11	2	< 2	1.6	0.2	---	---	---	---
16-Jul-08	27	1000	940	6.4	8	< 2	< 2	1.3	0.16	---	---	---	---
23-Jul-08	28	1000	922	6.28	7	< 2	< 2	1.4	0.17	---	---	---	---
30-Jul-08	29	1000	925	6.47	7	< 2	< 2	1.4	0.18	---	---	---	---
6-Aug-08	30	1000	927	6.55	7	< 2	< 2	1.4	0.15	< 0.0001	< 0.00001	0.03	0.0003
13-Aug-08	31	1000	967	6.76	9	< 2	< 2	1.5	0.22	---	---	---	---
20-Aug-08	32	1000	900	6.53	11	< 2	< 2	1.4	0.18	---	---	---	---
27-Aug-08	33	1000	884	6.42	10	< 2	< 2	1.5	0.17	---	---	---	---
3-Sep-08	34	1000	962	6.45	10	< 2	< 2	1.4	0.18	---	---	---	---
10-Sep-08	35	1000	977	6.68	10	2	<2	1.4	0.2	< 0.0001	< 0.00001	0.03	< 0.0002

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Table A-10. Results of Waste Rock Humidity Cells - HC 9
Hanging wall - Volcanic tuff/Schist (07 ARD 06)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
9-Jan-08	0	0.00458	< 0.00002	0.0218	< 0.00001	0.000006	0.00103	< 0.0005	0.001	0.01	5.05	< 0.002	10.4	0.0275	0.00887
16-Jan-08	1	0.00645	< 0.00002	0.0192	< 0.00001	0.000006	0.000841	< 0.0005	0.001	0.01	4.68	< 0.002	14	0.0376	0.0376
23-Jan-08	2	0.00216	< 0.00002	0.0182	< 0.00001	0.00003	0.000372	< 0.0005	0.0005	< 0.01	2.57	< 0.002	5.12	0.01348	0.04616
30-Jan-08	3	0.00108	< 0.00002	0.0233	< 0.00001	0.00001	0.000035	< 0.0005	< 0.0005	0.02	2.25	< 0.002	2.4	0.00723	0.0654
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.0004	< 0.00002	0.0138	< 0.00001	< 0.000003	0.000131	< 0.0005	< 0.0005	0.01	1.3	< 0.002	0.787	0.0033	0.0462
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.0003	< 0.00002	0.0161	< 0.00001	0.000012	0.000115	< 0.0005	< 0.0005	0.02	1.15	< 0.002	0.644	0.00326	0.0603
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.00025	< 0.00002	0.0124	< 0.00001	0.000029	0.000101	< 0.0005	< 0.0005	0.03	0.97	< 0.002	0.507	0.00276	0.0431
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.00041	< 0.00002	0.0123	< 0.00001	0.000021	0.000154	< 0.0005	< 0.0005	< 0.01	1.17	< 0.002	0.724	0.00343	0.0265
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.00067	< 0.00002	0.0118	< 0.00001	0.000007	0.000213	< 0.0005	0.0006	0.04	1.01	< 0.002	0.472	0.00352	0.025
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.00023	< 0.00002	0.0094	< 0.00001	0.000004	0.000085	< 0.0005	< 0.0005	0.03	0.94	< 0.002	0.407	0.00225	0.0144
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.00021	< 0.00002	0.0073	< 0.00001	< 0.000003	0.000103	< 0.0005	< 0.0005	0.02	0.84	< 0.002	0.325	0.00251	0.0131
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.00043	< 0.00002	0.0104	< 0.00001	< 0.000003	0.00011	< 0.0005	< 0.0005	0.02	0.93	< 0.002	0.457	0.00265	0.0117

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Table A-10. Results of Waste Rock Humidity Cells - HC 9
Hanging wall - Volcanic tuff/Schist (07 ARD 06)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
9-Jan-08	0	2.03	0.0019	0.02	0.0001	0.00051	< 0.001	0.3	0.023	0.0198	< 0.0001	0.000034	0.000008	0.00097	0.002
16-Jan-08	1	2.02	0.0024	0.02	0.00004	0.0005	0.003	0.28	0.013	0.026	0.0001	0.00001	0.000015	0.00134	0.002
23-Jan-08	2	1.06	0.0005	< 0.01	0.00006	0.0004	0.002	0.27	0.0079	0.0089	< 0.0001	0.00001	0.000016	0.00221	0.001
30-Jan-08	3	0.84	0.0006	0.02	< 0.00002	0.00047	0.002	0.42	0.0063	0.0044	0.0001	< 0.000002	0.000016	0.00274	< 0.001
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.37	0.0004	0.02	< 0.00002	0.00056	< 0.001	0.31	0.00396	0.0013	< 0.0001	< 0.000002	0.000014	0.00347	< 0.001
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.32	0.0003	0.02	< 0.00002	0.00045	< 0.001	0.25	0.00344	0.0012	0.0001	< 0.000002	0.000018	0.00396	< 0.001
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.22	0.0004	0.01	< 0.00002	0.00056	< 0.001	0.3	0.00323	0.0009	0.0003	< 0.000002	0.000016	0.00364	< 0.001
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.2	0.0004	< 0.01	< 0.00002	0.00025	< 0.001	0.33	0.00427	0.0013	< 0.0001	0.000091	0.000012	0.00276	0.001
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.13	0.0006	< 0.01	0.00004	0.00043	< 0.001	0.28	0.00325	0.0046	0.0003	0.000002	0.00001	0.00449	< 0.001
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.12	0.0002	< 0.01	< 0.00002	0.00028	< 0.001	0.28	0.0028	0.0007	< 0.0001	< 0.000002	< 0.000001	0.00408	< 0.001
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.09	0.0003	< 0.01	< 0.00002	0.00015	< 0.001	0.23	0.00128	0.0006	0.0002	< 0.000002	0.000001	0.00403	< 0.001
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.05	0.0002	< 0.01	< 0.00002	0.00057	< 0.001	0.34	0.00152	0.0011	0.0001	0.000017	0.000019	0.00381	< 0.001

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Table A-10. Results of Waste Rock Humidity Cells - HC 9
Hanging wall - Volcanic tuff/Schist (07 ARD 06)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	1000	939	6.47	8	< 2	< 2	1.2	0.18	---	---	---	---
24-Sep-08	37	1000	964	6.64	9	2	<2	1.4	0.25	---	---	---	---
1-Oct-08	38	1000	968	6.63	7	< 2	< 2	1.4	0.18	---	---	---	---
8-Oct-08	39	1000	978	6.69	8	< 2	< 2	1.2	0.19	---	---	---	---
15-Oct-08	40	1000	990	6.71	8	< 2	< 2	1.3	0.2	< 0.0001	< 0.00001	0.05	< 0.0002
22-Oct-08	41	1000	980	6.52	10	< 2	< 2	1.1	0.17	---	---	---	---
29-Oct-08	42	1000	929	6.43	10	< 2	2	1.1	0.13	---	---	---	---
5-Nov-08	43	1000	956	6.59	22	5	< 2	1.3	0.18	---	---	---	---
12-Nov-08	44	1000	989	6.69	9	3	< 2	1.1	0.25	---	---	---	---
19-Nov-08	45	1000	970	6.57	5	< 2	6	1.2	0.15	< 0.0001	< 0.00001	0.02	< 0.0002
26-Nov-08	46	1000	963	5.31	6	< 2	< 2	1.1	0.15	---	---	---	---
3-Dec-08	47	1000	972	6.45	6	< 2	< 2	1	0.15	---	---	---	---
10-Dec-08	48	1000	981	6.35	10	77	< 2	1	0.13	---	---	---	---
17-Dec-08	49	1000	979	6.71	6	< 2	< 2	1	0.14	---	---	---	---
24-Dec-08	50	1000	945	6.64	7	< 2	< 2	0.8	0.07	< 0.0001	< 0.00001	0.02	< 0.0002
30-Dec-08	51	1000	962	6.57	7	< 2	2	1	0.13	---	---	---	---
7-Jan-09	52	1000	966	6.52	7	< 2	< 2	1.1	0.15	---	---	---	---
14-Jan-09	53	1000	921	6.79	6	< 2	< 2	1	0.14	---	---	---	---

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Table A-10. Results of Waste Rock Humidity Cells - HC 9
Hanging wall - Volcanic tuff/Schist (07 ARD 06)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.00028	< 0.00002	0.0085	< 0.00001	< 0.000003	0.000139	< 0.0005	< 0.0005	0.03	0.91	< 0.002	0.419	0.00276	0.0101
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.00027	< 0.00002	0.0071	< 0.00001	0.000005	0.000082	< 0.0005	< 0.0005	0.02	0.84	< 0.002	0.364	0.00216	0.0072
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.00015	< 0.00002	0.0064	< 0.00001	< 0.000003	0.000051	< 0.0005	< 0.0005	0.01	0.72	< 0.002	0.28	0.00196	0.0052
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-10. Results of Waste Rock Humidity Cells - HC 9
Hanging wall - Volcanic tuff/Schist (07 ARD 06)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.08	0.0004	0.02	0.00004	0.0002	< 0.001	0.35	0.00204	0.0008	0.0002	0.000004	0.000053	0.00376	0.001
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.05	0.0002	< 0.01	< 0.00002	< 0.0002	< 0.001	0.3	0.00159	0.0006	< 0.0001	< 0.000002	0.000012	0.00342	< 0.001
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.03	0.0002	< 0.01	< 0.00002	< 0.0002	< 0.001	0.23	0.00194	0.0003	< 0.0001	< 0.000002	0.000065	0.00328	< 0.001
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-11. Results of Waste Rock Humidity Cells - HC 10
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD 12)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
9-Jan-08	0	1000	785	6.17	3	5	87	4.6	4.16	< 0.0001	< 0.00001	0.01	0.0002
16-Jan-08	1	1000	963	6.76	4	< 2	107	9	4.95	< 0.0001	< 0.00001	0.02	< 0.0002
23-Jan-08	2	1000	947	6.9	4	< 2	70	7.1	3.16	< 0.0001	< 0.00001	0.02	< 0.0002
30-Jan-08	3	1000	983	7.02	7	< 2	52	6.1	2.51	< 0.0001	< 0.00001	0.01	< 0.0002
6-Feb-08	4	1000	937	7	4	< 2	31	4.7	1.48	---	---	---	---
13-Feb-08	5	1000	980	6.95	5	< 2	36	4.7	1.46	< 0.0001	< 0.00001	0.03	< 0.0002
20-Feb-08	6	1000	982	6.79	3	< 2	24	3.5	1.21	---	---	---	---
27-Feb-08	7	1000	933	6.65	3	< 2	20	3.1	0.86	< 0.0001	< 0.00001	0.03	< 0.0002
05-Mar-08	8	1000	920	6.85	4	< 2	22	3.3	0.71	---	---	---	---
12-Mar-08	9	1000	990	6.76	4	< 2	20	3	0.92	---	---	---	---
19-Mar-08	10	1000	940	6.5	< 2	< 2	18	2.7	0.74	< 0.0001	< 0.00001	0.03	< 0.0002
26-Mar-08	11	1000	904	6.83	5	< 2	19	3.1	0.8	---	---	---	---
2-Apr-08	12	1000	947	6.69	4	< 2	15	2.6	0.6	---	---	---	---
9-Apr-08	13	1000	950	6.54	3	< 2	17	2.1	0.68	---	---	---	---
16-Apr-08	14	1000	963	6.73	3	< 2	19	2.4	0.74	---	---	---	---
23-Apr-08	15	1000	985	6.55	3	< 2	20	2.3	0.99	< 0.0001	< 0.00001	0.02	< 0.0002
30-Apr-08	16	1000	964	6.57	< 2	< 2	18	2.7	0.75	---	---	---	---
7-May-08	17	1000	971	6.69	10	< 2	18	2.9	0.79	---	---	---	---
14-May-08	18	1000	947	6.5	3	< 2	19	2.4	0.74	---	---	---	---
21-May-08	19	1000	984	4.53	< 2	5	37	2.9	0.87	---	---	---	---
28-May-08	20	1000	884	6.29	< 2	< 2	23	2.9	0.92	< 0.0001	< 0.00001	0.04	< 0.0002
4-Jun-08	21	1000	929	6.59	3	<2	13	2.3	0.59	---	---	---	---
11-Jun-08	22	1000	976	6.8	4	< 2	17	2.2	0.89	---	---	---	---
18-Jun-08	23	1000	959	6.98	4	< 2	18	2.6	0.8	---	---	---	---
25-Jun-08	24	1000	992	6.78	4	47	15	2.5	0.83	---	---	---	---
2-Jul-08	25	1000	939	6.68	3	< 2	14	2.1	0.64	< 0.0001	< 0.00001	0.01	< 0.0002
9-Jul-08	26	1000	971	6.61	3	< 2	16	2.5	0.7	---	---	---	---
16-Jul-08	27	1000	935	6.7	4	< 2	15	2	0.6	---	---	---	---
23-Jul-08	28	1000	990	6.49	3	< 2	14	2.2	0.68	---	---	---	---
30-Jul-08	29	1000	941	6.69	4	< 2	13	1.9	0.57	---	---	---	---
6-Aug-08	30	1000	936	6.74	3	< 2	12	2	0.55	< 0.0001	< 0.00001	0.01	< 0.0002
13-Aug-08	31	1000	977	7.11	4	< 2	15	2.3	0.76	---	---	---	---
20-Aug-08	32	1000	870	6.7	3	< 2	23	2	0.67	---	---	---	---
27-Aug-08	33	1000	927	6.6	3	< 2	12	1.8	0.53	---	---	---	---
3-Sep-08	34	1000	946	6.68	3	<2	13	1.8	0.58	---	---	---	---
10-Sep-08	35	1000	976	6.89	3	<2	14	1.9	0.65	< 0.0001	< 0.00001	0.01	< 0.0002

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Table A-11. Results of Waste Rock Humidity Cells - HC 10
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD 12)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
9-Jan-08	0	0.00039	< 0.00002	0.0478	< 0.00001	< 0.000003	0.000261	< 0.0005	< 0.0005	< 0.01	1.68	< 0.002	3.77	0.00401	0.0148
16-Jan-08	1	0.00045	< 0.00002	0.0621	< 0.00001	0.000011	0.000193	< 0.0005	< 0.0005	< 0.01	1.32	< 0.002	5.23	0.00434	0.07
23-Jan-08	2	0.00041	< 0.00002	0.0626	< 0.00001	0.000034	0.000107	< 0.0005	< 0.0005	0.01	1.14	< 0.002	3.41	0.00297	0.06928
30-Jan-08	3	0.00029	< 0.00002	0.063	< 0.00001	< 0.000003	< 0.000002	< 0.0005	< 0.0005	< 0.01	1.12	< 0.002	2.69	0.00183	0.0729
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	0.00018	< 0.00002	0.0479	< 0.00001	0.00001	0.000064	< 0.0005	< 0.0005	0.01	0.84	< 0.002	1.6	0.00165	0.0653
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.00012	< 0.00002	0.0381	< 0.00001	0.000008	0.000045	< 0.0005	< 0.0005	0.01	0.62	< 0.002	0.971	0.00125	0.0564
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.0001	< 0.00002	0.0265	< 0.00001	0.000033	0.000043	< 0.0005	< 0.0005	0.02	0.6	< 0.002	0.893	0.00116	0.0425
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.00019	< 0.00002	0.0237	< 0.00001	0.000026	0.000086	< 0.0005	< 0.0005	< 0.01	0.61	< 0.002	1.03	0.00141	0.0321
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.00023	< 0.00002	0.0173	0.00002	0.000011	0.000203	< 0.0005	0.0007	0.07	0.59	< 0.002	0.883	0.00354	0.0321
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.00014	< 0.00002	0.0142	< 0.00001	0.00001	0.000025	< 0.0005	< 0.0005	0.02	0.52	< 0.002	0.748	0.00103	0.0186
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.0001	< 0.00002	0.0113	< 0.00001	< 0.000003	0.000034	< 0.0005	< 0.0005	0.02	0.48	< 0.002	0.647	0.00115	0.0172
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.00015	< 0.00002	0.0147	0.00001	0.000003	0.000041	< 0.0005	< 0.0005	0.01	0.52	< 0.002	0.8	0.00141	0.0144

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Table A-11. Results of Waste Rock Humidity Cells - HC 10
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD 12)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
9-Jan-08	0	2.93	0.0005	0.02	0.00004	0.00055	< 0.001	0.48	0.00129	0.0495	< 0.0001	0.00001	0.000007	0.00042	< 0.001
16-Jan-08	1	2.83	0.0006	0.02	0.00003	0.00059	0.002	0.5	0.00188	0.0603	< 0.0001	0.000008	0.000145	0.00102	0.001
23-Jan-08	2	2.06	< 0.0001	< 0.01	0.00017	0.00046	< 0.001	0.51	0.00084	0.0384	0.0001	0.000009	0.000101	0.00126	0.001
30-Jan-08	3	1.64	0.0002	0.01	< 0.00002	0.00056	< 0.001	0.67	0.00093	0.0304	0.0002	< 0.000002	0.000148	0.00149	< 0.001
6-Feb-08	4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13-Feb-08	5	1.03	0.0002	0.02	< 0.00002	0.00068	< 0.001	0.62	0.00068	0.0172	< 0.0001	< 0.000002	0.000118	0.00206	0.001
20-Feb-08	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Feb-08	7	0.66	< 0.0001	0.02	< 0.00002	0.00046	< 0.001	0.41	0.00074	0.0106	< 0.0001	< 0.000002	0.000092	0.0024	0.001
05-Mar-08	8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Mar-08	9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Mar-08	10	0.48	0.0002	< 0.01	0.00005	0.0005	< 0.001	0.5	0.00061	0.0094	< 0.0001	< 0.000002	0.000074	0.00244	< 0.001
26-Mar-08	11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Apr-08	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9-Apr-08	13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Apr-08	14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Apr-08	15	0.37	0.0002	< 0.01	< 0.00002	0.00027	< 0.001	0.52	0.00114	0.0109	< 0.0001	0.000093	0.000076	0.00239	0.001
30-Apr-08	16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-May-08	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-May-08	18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21-May-08	19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28-May-08	20	0.46	0.001	< 0.01	0.00014	0.00045	< 0.001	0.43	0.00059	0.0107	0.0001	< 0.000002	0.000191	0.00313	0.003
4-Jun-08	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11-Jun-08	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18-Jun-08	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25-Jun-08	24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Jul-08	25	0.16	< 0.0001	< 0.01	< 0.00002	0.00036	< 0.001	0.46	0.00047	0.0076	< 0.0001	< 0.000002	0.000032	0.00315	< 0.001
9-Jul-08	26	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16-Jul-08	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23-Jul-08	28	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30-Jul-08	29	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6-Aug-08	30	0.13	0.0002	< 0.01	< 0.00002	0.00016	< 0.001	0.39	0.00039	0.0065	< 0.0001	< 0.000002	0.000053	0.00333	< 0.001
13-Aug-08	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20-Aug-08	32	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27-Aug-08	33	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Sep-08	34	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Sep-08	35	0.07	< 0.0001	< 0.01	< 0.00002	0.00064	< 0.001	0.56	0.00048	0.0077	< 0.0001	0.000008	0.000087	0.00351	< 0.001

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Table A-11. Results of Waste Rock Humidity Cells - HC 10
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD 12)

Date	Cycle No.	Volume Added	Volume Recovered	pH	Conductivity	Alkalinity	Acidity	SO4	Ca	Hg	Ag	Al	As
		ml	ml	units	µS/cm	mg/L (as CaCO3)	mg/L (as CaCO3)	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
17-Sep-08	36	1000	929	6.58	3	<2	12	1.6	0.54	---	---	---	---
24-Sep-08	37	1000	980	6.85	4	<2	13	1.8	0.67	---	---	---	---
1-Oct-08	38	1000	998	6.88	4	<2	14	1.8	0.77	---	---	---	---
8-Oct-08	39	1000	990	6.9	4	<2	13	1.6	0.68	---	---	---	---
15-Oct-08	40	1000	990	6.88	4	< 2	15	1.6	0.66	< 0.0001	< 0.00001	0.02	< 0.0002
22-Oct-08	41	1000	973	6.78	3	< 2	15	1.8	0.65	---	---	---	---
29-Oct-08	42	1000	927	6.73	3	< 2	14	1.5	0.48	---	---	---	---
5-Nov-08	43	1000	948	6.6	2	< 2	25	1.7	0.55	---	---	---	---
12-Nov-08	44	1000	996	6.83	2	4	11	1.5	0.67	---	---	---	---
19-Nov-08	45	1000	948	6.71	3	< 2	11	1.8	0.55	< 0.0001	< 0.00001	< 0.01	< 0.0002
26-Nov-08	46	1000	946	5.24	< 2	2	8	1.7	0.51	---	---	---	---
3-Dec-08	47	1000	945	6.71	3	< 2	11	1.5	0.5	---	---	---	---
10-Dec-08	48	1000	6.63	48	< 2	12	1.4	0.45		---	---	---	---
17-Dec-08	49	1000	987	6.85	3	< 2	12	1.6	0.61	---	---	---	---
24-Dec-08	50	1000	935	6.88	3	< 2	16	1.3	0.45	< 0.0001	< 0.00001	< 0.01	< 0.0002
30-Dec-08	51	1000	990	6.97	4	< 2	13	1.8	0.66	---	---	---	---
7-Jan-09	52	1000	947	6.79	3	< 2	11	1.5	0.58	---	---	---	---
14-Jan-09	53	1000	919	6.88	3	< 2	11	1.3	0.45	---	---	---	---

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Table A-11. Results of Waste Rock Humidity Cells - HC 10
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD 12)

Date	Cycle No.	Ba	Be	B	Bi	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.00013	< 0.00002	0.0105	< 0.00001	0.000007	0.000061	< 0.0005	< 0.0005	0.01	0.49	< 0.002	0.764	0.00136	0.01
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.00015	< 0.00002	0.0078	< 0.00001	< 0.000003	0.000031	< 0.0005	< 0.0005	0.01	0.47	< 0.002	0.7	0.00102	0.0085
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.00005	< 0.00002	0.0073	< 0.00001	< 0.000003	0.000009	< 0.0005	< 0.0005	< 0.01	0.41	< 0.002	0.633	0.00097	0.0058
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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Table A-11. Results of Waste Rock Humidity Cells - HC 10
Hanging wall - Amphibolite/Volcanic tuff/Greywacke (07ARD 12)

Date	Cycle No.	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Th	U	V	Zn
		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
17-Sep-08	36	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Sep-08	37	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1-Oct-08	38	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8-Oct-08	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15-Oct-08	40	0.08	0.0002	< 0.01	< 0.00002	0.00025	< 0.001	0.6	0.00044	0.0075	< 0.0001	0.000003	0.000055	0.00329	< 0.001
22-Oct-08	41	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29-Oct-08	42	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5-Nov-08	43	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12-Nov-08	44	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19-Nov-08	45	0.05	< 0.0001	< 0.01	< 0.00002	< 0.0002	< 0.001	0.49	0.0004	0.0062	< 0.0001	< 0.000002	0.000054	0.00316	< 0.001
26-Nov-08	46	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3-Dec-08	47	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10-Dec-08	48	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17-Dec-08	49	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24-Dec-08	50	0.04	0.0001	< 0.01	< 0.00002	< 0.0002	< 0.001	0.48	0.00038	0.0057	< 0.0001	< 0.000002	0.000066	0.00324	< 0.001
30-Dec-08	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7-Jan-09	52	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14-Jan-09	53	---	---	---	---	---	---	---	---	---	---	---	---	---	---

APPENDIX B

SUMMARY OF ALL ABA AND METAL ANALYSES

LIST OF TABLES

Baffinland Iron Mines Corporation

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Table B-1. Acid Base Accounting Results by Lithology

Sample ID	Borehole ID	Lithology	Sampling Program	Paste pH	Total Sulphur	Sulphate Sulphur	Sulphide Sulphur*	Total Carbon	AP	NP	Ca-NP	NPR	Ca-NPR
					(wt.%)				(kg $CaCO_3$/tonne)				
Hanging wall													
ARD12	MR1-05-47	Amphibolite	Knight Piesold 2006-2007	8.24	0.007	0.057	<0.01	0.016	0.3	27	1	85	4.3
ARD14	MR1-05-59	Amphibolite	Knight Piesold 2006-2007	8.1	0.014	<0.01	0.014	0.019	0.4	9.4	2	21	3.6
ARD15	MR1-05-51	Amphibolite	Knight Piesold 2006-2007	9.48	0.05	0.044	0.010	0.22	0.3	24	18	78	59
ARD16	MR1-05-51	Amphibolite	Knight Piesold 2006-2007	8.65	0.12	0.084	0.036	0.015	1.1	10	1	9.1	1.1
ARD17	MR1-05-51	Amphibolite	Knight Piesold 2006-2007	8.48	0.009	0.039	<0.01	0.014	0.3	18	1	56	3.7
ARD23	MR1-05-76	Amphibolite	Knight Piesold 2006-2007	9.05	0.019	0.049	<0.01	0.014	0.3	16	1	50	3.7
ARD24	MR1-05-76	Amphibolite	Knight Piesold 2006-2007	9	0.014	0.014	<0.01	0.009	0.3	7.6	1	24	2.4
07ARD10	MR1-05-53	Amphibolite	Knight Piesold 2006-2007	7.86	5.16	0.59	4.570	0.019	143	25	2	0.2	0.01
07ARD11	MR1-05-46	Amphibolite	Knight Piesold 2006-2007	7.89	0.071	<0.01	0.071	0.043	2.2	4.0	4	1.8	1.6
07ARD17	MR1-05-57	Amphibolite	Knight Piesold 2006-2007	8.51	0.022	0.02	<0.01	0.007	0.3	15	1	49	1.9
07ARD19	MR1-05-60	Amphibolite	Knight Piesold 2006-2007	8.39	0.031	0.03	<0.01	0.012	0.3	34	1	108	3.2
07ARD27	MR1-05-62	Amphibolite	Knight Piesold 2006-2007	8.31	0.682	0.41	0.272	0.058	8.5	27	5	3.2	0.6
07ARD28	MR1-05-62	Amphibolite	Knight Piesold 2006-2007	8.42	0.068	0.07	<0.01	0.022	0.3	51	2	163	5.9
MRARD10-038	MR1-08-160	Amphibolite	AMEC 2010	8.3	0.124	0.12	<0.01	0.022	0.3	32	2	101	5.9
MRARD10-039	MR1-08-160	Amphibolite	AMEC 2010	5.7	0.382	0.38	<0.01	0.126	0.3	0.20	11	0.6	34
MRARD10-091	MR1-08-143	Amphibolite	AMEC 2010	8.3	0.013	0.01	<0.01	0.006	0.3	8.5	1	27	1.6
MRARD10-108	MR1-08-150	Amphibolite	AMEC 2010	8.4	0.012	0.01	<0.01	0.008	0.3	22	1	70	2.1
MRARD10-131	MR1-08-160	Amphibolite	AMEC 2010	8.0	0.292	0.11	0.182	4.27	5.7	92	356	16	63
ARD21	MR1-05-77	Amphibolite/Gneiss	Knight Piesold 2006-2007	9.77	0.05	0.03	0.020	0.012	0.6	10	1	16	1.6
07ARD38	MR1-05-67	Amphibolite/Gneiss	Knight Piesold 2006-2007	9.75	0.041	0.04	<0.01	0.039	0.3	36	3	114	10
07ARD07	MR1-05-76	Amphibolite/Schist/Volcanic Tuff	Knight Piesold 2006-2007	8.68	0.082	<0.01	0.082	0.062	2.6	12	5	4.6	2.0
07ARD30	MR1-05-51	Amphibolite/Schist/Volcanic Tuff	Knight Piesold 2006-2007	8.61	0.536	0.23	0.306	0.022	9.6	39	2	4.1	0.2
ARD10	MR1-05-77	Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007	8.33	0.11	0.017	0.093	0.011	2.9	5.7	1	2.0	0.3
ARD11	MR1-05-77	Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007	8.04	0.072	0.032	0.040	0.01	1.3	9.9	1	7.9	0.8
07ARD13	MR1-06-84	Amphibolite/Volcanic Tuff /Greywacke	Knight Piesold 2006-2007	8.43	0.150	0.05	0.100	0.027	3.1	0.2	2	0.1	0.7
07ARD12	MR1-05-46	Amphibolite/Volcanic Tuff /Greywacke	Knight Piesold 2006-2007	8.01	0.410	0.06	0.350	0.033	11	0.7	3	0.1	0.3
07ARD37	MR1-04-36	Amphibolite/Volcanic Tuff /Schist /Gneiss	Knight Piesold 2006-2007	9.33	0.150	0.08	0.070	0.087	2.2	28	7	13	3.3
07ARD25	MR1-05-52	Amphibolte/Schist	Knight Piesold 2006-2007	8.21	0.582	0.38	0.202	0.013	6.3	8.0	1	1.3	0.2
07ARD29	MR1-05-59	Amphibolte/Schist	Knight Piesold 2006-2007	8.40	0.050	0.05	<0.01	0.011	0.3	15	1	47	2.9
MRARD10-010	MR1-09-176	Gneiss	AMEC 2010	8.5	<0.005	<0.01	<0.01	0.016	0.3	11	1	34	4.3
MRARD10-115	MR1-07-121	Gneiss	AMEC 2010	9.3	0.012	<0.01	0.012	0.012	0.4	13	1	34	2.7
MRARD10-040	MR1-08-158	Gneiss/Amphibolite	AMEC 2010	9.4	0.133	0.11	0.023	0.070	0.7	21	6	29	8.1
ARD 13	MR1-05-59	Metasediment	Knight Piesold 2006-2007	8.3	0.035	0.035	<0.01	0.028	0.3	11	2	36	7.5
MRARD10-090	MR1-08-144	Metasediment	AMEC 2010	9.5	0.012	0.01	<0.01	0.009	0.3	13	1	41	2.4
ARD 18	MR1-05-47	Schist	Knight Piesold 2006-2007	8.45	0.3	0.271	0.029	0.022	0.9	11	2	13	2.0
ARD19	MR1-05-47	Schist	Knight Piesold 2006-2007	8.49	1.47	0.024	1.446	0.014	45	14	1	0.3	0.03
UCS14	MR1-04-38	Schist	Knight Piesold 2006-2007	8.7	0.376	0.11	0.266	0.1	8.3	13	8	1.5	1.0
07ARD06	MR1-04-39	Schist	Knight Piesold 2006-2007	8.88	0.841	0.15	0.691	0.418	22	49	35	2.3	1.6
07ARD16	MR1-05-58	Schist	Knight Piesold 2006-2007	8.16	0.313	0.13	0.183	0.009	5.7	18	1	3.2	0.1
07ARD33	MR1-06-105	Schist	Knight Piesold 2006-2007	9.11	0.076	0.06	0.016	0.008	0.5	8.6	1	17	1.3
07ARD34	MR1-06-94	Schist	Knight Piesold 2006-2007	6.75	0.381	0.36	0.021	0.006	0.7	0.2	1	0	0.8
MRARD10-001	MR1-09-171	Schist	AMEC 2010	7.6	0.320	0.24	0.080	0.029	2.5	36	2	14	1.0
MRARD10-002	MR1-09-179	Schist	AMEC 2010	8.4	0.016	0.02	<0.01	0.017	0.3	10	1	32	4.5
MRARD10-003	MR1-09-179	Schist	AMEC 2010	7.7	0.029	0.03	<0.01	0.407	0.3	7.9	34	25	109
MRARD10-006	MR1-09-177	Schist	AMEC 2010	8.3	0.056	0.04	0.016	0.019	0.5	15	2	31	3.2
MRARD10-007	MR1-09-177	Schist	AMEC 2010	8.5	0.198	0.18	0.018	0.023	0.6	16	2	29	3.4
MRARD10-008	MR1-09-176	Schist	AMEC 2010	8.4	0.075	0.08	<0.01	0.017	0.3	14	1	45	4.5
MRARD10-009	MR1-09-176	Schist	AMEC 2010	8.4	0.285	0.13	0.155	0.017	4.8	17	1	3.4	0.3
MRARD10-013	MR1-09-176	Schist	AMEC 2010	8.5	0.098	0.10	<0.01	0.026	0.3	42	2	133	6.9
MRARD10-014	MR1-09-176	Schist	AMEC 2010	8.4	0.029	0.03	<0.01	0.019	0.3	28	2	89	5.1
MRARD10-016	MR1-09-172	Schist	AMEC 2010	8.7	0.271	0.09	0.181	0.026	5.7	19	2	3.4	0.4
MRARD10-017	MR1-09-172	Schist	AMEC 2010	8.6	0.153	0.09	0.063	0.024	2.0	26	2	13	1.0
MRARD10-020	MR1-09-172	Schist	AMEC 2010	8.0	0.463	0.21	0.253	0.015	7.9	26	1	3.3	0.2
MRARD10-022	MR1-09-176	Schist	AMEC 2010	8.1	0.026	0.03	<0.01	0.018	0.3	26	2	83	4.8
MRARD10-024	MR1-09-173	Schist	AMEC 2010	8.5	0.055	0.04	0.015	0.014	0.5	7.6	1	16	2.5
MRARD10-026	MR1-09-173	Schist	AMEC 2010	8.3	0.556	0.28	0.276	0.021	8.6	20	2	2.4	0.2
MRARD10-027	MR1-09-169	Schist	AMEC 2010	8.5	0.034	0.03	<0.01	0.030	0.3	15	3	47	8.0
MRARD10-028	MR1-09-169	Schist	AMEC 2010	8.2	0.650	0.18	0.470	0.010	14.7	10	1	0.7	0.1
MRARD10-032	MR1-09-169	Schist	AMEC 2010	8.3	0.084	0.08	<0.01	0.017	0.3	11	1	36	4.5
MRARD10-036	MR1-08-161	Schist	AMEC 2010	8.2	0.250	0.16	0.090	0.015	2.8	12	1	4.3	0.4
MRARD10-041	MR1-08-158	Schist	AMEC 2010	8.3	0.073	0.07	<0.01	0.041	0.3	25	3	79	10.9
MRARD10-047	MR1-08-163	Schist	AMEC 2010	8.5	<0.005	<0.01	<0.010	0.011	0.3	14	1	46	2.9
MRARD10-048	MR1-08-163	Schist	AMEC 2010	7.9	0.214	0.10	0.114	0.030	3.6	11	3	3.2	0.7
MRARD10-050	MR1-08-152	Schist	AMEC 2010	7.9	0.014	0.01	<0.01	0.029	0.3	18	2	56	7.7
MRARD10-052	MR1-08-158	Schist	AMEC 2010	8.2	0.055	0.03	0.025	0.084	0.8	14	7	18	9
MRARD10-056	MR1-08-152	Schist	AMEC 2010	8.3	0.008	<0.01	<0.01	0.009	0.3	17	1	54	2.4
MRARD10-060	MR1-08-157	Schist	AMEC 2010	8.1	0.185	0.06	0.125	0.006	3.9	14	1	3.6	0.1
MRARD10-061	MR1-08-159	Schist	AMEC 2010	8.6	0.009	<0.01	<0.01	0.019	0.3	26	2	83	5.1
MRARD10-062	MR1-08-155	Schist	AMEC 2010	8.1	0.065	0.06	<0.01	0.069	0.3	24	6	77	18
MRARD10-063	MR1-08-157	Schist	AMEC 2010	8.1	0.305	0.14	0.165	0.017	5.2	23	1	4.4	0.3
MRARD10-064	MR1-08-155	Schist	AMEC 2010	7.2	0.266	0.23	0.036	0.043	1.1	17	4	15	3.2
MRARD10-065	MR1-08-150	Schist	AMEC 2010	8.0	0.023	0.01	0.013	<0.005	0.4	11	0	26	1.0
MRARD10-068	MR1-08-140	Schist	AMEC 2010	7.6	1.18	0.21	0.970	0.007	30.3	12	1	0.4	0.02
MRARD10-070	MR1-08-140	Schist	AMEC 2010	8.1	0.028	0.03	<0.01	<0.005	0.3	13	0	40	1.3
MRARD10-071	MR1-08-160	Schist	AMEC 2010	8.0	0.098	0.02	0.078	0.013	2.4	38	1	16	0.4
MRARD10-072	MR1-08-149	Schist	AMEC 2010	8.0	0.034	0.03	<0.01	0.008	0.3	44	1	141	2.1
MRARD10-073	MR1-08-155	Schist	AMEC 2010	7.7	0.018	0.02	<0.01	0.009	0.3	21	1	67	2.4
MRARD10-075	MR1-08-148	Schist	AMEC 2010	7.7	0.026	0.03	<0.01	<0.005	0.3	11	0	36	1.3
MRARD10-078	MR1-08-153	Schist	AMEC 2010	8.3	0.124	0.03	0.094	<0.005	2.9	13	0	4.4	0.1
MRARD10-086	MR1-08-147	Schist	AMEC 2010	8.4	0.107	0.04	0.067	0.012	2.1	20	1	9.4	0.5
MRARD10-092	MR1-08-142	Schist	AMEC 2010	7.7	0.594	0.29	0.304	0.006	9.5	23	1	2.5	0.1
MRARD10-093	MR1-08-145	Schist	AMEC 2010	7.2	0.015	0.02	<0.01	0.021	0.3	5.4	2	17	5.6
MRARD10-094	MR1-08-147	Schist	AMEC 2010	8.2	0.253	0.13	0.123	0.017	3.8	27	1	6.9	0.4
MRARD10-097	MR1-08-143	Schist	AMEC 2010	9.6	0.019	0.02	<0.01	0.087	0.3	17	7	53	23
MRARD10-101	MR1-08-153	Schist	AMEC 2010	8.2	0.086	0.04	0.046	0.012	1.4	21	1	15	0.7
MRARD10-102	MR1-08-143	Schist	AMEC 2010	8.9	0.013	0.01	<0.01	0.042	0.3	9.8	4	31	11
MRARD10-103	MR1-08-141	Schist	AMEC 2010	8.0	0.089	0.09	<0.01	0.020	0.3	18	2	57	5.3
MRARD10-106	MR1-08-148	Schist	AMEC 2010	8.5	0.158	0.07	0.088	<0.005	2.8	8.8	0	3.2	0.2
MRARD10-109	MR1-08-141	Schist	AMEC 2010	7.6	0.229	0.18	0.049	0.032	1.5	27	3	18	1.7

Table B-1. Acid Base Accounting Results by Lithology (continued)

Sample ID	Borehole ID	Lithology	Sampling Program	Paste pH	Total Sulphur	Sulphate Sulphur	Sulphide Sulphur*	Total Carbon	AP	NP	Ca-NP	NPR	Ca-NPR
					(wt.%)				(kg $CaCO_3$/tonne)				
MRARD10-111	MR1-08-144	Schist	AMEC 2010	8.3	0.010	0.01	<0.01	0.009	0.3	12	1	38	2.4
MRARD10-114	MR1-07-121	Schist	AMEC 2010	9.5	0.085	0.03	0.055	0.006	1.7	9.1	1	5.3	0.3
MRARD10-116	MR1-07-121	Schist	AMEC 2010	7.3	1.29	0.25	1.040	0.036	32.5	26	3	0.8	0.1
MRARD10-117	MR1-08-156	Schist	AMEC 2010	8.9	0.086	<0.01	0.086	0.018	2.7	18	2	6.6	0.6
MRARD10-118	MR1-07-121	Schist	AMEC 2010	8.5	0.009	<0.01	<0.01	0.015	0.3	18	1	57	4.0
MRARD10-119	MR1-08-156	Schist	AMEC 2010	8.0	0.021	0.02	<0.01	0.007	0.31	19	1	59	1.9
MRARD10-120	MR1-08-148	Schist	AMEC 2010	8.2	0.457	0.16	0.297	0.013	9.3	5.6	1	0.6	0.1
MRARD10-122	MR1-08-156	Schist	AMEC 2010	8.5	0.312	0.12	0.192	0.012	6.0	27	1	4.4	0.2
MRARD10-124	MR1-08-143	Schist	AMEC 2010	8.5	0.005	<0.01	<0.01	0.009	0.3	8.2	1	26	2.4
MRARD10-126	MR1-08-145	Schist	AMEC 2010	7.4	0.011	<0.01	0.011	0.012	0.3	8.1	1	24	2.9
MRARD10-127	MR1-08-143	Schist	AMEC 2010	8.1	0.005	<0.01	<0.01	0.022	0.3	15	2	49	5.9
MRARD10-128	MR1-08-141	Schist	AMEC 2010	8.4	0.220	0.02	0.200	0.012	6.3	29	1	4.7	0.2
MRARD10-129	MR1-08-154	Schist	AMEC 2010	4.3	12.4	2.63	9.770	1.50	305.3	0.20	125	0.001	0.4
MRARD10-130	MR1-08-153	Schist	AMEC 2010	8.7	0.051	<0.01	0.051	0.117	1.6	25	10	16	6.1
07ARD21	MR1-06-90	Schist /Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007	8.17	1.68	0.67	1.010	0.039	32	18	3	0.6	0.1
07ARD20	MR1-05-60	Schist/Amphibolite	Knight Piesold 2006-2007	8.02	0.47	0.05	0.420	0.207	13.1	12	17	1	1
07ARD15	MR1-05-68	Schist/Volcanic Tuff	Knight Piesold 2006-2007	8.47	0.021	<0.01	0.021	0.009	0.7	10	1	15	1.1
07ARD39	MR1-06-96	Schist/Volcanic Tuff	Knight Piesold 2006-2007	8.53	0.039	0.04	<0.01	0.018	0.3	34	2	108	4.8
07ARD40	MR1-05-54	Schist/Volcanic Tuff /Amphibolite	Knight Piesold 2006-2007	8.44	0.017	0.02	<0.01	0.022	0.3	19	2	61	5.9
07ARD14	MR1-06-84	Schist/Volcanic Tuff/Gneiss	Knight Piesold 2006-2007	8.10	0.064	0.03	0.034	0.043	1.1	21	4	20	3.4
ARD20	MR1-05-59	Volcanic Tuff	Knight Piesold 2006-2007	8.45	0.048	0.048	<0.01	0.023	0.3	13	2	40	6.1
ARD22	MR1-05-77	Volcanic Tuff	Knight Piesold 2006-2007	9.43	0.03	0.03	<0.01	0.027	0.3	12	2	38	7.2
ARD25	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	9.48	0.007	0.02	<0.01	0.096	0.3	18	8	58	26
ARD26	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	9.75	0.066	0.01	0.056	0.507	1.8	49	42	28	24
UCS2	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007	6.26	0.157	0.16	<0.01	0.012	0.3	12	1	38	3.2
UCS15	MR1-05-77	Volcanic Tuff	Knight Piesold 2006-2007	9.89	0.171	0.04	0.131	0.138	4.1	19	12	5	2.8
UCS16	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	9.03	0.05	<0.01	0.050	0.026	1.6	17	2	11	1.4
UCS17	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	10.16	0.022	0.02	<0.01	0.039	0.3	25	3	80	10
UCS18	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	9.64	0.267	0.05	0.217	0.086	6.8	15	7	2	1.1
UCS19	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	9.69	0.08	0.04	0.040	0.015	1.3	22	1	18	1.0
UCS20	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	9.14	0.094	<0.01	0.094	0.496	2.9	59	41	20	14
UCS21	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	9.34	0.08	0.04	0.040	0.244	1.3	26	20	21	16
UCS25	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007	9.66	0.156	<0.01	0.156	0.014	4.9	33	1	7	0.2
UCS26	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007	9.14	0.019	0.03	<0.01	0.012	0.3	6.1	1	20	3.2
UCS28	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	9.77	0.005	<0.01	<0.01	0.009	0.3	11	1	34	2.4
UCS29	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	9.72	0.165	0.02	0.145	0.021	4.5	13	2	3	0.4
UCS30	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007	9.76	<0.005	<0.01	<0.01	0.025	0.3	26	2	84	6.7
UCS31	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007	9.98	0.007	<0.01	<0.01	0.132	0.3	15	11	49	35
UCS32	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007	9.64	0.049	<0.01	0.049	0.043	1.5	10	4	7	2.3
UCS33	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007	10.03	0.01	<0.01	0.010	0.02	0.3	15	2	48	5.3
UCS34	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007	9.81	<0.005	<0.01	<0.01	0.014	0.3	22	1	69	3.7
UCS35	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007	9.65	<0.005	<0.01	<0.01	0.037	0.3	12	3	39	9.9
UCS36	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007	9.51	<0.005	0.02	<0.01	0.161	0.3	20	13	65	43
UCS37	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007	9.58	<0.005	<0.01	<0.01	0.213	0.3	26	18	83	57
UCS38	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007	9.79	<0.005	<0.01	<0.01	0.03	0.3	8.6	3	28	8.0
UCS39	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007	9.81	0.011	<0.01	0.011	0.034	0.3	9.4	3	27	8.2
UCS40	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007	10.01	0.007	<0.01	<0.01	0.008	0.3	9.5	1	30	2.1
07ARD08	MR1-05-53	Volcanic Tuff	Knight Piesold 2006-2007	8.26	1.10	0.36	0.740	0.041	23.1	35	3	2	0.1
07ARD36	MR1-06-95	Volcanic Tuff	Knight Piesold 2006-2007	9.26	0.078	0.05	0.028	0.015	0.9	19	1	21	1.4
MRARD10-012	MR1-09-173	Volcanic Tuff	AMEC 2010	9.1	0.055	0.06	<0.01	1.07	0.3	129	89	413	285
MRARD10-021	MR1-09-173	Volcanic Tuff	AMEC 2010	9.0	0.099	0.09	<0.01	0.012	0.3	13	1	40	3.2
MRARD10-023	MR1-09-173	Volcanic Tuff	AMEC 2010	9.0	0.054	0.05	<0.01	0.738	0.3	98	62	314	197
MRARD10-025	MR1-09-173	Volcanic Tuff	AMEC 2010	8.1	0.056	0.06	<0.01	0.021	0.3	18	2	57	5.6
MRARD10-042	MR1-08-158	Volcanic Tuff	AMEC 2010	9.2	0.039	0.02	0.019	0.362	0.6	46	30	77	51
MRARD10-051	MR1-08-158	Volcanic Tuff	AMEC 2010	8.1	0.354	0.12	0.234	0.967	7.3	99	81	13	11
MRARD10-053	MR1-08-152	Volcanic Tuff	AMEC 2010	9.5	0.092	0.03	0.062	0.126	1.9	19	11	10	5.4
MRARD10-054	MR1-08-158	Volcanic Tuff	AMEC 2010	9.0	0.009	<0.01	<0.01	0.177	0.3	27	15	85	47
MRARD10-059	MR1-08-152	Volcanic Tuff	AMEC 2010	9.4	0.008	<0.01	<0.01	0.013	0.3	14	1	44	3.5
MRARD10-066	MR1-08-150	Volcanic Tuff	AMEC 2010	8.3	0.199	0.06	0.139	0.016	4.3	19	1	4.4	0.3
MRARD10-067	MR1-08-150	Volcanic Tuff	AMEC 2010	8.6	0.019	0.02	<0.01	0.008	0.3	14	1	45	2.1
MRARD10-069	MR1-08-141	Volcanic Tuff	AMEC 2010	6.1	0.847	0.12	0.727	1.14	22.7	1.0	95	0.04	4.2
MRARD10-076	MR1-08-157	Volcanic Tuff	AMEC 2010	8.2	0.037	0.02	0.017	0.081	0.5	31	7	59	13
MRARD10-080	MR1-08-149	Volcanic Tuff	AMEC 2010	7.9	1.28	0.28	1.000	0.009	31.3	20	1	0.6	0.02
MRARD10-082	MR1-08-150	Volcanic Tuff	AMEC 2010	8.8	0.120	0.02	0.100	0.437	3.1	42	36	13	12
MRARD10-083	MR1-08-145	Volcanic Tuff	AMEC 2010	8.9	0.016	0.02	<0.01	0.045	0.3	14	4	45	12
MRARD10-084	MR1-08-147	Volcanic Tuff	AMEC 2010	8.7	0.016	0.02	<0.01	0.040	0.3	18	3	56	11
MRARD10-087	MR1-08-147	Volcanic Tuff	AMEC 2010	8.8	0.447	0.09	0.357	0.966	11.2	96	81	8.6	7.2
MRARD10-088	MR1-08-147	Volcanic Tuff	AMEC 2010	8.5	0.033	0.02	0.013	0.110	0.4	27	9	66	23
MRARD10-089	MR1-08-147	Volcanic Tuff	AMEC 2010	8.7	0.075	0.03	0.045	0.212	1.4	44	18	31	13
MRARD10-098	MR1-08-153	Volcanic Tuff	AMEC 2010	9.5	0.009	<0.01	<0.01	0.045	0.3	15	4	46	12
MRARD10-105	MR1-08-141	Volcanic Tuff	AMEC 2010	8.2	0.870	0.26	0.610	0.065	19.1	16	5	0.8	0.3
MRARD10-112	MR1-08-156	Volcanic Tuff	AMEC 2010	9.0	0.009	<0.01	<0.01	0.871	0.3	84	73	268	232
MRARD10-113	MR1-08-144	Volcanic Tuff	AMEC 2010	8.6	0.032	<0.01	0.032	0.014	1.0	27	1	27	1.2
FC No. 2		Volcanic Tuff /Amphibolite/Schist	Knight Piesold 2006-2007	8.28	0.658	0.27	0.388	0.024	12.1	17	2	1	0.2
07ARD31	MR1-05-54	Volcanic Tuff /Chert /Schist	Knight Piesold 2006-2007	8.06	0.975	0.25	0.725	0.020	22.7	25	2	1.1	0.1
MRARD10-029	MR1-09-170	Volcanic Tuff /Schist	AMEC 2010	8.1	0.240	0.14	0.100	0.018	3.1	36	2	12	0.5
07ARD23	MR1-06-103	Volcanic Tuff /Schist	Knight Piesold 2006-2007	8.21	0.171	0.15	0.021	0.016	0.7	19	1	30	2.0
07ARD24	MR1-05-55	Volcanic Tuff /Schist	Knight Piesold 2006-2007	8.53	0.111	0.11	<0.01	0.015	0.31	34	1	107	4.0
07ARD26	MR1-06-93	Volcanic Tuff /Schist	Knight Piesold 2006-2007	7.83	0.109	0.11	<0.01	0.163	0.3	30	14	95	43
07ARD35	MR!-06-101	Volcanic Tuff /Schist	Knight Piesold 2006-2007	9.78	0.052	0.04	0.012	0.071	0.4	15	6	40	16
07ARD41	MR1-06-95	Volcanic Tuff /Schist	Knight Piesold 2006-2007	8.19	0.307	0.19	0.117	0.008	3.7	6.1	1	2	0.2
Footwall													
UCS9	MR1-06-81	Amphibolite	Knight Piesold 2006-2007	7.14	0.022	0.02	<0.01	0.019	0.3	13.2	2	42	5.1
MRARD10-107	MR1-08-154	Amphibolite	AMEC 2010	8.3	0.049	0.03	0.019	0.007	0.6	19.9	0.6	34	1.0
ARD1	MR1-05-72	Gneiss	Knight Piesold 2006-2007	9.78	0.006	0.016	<0.01	0.012	0.3	9.6	1	31	3.2
ARD2	MR1-05-72	Gneiss	Knight Piesold 2006-2007	10.03	<0.005	<0.01	<0.01	0.011	0.3	9.4	1	30	2.9
ARD3	MR1-05-72	Gneiss	Knight Piesold 2006-2007	10.15	0.042	0.042	<0.01	0.01	0.3	9	1	29	2.7
ARD4	MR1-05-73	Gneiss	Knight Piesold 2006-2007	9.93	<0.005	<0.01	<0.01	0.016	0.3	9.5	1	30	4.3
ARD5	MR1-05-73	Gneiss	Knight Piesold 2006-2007	9.75	0.008	<0.01	<0.01	0.01	0.3	9.2	1	29	2.7
ARD6	MR1-05-73	Gneiss	Knight Piesold 2006-2007	9.58	<0.005	<0.01	<0.01	0.015	0.3	8.9	1	28	4.0

Table B-1. Acid Base Accounting Results by Lithology (continued)

Sample ID	Borehole ID	Lithology	Sampling Program	Paste pH	Total Sulphur	Sulphate Sulphur	Sulphide Sulphur*	Total Carbon	AP	NP	Ca-NP	NPR	Ca-NPR
					(wt.%)				(kg $CaCO_3$/tonne)				
ARD7	MR1-05-74	Gneiss	Knight Piesold 2006-2007	9.67	<0.005	<0.01	<0.01	0.01	0.3	6.3	1	20	2.7
ARD8	MR1-05-74	Gneiss	Knight Piesold 2006-2007	10.07	0.035	<0.01	0.035	0.01	1.1	6.4	1	5.9	0.8
ARD9	MR1-05-74	Gneiss	Knight Piesold 2006-2007	9.98	<0.005	<0.01	<0.01	0.013	0.3	6.8	1	22	3.5
UCS10	MR1-06-81	Gneiss	Knight Piesold 2006-2007	6.48	3.28	0.63	2.650	0.005	82.8	14	0	0.2	0.0
UCS12	MR1-06-81	Gneiss	Knight Piesold 2006-2007	9.51	0.02	0.02	<0.01	0.026	0.3	6.2	2	20	6.9
UCS13	MR1-06-81	Gneiss	Knight Piesold 2006-2007	9.55	0.735	0.06	0.675	0.029	21.1	13.9	2	0.7	0.1
UCS22	MR1-06-81	Gneiss	Knight Piesold 2006-2007	9.28	0.077	0.04	0.037	0.012	1.2	7.8	1	6.7	0.9
UCS23	MR1-06-81	Gneiss	Knight Piesold 2006-2007	10.05	0.054	0.01	0.044	0.007	1.4	9.1	1	6.6	0.4
UCS24	MR1-06-81	Gneiss	Knight Piesold 2006-2007	9.69	0.183	0.04	0.143	0.09	4.5	6.8	8	1.5	1.7
UCS49	MR1-06-105	Gneiss	Knight Piesold 2006-2007	9.91	0.247	<0.01	0.247	0.012	7.7	7.8	1	1.0	0.1
UCS51	MR1-06-105	Gneiss	Knight Piesold 2006-2007	9.57	0.016	<0.01	0.016	0.03	0.5	8.5	3	17	5.0
07ARD22	MR1-06-90	Gneiss	Knight Piesold 2006-2007	7.61	0.104	0.07	0.034	0.009	1.1	13.0	1	12	0.7
07ARD32	MR1-06-81	Gneiss	Knight Piesold 2006-2007	9.26	0.185	0.12	0.065	0.018	2.0	24.2	2	12	0.7
MRARD10-004	MR1-09-179	Gneiss	AMEC 2010	9.5	0.016	0.02	<0.01	0.013	0.3	9.7	1.1	31	3.5
MRARD10-005	MR1-09-179	Gneiss	AMEC 2010	9.4	0.015	0.02	<0.01	0.009	0.3	5.8	0.8	19	2.4
MRARD10-011	MR1-09-178	Gneiss	AMEC 2010	8.1	0.026	0.03	<0.01	0.014	0.3	15.9	1.2	51	3.7
MRARD10-015	MR1-09-178	Gneiss	AMEC 2010	8.9	0.016	0.02	<0.01	0.013	0.3	7.8	1.1	25	3.5
MRARD10-018	MR1-09-172	Gneiss	AMEC 2010	8.7	0.142	0.02	0.122	0.284	3.8	8.5	24	2.2	6.2
MRARD10-019	MR1-09-172	Gneiss	AMEC 2010	8.5	0.075	0.08	<0.01	0.048	0.3	31.4	4.0	100	13
MRARD10-030	MR1-09-170	Gneiss	AMEC 2010	8.6	0.268	0.08	0.188	0.015	5.9	12.2	1.3	2.1	0.2
MRARD10-031	MR1-09-170	Gneiss	AMEC 2010	9.2	0.009	<0.01	<0.01	<0.005	0.3	4.6	0.4	15	1.3
MRARD10-033	MR1-08-162	Gneiss	AMEC 2010	9.4	0.016	0.02	<0.01	<0.005	0.3	6.5	0.4	21	1.3
MRARD10-034	MR1-08-162	Gneiss	AMEC 2010	9.0	0.183	0.13	0.053	0.012	1.7	7.7	1.0	4.6	0.6
MRARD10-043	MR1-09-167	Gneiss	AMEC 2010	9.5	0.020	0.02	<0.01	0.006	0.3	10.0	0.5	32	1.6
MRARD10-044	MR1-09-167	Gneiss	AMEC 2010	8.5	1.130	0.31	0.820	0.012	26	10.1	1.0	0.4	0.04
MRARD10-045	MR1-09-167	Gneiss	AMEC 2010	9.6	0.025	0.02	<0.01	<0.005	0.3	6.4	0.4	20	1.3
MRARD10-046	MR1-09-167	Gneiss	AMEC 2010	9.1	<0.005	<0.01	<0.01	<0.005	0.3	6.7	0.4	21	1.3
MRARD10-055	MR1-08-159	Gneiss	AMEC 2010	9.2	0.360	0.07	0.290	0.006	9.1	9.6	0.5	1.1	0.1
MRARD10-057	MR1-08-161	Gneiss	AMEC 2010	9.5	0.426	0.19	0.236	0.014	7.4	10.3	1.2	1.4	0.2
MRARD10-074	MR1-08-149	Gneiss	AMEC 2010	7.3	0.664	0.09	0.574	0.019	17.9	8.0	1.6	0.4	0.1
MRARD10-104	MR1-08-140	Gneiss	AMEC 2010	8.4	0.009	<0.01	<0.01	<0.005	0.3	8.7	0.4	28	1.3
MRARD10-110	MR1-08-154	Gneiss	AMEC 2010	9.0	<0.005	<0.01	<0.01	0.010	0.3	6.9	0.8	22	2.7
MRARD10-123	MR1-08-155	Gneiss	AMEC 2010	9.2	0.455	0.13	0.325	<0.005	10.2	23.2	0.4	2.3	0.0
MRARD10-125	MR1-08-144	Gneiss	AMEC 2010	9.3	<0.005	<0.01	<0.01	0.010	0.3	6.2	0.8	20	2.7
5141	ARD-2A-NW	Gneiss	AMEC 2010	9.0	0.142	0.08	0.062	0.021	1.9	14.5	1.8	7.5	0.9
5142	ARD-2A-NW	Gneiss	AMEC 2010	9.9	0.140	0.05	0.090	0.024	2.8	11.1	2.0	3.9	0.7
5157	ARD-2A-SE	Gneiss	AMEC 2010	9.9	0.103	0.05	0.053	0.020	1.7	11.6	1.7	7.0	1.0
5158	ARD-2A-SE	Gneiss	AMEC 2010	10.0	0.174	0.10	0.074	0.017	2.3	12.3	1.4	5.3	0.6
5159	ARD-2A-SE	Gneiss	AMEC 2010	9.5	0.220	0.09	0.130	0.018	4.1	13.8	1.5	3.4	0.4
5160	ARD-2A-SE	Gneiss	AMEC 2010	9.7	0.013	0.01	<0.01	0.054	0.3	11.6	4.5	37	14.4
5164	ARD-2A-SE	Gneiss	AMEC 2010	10.1	0.056	0.03	0.026	0.017	0.8	7.9	1.4	10	1.7
5165	ARD-2A-SE	Gneiss	AMEC 2010	9.8	0.014	0.01	<0.01	0.109	0.3	15.6	9.1	50	29.1
5166	ARD-2A-SE	Gneiss	AMEC 2010	9.9	0.034	0.03	<0.01	0.019	0.3	10.7	1.6	34	5.1
5171	ARD-2A-SE	Gneiss	AMEC 2010	5.5	0.399	0.17	0.229	0.054	7.2	9.0	4.5	1.3	0.6
5172	ARD-2A-SE	Gneiss	AMEC 2010	9.2	0.137	0.06	0.077	0.066	2.4	10.4	5.5	4.3	2.3
5174	ARD-2B-NW	Gneiss	AMEC 2010	9.2	0.068	0.02	0.048	0.014	1.5	3.7	1.2	2.5	0.8
5175	ARD-2B-NW	Gneiss	AMEC 2010	9.0	0.010	0.01	<0.01	0.012	0.3	5.1	1.0	16	3.2
UCS11	MR1-06-81	Gneiss/Amphibolite	Knight Piesold 2006-2007	7.36	0.262	0.09	0.172	0.01	5.4	10.1	1	1.9	0.2
5182	ARD-2B-NW	Gneiss/Schist	AMEC 2010	9.5	0.658	0.12	0.538	0.013	16.8	11.1	1.1	0.7	0.1
5183	ARD-2B-NW	Gneiss/Schist	AMEC 2010	9.8	0.032	0.03	<0.01	0.014	0.3	7.4	1.2	24	3.7
5184	ARD-2B-NW	Gneiss/Schist	AMEC 2010	9.8	0.021	0.02	<0.01	0.026	0.31	12.4	2.2	40	6.9
5186	ARD-2B-NW	Gneiss/Schist	AMEC 2010	9.5	0.094	0.08	0.014	0.020	0.4	13.5	1.7	31	3.8
5187	ARD-2B-NW	Gneiss/Schist	AMEC 2010	9.3	0.023	0.02	0.003	0.015	0.1	11.4	1.3	122	13.3
5188	ARD-2B-NW	Gneiss/Schist	AMEC 2010	9.8	0.018	0.02	<0.01	0.023	0.3	10.5	1.9	34	6.1
5189	ARD-2B-NW	Gneiss/Schist	AMEC 2010	9.3	0.020	0.02	<0.01	0.013	0.3	13.6	1.1	44	3.5
FC No. 1		Gneiss/Schist	Knight Piesold 2006-2007	8.61	0.277	0.13	0.147	0.036	4.6	8.6	3	1.9	0.7
MRARD10-081	MR1-08-142	Metasediment	AMEC 2010	9.3	<0.005	<0.01	<0.01	0.007	0.3	8.1	0.6	26	1.9
MRARD10-095	MR1-08-146	Metasediment	AMEC 2010	9.3	0.252	0.07	0.182	0.087	5.7	18.7	7.3	3.3	1.3
MRARD10-100	MR1-08-146	Metasediment	AMEC 2010	9.4	0.018	0.02	<0.01	0.225	0.3	30.6	19	98	60
5143	ARD-2A-NW	Metasediment	AMEC 2010	9.9	0.027	0.03	<0.01	0.016	0.3	9.5	1.3	30	4.3
5144	ARD-2A-NW	Metasediment	AMEC 2010	9.9	0.347	0.35	<0.01	0.020	0.3	9.1	1.7	29	5.3
5145	ARD-2A-NW	Metasediment	AMEC 2010	9.9	0.008	<0.01	<0.01	0.015	0.3	11.0	1.3	35	4.0
5147	ARD-2A-NW	Metasediment	AMEC 2010	10.0	0.075	0.05	0.025	0.024	0.8	7.9	2.0	10	2.6
5148	ARD-2A-NW	Metasediment	AMEC 2010	10.0	0.013	0.01	<0.01	0.025	0.3	11.7	2.1	37	6.7
5149	ARD-2A-NW	Metasediment	AMEC 2010	10.0	0.099	0.06	0.039	0.029	1.2	11.1	2.4	9.1	2.0
5161	ARD-2A-SE	Metasediment	AMEC 2010	10.1	0.011	0.01	<0.01	0.013	0.31	9.3	1.1	30	3.5
5162	ARD-2A-SE	Metasediment	AMEC 2010	10.1	<0.005	<0.01	<0.010	0.016	0.3	8.7	1.3	28	4.3
5163	ARD-2A-SE	Metasediment	AMEC 2010	10.1	0.008	<0.01	<0.01	0.014	0.3	8.5	1.2	27	3.7
5167	ARD-2A-SE	Metasediment	AMEC 2010	10.0	0.071	0.04	0.031	0.024	1.0	11.9	2.0	12	2.1
5168	ARD-2A-SE	Metasediment	AMEC 2010	10.1	0.021	0.02	<0.01	0.032	0.31	12.0	2.7	38	8.5
5169	ARD-2A-SE	Metasediment	AMEC 2010	10.2	0.137	0.12	0.017	0.038	0.5	7.4	3.2	14	6.0
5176	ARD-2B-NW	Schist	AMEC 2010	8.8	0.095	0.08	0.015	0.017	0.5	21.9	1.4	47	3.0
5177	ARD-2B-NW	Schist	AMEC 2010	9.0	0.139	0.14	<0.010	0.018	0.3	24.4	1.5	78	4.8
5178	ARD-2B-NW	Schist	AMEC 2010	8.5	1.460	0.55	0.910	0.018	28.4	22.6	1.5	0.8	0.1
MRARD10-035	MR1-08-163	Schist	AMEC 2010	7.9	0.007	<0.01	<0.01	0.020	0.3	9.7	1.7	31	5.3
MRARD10-037	MR1-08-160	Schist	AMEC 2010	8.9	0.158	0.10	0.058	0.020	1.8	8.3	1.7	4.6	0.9
MRARD10-049	MR1-08-163	Schist	AMEC 2010	8.2	0.014	0.01	<0.01	0.021	0.3	16.3	1.8	52	5.6
MRARD10-058	MR1-08-159	Schist	AMEC 2010	9.9	0.295	0.08	0.215	<0.005	6.7	12.4	0.4	1.8	0.1
MRARD10-085	MR1-08-144	Schist	AMEC 2010	7.8	6.130	0.17	5.960	0.005	186.3	14.8	0.4	0.1	0.0
MRARD10-096	MR1-08-146	Schist	AMEC 2010	8.9	0.009	<0.01	<0.01	0.079	0.3	23.4	6.6	75	21
MRARD10-099	MR1-08-144	Schist	AMEC 2010	9.0	<0.005	<0.01	<0.01	0.010	0.3	18.8	0.8	60	2.7
MRARD10-121	MR1-08-155	Schist	AMEC 2010	9.7	0.020	<0.01	0.010	0.007	0.3	15.5	0.6	50	1.9
5146	ARD-2A-NW	Schist	AMEC 2010	9.6	0.044	0.04	<0.01	0.029	0.3	17.0	2.4	54	7.7
5150	ARD-2A-NW	Schist	AMEC 2010	9.4	0.024	0.02	<0.01	0.028	0.3	15.9	2.3	51	7.5
5151	ARD-2A-NW	Schist	AMEC 2010	9.8	0.130	0.06	0.070	0.019	2.2	16.1	1.6	7.4	0.7
5152	ARD-2A-NW	Schist	AMEC 2010	10.0	0.062	0.04	0.022	0.016	0.7	9.1	1.3	13	1.9
5153	ARD-2A-NW	Schist	AMEC 2010	9.0	0.081	0.06	0.021	0.022	0.7	16.2	1.8	25	2.8
5154	ARD-2A-NW	Schist	AMEC 2010	10.1	0.032	0.03	<0.01	0.021	0.3	8.5	1.8	27	5.6
5170	ARD-2A-SE	Schist	AMEC 2010	9.9	0.194	0.08	0.114	0.125	3.6	25.8	10	7.2	2.9
5173	ARD-2A-SE	Schist	AMEC 2010	8.3	0.018	0.02	<0.01	0.101	0.3	22.4	8.4	72	26.9

Table B-1. Acid Base Accounting Results by Lithology (continued)

Sample ID	Borehole ID	Lithology	Sampling Program	Paste pH	Total Sulphur	Sulphate Sulphur	Sulphide Sulphur*	Total Carbon	AP	NP	Ca-NP	NPR	Ca-NPR
					(wt.%)				(kg $CaCO_3$/tonne)				
5179	ARD-2B-NW	Schist	AMEC 2010	8.8	0.038	0.04	<0.01	0.023	0.3	9.3	1.9	29.8	6.1
5180	ARD-2B-NW	Schist	AMEC 2010	8.9	0.034	0.03	<0.01	0.020	0.3	13.2	1.7	42.2	5.3
5181	ARD-2B-NW	Schist	AMEC 2010	8.8	0.027	0.03	<0.01	0.016	0.3	14.1	1.3	45.1	4.3
5185	ARD-2B-NW	Schist	AMEC 2010	9.6	0.089	0.04	0.049	0.018	1.5	12.8	1.5	8.4	1.0
5155	ARD-2A-NW	Schist/Gneiss	AMEC 2010	9.3	<0.005	<0.01	<0.01	0.013	0.3	7.0	1.1	22	3.5
5156	ARD-2A-NW	Schist/Gneiss	AMEC 2010	9.8	0.070	0.03	0.040	0.015	1.3	11.5	1.3	9.2	1.0
UCS27	MR1-06-81	Volcanic Tuff /Schist	Knight Piesold 2006-2007	9.11	0.02	0.02	<0.01	0.016	0.3	24	1	77	4.3
MRARD10-077	MR1-08-146	Volcanic tuff	AMEC 2010	9.8	<0.005	<0.01	<0.01	0.006	0.3	15.2	0.5	49	1.6
MRARD10-079	MR1-08-146	Volcanic tuff	AMEC 2010	9.3	0.102	0.06	0.042	0.654	1.3	63.9	55	49	42

Notes:

AP = Acid potential in tonnes $CaCO_3$ equivalent per 1000 tonnes of material. AP is determined from calculated sulphide sulphur content: S(T) - $S(SO_4)$.

NP = Neutralization potential in tonnes $CaCO_3$ equivalent per 1000 tonnes of material.

Carbonate NP is calculated from TC originating from carbonates and is expressed in kg $CaCO_3$/tonne.

NPR = Net Potential Ratio = NP/AP; Carb-NPR = Carb-NP/AP

*Where NP or AP values are equal to or less than zero, NPR is calculated assuming detection limit (NP = 0.2 kg $CaCO_3$/tonne, AP = 0.03 kg $CaCO_3$/tonne).

Table B-2. Net Acid Generation Test Results by Lithology

Sample ID	Borehole ID	Lithology	Sampling Program	Single Addition NAG			Sequential Additon NAG	
				NAG_{pH}	NAG (pH 4.5)	NAG (pH 7)	NAG (pH 4.5)	NAG (pH 7)
					kg H2SO4/tonne		kg H2SO4/tonne	
Hanging wall								
ARD12	MR1-05-47	Amphibolite	Knight Piesold 2006-2007					
ARD14	MR1-05-59	Amphibolite	Knight Piesold 2006-2007					
ARD15	MR1-05-51	Amphibolite	Knight Piesold 2006-2007					
ARD16	MR1-05-51	Amphibolite	Knight Piesold 2006-2007					
ARD17	MR1-05-51	Amphibolite	Knight Piesold 2006-2007					
ARD23	MR1-05-76	Amphibolite	Knight Piesold 2006-2007					
ARD24	MR1-05-76	Amphibolite	Knight Piesold 2006-2007					
07ARD10	MR1-05-53	Amphibolite	Knight Piesold 2006-2007	2.9				
07ARD11	MR1-05-46	Amphibolite	Knight Piesold 2006-2007					
07ARD17	MR1-05-57	Amphibolite	Knight Piesold 2006-2007					
07ARD19	MR1-05-60	Amphibolite	Knight Piesold 2006-2007					
07ARD27	MR1-05-62	Amphibolite	Knight Piesold 2006-2007	3.9				
07ARD28	MR1-05-62	Amphibolite	Knight Piesold 2006-2007					
MRARD10-038	MR1-08-160	Amphibolite	AMEC 2010	7.6	0	0.0		
MRARD10-039	MR1-08-160	Amphibolite	AMEC 2010	5.3	0	1.3		
MRARD10-091	MR1-08-143	Amphibolite	AMEC 2010	7.3	0	0		
MRARD10-108	MR1-08-150	Amphibolite	AMEC 2010	7.7	0	0		
MRARD10-131	MR1-08-160	Amphibolite	AMEC 2010	8.1	0	0		
ARD21	MR1-05-77	Amphibolite/Gneiss	Knight Piesold 2006-2007					
07ARD38	MR1-05-67	Amphibolite/Gneiss	Knight Piesold 2006-2007					
07ARD07	MR1-05-76	Amphibolite/Schist/Volcanic Tuff	Knight Piesold 2006-2007					
07ARD30	MR1-05-51	Amphibolite/Schist/Volcanic Tuff	Knight Piesold 2006-2007	4.0				
ARD10	MR1-05-77	Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007					
ARD11	MR1-05-77	Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007					
07ARD13	MR1-06-84	Amphibolite/Volcanic Tuff /Greywacke	Knight Piesold 2006-2007	5.5				
07ARD12	MR1-05-46	Amphibolite/Volcanic Tuff /Greywacke	Knight Piesold 2006-2007	5.0				
07ARD37	MR1-04-36	Amphibolite/Volcanic Tuff /Schist /Gneiss	Knight Piesold 2006-2007					
07ARD25	MR1-05-52	Amphibolte/Schist	Knight Piesold 2006-2007	3.3				
07ARD29	MR1-05-59	Amphibolte/Schist	Knight Piesold 2006-2007					
MRARD10-010	MR1-09-176	Gneiss	AMEC 2010	7.6	0	0		
MRARD10-115	MR1-07-121	Gneiss	AMEC 2010	7.4	0	0		
MRARD10-040	MR1-08-158	Gneiss/Amphibolite	AMEC 2010	8.0	0	0		
ARD 13	MR1-05-59	Metasediment	Knight Piesold 2006-2007					
MRARD10-090	MR1-08-144	Metasediment	AMEC 2010	7.1	0	0		
ARD 18	MR1-05-47	Schist	Knight Piesold 2006-2007					
ARD19	MR1-05-47	Schist	Knight Piesold 2006-2007	3.0				
UCS14	MR1-04-38	Schist	Knight Piesold 2006-2007					
07ARD06	MR1-04-39	Schist	Knight Piesold 2006-2007	6.1				
07ARD16	MR1-05-58	Schist	Knight Piesold 2006-2007	5.6				
07ARD33	MR1-06-105	Schist	Knight Piesold 2006-2007					
07ARD34	MR1-06-94	Schist	Knight Piesold 2006-2007					
MRARD10-001	MR1-09-171	Schist	AMEC 2010	7.2	0	0		
MRARD10-002	MR1-09-179	Schist	AMEC 2010	7.7	0	0		
MRARD10-003	MR1-09-179	Schist	AMEC 2010	7.4	0	0		
MRARD10-006	MR1-09-177	Schist	AMEC 2010	7.7	0	0		
MRARD10-007	MR1-09-177	Schist	AMEC 2010	6.9	0	0.3		
MRARD10-008	MR1-09-176	Schist	AMEC 2010	7.9	0	0		
MRARD10-009	MR1-09-176	Schist	AMEC 2010	6.7	0	0.3		
MRARD10-013	MR1-09-176	Schist	AMEC 2010	7.6	0	0		
MRARD10-014	MR1-09-176	Schist	AMEC 2010	8.0	0	0		
MRARD10-016	MR1-09-172	Schist	AMEC 2010	6.8	0	0.3		
MRARD10-017	MR1-09-172	Schist	AMEC 2010	7.4	0	0		
MRARD10-020	MR1-09-172	Schist	AMEC 2010	5.8	0	1.0		
MRARD10-022	MR1-09-176	Schist	AMEC 2010	8.0	0	0		
MRARD10-024	MR1-09-173	Schist	AMEC 2010	7.3	0	0		
MRARD10-026	MR1-09-173	Schist	AMEC 2010	4.5	0.3	2.2		
MRARD10-027	MR1-09-169	Schist	AMEC 2010	7.2	0.0	0		
MRARD10-028	MR1-09-169	Schist	AMEC 2010	3.1	5.7	11		
MRARD10-032	MR1-09-169	Schist	AMEC 2010	7.6	0	0		
MRARD10-036	MR1-08-161	Schist	AMEC 2010	6.8	0	0.3		
MRARD10-041	MR1-08-158	Schist	AMEC 2010	7.8	0	0		
MRARD10-047	MR1-08-163	Schist	AMEC 2010	7.6	0	0		
MRARD10-048	MR1-08-163	Schist	AMEC 2010	6.5	0	0.3		
MRARD10-050	MR1-08-152	Schist	AMEC 2010	8.0	0	0		
MRARD10-052	MR1-08-158	Schist	AMEC 2010	8.0	0	0		

Table B-2. Net Acid Generation Test Results by Lithology (continued)

Sample ID	Borehole ID	Lithology	Sampling Program	Single Addition NAG			Sequential Additon NAG	
				NAG_{pH}	NAG (pH 4.5)	NAG (pH 7)	NAG (pH 4.5)	NAG (pH 7)
					kg H2SO4/tonne		kg H2SO4/tonne	
MRARD10-056	MR1-08-152	Schist	AMEC 2010	7.4	0	0		
MRARD10-060	MR1-08-157	Schist	AMEC 2010	6.4	0	1.3		
MRARD10-061	MR1-08-159	Schist	AMEC 2010	7.3	0	0		
MRARD10-062	MR1-08-155	Schist	AMEC 2010	7.3	0	0		
MRARD10-063	MR1-08-157	Schist	AMEC 2010	7.0	0	0		
MRARD10-064	MR1-08-155	Schist	AMEC 2010	7.1	0	0		
MRARD10-065	MR1-08-150	Schist	AMEC 2010	7.2	0	0		
MRARD10-068	MR1-08-140	Schist	AMEC 2010	2.8	15	24	14.0	23.0
MRARD10-070	MR1-08-140	Schist	AMEC 2010	7.3	0	0		
MRARD10-071	MR1-08-160	Schist	AMEC 2010	7.2	0	0		
MRARD10-072	MR1-08-149	Schist	AMEC 2010	7.5	0	0		
MRARD10-073	MR1-08-155	Schist	AMEC 2010	6.9	0	0.7		
MRARD10-075	MR1-08-148	Schist	AMEC 2010	7.2	0	0		
MRARD10-078	MR1-08-153	Schist	AMEC 2010	6.9	0	0.3		
MRARD10-086	MR1-08-147	Schist	AMEC 2010	7.2	0	0		
MRARD10-092	MR1-08-142	Schist	AMEC 2010	4.3	0.3	3.3		
MRARD10-093	MR1-08-145	Schist	AMEC 2010	7.4	0	0		
MRARD10-094	MR1-08-147	Schist	AMEC 2010	6.9	0	0.3		
MRARD10-097	MR1-08-143	Schist	AMEC 2010	8.1	0	0		
MRARD10-101	MR1-08-153	Schist	AMEC 2010	7.2	0	0		
MRARD10-102	MR1-08-143	Schist	AMEC 2010	7.6	0	0		
MRARD10-103	MR1-08-141	Schist	AMEC 2010	7.1	0	0		
MRARD10-106	MR1-08-148	Schist	AMEC 2010	6.7	0	0.3		
MRARD10-109	MR1-08-141	Schist	AMEC 2010	7.0	0	0.3		
MRARD10-111	MR1-08-144	Schist	AMEC 2010	7.1	0	0		
MRARD10-114	MR1-07-121	Schist	AMEC 2010	6.0	0	0.3		
MRARD10-116	MR1-07-121	Schist	AMEC 2010	2.8	16	25	16.4	26.4
MRARD10-117	MR1-08-156	Schist	AMEC 2010	7.0	0.0	0.3		
MRARD10-118	MR1-07-121	Schist	AMEC 2010	7.5	0	0		
MRARD10-119	MR1-08-156	Schist	AMEC 2010	8.3	0	0		
MRARD10-120	MR1-08-148	Schist	AMEC 2010	3.0	7.0	11		
MRARD10-122	MR1-08-156	Schist	AMEC 2010	6.6	0	1.3		
MRARD10-124	MR1-08-143	Schist	AMEC 2010	7.3	0	0		
MRARD10-126	MR1-08-145	Schist	AMEC 2010	7.5	0	0		
MRARD10-127	MR1-08-143	Schist	AMEC 2010	7.4	0	0		
MRARD10-128	MR1-08-141	Schist	AMEC 2010	6.9	0	0.3		
MRARD10-129	MR1-08-154	Schist	AMEC 2010	1.8	131	165	226.6	276.8
MRARD10-130	MR1-08-153	Schist	AMEC 2010	9.0	0	0		
07ARD21	MR1-06-90	Schist /Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007	2.8				
07ARD20	MR1-05-60	Schist/Amphibolite	Knight Piesold 2006-2007					
07ARD15	MR1-05-68	Schist/Volcanic Tuff	Knight Piesold 2006-2007					
07ARD39	MR1-06-96	Schist/Volcanic Tuff	Knight Piesold 2006-2007					
07ARD40	MR1-05-54	Schist/Volcanic Tuff /Amphibolite	Knight Piesold 2006-2007					
07ARD14	MR1-06-84	Schist/Volcanic Tuff/Gneiss	Knight Piesold 2006-2007					
ARD20	MR1-05-59	Volcanic Tuff	Knight Piesold 2006-2007					
ARD22	MR1-05-77	Volcanic Tuff	Knight Piesold 2006-2007					
ARD25	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
ARD26	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
UCS2	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007					
UCS15	MR1-05-77	Volcanic Tuff	Knight Piesold 2006-2007	7.6				
UCS16	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
UCS17	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
UCS18	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
UCS19	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
UCS20	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
UCS21	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
UCS25	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007					
UCS26	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007					
UCS28	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
UCS29	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
UCS30	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007					
UCS31	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007					
UCS32	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007					
UCS33	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007					
UCS34	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007					
UCS35	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007					

Table B-2. Net Acid Generation Test Results by Lithology (continued)

Sample ID	Borehole ID	Lithology	Sampling Program	Single Addition NAG			Sequential Additon NAG	
				NAG_{pH}	NAG (pH 4.5)	NAG (pH 7)	NAG (pH 4.5)	NAG (pH 7)
					kg H2SO4/tonne		kg H2SO4/tonne	
UCS36	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007					
UCS37	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007					
UCS38	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007					
UCS39	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007					
UCS40	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007					
07ARD08	MR1-05-53	Volcanic Tuff	Knight Piesold 2006-2007	4.6				
07ARD36	MR1-06-95	Volcanic Tuff	Knight Piesold 2006-2007					
MRARD10-012	MR1-09-173	Volcanic Tuff	AMEC 2010	9.4	0	0		
MRARD10-021	MR1-09-173	Volcanic Tuff	AMEC 2010	7.0	0	0		
MRARD10-023	MR1-09-173	Volcanic Tuff	AMEC 2010	9.1	0	0		
MRARD10-025	MR1-09-173	Volcanic Tuff	AMEC 2010	8.0	0	0		
MRARD10-042	MR1-08-158	Volcanic Tuff	AMEC 2010	9.7	0	0		
MRARD10-051	MR1-08-158	Volcanic Tuff	AMEC 2010	10.8	0	0		
MRARD10-053	MR1-08-152	Volcanic Tuff	AMEC 2010	8.1	0	0		
MRARD10-054	MR1-08-158	Volcanic Tuff	AMEC 2010	9.3	0	0		
MRARD10-059	MR1-08-152	Volcanic Tuff	AMEC 2010	7.4	0	0		
MRARD10-066	MR1-08-150	Volcanic Tuff	AMEC 2010	7.2	0	0		
MRARD10-067	MR1-08-150	Volcanic Tuff	AMEC 2010	7.7	0	0		
MRARD10-069	MR1-08-141	Volcanic Tuff	AMEC 2010	2.5	21	26		
MRARD10-076	MR1-08-157	Volcanic Tuff	AMEC 2010	7.7	0	0		
MRARD10-080	MR1-08-149	Volcanic Tuff	AMEC 2010	2.9	11	18	8.4	13.6
MRARD10-082	MR1-08-150	Volcanic Tuff	AMEC 2010	9.5	0	0		
MRARD10-083	MR1-08-145	Volcanic Tuff	AMEC 2010	7.5	0	0		
MRARD10-084	MR1-08-147	Volcanic Tuff	AMEC 2010	8.0	0	0		
MRARD10-087	MR1-08-147	Volcanic Tuff	AMEC 2010	10.6	0	0		
MRARD10-088	MR1-08-147	Volcanic Tuff	AMEC 2010	9.5	0	0		
MRARD10-089	MR1-08-147	Volcanic Tuff	AMEC 2010	9.5	0	0		
MRARD10-098	MR1-08-153	Volcanic Tuff	AMEC 2010	7.7	0	0		
MRARD10-105	MR1-08-141	Volcanic Tuff	AMEC 2010	3.4	2.9	8.3		
MRARD10-112	MR1-08-156	Volcanic Tuff	AMEC 2010	9.8	0	0		
MRARD10-113	MR1-08-144	Volcanic Tuff	AMEC 2010	7.6	0	0		
FC No. 2		Volcanic Tuff /Amphibolite/Schist	Knight Piesold 2006-2007					
07ARD31	MR1-05-54	Volcanic Tuff /Chert /Schist	Knight Piesold 2006-2007	2.8				
07ARD23	MR1-06-103	Volcanic Tuff /Schist	Knight Piesold 2006-2007					
07ARD24	MR1-05-55	Volcanic Tuff /Schist	Knight Piesold 2006-2007	5.9				
07ARD26	MR1-06-93	Volcanic Tuff /Schist	Knight Piesold 2006-2007					
07ARD35	MR!-06-101	Volcanic Tuff /Schist	Knight Piesold 2006-2007					
07ARD41	MR1-06-95	Volcanic Tuff /Schist	Knight Piesold 2006-2007	3.1				
MRARD10-029	MR1-09-170	Volcanic Tuff /Schist	AMEC 2010	7.3	0	0		
Footwall								
UCS9	MR1-06-81	Amphibolite	Knight Piesold 2006-2007					
MRARD10-107	MR1-08-154	Amphibolite	AMEC 2010	7.5	0	0		
ARD1	MR1-05-72	Gneiss	Knight Piesold 2006-2007	7.6				
ARD2	MR1-05-72	Gneiss	Knight Piesold 2006-2007					
ARD3	MR1-05-72	Gneiss	Knight Piesold 2006-2007					
ARD4	MR1-05-73	Gneiss	Knight Piesold 2006-2007					
ARD5	MR1-05-73	Gneiss	Knight Piesold 2006-2007					
ARD6	MR1-05-73	Gneiss	Knight Piesold 2006-2007					
ARD7	MR1-05-74	Gneiss	Knight Piesold 2006-2007					
ARD8	MR1-05-74	Gneiss	Knight Piesold 2006-2007					
ARD9	MR1-05-74	Gneiss	Knight Piesold 2006-2007					
UCS10	MR1-06-81	Gneiss	Knight Piesold 2006-2007					
UCS12	MR1-06-81	Gneiss	Knight Piesold 2006-2007					
UCS13	MR1-06-81	Gneiss	Knight Piesold 2006-2007	3.5				
UCS22	MR1-06-81	Gneiss	Knight Piesold 2006-2007					
UCS23	MR1-06-81	Gneiss	Knight Piesold 2006-2007					
UCS24	MR1-06-81	Gneiss	Knight Piesold 2006-2007					
UCS49	MR1-06-105	Gneiss	Knight Piesold 2006-2007	5.3				
UCS51	MR1-06-105	Gneiss	Knight Piesold 2006-2007					
07ARD22	MR1-06-90	Gneiss	Knight Piesold 2006-2007	6.9				
07ARD32	MR1-06-81	Gneiss	Knight Piesold 2006-2007					
MRARD10-004	MR1-09-179	Gneiss	AMEC 2010	7.7	0	0		
MRARD10-005	MR1-09-179	Gneiss	AMEC 2010	7.3	0	0		
MRARD10-011	MR1-09-178	Gneiss	AMEC 2010	7.6	0	0		
MRARD10-015	MR1-09-178	Gneiss	AMEC 2010	7.5	0	0		
MRARD10-018	MR1-09-172	Gneiss	AMEC 2010	5.0	0	1.0		

Table B-2. Net Acid Generation Test Results by Lithology (continued)

Sample ID	Borehole ID	Lithology	Sampling Program	Single Addition NAG			Sequential Additon NAG	
				NAG_{pH}	NAG (pH 4.5)	NAG (pH 7)	NAG (pH 4.5)	NAG (pH 7)
					kg H2SO4/tonne		kg H2SO4/tonne	
MRARD10-019	MR1-09-172	Gneiss	AMEC 2010	7.9	0	0		
MRARD10-030	MR1-09-170	Gneiss	AMEC 2010	4.5	0.3	1.3		
MRARD10-031	MR1-09-170	Gneiss	AMEC 2010	7.0	0	0.3		
MRARD10-033	MR1-08-162	Gneiss	AMEC 2010	7.1	0	0		
MRARD10-034	MR1-08-162	Gneiss	AMEC 2010	5.5	0	0.3		
MRARD10-043	MR1-09-167	Gneiss	AMEC 2010	7.5	0	0		
MRARD10-044	MR1-09-167	Gneiss	AMEC 2010	2.8	14	22	14.2	21.4
MRARD10-045	MR1-09-167	Gneiss	AMEC 2010	6.8	0.0	0.3		
MRARD10-046	MR1-09-167	Gneiss	AMEC 2010	7.2	0	0		
MRARD10-055	MR1-08-159	Gneiss	AMEC 2010	4.4	0.3	3.6		
MRARD10-057	MR1-08-161	Gneiss	AMEC 2010	3.5	2.3	5.2		
MRARD10-074	MR1-08-149	Gneiss	AMEC 2010	3.1	6.5	12		
MRARD10-104	MR1-08-140	Gneiss	AMEC 2010	7.4	0	0		
MRARD10-110	MR1-08-154	Gneiss	AMEC 2010	7.1	0	0		
MRARD10-123	MR1-08-155	Gneiss	AMEC 2010	4.2	1.0	6.6		
MRARD10-125	MR1-08-144	Gneiss	AMEC 2010	6.9	0	0.7		
5141	ARD-2A-NW	Gneiss	AMEC 2010	6.8	0	0.3		
5142	ARD-2A-NW	Gneiss	AMEC 2010	5.6	0	0.7		
5157	ARD-2A-SE	Gneiss	AMEC 2010	6.4	0	0.6		
5158	ARD-2A-SE	Gneiss	AMEC 2010	5.8	0	0.3		
5159	ARD-2A-SE	Gneiss	AMEC 2010	4.9	0	1.0		
5160	ARD-2A-SE	Gneiss	AMEC 2010	7.4	0	0		
5164	ARD-2A-SE	Gneiss	AMEC 2010	6.4	0	0.7		
5165	ARD-2A-SE	Gneiss	AMEC 2010	7.9	0	0		
5166	ARD-2A-SE	Gneiss	AMEC 2010	7.2	0	0		
5171	ARD-2A-SE	Gneiss	AMEC 2010	3.1	4.8	6.8		
5172	ARD-2A-SE	Gneiss	AMEC 2010	7.1	0	0		
5174	ARD-2B-NW	Gneiss	AMEC 2010	5.3	0	1.3		
5175	ARD-2B-NW	Gneiss	AMEC 2010	7.1	0	0		
UCS11	MR1-06-81	Gneiss/Amphibolite	Knight Piesold 2006-2007	6.0				
FC No. 1		Gneiss/Schist	Knight Piesold 2006-2007					
5182	ARD-2B-NW	Gneiss/Schist	AMEC 2010	3.0	8.2	14		
5183	ARD-2B-NW	Gneiss/Schist	AMEC 2010	7.3	0	0		
5184	ARD-2B-NW	Gneiss/Schist	AMEC 2010	7.5	0	0		
5186	ARD-2B-NW	Gneiss/Schist	AMEC 2010	7.0	0	0		
5187	ARD-2B-NW	Gneiss/Schist	AMEC 2010	7.5	0	0		
5188	ARD-2B-NW	Gneiss/Schist	AMEC 2010	7.4	0	0		
5189	ARD-2B-NW	Gneiss/Schist	AMEC 2010	7.5	0	0		
MRARD10-081	MR1-08-142	Metasediment	AMEC 2010	7.3	0	0		
MRARD10-095	MR1-08-146	Metasediment	AMEC 2010	6.9	0	0.3		
MRARD10-100	MR1-08-146	Metasediment	AMEC 2010	9.9	0	0		
5143	ARD-2A-NW	Metasediment	AMEC 2010	7.1	0	0		
5144	ARD-2A-NW	Metasediment	AMEC 2010	7.2	0	0		
5145	ARD-2A-NW	Metasediment	AMEC 2010	7.2	0	0		
5147	ARD-2A-NW	Metasediment	AMEC 2010	6.6	0	0.7		
5148	ARD-2A-NW	Metasediment	AMEC 2010	7.2	0	0		
5149	ARD-2A-NW	Metasediment	AMEC 2010	6.6	0	0.7		
5161	ARD-2A-SE	Metasediment	AMEC 2010	7.0	0	0		
5162	ARD-2A-SE	Metasediment	AMEC 2010	7.1	0	0		
5163	ARD-2A-SE	Metasediment	AMEC 2010	7.1	0	0		
5167	ARD-2A-SE	Metasediment	AMEC 2010	6.8	0	1.3		
5168	ARD-2A-SE	Metasediment	AMEC 2010	7.3	0	0		
5169	ARD-2A-SE	Metasediment	AMEC 2010	5.2	0	1.0		
5176	ARD-2B-NW	Schist	AMEC 2010	7.3	0	0		
5177	ARD-2B-NW	Schist	AMEC 2010	7.6	0	0		
5178	ARD-2B-NW	Schist	AMEC 2010	2.7	18	27	15.2	24.2
MRARD10-035	MR1-08-163	Schist	AMEC 2010	7.6	0	0		
MRARD10-037	MR1-08-160	Schist	AMEC 2010	6.6	0	0.3		
MRARD10-049	MR1-08-163	Schist	AMEC 2010	7.6	0	0		
MRARD10-058	MR1-08-159	Schist	AMEC 2010	4.3	0.7	4.6		
MRARD10-085	MR1-08-144	Schist	AMEC 2010	2.3	65	117	88.6	133.0
MRARD10-096	MR1-08-146	Schist	AMEC 2010	9.1	0	0		
MRARD10-099	MR1-08-144	Schist	AMEC 2010	8.0	0	0		
MRARD10-121	MR1-08-155	Schist	AMEC 2010	6.4	0	1.0		
5146	ARD-2A-NW	Schist	AMEC 2010	7.4	0	0		
5150	ARD-2A-NW	Schist	AMEC 2010	7.4	0	0		

Table B-2. Net Acid Generation Test Results by Lithology (continued)

Sample ID	Borehole ID	Lithology	Sampling Program	Single Addition NAG			Sequential Additon NAG	
				NAG_{pH}	NAG (pH 4.5)	NAG (pH 7)	NAG (pH 4.5)	NAG (pH 7)
					kg H2SO4/tonne		kg H2SO4/tonne	
5151	ARD-2A-NW	Schist	AMEC 2010	6.7	0	0.6		
5152	ARD-2A-NW	Schist	AMEC 2010	6.7	0	0.3		
5153	ARD-2A-NW	Schist	AMEC 2010	7.0	0	0.3		
5154	ARD-2A-NW	Schist	AMEC 2010	7.0	0	0.3		
5170	ARD-2A-SE	Schist	AMEC 2010	9.1	0	0		
5173	ARD-2A-SE	Schist	AMEC 2010	8.3	0	0		
5179	ARD-2B-NW	Schist	AMEC 2010	7.5	0	0		
5180	ARD-2B-NW	Schist	AMEC 2010	7.5	0	0		
5181	ARD-2B-NW	Schist	AMEC 2010	7.7	0	0		
5185	ARD-2B-NW	Schist	AMEC 2010	6.9	0	0.9		
5155	ARD-2A-NW	Schist/Gneiss	AMEC 2010	7.0	0	0.0		
5156	ARD-2A-NW	Schist/Gneiss	AMEC 2010	6.6	0	0.3		
MRARD10-077	MR1-08-146	Volcanic tuff	AMEC 2010	7.6	0	0		
MRARD10-079	MR1-08-146	Volcanic tuff	AMEC 2010	10.7	0	0		
UCS27	MR1-06-81	Volcanic Tuff /Schist	Knight Piesold 2006-2007					

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Table B.3 Total Metal Concentrations by Lithology

Sample ID	Borehole ID	Rock Type	Sampling Program	Hg	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
				µg/g	%	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g	%	%	µg/g	%	µg/g	µg/g
Average Concentration (Basalt)*				0.09	7.8	2	330	1	0.007	7.6	0.22	48	170	87	8.6	0.83	17	4.6	1500	1.5
Ten Times Average Concentration (Basalt)				0.9	78	20	3300	10	0.07	76	2.2	480	1700	870	86	8.3	170	46	15000	15
Average Concentration (Continental Crustal)*				0.085	8.23	1.8	425	3	0.0085	4.15	0.15	25	102	60	5.63	2.085	20	2.33	950	1.2
Ten Times Average Concentration (Crustal)				0.85	82.3	18	4250	30	0.085	41.5	1.5	250	1020	600	56.3	20.85	200	23.3	9500	12
Hanging Wall																				
ARD12	MR1-05-47	Amphibolite	Knight Piesold 2006-2007		9.2	<6	200	5.1	<3	0.13	1	51	370	41	11	0.49	30	12	3,400	<2
ARD14	MR1-05-59	Amphibolite	Knight Piesold 2006-2007		6.3	**78**	250	1.3	<3	0.12	2	49	950	180	5	1.60	12	3.5	1,100	29
ARD15	MR1-05-51	Amphibolite	Knight Piesold 2006-2007		8.3	**30**	170	0.12	<3	6.50	4.9	59	260	96	5	0.70	<3	1.8	2,200	<2
ARD16	MR1-05-51	Amphibolite	Knight Piesold 2006-2007		7.6	<6	31	0.099	<3	0.79	1.4	49	170	130	13	0.27	7	3.6	6,400	7
ARD17	MR1-05-51	Amphibolite	Knight Piesold 2006-2007		13.0	<6	30	2.1	<3	0.15	1	85	350	120	10	0.79	33	11	2,300	3
ARD23	MR1-05-76	Amphibolite	Knight Piesold 2006-2007		7.2	<6	590	2.6	<3	0.08	0.5	4.4	13	4.1	5	2.10	13	4.8	860	2
ARD24	MR1-05-76	Amphibolite	Knight Piesold 2006-2007		7.2	<6	300	1.3	<3	0.06	0.4	8.2	8	1.6	6	2.50	8	1.7	420	9
07ARD10	MR1-05-53	Amphibolite	Knight Piesold 2006-2007	<0.1	4.2	**32**	5	0.9	1.7	0.23	0.13	42	100	27	32	0.01	34	8.3	450	7.9
07ARD11	MR1-05-46	Amphibolite	Knight Piesold 2006-2007	<0.1	4.0	2	10	2.2	0.08	0.03	0.25	29	660	38	43	0.06	70	1.8	360	5.0
07ARD17	MR1-05-57	Amphibolite	Knight Piesold 2006-2007	<0.1	4.3	<2	14	1.6	0.04	0.28	0.10	22	230	22	38	0.03	33	5.8	1,100	1.9
07ARD19	MR1-05-60	Amphibolite	Knight Piesold 2006-2007	<0.1	8.4	2	14	1.3	0.25	0.20	0.24	42	590	6.0	17	0.11	16	8.4	1,600	3.4
07ARD27	MR1-05-62	Amphibolite	Knight Piesold 2006-2007	<0.1	6.2	**25**	52	0.7	0.20	0.50	0.29	26	79	120	22	0.13	16	5.6	5,100	4.3
07ARD28	MR1-05-62	Amphibolite	Knight Piesold 2006-2007	<0.1	8.3	2	350	4.0	0.06	0.23	0.13	61	370	82	10	0.80	36	11	2,900	2.8
MRARD10-038	MR1-08-160	Amphibolite	AMEC 2010	<0.1	5.5	0.8	2.2	1.7	<0.09	0.14	<0.2	29	930	2.9	15	0.017	39	5.9	1000	1.1
MRARD10-039	MR1-08-160	Amphibolite	AMEC 2010	<0.1	8.9	12	5.8	3.4	<0.09	0.021	<0.2	53	48	46	13	0.08	330	4	620	74
MRARD10-091	MR1-08-143	Amphibolite	AMEC 2010	<0.1	3.8	<0.5	5.7	3.2	<0.09	0.021	<0.2	22	61	0.9	7.1	0.15	18	3.4	320	0.5
MRARD10-108	MR1-08-150	Amphibolite	AMEC 2010	<0.1	5.9	<0.5	0.90	2.2	0.19	0.49	<0.2	24	390	6.4	15	0.018	29	5.9	490	0.3
MRARD10-131	MR1-08-160	Amphibolite	AMEC 2010	<0.1	0.71	**27**	1.6	0.44	<0.09	0.18	<0.2	10.0	40	31	0.69	0.019	5	2	32000	56
ARD21	MR1-05-77	Amphibolite/Gneiss	Knight Piesold 2006-2007		6.8	<6	200	0.34	<3	0.18	0.7	56	200	90	7	1.60	17	2.7	1,100	3
07ARD38	MR1-05-67	Amphibolite/Gneiss	Knight Piesold 2006-2007	<0.1	8.5	<2	1800	1.1	0.30	0.71	0.18	32	330	43	9	3.30	32	5.5	1,100	22
07ARD07	MR1-05-76	Amphibolite/Schist/Volcanic Tuff	Knight Piesold 2006-2007	<0.1	6.2	5	130	2.8	0.04	0.09	0.13	31	540	24	14	1.20	36	7.5	1,700	14
07ARD30	MR1-05-51	Amphibolite/Schist/Volcanic Tuff	Knight Piesold 2006-2007	<0.1	7.9	4	280	1.6	0.24	0.19	0.40	32	210	73	14	0.83	25	7.3	2,400	11
ARD10	MR1-05-77	Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007		8.0	<6	30	0.77	<3	0.03	1.1	56	360	62	12	0.61	130	4.2	680	<2
ARD11	MR1-05-77	Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007		7.3	<6	12	19	<3	0.03	0.5	43	250	16	6	0.35	27	7.4	680	4
07ARD13	MR1-06-84	Amphibolite/Volcanic Tuff /Greywacke	Knight Piesold 2006-2007	<0.1	7.4	11	14	0.8	0.63	0.16	0.73	40	450	43	20	0.05	18	6.6	900	8.2
07ARD12	MR1-05-46	Amphibolite/Volcanic Tuff /Greywacke	Knight Piesold 2006-2007	<0.1	7.2	4	72	2.7	0.33	0.09	0.35	25	310	83	16	0.61	24	7.6	2,000	8.4
07ARD37	MR1-04-36	Amphibolite/Volcanic Tuff /Schist /Gneiss	Knight Piesold 2006-2007	<0.1	7.4	<2	130	0.9	3.1	4.30	0.15	48	240	78	9	1.30	17	4.9	1,800	18
07ARD25	MR1-05-52	Amphibolte/Schist	Knight Piesold 2006-2007	<0.1	10.0	**45**	67	0.8	0.36	0.05	0.67	65	1000	52	23	0.01	5	7.2	2,900	7.4
07ARD29	MR1-05-59	Amphibolte/Schist	Knight Piesold 2006-2007	<0.1	7.4	7	50	1.8	0.10	0.19	0.31	43	420	41	13	0.55	17	7.2	2,500	4.6
MRARD10-010	MR1-09-176	Gneiss	AMEC 2010	<0.1	5.9	1.7	150	0.73	<0.09	0.11	<0.2	31	310	47	8.2	0.95	8	3.2	2000	0.6
MRARD10-115	MR1-07-121	Gneiss	AMEC 2010	<0.1	4.8	<0.5	470	1.9	<0.09	0.2	<0.2	7.8	75	2.8	4.2	2.3	24	3.1	300	1.1
MRARD10-040	MR1-08-158	Gneiss/Amphibolite	AMEC 2010	0.2	4.5	<0.5	300	0.37	<0.09	1.8	<0.2	23	220	57	4.1	1.8	20	2.6	680	1.1
ARD 13	MR1-05-59	Greywacke	Knight Piesold 2006-2007	-	5.9	7	340	1.6	<3	0.08	0.8	21	54	12	7	1.40	<3	3.7	2,000	2
MRARD10-090	MR1-08-144	Psammite	AMEC 2010	<0.1	3.5	<0.5	190	1.00	<0.09	0.39	<0.2	5.7	53	1.2	3.6	2.2	13	1.9	310	44
ARD 18	MR1-05-47	Schist	Knight Piesold 2006-2007		9.0	<6	15	3.9	<3	0.13	1	37	1300	8.7	12	0.14	<3	14	8,500	<2
ARD19	MR1-05-47	Schist	Knight Piesold 2006-2007		11.0	11	340	3.1	<3	0.15	1.1	45	1700	130	12	1.50	6	9.6	6,700	2
UCS14	MR1-04-38	Schist	Knight Piesold 2006-2007		10.0	<6	7	0.061	<34	0.08	<4	57	330	220	19	0.02	<3	9.5	2,000	<2
07ARD06	MR1-04-39	Schist	Knight Piesold 2006-2007	<0.1	3.3	17	60	1.0	0.50	0.24	0.10	24	130	40	25	0.77	21	5.5	1,900	9.7
07ARD16	MR1-05-58	Schist	Knight Piesold 2006-2007	<0.1	5.2	3	130	2.3	0.19	0.27	0.14	52	740	60	17	0.58	36	7.6	1,900	3.0
07ARD33	MR1-06-105	Schist	Knight Piesold 2006-2007	<0.1	10.0	4	1300	1.9	0.14	0.21	0.35	84	83	37	13	4.70	23	3.3	720	64
07ARD34	MR1-06-94	Schist	Knight Piesold 2006-2007	<0.1	8.7	2	49	2.4	0.15	0.07	0.39	61	1000	66	26	0.14	7	6.7	2,200	34
MRARD10-001	MR1-09-171	Schist	AMEC 2010	<0.1	5.6	**63**	9.4	2.9	0.37	0.069	<0.2	82	1450	99	17	0.09	30	5.4	1300	5.4
MRARD10-002	MR1-09-179	Schist	AMEC 2010	<0.1	3.2	4.2	15	0.73	0.13	0.13	<0.2	22	310	11	10	0.018	12	2.3	140	2.1
MRARD10-003	MR1-09-179	Schist	AMEC 2010	<0.1	5.5	5.4	6.8	0.58	0.14	0.08	<0.2	30	44	47	17	0.0083	13	4.9	1200	2.3
MRARD10-006	MR1-09-177	Schist	AMEC 2010	<0.1	3.9	2.4	9.7	1.1	0.46	0.074	<0.2	30	300	23	9.1	0.06	160	3.7	320	0.6
MRARD10-007	MR1-09-177	Schist	AMEC 2010	<0.1	8.4	6.8	17	2.7	0.34	0.17	<0.2	29	21	44	16	0.2	35	8.4	1000	1.5
MRARD10-008	MR1-09-176	Schist	AMEC 2010	<0.1	8.1	8.0	15	0.83	<0.09	0.14	<0.2	68	770	44	10	0.044	16	7.2	3300	0.3
MRARD10-009	MR1-09-176	Schist	AMEC 2010	<0.1	5.6	2.1	88	0.41	<0.09	0.1	<0.2	48	320	130	9.3	0.12	14	6	2400	0.4
MRARD10-013	MR1-09-176	Schist	AMEC 2010	<0.1	7.2	0.6	12	5.0	<0.09	0.4	<0.2	27	380	129	13	0.044	40	6.7	1800	<0.1
MRARD10-014	MR1-09-176	Schist	AMEC 2010	<0.1	7.7	0.6	39	2.8	<0.09	0.17	<0.2	14	91	15	13	0.48	38	7	1800	8.0
MRARD10-016	MR1-09-172	Schist	AMEC 2010	<0.1	1.6	2.9	2.4	0.52	<0.09	0.082	<0.2	6.9	17	1.5	9.3	0.047	14	2.9	460	1.2
MRARD10-017	MR1-09-172	Schist	AMEC 2010	<0.1	4.6	0.6	20	2.1	<0.09	0.31	<0.2	17	280	24	7	0.08	38	4.1	480	0.9
MRARD10-020	MR1-09-172	Schist	AMEC 2010	<0.1	6.6	8.4	5.2	0.64	0.59	0.27	<0.2	9.7	58	21	25	0.02	14	6.3	1900	1.4
MRARD10-022	MR1-09-176	Schist	AMEC 2010	<0.1	8.5	<0.5	830	4.4	<0.09	0.059	<0.2	15	80	1.2	19	0.73	30	6.5	1300	4.5
MRARD10-024	MR1-09-173	Schist	AMEC 2010	<0.1	1.6	<0.5	22	0.53	<0.09	0.026	<0.2	1.7	150	5.1	3.1	0.043	9	0.81	260	3.3
MRARD10-026	MR1-09-173	Schist	AMEC 2010	<0.1	6.1	11	28	0.69	<0.09	0.27	<0.2	29	350	33	13	0.035	9	4.7	580	2.0
MRARD10-027	MR1-09-169	Schist	AMEC 2010	<0.1	3.6	3.6	860	1.4	<0.09	0.11	<0.2	17	220	44	6.7	0.4	12	2.6	770	1.2
MRARD10-028	MR1-09-169	Schist	AMEC 2010	<0.1	2.6	16	450	0.86	<0.09	0.16	<0.2	17	170	24	7	0.46	6	1.4	320	1.3
MRARD10-032	MR1-09-169	Schist	AMEC 2010	<0.1	5	0.7	140	1.1	<0.09	0.11	<0.2	27	180	47	6.1	1.7	21	2.7	830	0.8

Table B-3. Total Metal Concentrations by Lithology (continued)

Sample ID	Borehole ID	Rock Type	Sampling Program	Na	Ni	Pb	Sb	Se	Sn	Sr	Ti	Tl	U	V	Zn
				%	µg/g	µg/g	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g
Average Concentration (Basalt)*				1.8	130	6	0.2	0.05	1.5	465	1.38	2.1	1	250	105
Ten Times Average Concentration (Basalt)				18	1300	60	2	0.5	15	4650	13.8	21	10	2500	1050
Average Concentration (Continental Crustal)*				2.355	84	14	0.2	0.05	2.3	370	0.565	0.85	2.7	120	70
Ten Times Average Concentration (Crustal)				23.55	840	140	2	0.5	23	3700	5.65	8.5	27	1200	700
Hanging Wall															
ARD12	MR1-05-47	Amphibolite	Knight Piesold 2006-2007		210	11	<25	<6	<6	4.5	0.13	<5	<75	330	95
ARD14	MR1-05-59	Amphibolite	Knight Piesold 2006-2007		370	230	<25	<6	<6	5.2	0.24	<5	<75	69	260
ARD15	MR1-05-51	Amphibolite	Knight Piesold 2006-2007		180	68	<25	<6	<6	140	0.53	<5	<75	270	490
ARD16	MR1-05-51	Amphibolite	Knight Piesold 2006-2007		130	9	<25	<6	<6	10	0.45	<5	<75	320	120
ARD17	MR1-05-51	Amphibolite	Knight Piesold 2006-2007		240	12	<25	<6	<6	5.8	0.13	<5	<75	460	100
ARD23	MR1-05-76	Amphibolite	Knight Piesold 2006-2007		13	25	<25	<6	<6	35	0.09	<5	<75	15	39
ARD24	MR1-05-76	Amphibolite	Knight Piesold 2006-2007		12	17	<25	<6	<6	28	0.09	<5	<75	13	15
07ARD10	MR1-05-53	Amphibolite	Knight Piesold 2006-2007	0.014	140	15	3.2	**2**	1.7	18	0.028	0.2	1.8	54	39
07ARD11	MR1-05-46	Amphibolite	Knight Piesold 2006-2007	0.0085	170	4.0	0.4	<1	0.3	4.6	0.3	<0.02	3.4	120	46
07ARD17	MR1-05-57	Amphibolite	Knight Piesold 2006-2007	0.0072	120	2.9	0.3	**2**	1.4	15	0.053	0.1	4.0	45	39
07ARD19	MR1-05-60	Amphibolite	Knight Piesold 2006-2007	0.016	330	6.2	0.2	<1	2.0	23	0.071	0.2	2.7	130	78
07ARD27	MR1-05-62	Amphibolite	Knight Piesold 2006-2007	0.011	94	4.4	<0.1	<1	3.7	9.3	0.06	0.2	2.6	59	63
07ARD28	MR1-05-62	Amphibolite	Knight Piesold 2006-2007	0.051	380	5.1	3.4	**2**	3.2	15	0.16	0.3	2.5	200	71
MRARD10-038	MR1-08-160	Amphibolite	AMEC 2010	0.014	540	1.1	<0.8	<0.7	0.7	4.9	0.012	<0.02	0.94	51	31
MRARD10-039	MR1-08-160	Amphibolite	AMEC 2010	0.042	180	2.6	<0.8	<0.7	1.8	1.7	0.088	0.23	1.8	110	106
MRARD10-091	MR1-08-143	Amphibolite	AMEC 2010	0.018	40	1.3	<0.8	<0.7	<0.5	0.69	0.099	0.05	4.3	65	25
MRARD10-108	MR1-08-150	Amphibolite	AMEC 2010	0.0097	140	4.0	1.4	<0.7	2.9	6.4	0.065	0.05	3.4	78	36
MRARD10-131	MR1-08-160	Amphibolite	AMEC 2010	0.0069	25	1.2	<0.8	<0.7	1.2	1.9	0.019	0.03	0.39	24	13
ARD21	MR1-05-77	Amphibolite/Gneiss	Knight Piesold 2006-2007		210	8	<25	<6	<6	16	0.42	<5	<75	370	41
07ARD38	MR1-05-67	Amphibolite/Gneiss	Knight Piesold 2006-2007	0.23	150	5.3	<0.1	<1	1.6	42	0.3	1.0	2.3	100	73
07ARD07	MR1-05-76	Amphibolite/Schist/Volcanic Tuff	Knight Piesold 2006-2007	0.028	260	5.5	<0.1	<1	1.0	10.0	0.094	0.3	0.79	54	39
07ARD30	MR1-05-51	Amphibolite/Schist/Volcanic Tuff	Knight Piesold 2006-2007	0.026	140	5.7	2.3	2	4.8	9.6	0.15	0.4	1.4	130	110
ARD10	MR1-05-77	Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007		290	18	<25	<6	<6	5.2	0.078	<5	<75	200	109
ARD11	MR1-05-77	Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007		130	14	<25	<6	<6	1.7	0.1	<5	<75	83	90
07ARD13	MR1-06-84	Amphibolite/Volcanic Tuff /Greywacke	Knight Piesold 2006-2007	0.0056	330	6.9	1.2	2	1.7	13	0.053	0.2	2.5	100	210
07ARD12	MR1-05-46	Amphibolite/Volcanic Tuff /Greywacke	Knight Piesold 2006-2007	0.025	140	7.3	1.9	<1	2.6	42	0.16	0.3	4.7	89	52
07ARD37	MR1-04-36	Amphibolite/Volcanic Tuff /Schist /Gneiss	Knight Piesold 2006-2007	1	160	5.3	0.3	<1	1.1	61	0.28	0.4	0.91	200	71
07ARD25	MR1-05-52	Amphibolte/Schist	Knight Piesold 2006-2007	0.0086	390	5.9	<0.1	2	1.3	5.0	0.08	0.2	3.5	130	340
07ARD29	MR1-05-59	Amphibolte/Schist	Knight Piesold 2006-2007	0.012	260	2.7	2.4	3	2.2	4.7	0.17	0.3	1.7	150	93
MRARD10-010	MR1-09-176	Gneiss	AMEC 2010	0.027	170	2.7	<0.8	<0.7	1.9	6.1	0.13	0.28	0.86	120	46
MRARD10-115	MR1-07-121	Gneiss	AMEC 2010	0.063	7.3	4.7	<0.8	<0.7	1.7	6.8	0.18	0.68	1.5	38	41
MRARD10-040	MR1-08-158	Gneiss/Amphibolite	AMEC 2010	0.048	110	3.7	<0.8	<0.7	1.0	12	0.22	0.28	0.90	110	46
ARD 13	MR1-05-59	Greywacke	Knight Piesold 2006-2007		48	29	<25	<6	<6	12	0.2	<5	<75	57	60
MRARD10-090	MR1-08-144	Psammite	AMEC 2010	0.058	7.3	14	<0.8	<0.7	1.2	5.5	0.095	0.97	5.8	7	32
ARD 18	MR1-05-47	Schist	Knight Piesold 2006-2007		140	16	<25	<6	<6	4.5	0.2	<5	<75	150	180
ARD19	MR1-05-47	Schist	Knight Piesold 2006-2007		180	25	<25	<6	<6	9.9	0.23	<5	<75	190	190
UCS14	MR1-04-38	Schist	Knight Piesold 2006-2007		240	15	9	<20	<6	1.5	0.18	<20	<100	310	100
07ARD06	MR1-04-39	Schist	Knight Piesold 2006-2007	0.028	71	8.0	0.6	<1	1.7	45	0.092	0.2	2.1	47	41
07ARD16	MR1-05-58	Schist	Knight Piesold 2006-2007	0.056	660	5.6	0.3	<1	1.3	24	0.15	0.3	1.3	94	52
07ARD33	MR1-06-105	Schist	Knight Piesold 2006-2007	0.093	240	27	1.1	2	4.7	14	0.37	1.7	8.6	170	34
07ARD34	MR1-06-94	Schist	Knight Piesold 2006-2007	0.0042	360	14	0.8	2	1.0	4.1	0.23	0.2	5.0	180	98
MRARD10-001	MR1-09-171	Schist	AMEC 2010	0.022	490	2.9	<0.8	<0.7	<0.5	4.2	0.0091	0.08	0.55	52	21
MRARD10-002	MR1-09-179	Schist	AMEC 2010	0.0078	160	2.9	<0.8	<0.7	1.9	4.2	0.033	0.04	1.9	82	34
MRARD10-003	MR1-09-179	Schist	AMEC 2010	0.0075	120	2.5	<0.8	<0.7	2.9	9.2	0.044	<0.02	1.5	15	44
MRARD10-006	MR1-09-177	Schist	AMEC 2010	0.015	82	2.0	<0.8	<0.7	1.3	3.9	0.021	<0.02	0.84	47	18
MRARD10-007	MR1-09-177	Schist	AMEC 2010	0.011	140	3.4	<0.8	<0.7	1.1	4.7	0.091	0.05	1.0	43	57
MRARD10-008	MR1-09-176	Schist	AMEC 2010	0.01	470	1.6	<0.8	<0.7	2.1	2.0	0.043	<0.02	0.24	140	71
MRARD10-009	MR1-09-176	Schist	AMEC 2010	0.0093	230	5.5	<0.8	0.8	0.8	3.2	0.0033	<0.02	0.41	120	103
MRARD10-013	MR1-09-176	Schist	AMEC 2010	0.013	200	5.0	<0.8	<0.7	12	30	0.011	<0.02	2.1	87	26
MRARD10-014	MR1-09-176	Schist	AMEC 2010	0.016	55	4.6	<0.8	<0.7	4.6	6.8	0.042	0.12	1.3	53	53
MRARD10-016	MR1-09-172	Schist	AMEC 2010	0.016	22	1.7	<0.8	<0.7	0.5	3.4	0.0085	<0.02	0.80	3	12
MRARD10-017	MR1-09-172	Schist	AMEC 2010	0.021	110	5.1	<0.8	<0.7	<0.5	21	0.018	0.03	1.9	65	21
MRARD10-020	MR1-09-172	Schist	AMEC 2010	0.0099	25	5.6	<0.8	<0.7	1.6	9.5	0.014	0.02	1.3	70	43
MRARD10-022	MR1-09-176	Schist	AMEC 2010	0.016	56	11	<0.8	<0.7	1.2	4.3	0.083	0.54	2.6	75	81
MRARD10-024	MR1-09-173	Schist	AMEC 2010	0.018	18	3.3	<0.8	<0.7	2.2	2.4	0.019	0.02	2.8	2	9.6
MRARD10-026	MR1-09-173	Schist	AMEC 2010	0.0093	110	3.7	<0.8	<0.7	1.2	7.8	0.024	0.03	0.50	170	51
MRARD10-027	MR1-09-169	Schist	AMEC 2010	0.024	63	4.3	<0.8	<0.7	0.9	3.4	0.078	0.16	0.47	170	23
MRARD10-028	MR1-09-169	Schist	AMEC 2010	0.022	69	8.9	<0.8	<0.7	<0.5	7.2	0.065	0.19	0.71	71	18
MRARD10-032	MR1-09-169	Schist	AMEC 2010	0.044	92	8.3	<0.8	<0.7	1.5	2.9	0.19	0.41	0.48	110	55

Table B-3. Total Metal Concentrations by Lithology (continued)

Sample ID	Borehole ID	Rock Type	Sampling Program	Hg	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
				µg/g	%	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g	%	%	µg/g	%	µg/g	µg/g
Average Concentration (Basalt)*				0.09	7.8	2	330	1	0.007	7.6	0.22	48	170	87	8.6	0.83	17	4.6	1500	1.5
Ten Times Average Concentration (Basalt)				0.9	78	20	3300	10	0.07	76	2.2	480	1700	870	86	8.3	170	46	15000	15
Average Concentration (Continental Crustal)*				0.085	8.23	1.8	425	3	0.0085	4.15	0.15	25	102	60	5.63	2.085	20	2.33	950	1.2
Ten Times Average Concentration (Crustal)				0.85	82.3	18	4250	30	0.085	41.5	1.5	250	1020	600	56.3	20.85	200	23.3	9500	12
MRARD10-036	MR1-08-161	Schist	AMEC 2010	<0.1	4.6	0.7	0.71	1.3	<0.09	0.1	<0.2	32	470	30	7.4	0.022	9	4.1	490	1.1
MRARD10-041	MR1-08-158	Schist	AMEC 2010	<0.1	6.1	<0.5	3.1	0.27	<0.09	0.29	<0.2	37	520	123	5.9	0.0097	5	5.5	390	0.3
MRARD10-047	MR1-08-163	Schist	AMEC 2010	<0.1	5.6	<0.5	3.9	0.49	<0.09	0.21	<0.2	25	500	2.1	6.4	0.016	2	4.4	540	0.6
MRARD10-048	MR1-08-163	Schist	AMEC 2010	<0.1	7.4	<0.5	1.3	1.6	<0.09	0.011	<0.2	41	240	48	17	0.015	3	5.4	700	0.7
MRARD10-050	MR1-08-152	Schist	AMEC 2010	<0.1	3.4	1.5	8.6	0.33	0.38	0.34	<0.2	19	170	6.9	32.8	0.031	9	2.1	460	2.4
MRARD10-052	MR1-08-158	Schist	AMEC 2010	<0.1	1.8	<0.5	25	0.06	0.12	1	<0.2	27	110	92	3.1	0.16	13	0.88	960	0.9
MRARD10-056	MR1-08-152	Schist	AMEC 2010	<0.1	10	<0.5	5.6	0.68	0.18	0.18	<0.2	33	180	0.6	14	0.023	7	6.2	730	9.2
MRARD10-060	MR1-08-157	Schist	AMEC 2010	<0.1	6.2	1.5	410	0.76	0.14	0.064	<0.2	91	950	131	8.7	0.29	26	4	590	0.5
MRARD10-061	MR1-08-159	Schist	AMEC 2010	<0.1	7.1	<0.5	6.6	0.87	<0.09	0.52	<0.2	25	580	2.9	9.1	0.013	6	5.5	560	0.3
MRARD10-062	MR1-08-155	Schist	AMEC 2010	<0.1	8.7	0.7	2.9	0.69	0.11	0.65	<0.2	25	530	4.8	13.5	0.0047	6	5.8	570	0.3
MRARD10-063	MR1-08-157	Schist	AMEC 2010	<0.1	8.5	2.2	0.58	0.82	3.3	0.12	<0.2	27	110	2.1	14.8	0.0063	24	9.3	190	7.0
MRARD10-064	MR1-08-155	Schist	AMEC 2010	<0.1	7.8	<0.5	5.8	1.2	0.24	0.15	<0.2	31	170	7.4	15	0.049	39	6.3	310	3.8
MRARD10-065	MR1-08-150	Schist	AMEC 2010	<0.1	1.4	1.4	8.0	1.8	<0.09	0.18	<0.2	29	33	0.5	50.3	0.09	18	1.3	590	0.3
MRARD10-068	MR1-08-140	Schist	AMEC 2010	<0.1	9.2	7.5	1.8	0.60	0.33	0.0046	<0.2	19	49	30	19	0.0069	<2	6	860	6.1
MRARD10-070	MR1-08-140	Schist	AMEC 2010	<0.1	2.2	1.9	3.5	1.2	<0.09	0.12	<0.2	12	48	2.1	34	0.011	18	2	490	1.2
MRARD10-071	MR1-08-160	Schist	AMEC 2010	<0.1	6.8	1.3	0.08	3.1	<0.09	0.16	<0.2	39	920	37	16	0.011	47	7.6	1900	1.5
MRARD10-072	MR1-08-149	Schist	AMEC 2010	<0.1	7.1	<0.5	<0.01	2.4	<0.09	0.14	<0.2	37	1260	15	17	0.0082	47	8.2	1500	1.0
MRARD10-073	MR1-08-155	Schist	AMEC 2010	<0.1	7.1	<0.5	3.7	1.8	<0.09	0.45	<0.2	30	280	1.5	16	0.027	67	5.4	550	0.5
MRARD10-075	MR1-08-148	Schist	AMEC 2010	<0.1	4	<0.5	19	10	<0.09	0.026	<0.2	16	52	0.8	7.4	0.16	26	3.6	510	0.3
MRARD10-078	MR1-08-153	Schist	AMEC 2010	<0.1	6.4	<0.5	530	0.31	<0.09	0.11	<0.2	45	240	97	7.8	1.6	49	3.8	340	0.4
MRARD10-086	MR1-08-147	Schist	AMEC 2010	<0.1	6.5	<0.5	330	1.2	<0.09	0.09	<0.2	65	650	26	7.1	0.82	38	5.1	290	1.2
MRARD10-092	MR1-08-142	Schist	AMEC 2010	<0.1	6.4	<0.5	<0.01	1.7	0.29	0.4	<0.2	37	130	2.3	15	0.0077	19	5.8	460	4.8
MRARD10-093	MR1-08-145	Schist	AMEC 2010	<0.1	3.8	3.2	25	3.0	<0.09	0.046	<0.2	73	350	9.6	20	0.021	150	2.3	4000	2.3
MRARD10-094	MR1-08-147	Schist	AMEC 2010	<0.1	6.9	<0.5	0.30	0.57	0.17	0.34	<0.2	48	1090	1.8	8.2	0.0057	3	6.2	430	1.0
MRARD10-097	MR1-08-143	Schist	AMEC 2010	<0.1	1.8	<0.5	16	0.15	<0.09	1.1	<0.2	17	110	98	1.7	0.24	24	1	360	0.4
MRARD10-101	MR1-08-153	Schist	AMEC 2010	<0.1	6.2	<0.5	4.1	0.78	<0.09	0.31	<0.2	27	320	54	7.1	0.045	15	5.2	710	0.3
MRARD10-102	MR1-08-143	Schist	AMEC 2010	<0.1	4	<0.5	130	0.49	0.43	0.026	<0.2	17	79	48	6.8	0.88	38	2.7	1000	3.8
MRARD10-103	MR1-08-141	Schist	AMEC 2010	<0.1	10	0.7	15	5.0	<0.09	0.19	<0.2	15	68	1.9	13	0.12	13	8.9	5900	2.5
MRARD10-106	MR1-08-148	Schist	AMEC 2010	<0.1	3.4	0.7	2.9	0.93	0.68	0.017	<0.2	16	71	6.5	13	0.041	47	2.7	1200	5.7
MRARD10-109	MR1-08-141	Schist	AMEC 2010	<0.1	6.7	8.1	0.43	0.87	0.32	0.29	<0.2	20	430	78	20	0.0082	36	7.4	1000	0.8
MRARD10-111	MR1-08-144	Schist	AMEC 2010	<0.1	8.2	<0.5	1300	1.1	<0.09	0.021	<0.2	42	170	75	8.8	1.5	21	5.1	510	0.2
MRARD10-114	MR1-07-121	Schist	AMEC 2010	<0.1	1.7	<0.5	96	0.47	<0.09	0.22	<0.2	7.6	130	51	2.6	0.74	8	0.8	180	12
MRARD10-116	MR1-07-121	Schist	AMEC 2010	<0.1	7.3	<0.5	510	1.1	0.19	1.2	<0.2	55	74	33	15.5	3.1	17	1.9	140	18
MRARD10-117	MR1-08-156	Schist	AMEC 2010	<0.1	4.5	<0.5	100	0.12	<0.09	0.12	<0.2	40	230	141	5.6	1.5	35	2.5	220	0.6
MRARD10-118	MR1-07-121	Schist	AMEC 2010	<0.1	8.1	<0.5	4.2	1.1	<0.09	0.015	<0.2	43	730	8.0	13.2	0.0073	<2	7	940	0.2
MRARD10-119	MR1-08-156	Schist	AMEC 2010	<0.1	6.6	<0.5	690	0.40	<0.09	0.41	<0.2	48	250	145	7.7	1.9	64	3.7	370	0.2
MRARD10-120	MR1-08-148	Schist	AMEC 2010	<0.1	0.74	1.8	7.3	0.33	0.16	0.033	<0.2	14	38	4.5	60.7	0.014	6	0.87	460	3.6
MRARD10-122	MR1-08-156	Schist	AMEC 2010	<0.1	5	0.6	0.64	0.57	0.57	0.5	<0.2	25	200	80	6.8	0.0065	5	4.9	540	4.5
MRARD10-124	MR1-08-143	Schist	AMEC 2010	<0.1	3.8	<0.5	18	2.4	<0.09	0.026	<0.2	7.8	150	0.9	7.4	0.33	52	2.8	420	0.1
MRARD10-126	MR1-08-145	Schist	AMEC 2010	<0.1	8.4	6.9	31	3.5	0.17	0.081	<0.2	44	130	29	21.6	0.06	370	4.6	630	0.8
MRARD10-127	MR1-08-143	Schist	AMEC 2010	<0.1	11.6	<0.5	560	1.3	<0.09	0.25	<0.2	67	580	94	14.5	1	32	11	850	0.8
MRARD10-128	MR1-08-141	Schist	AMEC 2010	<0.1	4.1	3.5	5.9	1.7	0.10	0.13	<0.2	26	600	29	9.8	0.024	32	3.5	600	1.2
MRARD10-129	MR1-08-154	Schist	AMEC 2010	<0.1	2.9	**154**	2.1	0.86	1.0	0.035	<0.2	72	170	207	22.5	0.01	70	0.28	570	177
MRARD10-130	MR1-08-153	Schist	AMEC 2010	<0.1	2.5	1.2	56	0.12	<0.09	0.74	<0.2	21	120	165	3.3	0.5	39	2.4	590	1.7
07ARD21	MR1-06-90	Schist /Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007	<0.1	6.5	<2	9	1.6	0.47	0.04	0.13	63	120	21	29	0.28	50	6.7	570	62
07ARD20	MR1-05-60	Schist/Amphibolite	Knight Piesold 2006-2007	<0.1	7.4	6	130	2.6	0.45	0.04	0.22	30	140	8.8	18	0.84	17	6.9	3,200	7.1
07ARD15	MR1-05-68	Schist/Volcanic Tuff	Knight Piesold 2006-2007	<0.1	7.6	5	140	0.5	0.01	0.04	0.22	54	170	120	12	0.52	45	4.9	1,100	6.8
07ARD39	MR1-06-96	Schist/Volcanic Tuff	Knight Piesold 2006-2007	<0.1	9.4	19	32	2.3	1.1	0.14	0.76	110	630	51	18	0.28	18	8.3	2,100	9.7
07ARD40	MR1-05-54	Schist/Volcanic Tuff /Amphibolite	Knight Piesold 2006-2007	<0.1	6.8	2	150	1.5	0.26	0.12	0.19	39	420	74	14	0.74	17	6.2	3,400	16
07ARD14	MR1-06-84	Schist/Volcanic Tuff/Gneiss	Knight Piesold 2006-2007	<0.1	5.6	4	300	1.7	0.17	0.10	0.26	19	290	43	8	1.43	27	2.6	890	16
ARD20	MR1-05-59	Volcanic Tuff	Knight Piesold 2006-2007		8.7	<6	5	0.5	3	0.19	2.1	48	440	170	20	0.02	6	8.2	3,000	<2
ARD22	MR1-05-77	Volcanic Tuff	Knight Piesold 2006-2007		8.7	<6	90	0.1	<3	3.70	1.1	55	230	120	9	0.78	18	6.1	2,000	3
ARD25	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		7.4	<6	120	0.087	<2	4.70	1.5	59	190	110	10	2.20	38	5	3,800	<2
ARD26	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		6.2	<6	130	0.11	<2	10.00	1.3	51	210	140	8	0.73	<3	3.5	3,900	<2
UCS2	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007		9.6	<6	15	0.85	<34	0.73	<4	72	1500	8.9	19	0.02	<3	8.9	1,500	<2
UCS15	MR1-05-77	Volcanic Tuff	Knight Piesold 2006-2007		8.2	<6	85	0.059	<34	9.70	<4	53	270	110	10	0.80	4	3.3	3,700	<2
UCS16	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		8.7	<6	180	0.081	<34	0.48	<4	64	300	300	12	1.10	58	4.9	2,000	<2
UCS17	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		9.9	<6	270	0.14	<34	5.50	<4	46	410	140	4	2.80	7	3.6	2,300	<2
UCS18	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		9.8	<6	180	0.16	<34	9.10	<4	46	460	140	9	0.95	4	4	3,900	<2
UCS19	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		8.4	<6	98	0.13	<2	6.90	1.3	65	270	140	9	0.84	3	3.8	3,400	2

Table B-3. Total Metal Concentrations by Lithology (continued)

Sample ID	Borehole ID	Rock Type	Sampling Program	Na	Ni	Pb	Sb	Se	Sn	Sr	Ti	Tl	U	V	Zn
				%	µg/g	µg/g	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g
Average Concentration (Basalt)*				1.8	130	6	0.2	0.05	1.5	465	1.38	2.1	1	250	105
Ten Times Average Concentration (Basalt)				18	1300	60	2	0.5	15	4650	13.8	21	10	2500	1050
Average Concentration (Continental Crustal)*				2.355	84	14	0.2	0.05	2.3	370	0.565	0.85	2.7	120	70
Ten Times Average Concentration (Crustal)				23.55	840	140	2	0.5	23	3700	5.65	8.5	27	1200	700
MRARD10-036	MR1-08-161	Schist	AMEC 2010	0.0086	160	1.4	<0.8	<0.7	<0.5	6.1	0.028	<0.02	1.2	66	48
MRARD10-041	MR1-08-158	Schist	AMEC 2010	0.0082	220	1.7	<0.8	<0.7	<0.5	2.4	0.03	<0.02	0.72	130	50
MRARD10-047	MR1-08-163	Schist	AMEC 2010	0.0064	190	1.9	<0.8	<0.7	0.9	3.3	0.023	<0.02	1.2	91	61
MRARD10-048	MR1-08-163	Schist	AMEC 2010	0.0063	130	2.3	<0.8	<0.7	<0.5	1.2	0.024	<0.02	2.5	190	42
MRARD10-050	MR1-08-152	Schist	AMEC 2010	0.014	410	1.4	1.4	<0.7	2.2	7.5	0.012	0.52	3.2	97	38
MRARD10-052	MR1-08-158	Schist	AMEC 2010	0.129	88	3.3	<0.8	<0.7	1.0	11	0.087	0.27	0.29	79	80
MRARD10-056	MR1-08-152	Schist	AMEC 2010	0.0071	88	0.76	<0.8	<0.7	0.6	3.4	0.013	0.08	0.46	190	63
MRARD10-060	MR1-08-157	Schist	AMEC 2010	0.017	1040	1.9	<0.8	<0.7	0.9	1.3	0.025	0.11	0.24	100	47
MRARD10-061	MR1-08-159	Schist	AMEC 2010	0.0095	150	1.7	<0.8	<0.7	<0.5	12	0.027	0.03	1.2	120	45
MRARD10-062	MR1-08-155	Schist	AMEC 2010	0.0071	93	2.4	<0.8	<0.7	<0.5	15	0.02	0.08	1.2	140	37
MRARD10-063	MR1-08-157	Schist	AMEC 2010	0.01	210	9.0	<0.8	<0.7	0.6	4.4	0.0037	0.04	0.79	99	44
MRARD10-064	MR1-08-155	Schist	AMEC 2010	0.0087	130	2.1	<0.8	<0.7	1.4	15	0.0076	1.5	1.00	62	99
MRARD10-065	MR1-08-150	Schist	AMEC 2010	0.014	35	1.8	<0.8	<0.7	<0.5	6.4	0.018	0.04	8.2	16	18
MRARD10-068	MR1-08-140	Schist	AMEC 2010	0.0078	53	3.9	<0.8	<0.7	<0.5	0.59	0.03	0.03	3.4	45	81
MRARD10-070	MR1-08-140	Schist	AMEC 2010	0.0084	47	1.5	<0.8	<0.7	<0.5	3.4	0.027	0.03	0.52	28	15
MRARD10-071	MR1-08-160	Schist	AMEC 2010	0.013	550	1.7	<0.8	<0.7	1.0	4.7	0.0068	<0.02	0.85	62	45
MRARD10-072	MR1-08-149	Schist	AMEC 2010	0.015	430	1.4	<0.8	<0.7	1.3	4.7	0.0068	<0.02	1.8	64	50
MRARD10-073	MR1-08-155	Schist	AMEC 2010	0.03	120	2.6	<0.8	<0.7	1.8	11	0.049	0.02	1.6	92	58
MRARD10-075	MR1-08-148	Schist	AMEC 2010	0.013	27	1.4	<0.8	<0.7	<0.5	4.3	0.078	0.04	3.9	51	19
MRARD10-078	MR1-08-153	Schist	AMEC 2010	0.028	120	1.8	<0.8	<0.7	0.8	6.3	0.086	0.23	0.028	190	52
MRARD10-086	MR1-08-147	Schist	AMEC 2010	0.027	530	5.1	<0.8	<0.7	1.0	5.3	0.045	0.10	0.026	130	30
MRARD10-092	MR1-08-142	Schist	AMEC 2010	0.011	45	2.1	<0.8	<0.7	0.5	9.2	0.031	0.04	1.4	94	30
MRARD10-093	MR1-08-145	Schist	AMEC 2010	0.013	160	2.3	<0.8	<0.7	1.1	3.4	0.029	0.12	2.2	66	48
MRARD10-094	MR1-08-147	Schist	AMEC 2010	0.0094	240	2.2	<0.8	<0.7	0.9	3.9	0.016	0.02	0.88	120	50
MRARD10-097	MR1-08-143	Schist	AMEC 2010	0.14	48	5.8	<0.8	<0.7	1.3	15	0.14	0.05	0.10	75	29
MRARD10-101	MR1-08-153	Schist	AMEC 2010	0.012	94	2.7	<0.8	<0.7	1.2	3.5	0.011	<0.02	1.8	98	53
MRARD10-102	MR1-08-143	Schist	AMEC 2010	0.05	38	3.0	<0.8	<0.7	2.3	4.7	0.17	0.25	2.5	48	77
MRARD10-103	MR1-08-141	Schist	AMEC 2010	0.011	49	1.7	<0.8	<0.7	2.5	3.4	0.14	0.04	1.5	77	72
MRARD10-106	MR1-08-148	Schist	AMEC 2010	0.014	39	1.4	14	1.0	4.8	2.5	0.053	0.54	2.1	44	111
MRARD10-109	MR1-08-141	Schist	AMEC 2010	0.016	170	2.3	<0.8	<0.7	1.0	5.1	0.007	0.06	1.2	73	57
MRARD10-111	MR1-08-144	Schist	AMEC 2010	0.034	170	7.2	<0.8	<0.7	1.2	1.9	0.11	0.35	0.058	180	60
MRARD10-114	MR1-07-121	Schist	AMEC 2010	0.024	16	3.7	<0.8	<0.7	0.6	4.7	0.041	0.27	2.1	7	18
MRARD10-116	MR1-07-121	Schist	AMEC 2010	0.055	70	15	<0.8	<0.7	1.9	35	0.17	1.6	2.6	28	26
MRARD10-117	MR1-08-156	Schist	AMEC 2010	0.039	120	0.91	<0.8	<0.7	0.7	11	0.12	0.20	0.047	210	23
MRARD10-118	MR1-07-121	Schist	AMEC 2010	0.0089	290	2.2	<0.8	<0.7	<0.5	1.8	0.023	0.05	2.4	110	96
MRARD10-119	MR1-08-156	Schist	AMEC 2010	0.038	140	1.7	<0.8	<0.7	2.1	14	0.098	0.25	0.022	180	60
MRARD10-120	MR1-08-148	Schist	AMEC 2010	0.0071	20	1.5	<0.8	2.6	<0.5	1.1	0.019	<0.02	0.59	28	9.9
MRARD10-122	MR1-08-156	Schist	AMEC 2010	0.007	55	2.5	14	1.4	4.6	12	0.027	0.50	2.2	58	44
MRARD10-124	MR1-08-143	Schist	AMEC 2010	0.029	26	2.5	<0.8	<0.7	<0.5	5.6	0.069	0.07	5.6	48	13
MRARD10-126	MR1-08-145	Schist	AMEC 2010	0.017	200	5.7	<0.8	<0.7	1.5	7.9	0.075	0.04	3.9	55	143
MRARD10-127	MR1-08-143	Schist	AMEC 2010	0.035	310	3.6	<0.8	<0.7	1.0	3.6	0.1	0.19	0.89	150	73
MRARD10-128	MR1-08-141	Schist	AMEC 2010	0.017	320	3.6	<0.8	<0.7	0.9	11	0.015	<0.02	1.2	64	20
MRARD10-129	MR1-08-154	Schist	AMEC 2010	0.025	170	29	1.0	8.9	1.9	3.5	0.031	0.67	1.4	120	8.8
MRARD10-130	MR1-08-153	Schist	AMEC 2010	0.025	59	1.0	<0.8	<0.7	2.0	12	0.12	0.09	0.031	140	16
07ARD21	MR1-06-90	Schist /Amphibolite/Volcanic Tuff	Knight Piesold 2006-2007	0.015	180	12	0.3	1	2.0	1.9	0.047	0.2	2.4	85	94
07ARD20	MR1-05-60	Schist/Amphibolite	Knight Piesold 2006-2007	0.024	100	8.5	<0.1	1	2.2	11	0.17	0.3	3.4	84	78
07ARD15	MR1-05-68	Schist/Volcanic Tuff	Knight Piesold 2006-2007	0.019	130	5.7	0.6	<1	1.2	5.6	0.26	0.4	0.18	340	130
07ARD39	MR1-06-96	Schist/Volcanic Tuff	Knight Piesold 2006-2007	0.041	430	5.4	0.2	<1	3.0	4.1	0.14	0.3	3.6	140	250
07ARD40	MR1-05-54	Schist/Volcanic Tuff /Amphibolite	Knight Piesold 2006-2007	0.099	210	4.6	<0.1	<1	2.1	18	0.13	0.3	1.7	120	81
07ARD14	MR1-06-84	Schist/Volcanic Tuff/Gneiss	Knight Piesold 2006-2007	0.05	58	7.8	1.0	2	2.4	9.1	0.14	0.6	6.5	47	80
ARD20	MR1-05-59	Volcanic Tuff	Knight Piesold 2006-2007		170	12	<25	<6	<6	8.6	0.052	<5	<75	250	180
ARD22	MR1-05-77	Volcanic Tuff	Knight Piesold 2006-2007		140	10	<25	<6	<6	74	0.32	<5	<75	300	150
ARD25	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		130	5	<2	<10	<6	66	0.49	<5	<75	330	100
ARD26	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		120	5	<2	<10	<6	80	0.5	<5	<75	290	93
UCS2	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007		450	14	21	<20	<6	20	0.16	<20	<100	290	110
UCS15	MR1-05-77	Volcanic Tuff	Knight Piesold 2006-2007		170	8	6	<20	<6	72	0.57	<20	<100	340	130
UCS16	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		180	9	8	<20	<6	20	0.29	<20	<100	360	99
UCS17	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		170	6	5	<20	<6	92	0.59	<20	<100	340	75
UCS18	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		190	10	10	<20	<6	100	0.45	<20	<100	350	250
UCS19	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		150	6	<2	<10	<6	60	0.49	<5	<70	350	120

Table B-3. Total Metal Concentrations by Lithology (continued)

Sample ID	Borehole ID	Rock Type	Sampling Program	Hg	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
				µg/g	%	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g	%	%	µg/g	%	µg/g	µg/g
Average Concentration (Basalt)*				0.09	7.8	2	330	1	0.007	7.6	0.22	48	170	87	8.6	0.83	17	4.6	1500	1.5
Ten Times Average Concentration (Basalt)				0.9	78	20	3300	10	0.07	76	2.2	480	1700	870	86	8.3	170	46	15000	15
Average Concentration (Continental Crustal)*				0.085	8.23	1.8	425	3	0.0085	4.15	0.15	25	102	60	5.63	2.085	20	2.33	950	1.2
Ten Times Average Concentration (Crustal)				0.85	82.3	18	4250	30	0.085	41.5	1.5	250	1020	600	56.3	20.85	200	23.3	9500	12
UCS20	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		7.7	<6	180	0.2	<34	4.40	<4	43	240	170	8	2.70	64	5.4	3,200	<2
UCS21	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		7.9	<6	150	0.11	<2	7.00	1.6	61	230	91	11	1.80	41	4.6	4,400	<2
UCS25	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007		6.2	<6	150	1.4	<34	0.62	<4	45	940	84	9	0.93	6	7.9	840	<2
UCS26	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007		8.4	<6	17	0.95	<2	0.64	1.8	72	2100	6.4	9	0.06	7	13	910	<2
UCS28	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		8.2	<6	160	0.24	<2	4.70	0.9	53	260	86	6	2.20	32	3.6	2,900	<2
UCS29	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		8.7	<6	220	0.1	<34	7.20	<4	53	280	180	12	1.30	14	4.8	3,800	<2
UCS30	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		8.4	<6	400	0.26	<2	4.90	0.8	56	230	88	6	1.80	12	3	2,100	<2
UCS31	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		9.1	<6	160	0.4	<2	6.50	0.7	53	320	190	5	1.90	10	3.1	1,700	<2
UCS32	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		9.8	<6	320	0.18	<2	5.70	0.9	73	340	150	6	2.40	23	2.6	2,100	<2
UCS33	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		9.5	<6	170	0.13	<2	5.20	0.6	58	290	150	5	1.70	13	3	1,500	<2
UCS34	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		8.8	<6	410	0.2	<2	3.00	0.8	65	240	170	6	4.70	37	3.7	1,600	<2
UCS35	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		8.3	<6	390	0.2	<2	3.00	0.6	49	210	67	5	3.00	24	3.7	2,400	<2
UCS36	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		9.6	<6	750	0.18	<2	2.30	0.7	61	240	100	5	4.10	43	4.4	2,500	<2
UCS37	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		9.2	<6	840	0.29	<2	3.40	0.7	64	290	140	5	3.20	37	4.8	3,000	<2
UCS38	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		9.7	<6	2500	0.33	<2	2.10	0.7	65	300	25	5	3.60	22	3.6	1,600	<2
UCS39	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		8.1	<6	2000	1.9	<2	0.16	1.1	62	340	250	6	1.80	28	3.4	1,900	<2
UCS40	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		9.2	<6	2200	1.4	<2	0.16	1.4	81	260	200	8	2.50	37	4.2	4,100	<2
07ARD08	MR1-05-53	Volcanic Tuff	Knight Piesold 2006-2007	<0.1	6.9	**30**	94	3.6	0.57	0.17	0.13	44	86	8.1	20	0.93	28	9.5	1,500	17
07ARD36	MR1-06-95	Volcanic Tuff	Knight Piesold 2006-2007	<0.1	0.0		2			0.00					0	0.00		0.0045	1	
MRARD10-012	MR1-09-173	Volcanic Tuff	AMEC 2010	<0.1	0.54	2.9	5.5	0.10	<0.09	1.6	<0.2	100	530	6.0	5.4	0.013	<2	13	1300	0.4
MRARD10-021	MR1-09-173	Volcanic Tuff	AMEC 2010	<0.1	5.9	0.7	330	0.74	<0.09	0.19	<0.2	8.9	55	12	6.7	2.1	35	2.6	360	13
MRARD10-023	MR1-09-173	Volcanic Tuff	AMEC 2010	<0.1	0.06	2.6	4.3	0.05	<0.09	1.1	<0.2	110	330	11	5.7	0.0039	<2	14	960	0.5
MRARD10-025	MR1-09-173	Volcanic Tuff	AMEC 2010	<0.1	8.8	0.7	31	2.4	<0.09	0.18	<0.2	85	1220	40	7.9	0.13	22	8.6	1800	0.5
MRARD10-042	MR1-08-158	Volcanic Tuff	AMEC 2010	<0.1	4.4	<0.5	420	0.13	<0.09	2.2	<0.2	33	260	55	5.8	1.6	23	2.1	1230	0.5
MRARD10-051	MR1-08-158	Volcanic Tuff	AMEC 2010	<0.1	3.1	1.0	12	0.16	0.46	3.4	<0.2	23	75	98	5.1	0.1	75	3.8	950	1.8
MRARD10-053	MR1-08-152	Volcanic Tuff	AMEC 2010	<0.1	1.6	<0.5	9.6	0.07	<0.09	1.4	<0.2	13	73	115	1.7	0.18	14	0.73	440	0.1
MRARD10-054	MR1-08-158	Volcanic Tuff	AMEC 2010	<0.1	2.6	<0.5	5.6	0.06	<0.09	1.1	<0.2	18	150	130	2.2	0.13	43	2.3	630	0.2
MRARD10-059	MR1-08-152	Volcanic Tuff	AMEC 2010	<0.1	2.4	<0.5	65	0.09	<0.09	0.5	<0.2	23	130	106	2.2	0.55	21	2.2	270	0.2
MRARD10-066	MR1-08-150	Volcanic Tuff	AMEC 2010	<0.1	7.1	<0.5	200	0.62	<0.09	0.085	<0.2	85	1500	37	12.1	0.48	25	5.5	380	0.5
MRARD10-067	MR1-08-150	Volcanic Tuff	AMEC 2010	<0.1	6.1	<0.5	160	0.83	<0.09	0.08	<0.2	53	1070	111	6.1	1.3	31	4.5	330	0.6
MRARD10-069	MR1-08-141	Volcanic Tuff	AMEC 2010	<0.1	0.43	**49**	1.4	0.27	0.33	0.027	<0.2	20	66	5.2	41.7	0.009	10	0.16	2560	30
MRARD10-076	MR1-08-157	Volcanic Tuff	AMEC 2010	<0.1	5.6	<0.5	73	1.1	<0.09	0.78	<0.2	31	190	70	8.5	0.89	54	5.1	800	0.6
MRARD10-080	MR1-08-149	Volcanic Tuff	AMEC 2010	<0.1	1.3	**59**	2.8	0.48	0.49	0.34	<0.2	12	19	8.8	21	0.041	6	2.4	170	39
MRARD10-082	MR1-08-150	Volcanic Tuff	AMEC 2010	<0.1	0.1	<0.5	0.22	0.16	<0.09	1.5	<0.2	1.1	93	7.7	9.6	0.011	<2	0.45	1190	0.5
MRARD10-083	MR1-08-145	Volcanic Tuff	AMEC 2010	<0.1	1.4	<0.5	16	0.15	<0.09	0.86	<0.2	18	89	77	2.1	0.24	14	1.2	680	0.3
MRARD10-084	MR1-08-147	Volcanic Tuff	AMEC 2010	<0.1	4.7	<0.5	74	0.19	<0.09	0.18	<0.2	38	440	65	5.6	0.72	34	3.8	410	0.4
MRARD10-087	MR1-08-147	Volcanic Tuff	AMEC 2010	<0.1	2.5	<0.5	41	0.15	0.18	3.1	<0.2	20	160	69	4.3	0.44	41	2.5	1360	1.5
MRARD10-088	MR1-08-147	Volcanic Tuff	AMEC 2010	<0.1	4.8	<0.5	45	0.25	<0.09	0.7	<0.2	28	150	76	7.5	0.46	75	4.6	1020	4.2
MRARD10-089	MR1-08-147	Volcanic Tuff	AMEC 2010	<0.1	5.3	<0.5	74	0.27	<0.09	0.62	<0.2	57	290	58	6.6	1	47	6.7	880	0.6
MRARD10-098	MR1-08-153	Volcanic Tuff	AMEC 2010	<0.1	3.3	<0.5	120	0.13	<0.09	1.6	<0.2	24	120	90	2.1	0.85	31	1.2	590	0.2
MRARD10-105	MR1-08-141	Volcanic Tuff	AMEC 2010	<0.1	1.2	9.5	3.6	0.87	0.33	0.26	<0.2	5.7	25	9.4	20	0.43	7	2.3	1100	0.9
MRARD10-112	MR1-08-156	Volcanic Tuff	AMEC 2010	<0.1	2	0.7	27	0.06	<0.09	3.6	<0.2	13	54	111	2	0.3	37	1.6	940	0.2
MRARD10-113	MR1-08-144	Volcanic Tuff	AMEC 2010	<0.1	0.001	1.7	0.51	0.08	0.13	0.0025	<0.2	0.25	<0.5	0.1	0.0033	0.0001	<2	0.0019	2.3	0.5
FC No. 2		Volcanic Tuff /Amphibolite/Schist	Knight Piesold 2006-2007	<0.1	8.2	18	190	1.3	0.05	1.30	0.30	56	210	140	11	1.70	47	5.9	1,900	10
07ARD31	MR1-05-54	Volcanic Tuff /Chert /Schist	Knight Piesold 2006-2007	<0.1	3.0	**140**	18	0.6	0.05	0.07	0.06	25	720	9.4	26	0.12	6	3	940	8.1
07ARD23	MR1-06-103	Volcanic Tuff /Schist	Knight Piesold 2006-2007	<0.1	7.4	4	110	3.1	0.22	0.08	0.25	25	430	8.4	14	0.63	24	10	2,600	6.0
07ARD24	MR1-05-55	Volcanic Tuff /Schist	Knight Piesold 2006-2007	<0.1	6.9	4	120	2.5	0.14	0.12	0.25	26	580	8.0	14	0.57	21	9.6	2,400	5.8
07ARD26	MR1-06-93	Volcanic Tuff /Schist	Knight Piesold 2006-2007	<0.1	8.6	**24**	180	1.0	0.47	0.22	1.1	81	1100	77	26	0.04	16	4.8	2,700	13
07ARD35	MR!-06-101	Volcanic Tuff /Schist	Knight Piesold 2006-2007	<0.1	9.0	<2	210	0.3	0.01	5.20	0.28	61	220	240	7	0.90	18	3.3	1,400	12
07ARD41	MR1-06-95	Volcanic Tuff /Schist	Knight Piesold 2006-2007	<0.1	7.4	<2	520	0.9	0.04	0.11	0.10	86	720	79	16	2.50	52	3.7	1,400	10
MRARD10-029	MR1-09-170	Volcanic Tuff /Schist	AMEC 2010	<0.1	3.3	1.2	4.9	1.3	<0.09	0.14	<0.2	45	610	38	8.2	0.08	36	4	830	0.9
Footwall																				
UCS9	MR1-06-81	Amphibolite	Knight Piesold 2006-2007		9	<6	7	0.56	<34	0.26	<4	20	260	3.6	19	0.012	<3	4.3	1800	<2
MRARD10-107	MR1-08-154	Amphibolite	AMEC 2010	<0.1	5.3	1.2	31	0.70	<0.09	0.14	<0.2	7.2	92	8.0	8.5	0.13	11	3.8	510	1.7
ARD1	MR1-05-72	Gneiss	Knight Piesold 2006-2007		12	<6	2200	5.2	<3	0.17	0.3	7.1	12	22	8.9	6.5	5	1.4	440	5
ARD2	MR1-05-72	Gneiss	Knight Piesold 2006-2007		8.5	<6	490	1	<3	1.5	0.3	12	8	6.3	4.4	2.5	10	1.2	780	4
ARD3	MR1-05-72	Gneiss	Knight Piesold 2006-2007		5.8	<6	1700	4.9	<3	0.14	0.2	6.4	12	37	3.4	3.1	<3	1	260	8
ARD4	MR1-05-73	Gneiss	Knight Piesold 2006-2007		7.6	<6	1700	0.48	<3	0.26	0.2	8.3	12	5.5	4.2	4.5	11	1.4	550	<2
ARD5	MR1-05-73	Gneiss	Knight Piesold 2006-2007		7.4	<6	1500	0.56	<3	0.19	0.2	9.6	12	14	4.8	3.6	5	1.4	610	2
ARD6	MR1-05-73	Gneiss	Knight Piesold 2006-2007		5	<6	1200	0.52	<3	0.13	0.2	8.8	12	10	4.3	3.3	4	1.2	370	3

Table B-3. Total Metal Concentrations by Lithology (continued)

Sample ID	Borehole ID	Rock Type	Sampling Program	Na	Ni	Pb	Sb	Se	Sn	Sr	Ti	Tl	U	V	Zn
				%	µg/g	µg/g	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g
Average Concentration (Basalt)*				1.8	130	6	0.2	0.05	1.5	465	1.38	2.1	1	250	105
Ten Times Average Concentration (Basalt)				18	1300	60	2	0.5	15	4650	13.8	21	10	2500	1050
Average Concentration (Continental Crustal)*				2.355	84	14	0.2	0.05	2.3	370	0.565	0.85	2.7	120	70
Ten Times Average Concentration (Crustal)				23.55	840	140	2	0.5	23	3700	5.65	8.5	27	1200	700
UCS20	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		130	6	5	<20	<6	58	0.32	<20	<100	320	70
UCS21	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		150	6	<2	<10	<6	94	0.46	<5	<70	340	120
UCS25	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007		420	28	11	<20	<6	11	0.35	<20	<100	180	160
UCS26	MR1-06-81	Volcanic Tuff	Knight Piesold 2006-2007		870	9	<2	<10	<6	13	0.2	<5	<70	200	140
UCS28	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		140	4	<2	<10	<6	99	0.51	<5	<70	320	83
UCS29	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		160	13	5	<20	<6	66	0.49	<20	<100	360	160
UCS30	MR1-06-86	Volcanic Tuff	Knight Piesold 2006-2007		160	4	<2	<10	<6	77	0.66	<5	<70	320	81
UCS31	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		140	5	<2	<10	<6	180	0.56	<5	<70	340	70
UCS32	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		230	5	<2	<10	<6	220	0.64	<5	<70	380	70
UCS33	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		140	6	3	<10	<6	240	0.59	<5	<70	360	82
UCS34	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		150	6	<2	<10	<6	410	0.57	<5	<70	350	110
UCS35	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		110	4	<2	<10	<6	68	0.51	<5	<70	280	97
UCS36	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		140	4	<2	<10	<6	84	0.67	<5	<70	350	89
UCS37	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		140	4	<2	<10	<6	68	0.5	<5	<70	330	91
UCS38	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		160	6	<2	<10	<6	92	0.53	<5	<70	350	91
UCS39	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		160	7	<2	<10	<6	10	0.53	<5	<70	370	64
UCS40	MR1-06-91	Volcanic Tuff	Knight Piesold 2006-2007		180	6	<2	<10	<6	16	0.67	<5	<70	410	97
07ARD08	MR1-05-53	Volcanic Tuff	Knight Piesold 2006-2007	0.018	180	8.6	4.2	**3**	3.3	12	0.18	0.3	2.7	81	73
07ARD36	MR1-06-95	Volcanic Tuff	Knight Piesold 2006-2007	0.0015							0.0004		0	2	
MRARD10-012	MR1-09-173	Volcanic Tuff	AMEC 2010	0.0074	1950	4.4	<0.8	<0.7	<0.5	10	0.0089	<0.02	1.3	15	25
MRARD10-021	MR1-09-173	Volcanic Tuff	AMEC 2010	0.082	22	30	<0.8	<0.7	4.2	8.7	0.14	0.67	0.62	83	47
MRARD10-023	MR1-09-173	Volcanic Tuff	AMEC 2010	0.0079	2410	7.6	<0.8	<0.7	<0.5	22	0.0074	<0.02	0.23	8	59
MRARD10-025	MR1-09-173	Volcanic Tuff	AMEC 2010	0.013	760	2.6	<0.8	<0.7	1.5	6.6	0.062	0.12	0.20	100	47
MRARD10-042	MR1-08-158	Volcanic Tuff	AMEC 2010	0.137	130	0.85	<0.8	<0.7	1.3	12	0.29	0.26	0.077	180	45
MRARD10-051	MR1-08-158	Volcanic Tuff	AMEC 2010	0.038	48	18	1.7	1.1	2.1	14	0.12	0.63	0.59	130	38
MRARD10-053	MR1-08-152	Volcanic Tuff	AMEC 2010	0.091	36	1.6	<0.8	<0.7	<0.5	13	0.073	0.06	0.066	43	20
MRARD10-054	MR1-08-158	Volcanic Tuff	AMEC 2010	0.143	53	14	<0.8	<0.7	0.6	13	0.043	0.03	0.066	120	39
MRARD10-059	MR1-08-152	Volcanic Tuff	AMEC 2010	0.126	66	0.42	<0.8	<0.7	<0.5	9.3	0.13	0.10	0.046	120	23
MRARD10-066	MR1-08-150	Volcanic Tuff	AMEC 2010	0.022	750	4.1	<0.8	<0.7	2.4	6.5	0.038	0.06	0.078	120	31
MRARD10-067	MR1-08-150	Volcanic Tuff	AMEC 2010	0.027	610	3.0	<0.8	<0.7	0.6	4.5	0.079	0.14	0.020	110	19
MRARD10-069	MR1-08-141	Volcanic Tuff	AMEC 2010	0.013	30	3.9	<0.8	<0.7	1.0	1.8	0.011	0.04	0.39	9	4.3
MRARD10-076	MR1-08-157	Volcanic Tuff	AMEC 2010	0.042	110	5.2	<0.8	<0.7	<0.5	7.2	0.15	0.13	0.099	150	88
MRARD10-080	MR1-08-149	Volcanic Tuff	AMEC 2010	0.016	46	3.3	0.9	<0.7	1.1	8.4	0.0053	0.15	0.63	13	12
MRARD10-082	MR1-08-150	Volcanic Tuff	AMEC 2010	0.016	6.8	1.5	<0.8	<0.7	0.7	4.4	0.0059	<0.02	0.085	25	3.8
MRARD10-083	MR1-08-145	Volcanic Tuff	AMEC 2010	0.087	61	0.63	<0.8	<0.7	<0.5	8.5	0.12	0.04	0.36	59	19
MRARD10-084	MR1-08-147	Volcanic Tuff	AMEC 2010	0.027	230	0.45	<0.8	<0.7	0.7	3.5	0.087	0.08	0.016	150	41
MRARD10-087	MR1-08-147	Volcanic Tuff	AMEC 2010	0.037	62	4.7	<0.8	<0.7	<0.5	10	0.061	0.10	0.070	110	70
MRARD10-088	MR1-08-147	Volcanic Tuff	AMEC 2010	0.038	75	2.2	<0.8	<0.7	0.9	5.1	0.1	0.08	0.23	120	41
MRARD10-089	MR1-08-147	Volcanic Tuff	AMEC 2010	0.021	360	1.1	<0.8	<0.7	0.5	8.8	0.089	0.16	0.074	150	41
MRARD10-098	MR1-08-153	Volcanic Tuff	AMEC 2010	0.214	66	1.8	<0.8	<0.7	<0.5	36	0.18	0.19	0.027	140	26
MRARD10-105	MR1-08-141	Volcanic Tuff	AMEC 2010	0.012	6.9	3.0	<0.8	<0.7	0.7	14	0.01	0.04	0.58	14	9.4
MRARD10-112	MR1-08-156	Volcanic Tuff	AMEC 2010	0.051	35	0.52	<0.8	<0.7	<0.5	16	0.082	0.06	0.034	56	20
MRARD10-113	MR1-08-144	Volcanic Tuff	AMEC 2010	0.0009	<0.1	0.40	<0.8	<0.7	<0.5	0.22	0.00001	0.27	0.22	1	<0.7
FC No. 2		Volcanic Tuff /Amphibolite/Schist	Knight Piesold 2006-2007	0.24	210	6.8	0.1	**2**	1.2	28	0.3	0.7	0.33	240	120
07ARD31	MR1-05-54	Volcanic Tuff /Chert /Schist	Knight Piesold 2006-2007	0.032	150	3.3	1.3	**4**	0.9	5.5	0.06	0.2	0.53	39	42
07ARD23	MR1-06-103	Volcanic Tuff /Schist	Knight Piesold 2006-2007	0.0094	140	5.2	<0.1	<1	3.2	2.8	0.18	0.4	3.3	72	86
07ARD24	MR1-05-55	Volcanic Tuff /Schist	Knight Piesold 2006-2007	0.018	120	3.5	<0.1	<1	2.5	5.2	0.13	0.5	2.8	91	65
07ARD26	MR1-06-93	Volcanic Tuff /Schist	Knight Piesold 2006-2007	0.0066	380	5.5	<0.1	<1	1.9	7.8	0.12	0.2	3.1	100	200
07ARD35	MR!-06-101	Volcanic Tuff /Schist	Knight Piesold 2006-2007	2.2	170	4.8	0.4	<1	0.8	140	0.48	0.4	0.06	290	110
07ARD41	MR1-06-95	Volcanic Tuff /Schist	Knight Piesold 2006-2007	0.083	340	16	<0.1	<1	1.4	11	0.27	0.8	1.4	260	56
MRARD10-029	MR1-09-170	Volcanic Tuff /Schist	AMEC 2010	0.022	440	4.0	<0.8	<0.7	1.0	5.7	0.013	0.08	0.54	36	14
Footwall															
UCS9	MR1-06-81	Amphibolite	Knight Piesold 2006-2007		84	410	9	<20	10	3.5	0.13	<20	<100	140	140
MRARD10-107	MR1-08-154	Amphibolite	AMEC 2010	0.01	15	3.1	3.1	<0.7	2.3	6.0	0.04	0.18	2.7	26	48
ARD1	MR1-05-72	Gneiss	Knight Piesold 2006-2007		7	34	<25	<6	<6	13	0.27	<5	<75	47	16
ARD2	MR1-05-72	Gneiss	Knight Piesold 2006-2007		22	25	<25	<6	<6	170	0.31	<5	<75	76	53
ARD3	MR1-05-72	Gneiss	Knight Piesold 2006-2007		9	26	<25	<6	<6	15	0.28	<5	<75	31	14
ARD4	MR1-05-73	Gneiss	Knight Piesold 2006-2007		9	22	<25	<6	<6	31	0.32	<5	<75	57	61
ARD5	MR1-05-73	Gneiss	Knight Piesold 2006-2007		15	17	<25	<6	<6	21	0.21	<5	<75	54	66
ARD6	MR1-05-73	Gneiss	Knight Piesold 2006-2007		11	14	<25	<6	<6	13	0.19	<5	<75	50	29

Table B-3. Total Metal Concentrations by Lithology (continued)

Sample ID	Borehole ID	Rock Type	Sampling Program	Hg	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
				µg/g	%	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g	%	%	µg/g	%	µg/g	µg/g
Average Concentration (Basalt)*				0.09	7.8	2	330	1	0.007	7.6	0.22	48	170	87	8.6	0.83	17	4.6	1500	1.5
Ten Times Average Concentration (Basalt)				0.9	78	20	3300	10	0.07	76	2.2	480	1700	870	86	8.3	170	46	15000	15
Average Concentration (Continental Crustal)*				0.085	8.23	1.8	425	3	0.0085	4.15	0.15	25	102	60	5.63	2.085	20	2.33	950	1.2
Ten Times Average Concentration (Crustal)				0.85	82.3	18	4250	30	0.085	41.5	1.5	250	1020	600	56.3	20.85	200	23.3	9500	12
ARD7	MR1-05-74	Gneiss	Knight Piesold 2006-2007		5.7	<6	1400	1.1	<3	0.072	0.2	5.5	8	2.8	3.5	3.2	<3	0.84	350	4
ARD8	MR1-05-74	Gneiss	Knight Piesold 2006-2007		7.1	<6	2000	0.9	<3	0.093	0.3	6	10	15	2.9	3.5	<3	1	420	4
ARD9	MR1-05-74	Gneiss	Knight Piesold 2006-2007		7.2	<6	2100	1	<3	0.086	0.3	5	9	21	3.1	3.4	<3	1.2	560	43
UCS10	MR1-06-81	Gneiss	Knight Piesold 2006-2007		7.3	<6	750	1.1	<34	0.54	<4	29	72	150	16	3.8	14	3.4	570	4
UCS12	MR1-06-81	Gneiss	Knight Piesold 2006-2007		6	<6	1800	1.6	<34	0.076	<4	<8	140	3.9	2.7	3	<3	0.74	300	<2
UCS13	MR1-06-81	Gneiss	Knight Piesold 2006-2007		7	7	2400	2.1	<34	0.31	<4	14	120	72	6.1	3.4	<3	1.7	590	4
UCS22	MR1-06-81	Gneiss	Knight Piesold 2006-2007		7.3	<6	2900	1.9	<2	0.22	0.7	17	130	7.5	5.1	3.8	<3	1.2	720	<2
UCS23	MR1-06-81	Gneiss	Knight Piesold 2006-2007		5.2	<6	1400	0.2	<34	0.12	<4	<8	140	15	5.5	3.1	5	1.7	550	<2
UCS24	MR1-06-81	Gneiss	Knight Piesold 2006-2007		6.1	<6	3000	1.3	<34	0.12	<4	<8	110	19	1.2	4.5	<3	0.39	140	<2
UCS49	MR1-06-105	Gneiss	Knight Piesold 2006-2007		7	<6	1000	1	<34	0.14	<4	13	130	78	5.2	3.4	4	1.5	500	<2
UCS51	MR1-06-105	Gneiss	Knight Piesold 2006-2007		8.1	<6	1400	1.6	<34	0.16	<4	12	120	4.2	4.7	3.6	7	1.9	430	<2
07ARD22	MR1-06-90	Gneiss	Knight Piesold 2006-2007	<0.1	6.8	3	520	2.3	0.19	0.066	0.42	14	180	25	11	1.8	27	3.8	250	9.9
07ARD32	MR1-06-81	Gneiss	Knight Piesold 2006-2007	<0.1	7.4	7	1500	1.3	0.06	0.24	0.38	12	140	25	7.4	4	9	2.4	440	10
MRARD10-004	MR1-09-179	Gneiss	AMEC 2010	<0.1	3.4	0.6	520	0.32	<0.09	0.17	<0.2	7.7	100	9.3	5.3	1.8	8	1.7	130	4.4
MRARD10-005	MR1-09-179	Gneiss	AMEC 2010	<0.1	1.7	0.7	99	0.62	<0.09	0.048	<0.2	5.3	120	79	2.3	0.86	7	0.83	100	2.4
MRARD10-011	MR1-09-178	Gneiss	AMEC 2010	<0.1	8.3	0.6	230	2.5	<0.09	0.18	<0.2	18	28	1.8	13	1	36	8.2	310	15
MRARD10-015	MR1-09-178	Gneiss	AMEC 2010	<0.1	2.5	<0.5	160	0.71	<0.09	0.17	<0.2	6.7	91	2.8	3.4	0.65	10	1.6	330	0.5
MRARD10-018	MR1-09-172	Gneiss	AMEC 2010	<0.1	0.79	16	3.0	0.58	<0.09	0.16	<0.2	6.8	19	3.9	60	0.013	3	0.8	2600	1.7
MRARD10-019	MR1-09-172	Gneiss	AMEC 2010	<0.1	8.9	0.7	2.4	1.3	<0.09	1.6	<0.2	20	210	1.7	13	0.016	3	7.3	1000	3.1
MRARD10-030	MR1-09-170	Gneiss	AMEC 2010	<0.1	3.8	0.6	380	0.69	<0.09	0.081	<0.2	13	95	5.8	6.4	1.8	12	1.6	260	3.4
MRARD10-031	MR1-09-170	Gneiss	AMEC 2010	<0.1	1	<0.5	69	0.24	<0.09	0.016	<0.2	4.6	87	6.8	1	0.64	6	0.6	150	2.7
MRARD10-033	MR1-08-162	Gneiss	AMEC 2010	<0.1	1.6	<0.5	140	0.17	<0.09	0.076	<0.2	6.3	67	5.1	2.2	0.88	8	0.85	380	1.1
MRARD10-034	MR1-08-162	Gneiss	AMEC 2010	<0.1	2	0.7	120	0.24	<0.09	0.088	<0.2	6.5	92	19	3.2	0.45	7	1.2	670	1.1
MRARD10-043	MR1-09-167	Gneiss	AMEC 2010	<0.1	5.9	<0.5	450	0.71	<0.09	0.1	<0.2	8.6	55	11	7.7	3.4	17	2.5	320	4.4
MRARD10-044	MR1-09-167	Gneiss	AMEC 2010	<0.1	1.4	<0.5	31	0.18	0.24	0.51	<0.2	31	670	52	4.2	0.29	11	0.86	340	0.6
MRARD10-045	MR1-09-167	Gneiss	AMEC 2010	<0.1	2.1	<0.5	160	0.20	<0.09	0.094	<0.2	7.6	73	11	3	1.4	7	0.8	120	15
MRARD10-046	MR1-09-167	Gneiss	AMEC 2010	<0.1	1.7	<0.5	320	0.29	0.14	0.095	<0.2	6.1	100	11	2.2	1	12	0.75	420	10
MRARD10-055	MR1-08-159	Gneiss	AMEC 2010	<0.1	2.3	1.2	180	0.66	<0.09	0.15	<0.2	28	75	30	2.8	1.2	10	1.2	280	16
MRARD10-057	MR1-08-161	Gneiss	AMEC 2010	<0.1	4.4	<0.5	690	0.61	<0.09	0.15	<0.2	12	77	29	6.2	2.7	11	1.8	310	2.2
MRARD10-074	MR1-08-149	Gneiss	AMEC 2010	<0.1	3.1	2.9	420	1.1	0.58	0.15	<0.2	14	130	22	9.9	1.1	13	1.5	400	25
MRARD10-104	MR1-08-140	Gneiss	AMEC 2010	<0.1	3.3	<0.5	130	0.89	<0.09	0.14	<0.2	10	76	6.2	4.5	1.1	19	1.9	470	1.0
MRARD10-110	MR1-08-154	Gneiss	AMEC 2010	<0.1	2.1	<0.5	110	0.72	<0.09	0.1	<0.2	5.5	95	5.1	2.8	0.73	8	1.2	280	2.1
MRARD10-123	MR1-08-155	Gneiss	AMEC 2010	<0.1	8.8	0.5	510	1.5	0.20	0.37	<0.2	17	17	31	13.4	4	18	4.4	380	1.7
MRARD10-125	MR1-08-144	Gneiss	AMEC 2010	<0.1	2.1	<0.5	260	1.1	<0.09	0.092	<0.2	7.8	85	2.3	2.1	1.2	15	1.1	150	0.7
5141	ARD-2A-NW	Gneiss	AMEC 2010	<0.1	4.3	<0.5	250	0.95	0.14	0.31	0.06	26	130	79	6.7	1.8	52	3.4	820	1.9
5142	ARD-2A-NW	Gneiss	AMEC 2010	<0.1	2.9	<0.5	150	0.18	0.12	0.29	0.30	10	60	35	4.8	2.3	32	1.3	500	4.5
5157	ARD-2A-SE	Gneiss	AMEC 2010	<0.1	2.1	<0.5	450	0.21	0.12	0.38	0.13	9.3	83	28	3.6	1.6	25	1.2	770	2.0
5158	ARD-2A-SE	Gneiss	AMEC 2010	<0.1	2.9	<0.5	390	0.24	0.22	0.49	0.10	8.4	58	26	4.9	2.3	27	1.4	790	8.7
5159	ARD-2A-SE	Gneiss	AMEC 2010	<0.1	3.5	<0.5	680	0.19	0.18	0.34	0.40	9.1	58	48	5.8	2.7	30	1.7	800	1.7
5160	ARD-2A-SE	Gneiss	AMEC 2010	<0.1	1.7	<0.5	130	0.95	1.3	0.82	0.08	6.1	87	12	2.6	1.3	28	1.0	510	1.4
5164	ARD-2A-SE	Gneiss	AMEC 2010	<0.1	2.0	<0.5	130	0.16	<0.09	0.13	0.07	7.2	80	6.8	2.9	1.6	30	1.0	430	1.5
5165	ARD-2A-SE	Gneiss	AMEC 2010	<0.1	0.6	0.7	41	0.62	0.23	0.67	0.06	2.1	78	7.1	0.7	0.3	9	0.5	370	0.4
5166	ARD-2A-SE	Gneiss	AMEC 2010	<0.1	3.0	<0.5	170	0.27	<0.09	0.47	0.22	9.2	65	21	4.7	2.3	35	1.6	760	1.5
5171	ARD-2A-SE	Gneiss	AMEC 2010	<0.1	0.9	0.6	67	0.34	0.49	0.21	0.15	5.1	67	92	2.0	0.8	20	0.7	360	0.2
5172	ARD-2A-SE	Gneiss	AMEC 2010	<0.1	0.8	0.7	78	0.84	0.76	0.32	0.22	3.5	120	43	1.6	0.5	17	0.5	330	0.7
5174	ARD-2B-NW	Gneiss	AMEC 2010	<0.1	0.7	0.6	38	0.45	<0.09	0.01	0.28	2.7	140	17	0.8	0.3	6	0.4	110	1.9
5175	ARD-2B-NW	Gneiss	AMEC 2010	<0.1	2.0	<0.5	79	2.3	<0.09	0.02	0.20	4.3	110	7.7	1.6	0.9	16	1.6	320	0.4
UCS11	MR1-06-81	Gneiss/Amphibolite	Knight Piesold 2006-2007		7.7	<6	2000	1.7	<2	0.32	0.9	22	130	25	5.7	4.3	<3	1.8	410	<2
FC No. 1		Gneiss/Schist	Knight Piesold 2006-2007	<0.1	9.4	<2	1800	2	0.5	0.52	0	21	87	39	6.7	4.4	19	2.6	610	15
5182	ARD-2B-NW	Gneiss/Schist	AMEC 2010	<0.1	3.3	0.5	220	0.90	0.24	0.29	0.39	22	82	200	4.9	2.1	23	1.9	290	0.3
5183	ARD-2B-NW	Gneiss/Schist	AMEC 2010	<0.1	3.3	<0.5	260	0.72	<0.09	0.11	0.10	21	64	29	3.7	2.2	26	2.1	340	0.3
5184	ARD-2B-NW	Gneiss/Schist	AMEC 2010	<0.1	5.9	<0.5	560	1.0	<0.09	0.35	<0.02	20	69	1.5	5.7	3.8	28	3.8	530	2.1
5186	ARD-2B-NW	Gneiss/Schist	AMEC 2010	<0.1	3.7	<0.5	270	1.0	0.16	1.60	0.04	16	67	29	4.5	1.5	22	1.7	410	0.2
5187	ARD-2B-NW	Gneiss/Schist	AMEC 2010	<0.1	4.7	<0.5	280	1.5	<0.09	0.17	<0.02	22	27	2.4	5.3	2.5	25	3.0	320	0.1
5188	ARD-2B-NW	Gneiss/Schist	AMEC 2010	<0.1	2.8	<0.5	150	0.52	<0.09	0.27	0.10	15	74	26	3.3	1.6	15	1.8	270	0.6
5189	ARD-2B-NW	Gneiss/Schist	AMEC 2010	<0.1	7.0	<0.5	700	0.89	0.12	0.33	<0.02	24	47	22	6.9	4.5	33	4.4	570	1.3
MRARD10-081	MR1-08-142	Metasediment	AMEC 2010	<0.1	2.8	<0.5	160	1.2	<0.09	0.064	<0.2	9.9	74	1.6	3.5	1.1	11	1.5	320	2.0
MRARD10-095	MR1-08-146	Metasediment	AMEC 2010	<0.1	3.3	<0.5	180	0.12	<0.09	1.7	<0.2	26	120	134	3.3	1	15	1.5	630	0.3
MRARD10-100	MR1-08-146	Metasediment	AMEC 2010	<0.1	4.4	<0.5	89	0.10	<0.09	2.6	<0.2	30	220	117	2.1	0.79	19	1.3	510	0.2
5143	ARD-2A-NW	Metasediment	AMEC 2010	<0.1	2.5	<0.5	140	0.20	<0.09	0.20	0.07	11	57	19	3.6	2.0	31	1.3	360	1.9

Table B-3. Total Metal Concentrations by Lithology (continued)

Sample ID	Borehole ID	Rock Type	Sampling Program	Na	Ni	Pb	Sb	Se	Sn	Sr	Ti	Tl	U	V	Zn
				%	µg/g	µg/g	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g
Average Concentration (Basalt)*				1.8	130	6	0.2	0.05	1.5	465	1.38	2.1	1	250	105
Ten Times Average Concentration (Basalt)				18	1300	60	2	0.5	15	4650	13.8	21	10	2500	1050
Average Concentration (Continental Crustal)*				2.355	84	14	0.2	0.05	2.3	370	0.565	0.85	2.7	120	70
Ten Times Average Concentration (Crustal)				23.55	840	140	2	0.5	23	3700	5.65	8.5	27	1200	700
ARD7	MR1-05-74	Gneiss	Knight Piesold 2006-2007		6	15	<25	<6	<6	15	0.13	<5	<75	28	38
ARD8	MR1-05-74	Gneiss	Knight Piesold 2006-2007		7	16	<25	<6	<6	23	0.25	<5	<75	26	37
ARD9	MR1-05-74	Gneiss	Knight Piesold 2006-2007		7	20	<25	<6	<6	16	0.22	<5	<75	27	41
UCS10	MR1-06-81	Gneiss	Knight Piesold 2006-2007		15	43	5	<20	<6	16	0.56	<20	<100	78	37
UCS12	MR1-06-81	Gneiss	Knight Piesold 2006-2007		12	30	2	<20	<6	21	0.16	<20	<100	23	43
UCS13	MR1-06-81	Gneiss	Knight Piesold 2006-2007		19	48	3	<20	<6	28	0.32	<20	<100	46	80
UCS22	MR1-06-81	Gneiss	Knight Piesold 2006-2007		5	16	<2	<10	<6	22	0.44	<5	<70	35	47
UCS23	MR1-06-81	Gneiss	Knight Piesold 2006-2007		14	23	3	<20	<6	11	0.31	<20	<100	37	16
UCS24	MR1-06-81	Gneiss	Knight Piesold 2006-2007		18	250	<2	<20	<6	160	0.10	<20	<100	4.8	87
UCS49	MR1-06-105	Gneiss	Knight Piesold 2006-2007		12	36	3	<20	<6	17	0.34	<20	<100	45	65
UCS51	MR1-06-105	Gneiss	Knight Piesold 2006-2007		30	13	<2	<20	<6	22	0.25	<20	<100	76	54
07ARD22	MR1-06-90	Gneiss	Knight Piesold 2006-2007	0.084	35	7.7	<0.1	<1	2.5	22	0.17	0.4	4.4	46	48
07ARD32	MR1-06-81	Gneiss	Knight Piesold 2006-2007	0.067	22	26	1.1	<1	3.3	16	0.40	1.0	5.5	50	42
MRARD10-004	MR1-09-179	Gneiss	AMEC 2010	0.043	14	3.7	<0.8	<0.7	3.7	7.5	0.20	0.60	1.5	32	5.7
MRARD10-005	MR1-09-179	Gneiss	AMEC 2010	0.024	8.4	4.9	<0.8	<0.7	0.6	3.2	0.04	0.36	7.3	5	7.5
MRARD10-011	MR1-09-178	Gneiss	AMEC 2010	0.028	85	2.3	<0.8	<0.7	3.3	6.3	0.11	0.21	1.8	46	22
MRARD10-015	MR1-09-178	Gneiss	AMEC 2010	0.025	7.5	2.4	<0.8	<0.7	0.7	3.2	0.07	0.24	1.2	19	24
MRARD10-018	MR1-09-172	Gneiss	AMEC 2010	0.012	18	1.9	<0.8	<0.7	0.7	3.0	0.02	<0.02	0.35	11	7.0
MRARD10-019	MR1-09-172	Gneiss	AMEC 2010	0.0087	110	21	<0.8	<0.7	<0.5	44	0.02	<0.02	7.1	120	59
MRARD10-030	MR1-09-170	Gneiss	AMEC 2010	0.042	46	15	<0.8	<0.7	0.9	4.6	0.14	0.63	1.1	17	14
MRARD10-031	MR1-09-170	Gneiss	AMEC 2010	0.016	13	2.7	<0.8	<0.7	0.7	3.1	0.01	0.20	3.2	1	16
MRARD10-033	MR1-08-162	Gneiss	AMEC 2010	0.019	7.9	3.0	<0.8	<0.7	0.7	2.9	0.07	0.32	2.0	6	46
MRARD10-034	MR1-08-162	Gneiss	AMEC 2010	0.016	7.8	2.6	<0.8	<0.7	<0.5	2.9	0.04	0.11	1.4	8	39
MRARD10-043	MR1-09-167	Gneiss	AMEC 2010	0.086	18	16	<0.8	<0.7	1.1	2.9	0.21	1.6	2.5	21	15
MRARD10-044	MR1-09-167	Gneiss	AMEC 2010	0.022	350	46	<0.8	<0.7	0.8	4.8	0.06	0.14	0.44	28	17
MRARD10-045	MR1-09-167	Gneiss	AMEC 2010	0.037	9.4	4.2	<0.8	<0.7	1.3	3.6	0.13	0.41	1.3	14	21
MRARD10-046	MR1-09-167	Gneiss	AMEC 2010	0.031	8.5	5.6	<0.8	<0.7	1.0	9.8	0.11	0.47	1.3	7	40
MRARD10-055	MR1-08-159	Gneiss	AMEC 2010	0.029	50	16	<0.8	<0.7	0.7	3.2	0.14	1.3	5.2	31	722
MRARD10-057	MR1-08-161	Gneiss	AMEC 2010	0.061	15	15	<0.8	<0.7	1.5	4.4	0.22	0.71	2.9	38	24
MRARD10-074	MR1-08-149	Gneiss	AMEC 2010	0.031	37	5.7	<0.8	<0.7	1.4	7.3	0.11	0.41	2.5	28	32
MRARD10-104	MR1-08-140	Gneiss	AMEC 2010	0.025	23	2.2	<0.8	<0.7	0.6	2.9	0.08	0.25	2.0	32	17
MRARD10-110	MR1-08-154	Gneiss	AMEC 2010	0.025	8.6	2.3	1.3	<0.7	0.9	8.1	0.06	0.21	2.0	11	16
MRARD10-123	MR1-08-155	Gneiss	AMEC 2010	0.084	6.0	29	3.2	<0.7	5.0	5.7	0.35	1.5	3.3	160	21
MRARD10-125	MR1-08-144	Gneiss	AMEC 2010	0.035	8.8	6.5	<0.8	<0.7	0.6	6.0	0.09	0.48	3.6	10	27
5141	ARD-2A-NW	Gneiss	AMEC 2010	0.041	64	6.8	<0.8	<0.7	2.2	4.1	0.44	0.48	3.0	140	93
5142	ARD-2A-NW	Gneiss	AMEC 2010	0.042	5.7	19	<0.8	<0.7	3.5	4.4	0.47	0.69	7.1	24	100
5157	ARD-2A-SE	Gneiss	AMEC 2010	0.068	7.0	5.2	<0.8	0.9	1.0	8.5	0.29	0.54	1.6	26	67
5158	ARD-2A-SE	Gneiss	AMEC 2010	0.074	4.7	8.0	<0.8	<0.7	1.5	11	0.47	0.61	4.8	20	78
5159	ARD-2A-SE	Gneiss	AMEC 2010	0.054	7.8	13	<0.8	<0.7	4.3	8.2	0.47	0.82	5.6	35	110
5160	ARD-2A-SE	Gneiss	AMEC 2010	0.043	8.1	4.7	<0.8	0.7	2.4	15	0.20	0.48	1.5	23	56
5164	ARD-2A-SE	Gneiss	AMEC 2010	0.045	7.1	3.7	<0.8	<0.7	0.5	3.3	0.27	0.55	0.64	24	49
5165	ARD-2A-SE	Gneiss	AMEC 2010	0.029	4.0	18	<0.8	0.9	<0.5	13	0.07	0.16	0.78	4	18
5166	ARD-2A-SE	Gneiss	AMEC 2010	0.051	9.4	7.4	<0.8	<0.7	1.2	9.9	0.43	0.64	3.1	29	74
5171	ARD-2A-SE	Gneiss	AMEC 2010	0.035	4.0	20	<0.8	0.9	1.0	13	0.09	0.40	8.1	11	26
5172	ARD-2A-SE	Gneiss	AMEC 2010	0.065	5.1	24	<0.8	1.2	1.7	18	0.08	0.20	8.4	6	17
5174	ARD-2B-NW	Gneiss	AMEC 2010	0.008	5.7	55	<0.8	1.0	<0.5	1.6	0.01	0.08	8.3	23	30
5175	ARD-2B-NW	Gneiss	AMEC 2010	0.014	6.6	11	<0.8	1.1	<0.5	2.2	0.02	0.30	12	27	30
UCS11	MR1-06-81	Gneiss/Amphibolite	Knight Piesold 2006-2007		6	35	<2	<10	<6	26	0.53	<5	<70	67	35
FC No. 1		Gneiss/Schist	Knight Piesold 2006-2007	0.800	67	37	<0.1	1	3	82	0.37	1	5.8	59	78
5182	ARD-2B-NW	Gneiss/Schist	AMEC 2010	0.030	16	18	<0.8	1.4	0.6	3.6	0.24	0.73	2.7	62	62
5183	ARD-2B-NW	Gneiss/Schist	AMEC 2010	0.039	35	15	<0.8	1.0	0.7	3.3	0.28	0.77	3.7	120	63
5184	ARD-2B-NW	Gneiss/Schist	AMEC 2010	0.073	38	11	<0.8	<0.7	1.8	7.2	0.41	1.1	4.7	150	75
5186	ARD-2B-NW	Gneiss/Schist	AMEC 2010	0.045	13	9.7	<0.8	1.3	1.0	15	0.28	0.56	2.7	64	53
5187	ARD-2B-NW	Gneiss/Schist	AMEC 2010	0.043	33	5.1	<0.8	0.7	1.0	3.4	0.27	0.72	2.7	170	74
5188	ARD-2B-NW	Gneiss/Schist	AMEC 2010	0.033	17	12	<0.8	1.3	<0.5	2.6	0.22	0.53	1.9	38	48
5189	ARD-2B-NW	Gneiss/Schist	AMEC 2010	0.089	30	10	<0.8	0.8	1.5	5.3	0.47	1.3	3.5	140	80
MRARD10-081	MR1-08-142	Metasediment	AMEC 2010	0.03	14	2.8	<0.8	<0.7	0.8	3.7	0.07	0.42	1.7	21	22
MRARD10-095	MR1-08-146	Metasediment	AMEC 2010	0.108	57	2.2	<0.8	<0.7	<0.5	14	0.24	0.24	0.14	160	42
MRARD10-100	MR1-08-146	Metasediment	AMEC 2010	0.373	120	0.60	<0.8	<0.7	<0.5	25	0.19	0.09	0.032	120	23
5143	ARD-2A-NW	Metasediment	AMEC 2010	0.043	8.9	5.4	<0.8	<0.7	1.6	4.9	0.37	0.59	2.2	66	61

Table B-3. Total Metal Concentrations by Lithology (continued)

Sample ID	Borehole ID	Rock Type	Sampling Program	Hg	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	K	Li	Mg	Mn	Mo
				µg/g	%	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g	%	%	µg/g	%	µg/g	µg/g
Average Concentration (Basalt)*				0.09	7.8	2	330	1	0.007	7.6	0.22	48	170	87	8.6	0.83	17	4.6	1500	1.5
Ten Times Average Concentration (Basalt)				0.9	78	20	3300	10	0.07	76	2.2	480	1700	870	86	8.3	170	46	15000	15
Average Concentration (Continental Crustal)*				0.085	8.23	1.8	425	3	0.0085	4.15	0.15	25	102	60	5.63	2.085	20	2.33	950	1.2
Ten Times Average Concentration (Crustal)				0.85	82.3	18	4250	30	0.085	41.5	1.5	250	1020	600	56.3	20.85	200	23.3	9500	12
5144	ARD-2A-NW	Metasediment	AMEC 2010	<0.1	2.8	<0.5	150	0.24	<0.09	0.20	0.03	11	72	6.2	4.0	2.1	33	1.5	490	0.3
5145	ARD-2A-NW	Metasediment	AMEC 2010	<0.1	3.1	<0.5	130	0.23	<0.09	0.23	0.06	11	67	13	4.2	2.4	35	2.1	570	2.6
5147	ARD-2A-NW	Metasediment	AMEC 2010	<0.1	1.8	<0.5	110	0.27	<0.09	0.14	0.18	6.8	77	25	2.3	1.4	20	1.0	530	3.9
5148	ARD-2A-NW	Metasediment	AMEC 2010	<0.1	2.3	<0.5	140	0.23	0.13	0.21	0.20	8.8	88	36	2.8	1.7	24	1.5	520	0.7
5149	ARD-2A-NW	Metasediment	AMEC 2010	<0.1	1.6	<0.5	170	0.17	3.9	0.15	6.0	6.9	89	100	2.6	1.3	19	1.1	650	1.3
5161	ARD-2A-SE	Metasediment	AMEC 2010	<0.1	2.6	<0.5	95	0.12	<0.09	0.21	0.06	11	70	9.0	3.6	2.2	30	1.5	570	0.4
5162	ARD-2A-SE	Metasediment	AMEC 2010	<0.1	1.9	<0.5	120	0.14	<0.09	0.17	0.09	7.1	63	3.3	2.6	1.6	26	1.0	460	0.4
5163	ARD-2A-SE	Metasediment	AMEC 2010	<0.1	2.5	<0.5	120	0.16	<0.09	0.15	0.04	8.8	60	2.9	3.5	2.1	35	1.4	520	0.5
5167	ARD-2A-SE	Metasediment	AMEC 2010	<0.1	2.1	<0.5	190	0.23	<0.09	0.37	0.05	7.6	67	24	3.0	1.6	24	1.4	590	0.4
5168	ARD-2A-SE	Metasediment	AMEC 2010	<0.1	2.5	<0.5	170	0.49	0.09	0.34	0.05	9.2	69	14	3.6	2.1	32	1.7	690	6.6
5169	ARD-2A-SE	Metasediment	AMEC 2010	<0.1	0.9	<0.5	52	0.21	0.12	0.12	2.9	4.6	96	41	1.3	0.7	9	0.6	200	0.7
5176	ARD-2B-NW	Schist	AMEC 2010	<0.1	9.2	0.8	95	2.4	0.09	0.34	0.25	34	700	13	9.4	3.7	35	8.6	860	0.7
5177	ARD-2B-NW	Schist	AMEC 2010	<0.1	8.0	13	67	3.6	<0.09	0.40	2.6	36	780	8.0	9.1	2.5	26	8.6	280	53
5178	ARD-2B-NW	Schist	AMEC 2010	<0.1	7.1	0.9	2.6	0.63	0.09	0.59	0.26	73	2200	67	7.7	0.0	7	7.4	430	0.9
MRARD10-035	MR1-08-163	Schist	AMEC 2010	<0.1	8.1	<0.5	1470	3.3	<0.09	0.16	<0.2	9.1	14	5.8	7.5	3.4	140	3.7	480	0.4
MRARD10-037	MR1-08-160	Schist	AMEC 2010	<0.1	3.6	1.5	220	0.49	0.28	0.025	<0.2	5.1	110	40	5.4	1.4	7	1.7	250	2.3
MRARD10-049	MR1-08-163	Schist	AMEC 2010	<0.1	9.1	<0.5	3.9	0.88	<0.09	0.22	<0.2	25	31	2.3	13	0.012	10	5.2	2300	1.2
MRARD10-058	MR1-08-159	Schist	AMEC 2010	<0.1	4.7	<0.5	960	0.35	0.11	0.19	<0.2	18	59	70	6.3	2.9	5	2.1	170	1.0
MRARD10-085	MR1-08-144	Schist	AMEC 2010	<0.1	6	1.1	160	2.5	28	0.17	<0.2	48	150	169	16	1.1	36	3.3	530	1.9
MRARD10-096	MR1-08-146	Schist	AMEC 2010	<0.1	4.3	<0.5	75	0.19	<0.09	0.36	<0.2	26	250	32	4.1	0.42	42	5.4	560	0.2
MRARD10-099	MR1-08-144	Schist	AMEC 2010	<0.1	7.2	<0.5	410	0.80	<0.09	0.18	<0.2	10	42	1.7	9.9	1.2	11	4.1	230	1.1
MRARD10-121	MR1-08-155	Schist	AMEC 2010	<0.1	4.6	<0.5	1000	0.44	<0.09	0.21	<0.2	11	83	4.8	6.5	2.6	8	2.3	280	0.5
5146	ARD-2A-NW	Schist	AMEC 2010	<0.1	7.5	<0.5	540	0.37	<0.09	0.22	0.03	28	180	11	8.9	6.0	49	5.7	810	31
5150	ARD-2A-NW	Schist	AMEC 2010	<0.1	3.3	<0.5	350	0.60	3.1	0.36	0.17	24	260	66	4.1	2.1	49	3.4	550	2.9
5151	ARD-2A-NW	Schist	AMEC 2010	<0.1	4.0	<0.5	650	0.43	0.73	0.49	1.1	23	310	150	4.9	3.0	43	3.3	550	0.8
5152	ARD-2A-NW	Schist	AMEC 2010	<0.1	2.9	<0.5	450	0.30	0.34	0.14	2.1	11	74	260	4.1	2.2	32	1.6	490	2.1
5153	ARD-2A-NW	Schist	AMEC 2010	<0.1	4.9	<0.5	370	0.96	4.2	0.37	0.56	24	100	170	6.5	2.3	69	4.2	880	6.3
5154	ARD-2A-NW	Schist	AMEC 2010	<0.1	2.0	<0.5	250	0.12	0.70	0.23	0.14	7.0	75	20	3.1	1.5	22	0.9	460	37
5170	ARD-2A-SE	Schist	AMEC 2010	<0.1	1.8	0.7	93	0.54	0.34	1.10	0.45	21	390	110	2.6	1.5	27	1.7	290	1.1
5173	ARD-2A-SE	Schist	AMEC 2010	<0.1	1.5	0.5	70	0.31	<0.09	1.00	0.10	15	370	34	2.3	1.3	34	1.4	260	1.3
5179	ARD-2B-NW	Schist	AMEC 2010	<0.1	5.5	<0.5	160	5.1	0.10	0.09	0.03	10	100	1.9	3.8	2.1	52	4.5	490	2.1
5180	ARD-2B-NW	Schist	AMEC 2010	<0.1	7.3	<0.5	270	3.3	<0.09	0.18	<0.02	6.4	17	0.7	3.1	3.5	92	5.7	440	0.8
5181	ARD-2B-NW	Schist	AMEC 2010	<0.1	8.4	<0.5	490	3.2	<0.09	0.31	0.02	14	34	7.6	5.5	4.3	81	5.6	420	0.6
5185	ARD-2B-NW	Schist	AMEC 2010	<0.1	3.7	<0.5	220	0.57	0.14	0.54	0.03	21	49	36	5.0	2.0	24	2.3	410	0.2
5155	ARD-2A-NW	Schist/Gneiss	AMEC 2010	<0.1	1.6	<0.5	83	0.56	0.71	0.11	0.26	4.3	110	12	2.1	1.0	31	1.0	400	6.2
5156	ARD-2A-NW	Schist/Gneiss	AMEC 2010	<0.1	2.3	<0.5	250	0.25	0.17	0.32	0.27	8.3	72	15	4.1	1.8	24	1.2	560	47
UCS27	MR1-06-81	Volcanic Tuff /Schist	Knight Piesold 2006-2007		9.3	<6	38	1.1	<34	0.6	<4	56	1400	12	10	0.19	12	14.7	1300	
MRARD10-077	MR1-08-146	Volcanic tuff	AMEC 2010	<0.1	4.9	<0.5	1200	0.95	<0.09	0.22	<0.2	18	60	2.5	6.1	2.8	15	2.5	230	3.0
MRARD10-079	MR1-08-146	Volcanic tuff	AMEC 2010	<0.1	3.8	<0.5	53	0.07	<0.09	4	<0.2	16	88	105	1.1	0.22	8	0.52	510	0.1

Table B-3. Total Metal Concentrations by Lithology (continued)

Sample ID	Borehole ID	Rock Type	Sampling Program	Na	Ni	Pb	Sb	Se	Sn	Sr	Ti	Tl	U	V	Zn
				%	µg/g	µg/g	µg/g	µg/g	µg/g	µg/g	%	µg/g	µg/g	µg/g	µg/g
Average Concentration (Basalt)*				1.8	130	6	0.2	0.05	1.5	465	1.38	2.1	1	250	105
Ten Times Average Concentration (Basalt)				18	1300	60	2	0.5	15	4650	13.8	21	10	2500	1050
Average Concentration (Continental Crustal)*				2.355	84	14	0.2	0.05	2.3	370	0.565	0.85	2.7	120	70
Ten Times Average Concentration (Crustal)				23.55	840	140	2	0.5	23	3700	5.65	8.5	27	1200	700
5144	ARD-2A-NW	Metasediment	AMEC 2010	0.043	9.3	3.5	<0.8	<0.7	2.6	4.1	0.37	0.60	1.8	69	69
5145	ARD-2A-NW	Metasediment	AMEC 2010	0.059	18	3.4	<0.8	<0.7	1.9	5.4	0.38	0.78	1.4	73	68
5147	ARD-2A-NW	Metasediment	AMEC 2010	0.057	6.7	6.9	<0.8	<0.7	1.8	7.8	0.20	0.54	4.2	26	65
5148	ARD-2A-NW	Metasediment	AMEC 2010	0.045	8.2	9.4	<0.8	<0.7	7.2	6.5	0.20	0.51	6.7	43	97
5149	ARD-2A-NW	Metasediment	AMEC 2010	0.056	7.1	39	<0.8	<0.7	3.9	8.0	0.20	0.70	4.8	21	350
5161	ARD-2A-SE	Metasediment	AMEC 2010	0.043	17	5.8	<0.8	<0.7	1.6	4.7	0.39	0.70	1.8	73	68
5162	ARD-2A-SE	Metasediment	AMEC 2010	0.039	7.4	6.9	<0.8	0.8	1.4	3.7	0.29	0.52	2.6	56	50
5163	ARD-2A-SE	Metasediment	AMEC 2010	0.037	8.3	6.1	<0.8	<0.7	2.0	3.9	0.33	0.72	3.1	53	60
5167	ARD-2A-SE	Metasediment	AMEC 2010	0.066	7.9	9.3	<0.8	<0.7	0.9	13	0.27	0.60	1.9	62	69
5168	ARD-2A-SE	Metasediment	AMEC 2010	0.057	7.7	8.0	<0.8	<0.7	1.7	9.3	0.33	0.74	2.7	63	61
5169	ARD-2A-SE	Metasediment	AMEC 2010	0.079	4.8	52	<0.8	0.8	1.2	14	0.11	0.26	7.6	13	67
5176	ARD-2B-NW	Schist	AMEC 2010	0.057	150	13	<0.8	<0.7	1.6	3.9	0.31	1.4	3.2	83	170
5177	ARD-2B-NW	Schist	AMEC 2010	0.054	180	12	<0.8	<0.7	1.3	5.2	0.37	0.94	1.9	140	450
5178	ARD-2B-NW	Schist	AMEC 2010	0.003	620	27	<0.8	0.8	<0.5	3.9	0.04	0.21	1.8	91	100
MRARD10-035	MR1-08-163	Schist	AMEC 2010	0.08	3.5	12	<0.8	<0.7	3.3	10	0.17	0.59	7.0	21	52
MRARD10-037	MR1-08-160	Schist	AMEC 2010	0.039	12	6.2	<0.8	<0.7	1.0	2.5	0.11	0.36	1.2	16	9.9
MRARD10-049	MR1-08-163	Schist	AMEC 2010	0.0083	35	1.5	<0.8	<0.7	<0.5	3.3	0.02	<0.02	3.9	59	68
MRARD10-058	MR1-08-159	Schist	AMEC 2010	0.075	17	32	<0.8	<0.7	3.0	8.4	0.26	0.71	1.4	140	9.3
MRARD10-085	MR1-08-144	Schist	AMEC 2010	0.027	92	113	1.2	0.7	1.2	2.8	0.09	0.89	0.88	130	26
MRARD10-096	MR1-08-146	Schist	AMEC 2010	0.022	110	4.2	<0.8	<0.7	<0.5	5.4	0.13	0.11	0.044	110	26
MRARD10-099	MR1-08-144	Schist	AMEC 2010	0.021	9.5	5.0	<0.8	<0.7	1.4	4.6	0.12	0.67	3.8	70	48
MRARD10-121	MR1-08-155	Schist	AMEC 2010	0.063	8.0	13	<0.8	<0.7	4.6	6.3	0.25	0.58	2.6	140	7.7
5146	ARD-2A-NW	Schist	AMEC 2010	0.065	70	4.7	<0.8	<0.7	1.2	4.0	0.63	1.6	0.47	170	170
5150	ARD-2A-NW	Schist	AMEC 2010	0.043	110	3.7	<0.8	<0.7	2.7	7.1	0.33	1.0	2.3	98	120
5151	ARD-2A-NW	Schist	AMEC 2010	0.064	110	7.6	<0.8	<0.7	5.1	12	0.38	1.3	2.7	73	230
5152	ARD-2A-NW	Schist	AMEC 2010	0.059	7.4	21	<0.8	<0.7	11	5.6	0.26	0.86	7.1	34	270
5153	ARD-2A-NW	Schist	AMEC 2010	0.034	40	120	<0.8	<0.7	6.0	6.0	0.48	0.74	2.6	100	270
5154	ARD-2A-NW	Schist	AMEC 2010	0.073	4.9	4.2	<0.8	<0.7	2.5	6.2	0.28	0.47	2.1	33	71
5170	ARD-2A-SE	Schist	AMEC 2010	0.034	100	55	<0.8	0.8	0.7	36	0.25	0.94	3.9	58	36
5173	ARD-2A-SE	Schist	AMEC 2010	0.043	65	7.0	<0.8	0.8	<0.5	26	0.25	0.76	2.1	63	29
5179	ARD-2B-NW	Schist	AMEC 2010	0.039	26	14	<0.8	0.7	1.3	4.3	0.08	0.61	15	27	42
5180	ARD-2B-NW	Schist	AMEC 2010	0.063	4.9	12	<0.8	<0.7	1.5	15	0.04	0.73	8.2	31	46
5181	ARD-2B-NW	Schist	AMEC 2010	0.076	23	26	<0.8	<0.7	1.8	14	0.25	0.90	2.9	79	58
5185	ARD-2B-NW	Schist	AMEC 2010	0.037	8.8	5.9	<0.8	<0.7	0.8	6.1	0.36	0.73	3.5	48	66
5155	ARD-2A-NW	Schist/Gneiss	AMEC 2010	0.049	5.6	28	<0.8	<0.7	1.6	4.3	0.14	0.33	2.2	19	100
5156	ARD-2A-NW	Schist/Gneiss	AMEC 2010	0.062	5.0	3.4	<0.8	<0.7	2.6	6.7	0.37	0.62	2.4	38	95
UCS27	MR1-06-81	Volcanic Tuff /Schist	Knight Piesold 2006-2007		370	200	17	<20	<6	13	0.17	<20	<100	190	140
MRARD10-077	MR1-08-146	Volcanic tuff	AMEC 2010	0.062	10	12	0.8	<0.7	2.5	6.7	0.26	1.1	1.8	150	44
MRARD10-079	MR1-08-146	Volcanic tuff	AMEC 2010	0.323	76	1.6	<0.8	<0.7	1.0	49	0.10	0.07	0.069	43	10

Note :
*Price (1997)
Bold value indicates an elevated concentration relative to the compared values

APPENDIX C

LABORATORY CERTIFICATES OF ANALYSIS

LIST OF LABORATORY CERTIFICATES OF ANALYSIS

C-1 Acid Base Accounting
C-2 Net Acid Generation Test
C-3 Metals by Aqua-regia Extraction
C-4 Shake Flask Extraction Results
C-5 Mineralogy by Rietveld XRD

APPENDIX C-1

ACID BASE ACCOUNTING

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Modified ABA (Price 1997)

Baffinland Iron Mines Corp
Attn : Michael Zurowski

1016-120 Adelaide Street West
Toronto, ON, M5H 1T1
Canada

Phone: 416-364-8820
Fax:pdf

Wednesday, October 20, 2010

Date Rec. : 31 August 2010
LR Report: **CA11531-AUG10**

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Sample ID	Paste pH units	Fizz Rate ---	Sample weight(g)	HCl added mL	HCl Normality	NaOH Normality	NaOH to pH=8.3 mL	Final pH units
3: Analysis Approval Date	29-Sep-10	29-Sep-10	29-Sep-10	29-Sep-10	29-Sep-10	29-Sep-10	29-Sep-10	29-Sep-10
4: Analysis Approval Time	10:40	10:40	10:40	10:40	10:40	10:40	10:40	10:40
5: MR ARD-10-002	8.37	1	1.95	25.00	0.10	0.10	21.08	1.64
6: MR ARD-10-004	9.50	1	2.02	20.00	0.10	0.10	16.08	1.96
7: MR ARD-10-005	9.40	1	2.05	20.00	0.10	0.10	17.64	1.49
8: MR ARD-10-011	8.08	1	1.97	35.10	0.10	0.10	28.82	1.64
9: MR ARD-10-014	8.44	1	1.97	60.30	0.10	0.10	49.39	1.72
10: MR ARD-10-015	8.86	1	1.95	20.00	0.10	0.10	16.95	1.44
11: MR ARD-10-018	8.69	1	1.98	20.00	0.10	0.10	16.63	1.39
12: MR ARD-10-021	8.99	1	1.95	27.50	0.10	0.10	22.63	1.99
13: MR ARD-10-022	8.08	1	1.96	56.80	0.10	0.10	46.69	1.81
14: MR ARD-10-024	8.49	1	2.05	20.00	0.10	0.10	16.87	1.88
15: MR ARD-10-003	7.74	1	1.99	20.00	0.10	0.10	16.86	1.60
16: MR ARD-10-007	8.50	1	1.98	35.70	0.10	0.10	29.26	1.61
17: MR ARD-10-008	8.35	1	2.01	27.00	0.10	0.10	21.28	1.63
18: MR ARD-10-009	8.40	1	1.98	35.50	0.10	0.10	28.91	1.61
19: MR ARD-10-010	8.53	1	2.02	26.50	0.10	0.10	22.26	1.64
20: MR ARD-10-012	9.12	1	1.97	69.70	0.10	0.10	18.87	1.81
21: MR ARD-10-023	9.02	1	1.96	59.80	0.10	0.10	21.32	1.61
22: MR ARD-10-025	8.09	1	2.00	26.60	0.10	0.10	19.49	1.99
23: MR ARD-10-001	7.56	1	2.00	68.00	0.10	0.10	53.50	1.84

OnLine LIMS

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Modified ABA (Price 1997)

LR Report : **CA11531-AUG10**

Sample ID	Paste pH units	Fizz Rate ---	Sample weight(g)	HCl added mL	HCl Normality	NaOH Normality	NaOH to pH=8.3 mL	Final pH units
24: MR ARD-10-006	8.32	1	1.99	26.40	0.10	0.10	20.33	1.90
25: MR ARD-10-016	8.66	1	1.98	26.20	0.10	0.10	18.56	1.67
26: MR ARD-10-017	8.58	1	1.99	49.00	0.10	0.10	38.62	1.64
27: MR ARD-10-019	8.45	1	2.01	44.40	0.10	0.10	31.77	1.61
28: MR ARD-10-020	7.96	1	2.02	53.30	0.10	0.10	42.87	1.67
29: MR ARD-10-029	8.12	1	1.98	62.50	0.10	0.10	48.09	1.76
30: MR ARD-10-030	8.60	1	1.97	33.10	0.10	0.10	28.31	1.60
31: MR ARD-10-013	8.47	1	2.04	66.60	0.10	0.10	49.64	1.72
32: MR ARD-10-036	8.17	1	1.98	20.00	0.10	0.10	15.15	1.86
33: MR ARD-10-037	8.88	1	2.00	26.60	0.10	0.10	23.27	1.53
34: MR ARD-10-038	8.30	1	1.95	56.50	0.10	0.10	44.14	1.66
35: MR ARD-10-039	5.66	1	2.02	32.90	0.10	0.10	33.35	1.61
36: MR ARD-10-040	9.41	1	2.05	26.50	0.10	0.10	17.99	1.70
37: MR ARD-10-041	8.25	1	1.99	34.10	0.10	0.10	24.22	1.63
38: MR ARD-10-057	9.49	1	1.97	20.00	0.10	0.10	15.93	1.96
39: MR ARD-10-026	8.33	1	1.99	37.10	0.10	0.10	29.02	1.66
40: MR ARD-10-032	8.26	1	2.01	26.30	0.10	0.10	21.76	1.90
41: MR ARD-10-034	9.00	1	1.98	20.00	0.10	0.10	16.95	1.48
42: MR ARD-10-035	7.89	1	1.98	27.10	0.10	0.10	23.27	1.63
43: MR ARD-10-046	9.05	1	1.99	20.00	0.10	0.10	17.34	1.37
44: MR ARD-10-047	8.50	1	1.97	20.00	0.10	0.10	14.31	1.85
45: MR ARD-10-048	7.94	1	2.01	25.80	0.10	0.10	21.23	1.89
46: MR ARD-10-049	8.15	1	2.02	36.00	0.10	0.10	29.40	1.60
47: MR ARD-10-027	8.46	1	2.03	37.60	0.10	0.10	31.61	1.58
48: MR ARD-10-028	8.18	1	1.98	20.00	0.10	0.10	15.90	1.95
49: MR ARD-10-031	9.23	1	1.96	20.00	0.10	0.10	18.20	1.22
50: MR ARD-10-033	9.36	1	2.00	20.00	0.10	0.10	17.40	1.36
51: MR ARD-10-043	9.53	1	2.05	26.20	0.10	0.10	22.10	1.63
52: MR ARD-10-045	9.61	1	2.03	20.00	0.10	0.10	17.40	1.46
53: MR ARD-10-103	7.97	1	1.96	27.60	0.10	0.10	20.60	1.71
54: MR ARD-10-044	8.48	1	1.99	20.00	0.10	0.10	16.00	1.68
55: MR ARD-10-100	9.42	2	1.96	35.30	0.10	0.10	23.30	1.65
56: MR ARD-10-102	8.91	1	1.99	26.20	0.10	0.10	22.30	1.61
57: MR ARD-10-104	8.41	1	1.96	20.00	0.10	0.10	16.60	1.63
58: MR ARD-10-105	8.20	1	2.04	28.00	0.10	0.10	21.60	1.78

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Modified ABA (Price 1997)

LR Report : **CA11531-AUG10**

Sample ID	Paste pH units	Fizz Rate ---	Sample weight(g)	HCl added mL	HCl Normality	NaOH Normality	NaOH to pH=8.3 mL	Final pH units
59: MR ARD-10-106	8.52	1	2.00	20.00	0.10	0.10	16.50	1.89
60: MR ARD-10-107	8.27	1	1.98	37.20	0.10	0.10	29.30	1.71
61: MR ARD-10-108	8.35	1	1.96	27.40	0.10	0.10	18.80	1.81
62: MR ARD-10-109	7.64	1	1.98	42.50	0.10	0.10	31.90	2.00
63: MR ARD-10-092	7.67	1	1.97	39.20	0.10	0.10	30.00	1.55
64: MR ARD-10-093	7.15	1	2.04	20.00	0.10	0.10	17.80	1.72
65: MR ARD-10-094	8.17	1	1.98	37.10	0.10	0.10	26.60	1.62
66: MR ARD-10-095	9.27	1	1.98	27.20	0.10	0.10	19.80	1.68
67: MR ARD-10-096	8.88	1	1.99	27.50	0.10	0.10	18.20	1.71
68: MR ARD-10-098	9.53	1	2.00	27.70	0.10	0.10	21.90	1.61
69: MR ARD-10-099	8.99	1	2.00	40.60	0.10	0.10	33.10	1.76
70: MR ARD-10-101	8.16	1	1.96	33.30	0.10	0.10	24.90	1.65
71: MR ARD-10-080	7.94	1	2.04	26.50	0.10	0.10	18.20	1.86
72: MR ARD-10-085	7.80	1	2.03	38.40	0.10	0.10	32.40	1.71
73: MR ARD-10-087	8.83	3	1.96	74.90	0.10	0.10	37.20	1.65
74: MR ARD-10-088	8.52	1	2.00	37.40	0.10	0.10	26.70	1.77
75: MR ARD-10-089	8.72	1	2.01	45.80	0.10	0.10	28.30	1.80
76: MR ARD-10-090	9.54	1	1.97	20.00	0.10	0.10	15.00	1.66
77: MR ARD-10-091	8.26	1	2.00	20.00	0.10	0.10	16.60	1.69
78: MR ARD-10-097	9.63	1	1.95	20.00	0.10	0.10	13.50	1.70
79: MR ARD-10-077	9.81	1	2.00	27.70	0.10	0.10	21.60	1.92
80: MR ARD-10-078	8.33	1	1.97	27.90	0.10	0.10	22.80	1.79
81: MR ARD-10-079	9.28	3	2.01	51.20	0.10	0.10	25.50	1.69
82: MR ARD-10-081	9.34	1	1.98	20.00	0.10	0.10	16.80	1.72
83: MR ARD-10-083	8.90	1	1.98	20.00	0.10	0.10	14.40	1.59
84: MR ARD-10-084	8.69	1	1.96	26.60	0.10	0.10	19.70	1.72
85: MR ARD-10-086	8.43	1	2.02	38.90	0.10	0.10	31.00	1.69
86: MR ARD-10-067	8.63	1	1.98	28.50	0.10	0.10	22.90	1.67
87: MR ARD-10-068	7.58	1	1.98	28.70	0.10	0.10	23.80	2.00
88: MR ARD-10-070	8.07	1	2.02	20.00	0.10	0.10	14.90	1.72
89: MR ARD-10-071	8.00	1	2.05	65.50	0.10	0.10	49.80	1.78
90: MR ARD-10-072	7.99	1	1.96	67.70	0.10	0.10	50.40	1.85
91: MR ARD-10-074	7.31	1	2.05	25.00	0.10	0.10	21.70	1.60
92: MR ARD-10-075	7.72	1	1.97	20.00	0.10	0.10	15.50	1.87
93: MR ARD-10-076	8.19	1	1.98	47.80	0.10	0.10	35.40	1.65

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LR Report : **CA11531-AUG10**

Sample ID	Paste pH units	Fizz Rate ---	Sample weight(g)	HCl added mL	HCl Normality	NaOH Normality	NaOH to pH=8.3 mL	Final pH units
94: MR ARD-10-082	8.77	1	1.96	27.20	0.10	0.10	10.70	1.74
95: MR ARD-10-060	8.07	1	1.99	29.80	0.10	0.10	24.20	1.91
96: MR ARD-10-062	8.07	1	1.97	36.00	0.10	0.10	26.50	1.66
97: MR ARD-10-063	8.14	1	1.96	37.20	0.10	0.10	28.30	1.69
98: MR ARD-10-064	7.20	1	1.99	38.80	0.10	0.10	32.20	1.71
99: MR ARD-10-065	8.01	1	1.97	20.00	0.10	0.10	15.80	1.73
100: MR ARD-10-066	8.31	1	1.95	36.80	0.10	0.10	29.40	1.65
101: MR ARD-10-069	6.14	1	2.05	20.00	0.10	0.10	19.60	1.22
102: MR ARD-10-073	7.72	1	2.00	33.60	0.10	0.10	25.20	1.64
103: MR ARD-10-042	9.22	2	2.00	53.90	0.10	0.10	35.50	1.62
104: MR ARD-10-050	7.88	1	2.00	27.90	0.10	0.10	20.90	1.93
105: MR ARD-10-052	8.15	1	1.96	20.00	0.10	0.10	14.50	1.71
106: MR ARD-10-055	9.21	1	1.97	20.00	0.10	0.10	16.20	1.83
107: MR ARD-10-056	8.30	1	2.00	37.90	0.10	0.10	31.20	1.61
108: MR ARD-10-058	9.87	1	1.98	26.00	0.10	0.10	21.10	1.64
109: MR ARD-10-059	9.40	1	1.99	20.00	0.10	0.10	14.50	1.87
110: MR ARD-10-61	8.55	1	2.02	36.30	0.10	0.10	25.80	1.67
111: MR ARD-10-053	9.50	2	1.99	20.00	0.10	0.10	12.40	1.72
112: MR ARD-10-054	9.04	2	1.99	27.20	0.10	0.10	16.60	1.78
113: MR ARD-10-119	8.04	1	1.97	37.10	0.10	0.10	29.80	1.61
114: MR ARD-10-120	8.24	1	1.97	20.00	0.10	0.10	17.80	1.27
115: MR ARD-10-121	9.67	1	2.00	27.00	0.10	0.10	20.80	1.91
116: MR ARD-10-122	8.46	1	2.01	28.10	0.10	0.10	17.40	1.90
117: MR ARD-10-123	9.23	1	1.98	46.10	0.10	0.10	36.90	1.66
118: MR ARD-10-110	9.02	1	1.97	20.00	0.10	0.10	17.30	1.40
119: MR ARD-10-111	8.30	1	2.02	27.30	0.10	0.10	22.50	2.01
120: MR ARD-10-112	9.02	3	1.99	60.10	0.10	0.10	26.80	1.61
121: MR ARD-10-116	7.33	1	1.97	48.80	0.10	0.10	38.70	1.70
122: MR ARD-10-051	8.09	3	2.05	75.20	0.10	0.10	34.80	1.65
123: MR ARD-10-113	8.61	1	1.96	37.30	0.10	0.10	26.80	1.70
124: MR ARD-10-114	9.53	1	2.03	20.00	0.10	0.10	16.30	1.59
125: MR ARD-10-115	9.29	1	2.04	20.00	0.10	0.10	14.80	1.99
126: MR ARD-10-117	8.86	1	1.97	38.50	0.10	0.10	31.50	1.60
127: MR ARD-10-118	8.46	1	2.02	25.20	0.10	0.10	18.00	1.69
128: MR ARD-10-124	8.47	1	2.00	20.00	0.10	0.10	16.70	1.96

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LR Report : **CA11531-AUG10**

Sample ID	Paste pH units	Fizz Rate ---	Sample weight(g)	HCl added mL	HCl Normality	NaOH Normality	NaOH to pH=8.3 mL	Final pH units
129: MR ARD-10-125	9.26	1	2.00	20.00	0.10	0.10	17.50	1.37
130: MR ARD-10-126	7.44	1	1.98	26.40	0.10	0.10	23.20	1.66
131: MR ARD-10-127	8.10	1	2.04	25.60	0.10	0.10	19.40	1.65
132: MR ARD-10-128	8.40	1	1.99	52.30	0.10	0.10	40.60	1.76
133: MR ARD-10-129	4.26	1	2.01	20.00	0.10	0.10	22.60	1.56
134: MR ARD-10-130	8.74	1	2.00	32.60	0.10	0.10	22.60	1.65
135: MR ARD-10-131	8.02	1	1.99	90.60	0.10	0.10	54.00	1.70

Brian Graham B.Sc.
Project Specialist
Environmental Services, Analytical

OnLine LIMS

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Modified ABA (Price 1997)

Wednesday, October 20, 2010

Baffinland Iron Mines Corp
Attn : Michael Zurowski

1016-120 Adelaide Street West
Toronto, ON, M5H 1T1
Canada

Phone: 416-364-8820
Fax:pdf

Date Rec. : 31 August 2010
LR Report: **CA11531-AUG10**

Copy: #2

CERTIFICATE OF ANALYSIS

Final Report - Revised

Sample ID	NP t CaCO3/1000t	AP t CaCO3/1000 t	Net NP t CaCO3/1000 t	NP/AP ratio	Total Sulphur %	Acid Leachable SO4-S %	Sulphide-S %	Total Carbon %	Carbonate (CO3) %
3: Analysis Approval Date	29-Sep-10	29-Sep-10	29-Sep-10	29-Sep-10	29-Sep-10	29-Sep-10	27-Sep-10	30-Sep-10	21-Sep-10
4: Analysis Approval Time	10:40	10:51	10:51	10:51	10:47	10:47	16:20	09:39	13:07
5: MR ARD-10-002	10.1	0.31	9.79	32.6	0.016	0.02	< 0.01	0.017	0.037
6: MR ARD-10-004	9.7	0.31	9.39	31.3	0.016	0.02	< 0.01	0.013	0.026
7: MR ARD-10-005	5.8	0.31	5.49	18.7	0.015	0.02	< 0.01	0.009	0.011
8: MR ARD-10-011	15.9	0.31	15.6	51.3	0.026	0.03	< 0.01	0.014	< 0.005
9: MR ARD-10-014	27.7	0.31	27.4	89.4	0.029	0.03	< 0.01	0.019	0.022
10: MR ARD-10-015	7.8	0.31	7.49	25.2	0.016	0.02	< 0.01	0.013	0.033
11: MR ARD-10-018	8.5	3.68	4.82	2.31	0.142	0.02	0.12	0.284	1.19
12: MR ARD-10-021	12.5	0.42	12.1	29.4	0.099	0.09	0.01	0.012	0.035
13: MR ARD-10-022	25.8	0.31	25.5	83.2	0.026	0.03	< 0.01	0.018	0.030
14: MR ARD-10-024	7.6	0.31	7.29	24.5	0.055	0.04	0.01	0.014	0.035
15: MR ARD-10-003	7.9	0.31	7.59	25.5	0.029	0.03	< 0.01	0.407	1.57
16: MR ARD-10-007	16.3	0.62	15.7	26.3	0.198	0.18	0.02	0.023	0.053
17: MR ARD-10-008	14.2	0.31	13.9	45.8	0.075	0.08	< 0.01	0.017	0.026
18: MR ARD-10-009	16.6	4.77	11.8	3.48	0.285	0.13	0.15	0.017	0.027
19: MR ARD-10-010	10.5	0.31	10.2	33.9	< 0.005	< 0.01	< 0.01	0.016	0.116
20: MR ARD-10-012	129	0.31	129	416	0.055	0.06	< 0.01	1.07	4.54
21: MR ARD-10-023	98.2	0.31	97.9	317	0.054	0.05	< 0.01	0.738	2.97
22: MR ARD-10-025	17.8	0.31	17.5	57.4	0.056	0.06	< 0.01	0.021	0.148
23: MR ARD-10-001	36.2	2.40	33.8	15.1	0.320	0.24	0.08	0.029	< 0.005

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LR Report : **CA11531-AUG10**

Sample ID	NP t CaCO3/1000t	AP t CaCO3/1000 t	Net NP t CaCO3/1000 t	NP/AP ratio	Total Sulphur %	Acid Leachable SO4-S %	Sulphide-S %	Total Carbon %	Carbonate (CO3) %
24: MR ARD-10-006	15.3	0.62	14.7	24.7	0.056	0.04	0.02	0.019	0.007
25: MR ARD-10-016	19.3	5.65	13.6	3.41	0.271	0.09	0.18	0.026	0.047
26: MR ARD-10-017	26.1	2.18	23.9	12.0	0.153	0.09	0.07	0.024	0.030
27: MR ARD-10-019	31.4	0.31	31.1	101	0.075	0.08	< 0.01	0.048	0.015
28: MR ARD-10-020	25.8	7.88	17.9	3.27	0.463	0.21	0.25	0.015	0.015
29: MR ARD-10-029	36.4	3.28	33.1	11.1	0.240	0.14	0.10	0.018	< 0.005
30: MR ARD-10-030	12.2	5.80	6.40	2.10	0.268	0.08	0.19	0.015	0.050
31: MR ARD-10-013	41.6	0.31	41.3	134	0.098	0.10	< 0.01	0.026	0.011
32: MR ARD-10-036	12.2	2.81	9.39	4.34	0.250	0.16	0.09	0.015	0.051
33: MR ARD-10-037	8.3	1.56	6.74	5.32	0.158	0.10	0.05	0.020	0.057
34: MR ARD-10-038	31.7	0.31	31.4	102	0.124	0.12	< 0.01	0.022	< 0.005
35: MR ARD-10-039	-1.10	0.31	-1.41	-3.55	0.382	0.38	< 0.01	0.126	0.538
36: MR ARD-10-040	20.8	0.62	20.2	33.5	0.133	0.11	0.02	0.070	0.176
37: MR ARD-10-041	24.8	0.31	24.5	80.0	0.073	0.07	< 0.01	0.041	0.045
38: MR ARD-10-057	10.3	7.41	2.89	1.39	0.426	0.19	0.24	0.014	0.042
39: MR ARD-10-026	20.3	8.58	11.7	2.36	0.556	0.28	0.27	0.021	0.019
40: MR ARD-10-032	11.3	0.31	11.0	36.5	0.084	0.08	< 0.01	0.017	< 0.005
41: MR ARD-10-034	7.7	1.56	6.14	4.94	0.183	0.13	0.05	0.012	0.009
42: MR ARD-10-035	9.7	0.31	9.39	31.3	0.007	< 0.01	< 0.01	0.020	0.207
43: MR ARD-10-046	6.7	0.31	6.39	21.6	< 0.005	< 0.01	< 0.01	< 0.005	0.045
44: MR ARD-10-047	14.4	0.31	14.1	46.5	< 0.005	< 0.01	< 0.01	0.011	< 0.005
45: MR ARD-10-048	11.4	3.43	7.97	3.32	0.214	0.10	0.11	0.030	< 0.005
46: MR ARD-10-049	16.3	0.31	16.0	52.6	0.014	0.01	< 0.01	0.021	< 0.005
47: MR ARD-10-027	14.7	0.31	14.4	47.4	0.034	0.03	< 0.01	0.030	0.065
48: MR ARD-10-028	10.3	14.6	-4.28	0.71	0.650	0.18	0.47	0.010	0.013
49: MR ARD-10-031	4.6	0.31	4.29	14.8	0.009	< 0.01	< 0.01	< 0.005	< 0.005
50: MR ARD-10-033	6.5	0.31	6.19	21.0	0.016	0.02	< 0.01	< 0.005	< 0.005
51: MR ARD-10-043	10.0	0.31	9.69	32.3	0.020	0.02	< 0.01	0.006	< 0.005
52: MR ARD-10-045	6.4	0.31	6.09	20.6	0.025	0.01	0.01	< 0.005	< 0.005
53: MR ARD-10-103	17.9	0.31	17.6	57.7	0.089	0.09	< 0.01	0.020	0.062
54: MR ARD-10-044	10.1	25.6	-15.5	0.39	1.13	0.31	0.82	0.012	< 0.005
55: MR ARD-10-100	30.6	0.31	30.3	98.7	0.018	0.02	< 0.01	0.225	0.921
56: MR ARD-10-102	9.8	0.31	9.49	31.6	0.013	0.01	< 0.01	0.042	0.094
57: MR ARD-10-104	8.7	0.31	8.39	28.1	0.009	< 0.01	< 0.01	< 0.005	< 0.005
58: MR ARD-10-105	15.7	18.9	-3.23	0.83	0.870	0.26	0.61	0.065	0.079

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Modified ABA (Price 1997)

LR Report : **CA11531-AUG10**

Sample ID	NP t CaCO3/1000t	AP t CaCO3/1000 t	Net NP t CaCO3/1000 t	NP/AP ratio	Total Sulphur %	Acid Leachable SO4-S %	Sulphide-S %	Total Carbon %	Carbonate (CO3) %
59: MR ARD-10-106	8.8	2.83	5.97	3.11	0.158	0.07	0.09	< 0.005	0.026
60: MR ARD-10-107	19.9	0.62	19.3	32.1	0.049	0.03	0.02	0.007	< 0.005
61: MR ARD-10-108	21.9	0.31	21.6	70.6	0.012	0.01	< 0.01	0.008	0.026
62: MR ARD-10-109	26.8	1.25	25.6	21.4	0.229	0.18	0.04	0.032	< 0.005
63: MR ARD-10-092	23.4	9.54	13.9	2.45	0.594	0.29	0.31	0.006	< 0.005
64: MR ARD-10-093	5.4	0.31	5.09	17.4	0.015	0.02	< 0.01	0.021	0.059
65: MR ARD-10-094	26.5	3.93	22.6	6.75	0.253	0.13	0.13	0.017	0.012
66: MR ARD-10-095	18.7	5.74	13.0	3.26	0.252	0.07	0.18	0.087	0.257
67: MR ARD-10-096	23.4	0.31	23.1	75.5	0.009	< 0.01	< 0.01	0.079	0.200
68: MR ARD-10-098	14.5	0.31	14.2	46.8	0.009	< 0.01	< 0.01	0.045	0.086
69: MR ARD-10-099	18.8	0.31	18.5	60.6	< 0.005	<0.01	< 0.01	0.010	< 0.005
70: MR ARD-10-101	21.4	1.25	20.2	17.1	0.086	0.04	0.04	0.012	< 0.005
71: MR ARD-10-080	20.3	31.2	-10.9	0.65	1.28	0.28	1.00	0.009	0.008
72: MR ARD-10-085	14.8	186	-172	0.08	6.13	0.17	5.96	0.005	< 0.005
73: MR ARD-10-087	96.2	11.1	85.1	8.67	0.447	0.09	0.36	0.966	4.31
74: MR ARD-10-088	26.8	0.62	26.2	43.2	0.033	0.02	0.02	0.110	0.315
75: MR ARD-10-089	43.5	1.56	41.9	27.9	0.075	0.03	0.05	0.212	0.780
76: MR ARD-10-090	12.7	0.31	12.4	41.0	0.012	0.01	< 0.01	0.009	< 0.005
77: MR ARD-10-091	8.5	0.31	8.19	27.4	0.013	0.01	< 0.01	0.006	< 0.005
78: MR ARD-10-097	16.7	0.31	16.4	53.9	0.019	0.02	< 0.01	0.087	0.268
79: MR ARD-10-077	15.2	0.31	14.9	49.0	< 0.005	< 0.01	< 0.01	0.006	0.015
80: MR ARD-10-078	12.9	2.92	9.98	4.41	0.124	0.03	0.09	< 0.005	< 0.005
81: MR ARD-10-079	63.9	1.25	62.6	51.1	0.102	0.06	0.04	0.654	2.82
82: MR ARD-10-081	8.1	0.31	7.79	26.1	< 0.005	< 0.01	< 0.01	0.007	0.013
83: MR ARD-10-083	14.1	0.31	13.8	45.5	0.016	0.02	< 0.01	0.045	0.069
84: MR ARD-10-084	17.6	0.31	17.3	56.8	0.016	0.02	< 0.01	0.040	0.067
85: MR ARD-10-086	19.6	2.19	17.4	8.95	0.107	0.04	0.07	0.012	< 0.005
86: MR ARD-10-067	14.1	0.31	13.8	45.5	0.019	0.02	< 0.01	0.008	0.181
87: MR ARD-10-068	12.4	30.3	-17.94	0.41	1.18	0.21	0.97	0.007	0.144
88: MR ARD-10-070	12.6	0.31	12.3	40.6	0.028	0.03	< 0.01	< 0.005	0.033
89: MR ARD-10-071	38.3	2.50	35.8	15.3	0.098	0.02	0.08	0.013	< 0.005
90: MR ARD-10-072	44.1	0.31	43.8	142	0.034	0.03	< 0.01	0.008	< 0.005
91: MR ARD-10-074	8.0	18.0	-10.0	0.44	0.664	0.09	0.58	0.019	0.288
92: MR ARD-10-075	11.4	0.31	11.1	36.8	0.026	0.03	< 0.01	< 0.005	< 0.005
93: MR ARD-10-076	31.3	0.31	31.0	101.0	0.037	0.02	0.01	0.081	0.164

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Modified ABA (Price 1997)

LR Report : **CA11531-AUG10**

Sample ID	NP t CaCO3/1000t	AP t CaCO3/1000 t	Net NP t CaCO3/1000 t	NP/AP ratio	Total Sulphur %	Acid Leachable SO4-S %	Sulphide-S %	Total Carbon %	Carbonate (CO3) %
94: MR ARD-10-082	42.1	3.12	39.0	13.5	0.120	0.02	0.10	0.437	1.55
95: MR ARD-10-060	14.1	3.88	10.2	3.63	0.185	0.06	0.12	0.006	< 0.005
96: MR ARD-10-062	24.1	0.31	23.8	77.7	0.065	0.06	< 0.01	0.069	< 0.005
97: MR ARD-10-063	22.7	5.13	17.6	4.42	0.305	0.14	0.16	0.017	< 0.005
98: MR ARD-10-064	16.6	0.94	15.7	17.7	0.266	0.23	0.03	0.043	0.026
99: MR ARD-10-065	10.7	0.31	10.4	34.5	0.023	0.01	0.01	< 0.005	0.100
100: MR ARD-10-066	19.0	4.33	14.7	4.39	0.199	0.06	0.14	0.016	0.026
101: MR ARD-10-069	1.0	22.6	-21.6	0.04	0.847	0.12	0.72	1.14	5.24
102: MR ARD-10-073	21.0	0.31	20.7	67.7	0.018	0.02	< 0.01	0.009	0.005
103: MR ARD-10-042	46.0	0.62	45.4	74.2	0.039	0.02	0.02	0.362	1.34
104: MR ARD-10-050	17.5	0.31	17.2	56.5	0.014	0.01	< 0.01	0.029	< 0.005
105: MR ARD-10-052	14.0	0.62	13.4	22.6	0.055	0.03	0.02	0.084	0.195
106: MR ARD-10-055	9.6	9.16	0.44	1.05	0.360	0.07	0.29	0.006	< 0.005
107: MR ARD-10-056	16.8	0.31	16.5	54.2	0.008	< 0.01	< 0.01	0.009	0.010
108: MR ARD-10-058	12.4	6.60	5.80	1.88	0.295	0.08	0.21	< 0.005	0.019
109: MR ARD-10-059	13.8	0.31	13.5	44.5	0.008	< 0.01	< 0.01	0.013	0.263
110: MR ARD-10-61	26.0	0.31	25.7	83.9	0.009	< 0.01	< 0.01	0.019	< 0.005
111: MR ARD-10-053	19.1	1.87	17.2	10.2	0.092	0.03	0.06	0.126	0.616
112: MR ARD-10-054	26.6	0.31	26.3	85.8	0.009	< 0.01	< 0.01	0.177	0.632
113: MR ARD-10-119	18.5	0.31	18.2	59.7	0.021	0.02	< 0.01	0.007	< 0.005
114: MR ARD-10-120	5.6	9.22	-3.62	0.61	0.457	0.16	0.30	0.013	0.178
115: MR ARD-10-121	15.5	0.31	15.2	50.0	0.020	< 0.01	0.01	0.007	0.119
116: MR ARD-10-122	26.6	5.88	20.7	4.53	0.312	0.12	0.19	0.012	< 0.005
117: MR ARD-10-123	23.2	10.2	13.0	2.27	0.455	0.13	0.33	< 0.005	< 0.005
118: MR ARD-10-110	6.9	0.31	6.59	22.3	< 0.005	< 0.01	< 0.01	0.010	< 0.005
119: MR ARD-10-111	11.9	0.31	11.6	38.4	0.010	0.01	< 0.01	0.009	< 0.005
120: MR ARD-10-112	83.7	0.31	83.4	270	0.009	< 0.01	< 0.01	0.871	4.03
121: MR ARD-10-116	25.6	32.7	-7.14	0.78	1.29	0.25	1.05	0.036	0.120
122: MR ARD-10-051	98.5	7.42	91.1	13.3	0.354	0.12	0.24	0.967	3.79
123: MR ARD-10-113	26.8	1.25	25.6	21.4	0.032	< 0.01	0.04	0.014	< 0.005
124: MR ARD-10-114	9.1	1.87	7.23	4.87	0.085	0.03	0.06	0.006	< 0.005
125: MR ARD-10-115	12.7	0.31	12.4	41.0	0.012	< 0.01	0.01	0.012	< 0.005
126: MR ARD-10-117	17.8	3.12	14.7	5.71	0.086	< 0.01	0.10	0.018	0.033
127: MR ARD-10-118	17.8	0.31	17.5	57.4	0.009	<0.01	< 0.01	0.015	0.008
128: MR ARD-10-124	8.2	0.31	7.89	26.5	0.005	<0.01	< 0.01	0.009	< 0.005

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LR Report : **CA11531-AUG10**

Sample ID	NP t CaCO3/1000t	AP t CaCO3/1000 t	Net NP t CaCO3/1000 t	NP/AP ratio	Total Sulphur %	Acid Leachable SO4-S %	Sulphide-S %	Total Carbon %	Carbonate (CO3) %
129: MR ARD-10-125	6.2	0.31	5.89	20.0	< 0.005	< 0.01	< 0.01	0.010	0.011
130: MR ARD-10-126	8.1	0.42	7.68	19.2	0.011	< 0.01	0.01	0.012	< 0.005
131: MR ARD-10-127	15.2	0.33	14.9	46.3	0.005	< 0.01	0.01	0.022	< 0.005
132: MR ARD-10-128	29.4	6.29	23.1	4.67	0.220	0.02	0.20	0.012	0.026
133: MR ARD-10-129	-6.50	305	-312	-0.02	12.4	2.63	9.77	1.50	6.67
134: MR ARD-10-130	25.0	1.59	23.4	15.7	0.051	< 0.01	0.05	0.117	0.381
135: MR ARD-10-131	92.0	5.76	86.2	16.0	0.292	0.11	0.18	4.27	7.90

*NP (Neutralization Potential)

$$= \frac{50 \times (N \text{ of HCL} \times \text{Total HCL added} - N \text{ NaOH} \times \text{NaOH added})}{\text{Weight of Sample}}$$

*AP (Acid Potential) = % Sulphide Sulphur x 31.25
*Net NP (Net Neutralization Potential) = NP-AP
NP/AP Ratio = NP/AP
*Results expressed as tonnes CaCO3 equivalent/1000 tonnes of material
Samples with a % Sulphide value of <0.01 will be calculated using a 0.01 value.

Sulphur analysis performed following BC ARD Guidelines (Price 1997)

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Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: 5141	6: 5142	7: 5143	8: 5144	9: 5145	10: 5146	11: 5147	12: 5148	13: 5149	14: 5150	15: 5151
Sample Date & Time			Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A
Paste pH [units]	29-Sep-10	13:45	9.01	9.93	9.92	9.86	9.88	9.58	10.03	10.03	9.98	9.43	9.78
Fizz Rate [---]	29-Sep-10	13:45	1	1	1	1	1	1	1	1	1	1	1
Sample [weight(g)]	29-Sep-10	13:45	2.03	1.98	1.99	1.97	1.95	2.03	1.95	2.01	1.99	1.98	1.96
HCl added [mL]	29-Sep-10	13:45	25.70	20.00	20.00	20.00	20.00	26.40	20.00	20.00	20.00	20.00	20.00
HCl [Normality]	29-Sep-10	13:45	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH [Normality]	29-Sep-10	13:45	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH to [pH=8.3 mL]	29-Sep-10	13:45	19.80	15.60	16.20	16.40	15.70	19.50	16.90	15.30	15.60	13.70	13.70
Final pH [units]	29-Sep-10	13:45	1.63	1.68	1.48	1.47	1.56	1.64	1.34	1.57	1.46	1.82	1.94
NP [t CaCO3/1000t]	29-Sep-10	13:45	14.5	11.1	9.5	9.1	11.0	17.0	7.9	11.7	11.1	15.9	16.1
AP [t CaCO3/1000 t]	30-Sep-10	14:14	1.87	2.81	0.31	0.31	0.31	0.31	0.62	0.31	1.25	0.31	2.19
Net NP [t CaCO3/1000 t]	30-Sep-10	14:14	12.6	8.29	9.19	8.79	10.7	16.7	7.28	11.4	9.85	15.6	13.9
NP/AP [ratio]	30-Sep-10	14:14	7.75	3.95	30.6	29.4	35.5	54.8	12.7	37.7	8.88	51.3	7.35
Total Sulphur [%]	30-Sep-10	09:39	0.142	0.140	0.027	0.347	0.008	0.044	0.075	0.013	0.099	0.024	0.130
Acid Leachable SO4-S [%]	30-Sep-10	14:12	0.08	0.05	0.03	0.35	< 0.01	0.04	0.05	0.01	0.06	0.02	0.06
Sulphide-S [%]	30-Sep-10	14:13	0.06	0.09	< 0.01	< 0.01	< 0.01	< 0.01	0.02	< 0.01	0.04	< 0.01	0.07
Total Carbon [%]	30-Sep-10	09:40	0.021	0.024	0.016	0.020	0.015	0.029	0.024	0.025	0.029	0.028	0.019
Carbonate (CO3) [%]	28-Sep-10	14:41	< 0.005	< 0.005	0.008	< 0.005	< 0.005	0.051	0.021	0.025	< 0.005	0.020	0.012

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Modified ABA (Price 1997)

LR Report : **CA11049-SEP10**

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Tuesday, October 05, 2010

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CERTIFICATE OF ANALYSIS
Final Report

Analysis	**16: 5152**	**17: 5153**	**18: 5154**	**19: 5155**	**20: 5156**	**21: 5157**	**22: 5158**	**23: 5159**	**24: 5160**	**25: 5161**	**26: 5162**	**27: 5163**	**28: 5164**
Sample Date & Time	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A
Paste pH [units]	9.99	8.99	10.07	9.27	9.82	9.89	10.03	9.48	9.70	10.06	10.09	10.10	10.08
Fizz Rate [---]	1	1	1	1	1	1	1	1	1	1	1	1	1
Sample [weight(g)]	1.98	1.97	2.01	1.99	1.96	1.99	1.99	1.96	1.99	2.05	2.02	1.95	1.95
HCl added [mL]	20.00	25.80	20.00	20.00	20.00	20.00	20.00	25.00	20.00	20.00	20.00	20.00	20.00
HCl [Normality]	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH [Normality]	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH to [pH=8.3 mL]	16.40	19.40	16.60	17.20	15.50	15.40	15.10	19.60	15.40	16.20	16.50	16.70	16.90
Final pH [units]	1.55	1.60	1.35	1.27	1.57	1.62	1.88	1.65	1.42	1.38	1.34	1.37	1.35
NP [t CaCO3/1000t]	9.1	16.2	8.5	7.0	11.5	11.6	12.3	13.8	11.6	9.3	8.7	8.5	7.9
AP [t CaCO3/1000 t]	0.62	0.62	0.31	0.31	1.25	1.56	2.50	4.06	0.31	0.31	0.31	0.31	0.62
Net NP [t CaCO3/1000 t]	8.48	15.6	8.19	6.69	10.2	10.0	9.80	9.74	11.3	8.99	8.39	8.19	7.28
NP/AP [ratio]	14.7	26.1	27.4	22.6	9.20	7.45	4.92	3.40	37.4	30.0	28.1	27.4	12.7
Total Sulphur [%]	0.062	0.081	0.032	< 0.005	0.070	0.103	0.174	0.220	0.013	0.011	< 0.005	0.008	0.056
Acid Leachable SO4-S [%]	0.04	0.06	0.03	< 0.01	0.03	0.05	0.10	0.09	0.01	0.01	< 0.01	< 0.01	0.03
Sulphide-S [%]	0.02	0.02	< 0.01	< 0.01	0.04	0.05	0.08	0.13	< 0.01	< 0.01	< 0.01	< 0.01	0.02
Total Carbon [%]	0.016	0.022	0.021	0.013	0.015	0.020	0.017	0.018	0.054	0.013	0.016	0.014	0.017
Carbonate (CO3) [%]	0.007	0.010	0.010	0.012	0.020	0.033	0.012	0.011	0.177	0.017	0.048	0.021	0.031

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CERTIFICATE OF ANALYSIS
Final Report

Analysis	**29: 5165**	**30: 5166**	**31: 5167**	**32: 5168**	**33: 5169**	**34: 5170**	**35: 5171**	**36: 5172**	**37: 5173**	**38: 5174**	**39: 5175**	**40: 5176**
Sample Date & Time	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A
Paste pH [units]	9.80	9.94	10.03	10.05	10.18	9.87	5.53	9.24	8.27	9.24	9.04	8.81
Fizz Rate [---]	2	1	1	1	1	2	1	1	1	1	1	1
Sample [weight(g)]	1.96	2.01	2.01	2.05	1.96	1.96	2.01	2.02	1.99	2.04	2.04	1.96
HCl added [mL]	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	27.50
HCl [Normality]	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH [Normality]	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH to [pH=8.3 mL]	13.90	15.70	15.20	15.10	17.10	9.90	16.40	15.80	11.10	18.50	17.90	18.90
Final pH [units]	1.31	1.70	1.58	1.52	1.17	1.88	1.20	1.34	1.77	1.16	1.24	1.76
NP [t CaCO3/1000t]	15.6	10.7	11.9	12.0	7.4	25.8	9.0	10.4	22.4	3.7	5.1	21.9
AP [t CaCO3/1000 t]	0.31	0.31	0.94	0.31	0.62	3.75	7.18	2.57	0.31	1.56	0.31	0.62
Net NP [t CaCO3/1000 t]	15.3	10.4	11.0	11.7	6.78	22.0	1.82	7.83	22.1	2.14	4.79	21.3
NP/AP [ratio]	50.3	34.5	12.7	38.7	11.9	6.88	1.25	4.05	72.3	2.37	16.5	35.3
Total Sulphur [%]	0.014	0.034	0.071	0.021	0.137	0.194	0.399	0.137	0.018	0.068	0.010	0.095
Acid Leachable SO4-S [%]	0.01	0.03	0.04	0.02	0.12	0.08	0.17	0.06	0.02	0.02	0.01	0.08
Sulphide-S [%]	< 0.01	< 0.01	0.03	< 0.01	0.02	0.12	0.23	0.08	< 0.01	0.05	< 0.01	0.02
Total Carbon [%]	0.109	0.019	0.024	0.032	0.038	0.125	0.054	0.066	0.101	0.014	0.012	0.017
Carbonate (CO3) [%]	0.396	0.022	0.027	0.083	0.062	0.434	0.168	0.178	0.289	< 0.005	0.017	0.041

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CERTIFICATE OF ANALYSIS
Final Report

Analysis	**41: 5177**	**42: 5178**	**43: 5179**	**44: 5180**	**45: 5181**	**46: 5182**	**47: 5183**	**48: 5184**	**49: 5185**	**50: 5186**	**51: 5187**	**52: 5188**	**53: 5189**
Sample Date & Time	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A
Paste pH [units]	9.02	8.45	8.79	8.88	8.81	9.53	9.81	9.76	9.62	9.49	9.27	9.78	9.32
Fizz Rate [---]	1	1	1	1	1	1	1	1	1	1	1	1	1
Sample [weight(g)]	1.95	1.97	1.98	2.04	1.99	1.99	2.02	2.01	1.99	1.97	2.01	2.05	1.98
HCl added [mL]	27.20	27.10	20.00	20.00	25.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
HCl [Normality]	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH [Normality]	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
NaOH to [pH=8.3 mL]	17.70	18.20	16.30	14.60	19.40	15.60	17.00	15.00	14.90	14.70	15.40	15.70	14.60
Final pH [units]	1.79	1.67	1.45	1.81	1.64	1.79	1.44	1.80	1.81	1.91	1.72	1.49	1.84
NP [t CaCO3/1000t]	24.4	22.6	9.3	13.2	14.1	11.1	7.4	12.4	12.8	13.5	11.4	10.5	13.6
AP [t CaCO3/1000 t]	0.31	28.4	0.31	0.31	0.31	16.8	0.31	0.31	1.56	0.62	0.31	0.31	0.31
Net NP [t CaCO3/1000 t]	24.1	-5.77	8.99	12.9	13.8	-5.66	7.09	12.1	11.2	12.9	11.1	10.2	13.3
NP/AP [ratio]	78.7	0.80	30.0	42.6	45.5	0.66	23.9	40.0	8.21	21.8	36.8	33.9	43.9
Total Sulphur [%]	0.139	1.46	0.038	0.034	0.027	0.658	0.032	0.021	0.089	0.094	0.023	0.018	0.020
Acid Leachable SO4-S [%]	0.14	0.55	0.04	0.03	0.03	0.12	0.03	0.02	0.04	0.08	0.02	0.02	0.02
Sulphide-S [%]	< 0.01	0.91	< 0.01	< 0.01	< 0.01	0.54	< 0.01	< 0.01	0.05	0.02	< 0.01	< 0.01	< 0.01
Total Carbon [%]	0.018	0.018	0.023	0.020	0.016	0.013	0.014	0.026	0.018	0.020	0.015	0.023	0.013
Carbonate (CO3) [%]	< 0.005	0.152	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.021	0.078	< 0.005	< 0.005	0.040	< 0.005

OnLine LIMS

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Modified ABA (Price 1997)

LR Report : **CA11049-SEP10**

*NP (Neutralization Potential)

$$= \frac{50 \times (N \text{ of HCL} \times \text{Total HCL added} - N \text{ NaOH} \times \text{NaOH added})}{\text{Weight of Sample}}$$

*AP (Acid Potential) = % Sulphide Sulphur x 31.25
*Net NP (Net Neutralization Potential) = NP-AP
NP/AP Ratio = NP/AP
*Results expressed as tonnes CaCO3 equivalent/1000 tonnes of material
Samples with a % Sulphide value of <0.01 will be calculated using a 0.01 value.

Sulphur analysis performed following BC ARD Guidelines (Price 1997)

Brian Graham B.Sc.
Project Specialist
Environmental Services, Analytical

OnLine LIMS

Baffinland
Iron Mines Corporation

amec

APPENDIX C-2

NET ACID GENERATION TEST

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
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Phone: 705-652-2000 FAX: 705-652-6365

Wednesday, September 29, 2010

Baffinland Iron Mines Corp
Attn : Michael Zurowski

Date Rec. : 31 August 2010
LR Report: **CA11532-AUG10**

1016-120 Adelaide Street West
Toronto, ON, M5H 1T1
Canada

Copy: #1

Phone: 416-364-8820
Fax:pdf

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG (pH 4.5) kg H2SO4/tonne	NAG (pH 7.0) kg H2SO4/tonne
3: Analysis Approval Date	24-Sep-10	24-Sep-10	24-Sep-10	24-Sep-10	24-Sep-10	24-Sep-10	24-Sep-10	24-Sep-10
4: Analysis Approval Time	08:56	08:56	08:56	08:56	08:56	08:56	08:56	08:56
5: MR ARD-10-002	1.48	150	7.67	0.10	0.00	0.00	0.0	0.0
6: MR ARD-10-004	1.52	150	7.72	0.10	0.00	0.00	0.0	0.0
7: MR ARD-10-005	1.54	150	7.30	0.10	0.00	0.00	0.0	0.0
8: MR ARD-10-011	1.46	150	7.64	0.10	0.00	0.00	0.0	0.0
9: MR ARD-10-014	1.48	150	7.98	0.10	0.00	0.00	0.0	0.0
10: MR ARD-10-015	1.50	150	7.47	0.10	0.00	0.00	0.0	0.0
11: MR ARD-10-018	1.46	150	4.96	0.10	0.00	0.30	0.0	1.0
12: MR ARD-10-021	1.54	150	7.00	0.10	0.00	0.00	0.0	0.0
13: MR ARD-10-022	1.51	150	7.97	0.10	0.00	0.00	0.0	0.0
14: MR ARD-10-024	1.49	150	7.33	0.10	0.00	0.00	0.0	0.0
15: MR ARD-10-003	1.47	150	7.40	0.10	0.00	0.00	0.0	0.0
16: MR ARD-10-007	1.52	150	6.90	0.10	0.00	0.10	0.0	0.3
17: MR ARD-10-008	1.46	150	7.88	0.10	0.00	0.00	0.0	0.0
18: MR ARD-10-009	1.47	150	6.74	0.10	0.00	0.10	0.0	0.3
19: MR ARD-10-010	1.53	150	7.63	0.10	0.00	0.00	0.0	0.0
20: MR ARD-10-012	1.46	150	9.37	0.10	0.00	0.00	0.0	0.0
21: MR ARD-10-023	1.50	150	9.09	0.10	0.00	0.00	0.0	0.0
22: MR ARD-10-025	1.46	150	8.02	0.10	0.00	0.00	0.0	0.0
23: MR ARD-10-001	1.49	150	7.17	0.10	0.00	0.00	0.0	0.0
24: MR ARD-10-006	1.51	150	7.73	0.10	0.00	0.00	0.0	0.0

OnLine LIMS

SGS Canada Inc.
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Lakefield - Ontario - KOL 2HO
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NAG Test

LR Report : **CA11532-AUG10**

Sample ID	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG (pH 4.5) kg H2SO4/tonne	NAG (pH 7.0) kg H2SO4/tonne
25: MR ARD-10-016	1.49	150	6.77	0.10	0.00	0.10	0.0	0.3
26: MR ARD-10-017	1.50	150	7.43	0.10	0.00	0.00	0.0	0.0
27: MR ARD-10-019	1.50	150	7.85	0.10	0.00	0.00	0.0	0.0
28: MR ARD-10-020	1.51	150	5.80	0.10	0.00	0.30	0.0	1.0
29: MR ARD-10-029	1.48	150	7.26	0.10	0.00	0.00	0.0	0.0
30: MR ARD-10-030	1.50	150	4.45	0.10	0.10	0.40	0.3	1.3
31: MR ARD-10-013	1.50	150	7.63	0.10	0.00	0.00	0.0	0.0
32: MR ARD-10-036	1.49	150	6.81	0.10	0.00	0.10	0.0	0.3
33: MR ARD-10-037	1.50	150	6.57	0.10	0.00	0.10	0.0	0.3
34: MR ARD-10-038	1.53	150	7.64	0.10	0.00	0.00	0.0	0.0
35: MR ARD-10-039	1.54	150	5.29	0.10	0.00	0.40	0.0	1.3
36: MR ARD-10-040	1.47	150	8.02	0.10	0.00	0.00	0.0	0.0
37: MR ARD-10-041	1.53	150	7.84	0.10	0.00	0.00	0.0	0.0
38: MR ARD-10-057	1.52	150	3.46	0.10	0.70	1.60	2.3	5.2
39: MR ARD-10-026	1.53	150	4.47	0.10	0.10	0.70	0.3	2.2
40: MR ARD-10-032	1.53	150	7.57	0.10	0.00	0.00	0.0	0.0
41: MR ARD-10-034	1.54	150	5.50	0.10	0.00	0.10	0.0	0.3
42: MR ARD-10-035	1.55	150	7.64	0.10	0.00	0.00	0.0	0.0
43: MR ARD-10-046	1.54	150	7.24	0.10	0.00	0.00	0.0	0.0
44: MR ARD-10-047	1.47	150	7.56	0.10	0.00	0.00	0.0	0.0
45: MR ARD-10-048	1.52	150	6.49	0.10	0.00	0.10	0.0	0.3
46: MR ARD-10-049	1.55	150	7.55	0.10	0.00	0.00	0.0	0.0
47: MR ARD-10-027	1.46	150	7.23	0.10	0.00	0.00	0.0	0.0
48: MR ARD-10-028	1.47	150	3.12	0.10	1.70	3.20	5.7	11
49: MR ARD-10-031	1.47	150	6.99	0.10	0.00	0.10	0.0	0.3
50: MR ARD-10-033	1.50	150	7.07	0.10	0.00	0.00	0.0	0.0
51: MR ARD-10-043	1.49	150	7.48	0.10	0.00	0.00	0.0	0.0
52: MR ARD-10-045	1.52	150	6.76	0.10	0.00	0.10	0.0	0.3
53: MR ARD-10-103	1.51	150	7.11	0.10	0.00	0.00	0.0	0.0
54: MR ARD-10-044	1.50	150	2.76	0.10	4.40	6.70	14	22
55: MR ARD-10-100	1.51	150	9.91	0.10	0.00	0.00	0.0	0.0
56: MR ARD-10-102	1.52	150	7.58	0.10	0.00	0.00	0.0	0.0
57: MR ARD-10-104	1.54	150	7.35	0.10	0.00	0.00	0.0	0.0
58: MR ARD-10-105	1.54	150	3.44	0.10	0.90	2.60	2.9	8.3
59: MR ARD-10-106	1.51	150	6.70	0.10	0.00	0.10	0.0	0.3
60: MR ARD-10-107	1.49	150	7.48	0.10	0.00	0.00	0.0	0.0

SGS Canada Inc.
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Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

NAG Test

LR Report : **CA11532-AUG10**

Sample ID	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG (pH 4.5) kg H2SO4/tonne	NAG (pH 7.0) kg H2SO4/tonne
61: MR ARD-10-108	1.50	150	7.73	0.10	0.00	0.00	0.0	0.0
62: MR ARD-10-109	1.50	150	6.95	0.10	0.00	0.10	0.0	0.3
63: MR ARD-10-092	1.48	150	4.27	0.10	0.10	1.00	0.3	3.3
64: MR ARD-10-093	1.48	150	7.41	0.10	0.00	0.00	0.0	0.0
65: MR ARD-10-094	1.55	150	6.92	0.10	0.00	0.10	0.0	0.3
66: MR ARD-10-095	1.49	150	6.85	0.10	0.00	0.10	0.0	0.3
67: MR ARD-10-096	1.48	150	9.07	0.10	0.00	0.00	0.0	0.0
68: MR ARD-10-098	1.46	150	7.70	0.10	0.00	0.00	0.0	0.0
69: MR ARD-10-099	1.50	150	8.01	0.10	0.00	0.00	0.0	0.0
70: MR ARD-10-101	1.50	150	7.18	0.10	0.00	0.00	0.0	0.0
71: MR ARD-10-080	1.48	150	2.91	0.10	3.30	5.60	11	18
72: MR ARD-10-085	1.47	150	2.31	0.10	19.50	35.00	65	117
73: MR ARD-10-087	1.50	150	10.56	0.10	0.00	0.00	0.0	0.0
74: MR ARD-10-088	1.48	150	9.54	0.10	0.00	0.00	0.0	0.0
75: MR ARD-10-089	1.49	150	9.48	0.10	0.00	0.00	0.0	0.0
76: MR ARD-10-090	1.48	150	7.11	0.10	0.00	0.00	0.0	0.0
77: MR ARD-10-091	1.53	150	7.26	0.10	0.00	0.00	0.0	0.0
78: MR ARD-10-097	1.48	150	8.07	0.10	0.00	0.00	0.0	0.0
79: MR ARD-10-077	1.49	150	7.59	0.10	0.00	0.00	0.0	0.0
80: MR ARD-10-078	1.49	150	6.86	0.10	0.00	0.10	0.0	0.3
81: MR ARD-10-079	1.50	150	10.68	0.10	0.00	0.00	0.0	0.0
82: MR ARD-10-081	1.46	150	7.34	0.10	0.00	0.00	0.0	0.0
83: MR ARD-10-083	1.49	150	7.53	0.10	0.00	0.00	0.0	0.0
84: MR ARD-10-084	1.49	150	8.00	0.10	0.00	0.00	0.0	0.0
85: MR ARD-10-086	1.51	150	7.24	0.10	0.00	0.00	0.0	0.0
86: MR ARD-10-067	1.46	150	7.71	0.10	0.00	0.00	0.0	0.0
87: MR ARD-10-068	1.50	150	2.80	0.10	4.50	7.30	15	24
88: MR ARD-10-070	1.47	150	7.28	0.10	0.00	0.00	0.0	0.0
89: MR ARD-10-071	1.51	150	7.23	0.10	0.00	0.00	0.0	0.0
90: MR ARD-10-072	1.51	150	7.54	0.10	0.00	0.00	0.0	0.0
91: MR ARD-10-074	1.50	150	3.14	0.10	2.00	3.60	6.5	12
92: MR ARD-10-075	1.47	150	7.19	0.10	0.00	0.00	0.0	0.0
93: MR ARD-10-076	1.50	150	7.74	0.10	0.00	0.00	0.0	0.0
94: MR ARD-10-082	1.51	150	9.50	0.10	0.00	0.00	0.0	0.0
95: MR ARD-10-060	1.51	150	6.37	0.10	0.00	0.40	0.0	1.3
96: MR ARD-10-062	1.55	150	7.29	0.10	0.00	0.00	0.0	0.0

SGS Canada Inc.
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Lakefield - Ontario - KOL 2HO
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NAG Test

LR Report : **CA11532-AUG10**

Sample ID	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG (pH 4.5) kg H2SO4/tonne	NAG (pH 7.0) kg H2SO4/tonne
97: MR ARD-10-063	1.49	150	7.04	0.10	0.00	0.00	0.0	0.0
98: MR ARD-10-064	1.54	150	7.05	0.10	0.00	0.00	0.0	0.0
99: MR ARD-10-065	1.51	150	7.20	0.10	0.00	0.00	0.0	0.0
100: MR ARD-10-066	1.50	150	7.22	0.10	0.00	0.00	0.0	0.0
101: MR ARD-10-069	1.53	150	2.51	0.10	6.50	8.00	21	26
102: MR ARD-10-073	1.49	150	6.89	0.10	0.00	0.20	0.0	0.7
103: MR ARD-10-042	1.51	150	9.71	0.10	0.00	0.00	0.0	0.0
104: MR ARD-10-050	1.53	150	8.02	0.10	0.00	0.00	0.0	0.0
105: MR ARD-10-052	1.55	150	8.04	0.10	0.00	0.00	0.0	0.0
106: MR ARD-10-055	1.49	150	4.39	0.10	0.10	1.10	0.3	3.6
107: MR ARD-10-056	1.46	150	7.38	0.10	0.00	0.00	0.0	0.0
108: MR ARD-10-058	1.49	150	4.31	0.10	0.20	1.40	0.7	4.6
109: MR ARD-10-059	1.49	150	7.36	0.10	0.00	0.00	0.0	0.0
110: MR ARD-10-61	1.49	150	7.25	0.10	0.00	0.00	0.0	0.0
111: MR ARD-10-053	1.49	150	8.13	0.10	0.00	0.00	0.0	0.0
112: MR ARD-10-054	1.55	150	9.33	0.10	0.00	0.00	0.0	0.0
113: MR ARD-10-119	1.50	150	8.33	0.10	0.00	0.00	0.0	0.0
114: MR ARD-10-120	1.48	150	3.00	0.10	2.10	3.20	7.0	11
115: MR ARD-10-121	1.51	150	6.37	0.10	0.00	0.30	0.0	1.0
116: MR ARD-10-122	1.54	150	6.64	0.10	0.00	0.40	0.0	1.3
117: MR ARD-10-123	1.49	150	4.21	0.10	0.30	2.00	1.0	6.6
118: MR ARD-10-110	1.50	150	7.06	0.10	0.00	0.00	0.0	0.0
119: MR ARD-10-111	1.54	150	7.06	0.10	0.00	0.00	0.0	0.0
120: MR ARD-10-112	1.54	150	9.80	0.10	0.00	0.00	0.0	0.0
121: MR ARD-10-116	1.47	150	2.80	0.10	4.70	7.50	16	25
122: MR ARD-10-051	1.46	150	10.84	0.10	0.00	0.00	0.0	0.0
123: MR ARD-10-113	1.54	150	7.61	0.10	0.00	0.00	0.0	0.0
124: MR ARD-10-114	1.51	150	6.03	0.10	0.00	0.10	0.0	0.3
125: MR ARD-10-115	1.53	150	7.35	0.10	0.00	0.00	0.0	0.0
126: MR ARD-10-117	1.55	150	6.96	0.10	0.00	0.10	0.0	0.3
127: MR ARD-10-118	1.47	150	7.52	0.10	0.00	0.00	0.0	0.0
128: MR ARD-10-124	1.47	150	7.27	0.10	0.00	0.00	0.0	0.0
129: MR ARD-10-125	1.46	150	6.86	0.10	0.00	0.20	0.0	0.7
130: MR ARD-10-126	1.54	150	7.50	0.10	0.00	0.00	0.0	0.0
131: MR ARD-10-127	1.55	150	7.36	0.10	0.00	0.00	0.0	0.0
132: MR ARD-10-128	1.51	150	6.90	0.10	0.00	0.10	0.0	0.3

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NAG Test

LR Report : **CA11532-AUG10**

Sample ID	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG (pH 4.5) kg H2SO4/tonne	NAG (pH 7.0) kg H2SO4/tonne
133: MR ARD-10-129	1.53	150	1.84	0.50	8.20	10.30	131	165
134: MR ARD-10-130	1.47	150	9.04	0.10	0.00	0.00	0.0	0.0
135: MR ARD-10-131	1.50	150	8.14	0.10	0.00	0.00	0.0	0.0

NAG = (49 x Vol. of base x N of base)/sample weight
kg H2SO4/tonne

Brian Graham B.Sc.
Project Specialist
Environmental Services, Analytical

OnLine LIMS

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Tuesday, October 05, 2010

Baffinland Iron Mines Corp
Attn : Michael Zurowski

1016-120 Adelaide Street West, Toronto, ON
Canada, M5H 1T1
Phone: 416-364-8820, Fax:pdf

Date Rec. : 16 September 2010
LR Report: **CA11050-SEP10**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample Date & Time	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG (pH 4.5) kg H2SO4/tonne	NAG (pH 7.0) kg H2SO4/tonne
3: Analysis Approval Date		30-Sep-10	30-Sep-10	30-Sep-10	30-Sep-10	30-Sep-10	30-Sep-10	30-Sep-10	30-Sep-10
4: Analysis Approval Time		13:45	13:45	13:45	13:45	13:45	13:45	13:45	13:45
5: 5141	Date:N/A	1.45	150	6.81	0.10	0.00	0.10	0.0	0.3
6: 5142	Date:N/A	1.45	150	5.60	0.10	0.00	0.20	0.0	0.7
7: 5143	Date:N/A	1.45	150	7.08	0.10	0.00	0.00	0.0	0.0
8: 5144	Date:N/A	1.46	150	7.16	0.10	0.00	0.00	0.0	0.0
9: 5145	Date:N/A	1.47	150	7.18	0.10	0.00	0.00	0.0	0.0
10: 5146	Date:N/A	1.55	150	7.43	0.10	0.00	0.00	0.0	0.0
11: 5147	Date:N/A	1.48	150	6.63	0.10	0.00	0.20	0.0	0.7
12: 5148	Date:N/A	1.47	150	7.18	0.10	0.00	0.00	0.0	0.0
13: 5149	Date:N/A	1.50	150	6.59	0.10	0.00	0.20	0.0	0.7
14: 5150	Date:N/A	1.48	150	7.42	0.10	0.00	0.00	0.0	0.0
15: 5151	Date:N/A	1.51	150	6.68	0.10	0.00	0.20	0.0	0.6
16: 5152	Date:N/A	1.48	150	6.68	0.10	0.00	0.10	0.0	0.3
17: 5153	Date:N/A	1.48	150	6.99	0.10	0.00	0.10	0.0	0.3
18: 5154	Date:N/A	1.48	150	6.95	0.10	0.00	0.10	0.0	0.3
19: 5155	Date:N/A	1.52	150	7.02	0.10	0.00	0.00	0.0	0.0
20: 5156	Date:N/A	1.53	150	6.60	0.10	0.00	0.10	0.0	0.3
21: 5157	Date:N/A	1.54	150	6.44	0.10	0.00	0.20	0.0	0.6
22: 5158	Date:N/A	1.48	150	5.80	0.10	0.00	0.10	0.0	0.3
23: 5159	Date:N/A	1.48	150	4.86	0.10	0.00	0.30	0.0	1.0

OnLine LIMS

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NAG Test

LR Report : **CA11050-SEP10**

Sample ID	Sample Date & Time	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG (pH 4.5) kg H2SO4/tonne	NAG (pH 7.0) kg H2SO4/tonne
24: 5160	Date:N/A	1.48	150	7.42	0.10	0.00	0.00	0.0	0.0
25: 5161	Date:N/A	1.52	150	7.03	0.10	0.00	0.00	0.0	0.0
26: 5162	Date:N/A	1.55	150	7.08	0.10	0.00	0.00	0.0	0.0
27: 5163	Date:N/A	1.49	150	7.08	0.10	0.00	0.00	0.0	0.0
28: 5164	Date:N/A	1.48	150	6.42	0.10	0.00	0.20	0.0	0.7
29: 5165	Date:N/A	1.50	150	7.90	0.10	0.00	0.00	0.0	0.0
30: 5166	Date:N/A	1.48	150	7.18	0.10	0.00	0.00	0.0	0.0
31: 5167	Date:N/A	1.53	150	6.84	0.10	0.00	0.40	0.0	1.3
32: 5168	Date:N/A	1.48	150	7.32	0.10	0.00	0.00	0.0	0.0
33: 5169	Date:N/A	1.49	150	5.16	0.10	0.00	0.30	0.0	1.0
34: 5170	Date:N/A	1.50	150	9.05	0.10	0.00	0.00	0.0	0.0
35: 5171	Date:N/A	1.52	150	3.12	0.10	1.50	2.10	4.8	6.8
36: 5172	Date:N/A	1.48	150	7.08	0.10	0.00	0.00	0.0	0.0
37: 5173	Date:N/A	1.46	150	8.33	0.10	0.00	0.00	0.0	0.0
38: 5174	Date:N/A	1.48	150	5.28	0.10	0.00	0.40	0.0	1.3
39: 5175	Date:N/A	1.49	150	7.06	0.10	0.00	0.00	0.0	0.0
40: 5176	Date:N/A	1.49	150	7.28	0.10	0.00	0.00	0.0	0.0
41: 5177	Date:N/A	1.51	150	7.60	0.10	0.00	0.00	0.0	0.0
42: 5178	Date:N/A	1.50	150	2.74	0.10	5.60	8.20	18	27
43: 5179	Date:N/A	1.47	150	7.48	0.10	0.00	0.00	0.0	0.0
44: 5180	Date:N/A	1.51	150	7.50	0.10	0.00	0.00	0.0	0.0
45: 5181	Date:N/A	1.54	150	7.73	0.10	0.00	0.00	0.0	0.0
46: 5182	Date:N/A	1.49	150	2.95	0.10	2.50	4.20	8.2	14
47: 5183	Date:N/A	1.55	150	7.29	0.10	0.00	0.00	0.0	0.0
48: 5184	Date:N/A	1.50	150	7.48	0.10	0.00	0.00	0.0	0.0
49: 5185	Date:N/A	1.55	150	6.86	0.10	0.00	0.30	0.0	0.9
50: 5186	Date:N/A	1.51	150	7.02	0.10	0.00	0.00	0.0	0.0
51: 5187	Date:N/A	1.51	150	7.52	0.10	0.00	0.00	0.0	0.0
52: 5188	Date:N/A	1.50	150	7.37	0.10	0.00	0.00	0.0	0.0
53: 5189	Date:N/A	1.49	150	7.48	0.10	0.00	0.00	0.0	0.0

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NAG Test

LR Report : **CA11050-SEP10**

NAG = (49 x Vol. of base x N of base)/sample weight
kg H2SO4/tonne

Brian Graham B.Sc.
Project Specialist
Environmental Services, Analytical

OnLine LIMS

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Sunday, October 31, 2010

Baffinland Iron Mines Corp
Attn : Michael Zurowski

Date Rec. : 07 October 2010
LR Report: **CA10202-OCT10**

Copy: #1

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Toronto, ON, M5H 1T1
Canada

Phone: 416-364-8820
Fax:pdf

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Sample weight(g)	vol H2O2 mL	Final pH units	NaOH Normality	Vol NaOH to PH 4.5 mL	Vol NaOH to PH 7.0 mL	NAG (pH 4.5) kg H2SO4/tonne	NAG (pH7.0) kg H2SO4/tonne
3: Analysis Approval Date	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10	29-Oct-10
4: Analysis Approval Time	07:00	07:00	07:00	07:00	07:00	07:00	07:00	07:00
5: MR ARD-10-044	2.48	250	2.68	0.10	7.20	10.10	14	20
11-DUP: MR ARD-10-044	2.48	250	4.34	0.10	0.10	0.40	0.2	0.8
17-DUP: MR ARD-10-044	2.48	250	5.20	0.10	0.00	0.10	0.0	0.2
23-DUP: MR ARD-10-044	2.48	250	5.54	0.10	0.00	0.20	0.0	0.4
6: MR ARD-10-080	2.46	250	2.89	0.10	4.10	5.80	8.2	12
12-DUP: MR ARD-10-080	2.46	250	4.27	0.10	0.10	0.40	0.2	0.8
18-DUP: MR ARD-10-080	2.46	250	4.99	0.10	0.00	0.20	0.0	0.4
24-DUP: MR ARD-10-080	2.46	250	5.73	0.10	0.00	0.20	0.0	0.4
7: MR ARD-10-085	2.48	250	2.27	0.10	29.70	46.30	59	92
13-DUP: MR ARD-10-085	2.48	250	2.45	0.10	14.50	19.70	29	39
19-DUP: MR ARD-10-085	2.48	250	3.89	0.10	0.30	0.60	0.6	1.2
25-DUP: MR ARD-10-085	2.48	250	4.50	0.10	0.00	0.20	0.0	0.4
31-DUP: MR ARD-10-085	2.48	250	4.74	0.10	0.00	0.20	0.0	0.4
8: MR ARD-10-068	2.49	250	2.82	0.10	6.40	9.90	13	20
14-DUP: MR ARD-10-068	2.49	250	3.96	0.10	0.40	0.60	0.8	1.2
20-DUP: MR ARD-10-068	2.49	250	4.45	0.10	0.10	0.30	0.2	0.6
26-DUP: MR ARD-10-068	2.49	250	4.89	0.10	0.00	0.20	0.0	0.4
32-DUP: MR ARD-10-068	2.49	250	4.98	0.10	0.00	0.40	0.0	0.8
9: MR ARD-10-116	2.48	250	2.69	0.10	8.30	12.50	16	25
15-DUP: MR ARD-10-116	2.48	250	4.36	0.10	0.20	0.30	0.4	0.6
21-DUP: MR ARD-10-116	2.48	250	5.19	0.10	0.00	0.20	0.0	0.4
27-DUP: MR ARD-10-116	2.48	250	5.72	0.10	0.00	0.20	0.0	0.4
10: MR ARD-10-129	2.47	250	1.91	0.50	12.20	15.10	121	150
16-DUP: MR ARD-10-129	2.47	250	1.96	0.50	8.60	9.90	85	98
22-DUP: MR ARD-10-129	2.47	250	2.33	0.10	9.80	11.40	19	23
28-DUP: MR ARD-10-129	2.47	250	3.57	0.10	0.50	1.00	1.0	2.0
34-DUP: MR ARD-10-129	2.47	250	4.07	0.10	0.20	0.50	0.4	1.0
40-DUP: MR ARD-10-129	2.47	250	4.44	0.10	0.10	0.50	0.2	1.0
46-DUP: MR ARD-10-129	2.47	250	4.75	0.10	0.00	0.30	0.0	0.6
52-DUP: MR ARD-10-129	2.47	250	4.80	0.10	0.00	0.60	0.0	1.2

OnLine LIMS

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LR Report : **CA10202-OCT10**

NAG = (49 x Vol. of base x N of base)/sample weight
kg H2SO4/tonne

Brian Graham B.Sc.
Project Specialist
Environmental Services, Analytical

Baffinland Iron Mines Corporation

amec

APPENDIX C-3

METALS BY AQUA-REGIA EXTRACTION

SGS Canada Inc.
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Thursday, September 30, 2010

Baffinland Iron Mines Corp
Attn : Michael Zurowski

1016-120 Adelaide Street West
Toronto, ON, M5H 1T1
Canada

Phone: 416-364-8820
Fax:pdf

Date Rec. : 31 August 2010
LR Report: **CA11533-AUG10**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	39: MR ARD-10-026	40: MR ARD-10-032	41: MR ARD-10-034	42: MR ARD-10-035	43: MR ARD-10-046	44: MR ARD-10-047	45: MR ARD-10-048	46: MR ARD-10-049	47: MR ARD-10-027	48: MR ARD-10-028	49: MR ARD-10-031	50: MR ARD-10-033
Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	61000	50000	20000	81000	17000	56000	74000	91000	36000	26000	10000	16000
Arsenic [µg/g]	11	0.7	0.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	3.6	16	< 0.5	< 0.5
Barium [µg/g]	28	140	120	1470	320	3.9	1.3	3.9	860	450	69	140
Beryllium [µg/g]	0.69	1.1	0.24	3.3	0.29	0.49	1.6	0.88	1.4	0.86	0.24	0.17
Bismuth [µg/g]	< 0.09	< 0.09	< 0.09	< 0.09	0.14	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Calcium [µg/g]	2700	1100	880	1600	950	2100	110	2200	1100	1600	160	760
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cobalt [µg/g]	29	27	6.5	9.1	6.1	25	41	25	17	17	4.6	6.3
Chromium [µg/g]	350	180	92	14	100	500	240	31	220	170	87	67
Copper [µg/g]	33	47	19	5.8	11	2.1	48	2.3	44	24	6.8	5.1
Iron [µg/g]	130000	61000	32000	75000	22000	64000	170000	130000	67000	70000	10000	22000
Potassium [µg/g]	350	17000	4500	34000	10000	160	150	120	4000	4600	6400	8800
Lithium [µg/g]	9	21	7	140	12	2	3	10	12	6	6	8
Magnesium [µg/g]	47000	27000	12000	37000	7500	44000	54000	52000	26000	14000	6000	8500
Manganese [µg/g]	580	830	670	480	420	540	700	2300	770	320	150	380
Molybdenum [µg/g]	2.0	0.8	1.1	0.4	10	0.6	0.7	1.2	1.2	1.3	2.7	1.1
Sodium [µg/g]	93	440	160	800	310	64	63	83	240	220	160	190
Nickel [µg/g]	110	92	7.8	3.5	8.5	190	130	35	63	69	13	7.9

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LR Report : **CA11533-AUG10**

Analysis	39: MR ARD-10-026	40: MR ARD-10-032	41: MR ARD-10-034	42: MR ARD-10-035	43: MR ARD-10-046	44: MR ARD-10-047	45: MR ARD-10-048	46: MR ARD-10-049	47: MR ARD-10-027	48: MR ARD-10-028	49: MR ARD-10-031	50: MR ARD-10-033
Lead [µg/g]	3.7	8.3	2.6	12	5.6	1.9	2.3	1.5	4.3	8.9	2.7	3.0
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Tin [µg/g]	1.2	1.5	< 0.5	3.3	1.0	0.9	< 0.5	< 0.5	0.9	< 0.5	0.7	0.7
Strontium [µg/g]	7.8	2.9	2.9	10	9.8	3.3	1.2	3.3	3.4	7.2	3.1	2.9
Titanium [µg/g]	240	1900	350	1700	1100	230	240	180	780	650	110	690
Thallium [µg/g]	0.03	0.41	0.11	0.59	0.47	< 0.02	< 0.02	< 0.02	0.16	0.19	0.20	0.32
Uranium [µg/g]	0.50	0.48	1.4	7.0	1.3	1.2	2.5	3.9	0.47	0.71	3.2	2.0
Vanadium [µg/g]	170	110	8	21	7	91	190	59	170	71	1	6
Zinc [µg/g]	51	55	39	52	40	61	42	68	23	18	16	46

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Thursday, September 30, 2010

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	15: MR ARD-10-003	16: MR ARD-10-007	17: MR ARD-10-008	18: MR ARD-10-009	19: MR ARD-10-010	20: MR ARD-10-012	21: MR ARD-10-023	22: MR ARD-10-025	23: MR ARD-10-001	24: MR ARD-10-006	25: MR ARD-10-016	26: MR ARD-10-017
Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	55000	84000	81000	56000	59000	5400	600	88000	56000	39000	16000	46000
Arsenic [µg/g]	5.4	6.8	8.0	2.1	1.7	2.9	2.6	0.7	63	2.4	2.9	0.6
Barium [µg/g]	6.8	17	15	88	150	5.5	4.3	31	9.4	9.7	2.4	20
Beryllium [µg/g]	0.58	2.7	0.83	0.41	0.73	0.10	0.05	2.4	2.9	1.1	0.52	2.1
Bismuth [µg/g]	0.14	0.34	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	0.37	0.46	< 0.09	< 0.09
Calcium [µg/g]	800	1700	1400	1000	1100	16000	11000	1800	690	740	820	3100
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cobalt [µg/g]	30	29	68	48	31	100	110	85	82	30	6.9	17
Chromium [µg/g]	44	21	770	320	310	530	330	1220	1450	300	17	280
Copper [µg/g]	47	44	44	130	47	6.0	11	40	99	23	1.5	24
Iron [µg/g]	170000	160000	100000	93000	82000	54000	57000	79000	170000	91000	93000	70000
Potassium [µg/g]	83	2000	440	1200	9500	130	39	1300	900	600	470	800
Lithium [µg/g]	13	35	16	14	8	< 2	< 2	22	30	160	14	38
Magnesium [µg/g]	49000	84000	72000	60000	32000	130000	140000	86000	54000	37000	29000	41000
Manganese [µg/g]	1200	1000	3300	2400	2000	1300	960	1800	1300	320	460	480
Molybdenum [µg/g]	2.3	1.5	0.3	0.4	0.6	0.4	0.5	0.5	5.4	0.6	1.2	0.9
Sodium [µg/g]	75	110	100	93	270	74	79	130	220	150	160	210
Nickel [µg/g]	120	140	470	230	170	1950	2410	760	490	82	22	110

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LR Report : **CA11533-AUG10**

Analysis	15: MR ARD-10-003	16: MR ARD-10-007	17: MR ARD-10-008	18: MR ARD-10-009	19: MR ARD-10-010	20: MR ARD-10-012	21: MR ARD-10-023	22: MR ARD-10-025	23: MR ARD-10-001	24: MR ARD-10-006	25: MR ARD-10-016	26: MR ARD-10-017
Lead [µg/g]	2.5	3.4	1.6	5.5	2.7	4.4	7.6	2.6	2.9	2.0	1.7	5.1
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	0.8	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Tin [µg/g]	2.9	1.1	2.1	0.8	1.9	< 0.5	< 0.5	1.5	< 0.5	1.3	0.5	< 0.5
Strontium [µg/g]	9.2	4.7	2.0	3.2	6.1	10	22	6.6	4.2	3.9	3.4	21
Titanium [µg/g]	440	910	430	33	1300	89	74	620	91	210	85	180
Thallium [µg/g]	< 0.02	0.05	< 0.02	< 0.02	0.28	< 0.02	< 0.02	0.12	0.08	< 0.02	< 0.02	0.03
Uranium [µg/g]	1.5	1.0	0.24	0.41	0.86	1.3	0.23	0.20	0.55	0.84	0.80	1.9
Vanadium [µg/g]	15	43	140	120	120	15	8	100	52	47	3	65
Zinc [µg/g]	44	57	71	103	46	25	59	47	21	18	12	21

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Thursday, September 30, 2010

Baffinland Iron Mines Corp
Attn : Michael Zurowski

1016-120 Adelaide Street West
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Phone: 416-364-8820
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Date Rec. : 31 August 2010
LR Report: **CA11533-AUG10**

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: MR ARD-10-002	6: MR ARD-10-004	7: MR ARD-10-005	8: MR ARD-10-011	9: MR ARD-10-014	10: MR ARD-10-015	11: MR ARD-10-018	12: MR ARD-10-021	13: MR ARD-10-022	14: MR ARD-10-024
Sample Date & Time			Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	29-Sep-10	11:48	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	26-Sep-10	19:46	32000	34000	17000	83000	77000	25000	7900	59000	85000	16000
Arsenic [µg/g]	27-Sep-10	11:17	4.2	0.6	0.7	0.6	0.6	< 0.5	16	0.7	< 0.5	< 0.5
Barium [µg/g]	26-Sep-10	19:13	15	520	99	230	39	160	3.0	330	830	22
Beryllium [µg/g]	26-Sep-10	19:13	0.73	0.32	0.62	2.5	2.8	0.71	0.58	0.74	4.4	0.53
Bismuth [µg/g]	26-Sep-10	19:13	0.13	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Calcium [µg/g]	26-Sep-10	19:49	1300	1700	480	1800	1700	1700	1600	1900	590	260
Cadmium [µg/g]	26-Sep-10	19:13	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cobalt [µg/g]	26-Sep-10	19:13	22	7.7	5.3	18	14	6.7	6.8	8.9	15	1.7
Chromium [µg/g]	26-Sep-10	19:13	310	100	120	28	91	91	19	55	80	150
Copper [µg/g]	26-Sep-10	19:13	11	9.3	79	1.8	15	2.8	3.9	12	1.2	5.1
Iron [µg/g]	28-Sep-10	07:54	100000	53000	23000	130000	130000	34000	600000	67000	190000	31000
Potassium [µg/g]	26-Sep-10	19:53	180	18000	8600	10000	4800	6500	130	21000	7300	430
Lithium [µg/g]	26-Sep-10	19:13	12	8	7	36	38	10	3	35	30	9
Magnesium [µg/g]	26-Sep-10	19:55	23000	17000	8300	82000	70000	16000	8000	26000	65000	8100
Manganese [µg/g]	26-Sep-10	19:13	140	130	100	310	1800	330	2600	360	1300	260
Molybdenum [µg/g]	26-Sep-10	19:13	2.1	4.4	2.4	15	8.0	0.5	1.7	13	4.5	3.3
Sodium [µg/g]	27-Sep-10	11:15	78	430	240	280	160	250	120	820	160	180
Nickel [µg/g]	26-Sep-10	19:13	160	14	8.4	85	55	7.5	18	22	56	18

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Lead [µg/g]	26-Sep-10	19:13	2.9	3.7	4.9	2.3	4.6	2.4	1.9	30	11	3.3
Antimony [µg/g]	26-Sep-10	19:13	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	26-Sep-10	19:13	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Tin [µg/g]	26-Sep-10	19:13	1.9	3.7	0.6	3.3	4.6	0.7	0.7	4.2	1.2	2.2
Strontium [µg/g]	26-Sep-10	19:13	4.2	7.5	3.2	6.3	6.8	3.2	3.0	8.7	4.3	2.4
Titanium [µg/g]	26-Sep-10	19:13	330	2000	440	1100	420	690	180	1400	830	190
Thallium [µg/g]	26-Sep-10	19:13	0.04	0.60	0.36	0.21	0.12	0.24	< 0.02	0.67	0.54	0.02
Uranium [µg/g]	26-Sep-10	19:13	1.9	1.5	7.3	1.8	1.3	1.2	0.35	0.62	2.6	2.8
Vanadium [µg/g]	26-Sep-10	19:13	82	32	5	46	53	19	11	83	75	2
Zinc [µg/g]	26-Sep-10	19:13	34	5.7	7.5	22	53	24	7.0	47	81	9.6

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	27: MR ARD-10-019	28: MR ARD-10-020	29: MR ARD-10-029	30: MR ARD-10-030	31: MR ARD-10-013	32: MR ARD-10-036	33: MR ARD-10-037	34: MR ARD-10-038	35: MR ARD-10-039	36: MR ARD-10-040	37: MR ARD-10-041	38: MR ARD-10-057
Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.2	< 0.1	< 0.1
Aluminum [µg/g]	89000	66000	33000	38000	72000	46000	36000	55000	89000	45000	61000	44000
Arsenic [µg/g]	0.7	8.4	1.2	0.6	0.6	0.7	1.5	0.8	12	< 0.5	< 0.5	< 0.5
Barium [µg/g]	2.4	5.2	4.9	380	12	0.71	220	2.2	5.8	300	3.1	690
Beryllium [µg/g]	1.3	0.64	1.3	0.69	5.0	1.3	0.49	1.7	3.4	0.37	0.27	0.61
Bismuth [µg/g]	< 0.09	0.59	< 0.09	< 0.09	< 0.09	< 0.09	0.28	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Calcium [µg/g]	16000	2700	1400	810	4000	1000	250	1400	210	18000	2900	1500
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cobalt [µg/g]	20	9.7	45	13	27	32	5.1	29	53	23	37	12
Chromium [µg/g]	210	58	610	95	380	470	110	930	48	220	520	77
Copper [µg/g]	1.7	21	38	5.8	129	30	40	2.9	46	57	123	29
Iron [µg/g]	130000	250000	82000	64000	130000	74000	54000	150000	130000	41000	59000	62000
Potassium [µg/g]	160	200	800	18000	440	220	14000	170	800	18000	97	27000
Lithium [µg/g]	3	14	36	12	40	9	7	39	330	20	5	11
Magnesium [µg/g]	73000	63000	40000	16000	67000	41000	17000	59000	40000	26000	55000	18000
Manganese [µg/g]	1000	1900	830	260	1800	490	250	1000	620	680	390	310
Molybdenum [µg/g]	3.1	1.4	0.9	3.4	< 0.1	1.1	2.3	1.1	74	1.1	0.3	2.2
Sodium [µg/g]	87	99	220	420	130	86	390	140	420	480	82	610
Nickel [µg/g]	110	25	440	46	200	160	12	540	180	110	220	15

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Analysis	27: MR ARD-10-019	28: MR ARD-10-020	29: MR ARD-10-029	30: MR ARD-10-030	31: MR ARD-10-013	32: MR ARD-10-036	33: MR ARD-10-037	34: MR ARD-10-038	35: MR ARD-10-039	36: MR ARD-10-040	37: MR ARD-10-041	38: MR ARD-10-057
Lead [µg/g]	21	5.6	4.0	15	5.0	1.4	6.2	1.1	2.6	3.7	1.7	15
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Tin [µg/g]	< 0.5	1.6	1.0	0.9	12	< 0.5	1.0	0.7	1.8	1.0	< 0.5	1.5
Strontium [µg/g]	44	9.5	5.7	4.6	30	6.1	2.5	4.9	1.7	12	2.4	4.4
Titanium [µg/g]	190	140	130	1400	110	280	1100	120	880	2200	300	2200
Thallium [µg/g]	< 0.02	0.02	0.08	0.63	< 0.02	< 0.02	0.36	< 0.02	0.23	0.28	< 0.02	0.71
Uranium [µg/g]	7.1	1.3	0.54	1.1	2.1	1.2	1.2	0.94	1.8	0.90	0.72	2.9
Vanadium [µg/g]	120	70	36	17	87	66	16	51	110	110	130	38
Zinc [µg/g]	59	43	14	14	26	48	9.9	31	106	46	50	24

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Final Report

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Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	59000	21000	100000	14000	44000	40000	33000	12000	34000	53000	59000	67000
Arsenic [µg/g]	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5	9.5	0.7	1.2	< 0.5	8.1
Barium [µg/g]	450	160	15	31	89	130	130	3.6	2.9	31	0.90	0.43
Beryllium [µg/g]	0.71	0.20	5.0	0.18	0.10	0.49	0.89	0.87	0.93	0.70	2.2	0.87
Bismuth [µg/g]	< 0.09	< 0.09	< 0.09	0.24	< 0.09	0.43	< 0.09	0.33	0.68	< 0.09	0.19	0.32
Calcium [µg/g]	1000	940	1900	5100	26000	260	1400	2600	170	1400	4900	2900
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2	< 0.2	< 0.2	< 0.2
Cobalt [µg/g]	8.6	7.6	15	31	30	17	10	5.7	16	7.2	24	20
Chromium [µg/g]	55	73	68	670	220	79	76	25	71	92	390	430
Copper [µg/g]	11	11	1.9	52	117	48	6.2	9.4	6.5	8.0	6.4	78
Iron [µg/g]	77000	30000	130000	42000	21000	68000	45000	200000	130000	85000	150000	200000
Potassium [µg/g]	34000	14000	1200	2900	7900	8800	11000	4300	410	1300	180	82
Lithium [µg/g]	17	7	13	11	19	38	19	7	47	11	29	36
Magnesium [µg/g]	25000	8000	89000	8600	13000	27000	19000	23000	27000	38000	59000	74000
Manganese [µg/g]	320	120	5900	340	510	1000	470	1100	1200	510	490	1000
Molybdenum [µg/g]	4.4	15	2.5	0.6	0.2	3.8	1.0	0.9	5.7	1.7	0.3	0.8
Sodium [µg/g]	860	370	110	220	3730	500	250	120	140	100	97	160
Nickel [µg/g]	18	9.4	49	350	120	38	23	6.9	39	15	140	170

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Lead [µg/g]	16	4.2	1.7	46	0.60	3.0	2.2	3.0	1.4	3.1	4.0	2.3
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	14	3.1	1.4	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	1.0	< 0.7	< 0.7	< 0.7
Tin [µg/g]	1.1	1.3	2.5	0.8	< 0.5	2.3	0.6	0.7	4.8	2.3	2.9	1.0
Strontium [µg/g]	2.9	3.6	3.4	4.8	25	4.7	2.9	14	2.5	6.0	6.4	5.1
Titanium [µg/g]	2100	1300	1400	560	1900	1700	810	100	530	370	650	70
Thallium [µg/g]	1.6	0.41	0.04	0.14	0.09	0.25	0.25	0.04	0.54	0.18	0.05	0.06
Uranium [µg/g]	2.5	1.3	1.5	0.44	0.032	2.5	2.0	0.58	2.1	2.7	3.4	1.2
Vanadium [µg/g]	21	14	77	28	120	48	32	14	44	26	78	73
Zinc [µg/g]	15	21	72	17	23	77	17	9.4	111	48	36	57

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Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	64000	38000	69000	33000	43000	33000	72000	62000	13000	60000	25000	48000
Arsenic [µg/g]	< 0.5	3.2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	59	1.1	< 0.5	< 0.5
Barium [µg/g]	< 0.01	25	0.30	180	75	120	410	4.1	2.8	160	41	45
Beryllium [µg/g]	1.7	3.0	0.57	0.12	0.19	0.13	0.80	0.78	0.48	2.5	0.15	0.25
Bismuth [µg/g]	0.29	< 0.09	0.17	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	0.49	28	0.18	< 0.09
Calcium [µg/g]	4000	460	3400	17000	3600	16000	1800	3100	3400	1700	31000	7000
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2	< 0.2
Cobalt [µg/g]	37	73	48	26	26	24	10	27	12	48	20	28
Chromium [µg/g]	130	350	1090	120	250	120	42	320	19	150	160	150
Copper [µg/g]	2.3	9.6	1.8	134	32	90	1.7	54	8.8	169	69	76
Iron [µg/g]	150000	200000	82000	33000	41000	21000	99000	71000	210000	160000	43000	75000
Potassium [µg/g]	77	210	57	10000	4200	8500	12000	450	410	11000	4400	4600
Lithium [µg/g]	19	150	3	15	42	31	11	15	6	36	41	75
Magnesium [µg/g]	58000	23000	62000	15000	54000	12000	41000	52000	24000	33000	25000	46000
Manganese [µg/g]	460	4000	430	630	560	590	230	710	170	530	1360	1020
Molybdenum [µg/g]	4.8	2.3	1.0	0.3	0.2	0.2	1.1	0.3	39	1.9	1.5	4.2
Sodium [µg/g]	110	130	94	1080	220	2140	210	120	160	270	370	380
Nickel [µg/g]	45	160	240	57	110	66	9.5	94	46	92	62	75

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Lead [µg/g]	2.1	2.3	2.2	2.2	4.2	1.8	5.0	2.7	3.3	113	4.7	2.2
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	0.9	1.2	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	0.7	< 0.7	< 0.7
Tin [µg/g]	0.5	1.1	0.9	< 0.5	< 0.5	< 0.5	1.4	1.2	1.1	1.2	< 0.5	0.9
Strontium [µg/g]	9.2	3.4	3.9	14	5.4	36	4.6	3.5	8.4	2.8	10	5.1
Titanium [µg/g]	310	290	160	2400	1300	1800	1200	110	53	930	610	1000
Thallium [µg/g]	0.04	0.12	0.02	0.24	0.11	0.19	0.67	< 0.02	0.15	0.89	0.10	0.08
Uranium [µg/g]	1.4	2.2	0.88	0.14	0.044	0.027	3.8	1.8	0.63	0.88	0.070	0.23
Vanadium [µg/g]	94	66	120	160	110	140	70	98	13	130	110	120
Zinc [µg/g]	30	48	50	42	26	26	48	53	12	26	70	41

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Final Report

Analysis	86: MR ARD-10-067	87: MR ARD-10-068	88: MR ARD-10-070	89: MR ARD-10-071	90: MR ARD-10-072	91: MR ARD-10-074	92: MR ARD-10-075	93: MR ARD-10-076	94: MR ARD-10-082	95: MR ARD-10-060	96: MR ARD-10-062	97: MR ARD-10-063
Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	61000	92000	22000	68000	71000	31000	40000	56000	1000	62000	87000	85000
Arsenic [µg/g]	< 0.5	7.5	1.9	1.3	< 0.5	2.9	< 0.5	< 0.5	< 0.5	1.5	0.7	2.2
Barium [µg/g]	160	1.8	3.5	0.08	< 0.01	420	19	73	0.22	410	2.9	0.58
Beryllium [µg/g]	0.83	0.60	1.2	3.1	2.4	1.1	10	1.1	0.16	0.76	0.69	0.82
Bismuth [µg/g]	< 0.09	0.33	< 0.09	< 0.09	< 0.09	0.58	< 0.09	< 0.09	< 0.09	0.14	0.11	3.3
Calcium [µg/g]	800	46	1200	1600	1400	1500	260	7800	15000	640	6500	1200
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.6	< 0.2	< 0.2	< 0.2	< 0.2
Cobalt [µg/g]	53	19	12	39	37	14	16	31	1.1	91	25	27
Chromium [µg/g]	1070	49	48	920	1260	130	52	190	93	950	530	110
Copper [µg/g]	111	30	2.1	37	15	22	0.8	70	7.7	131	4.8	2.1
Iron [µg/g]	61000	190000	340000	160000	170000	99000	74000	85000	96000	87000	135000	148000
Potassium [µg/g]	13000	69	110	110	82	11000	1600	8900	110	2900	47	63
Lithium [µg/g]	31	< 2	18	47	47	13	26	54	< 2	26	6	24
Magnesium [µg/g]	45000	60000	20000	76000	82000	15000	36000	51000	4500	40000	58000	93000
Manganese [µg/g]	330	860	490	1900	1500	400	510	800	1190	590	570	190
Molybdenum [µg/g]	0.6	6.1	1.2	1.5	1.0	25	0.3	0.6	0.5	0.5	0.3	7.0
Sodium [µg/g]	270	78	84	130	150	310	130	420	160	170	71	100
Nickel [µg/g]	610	53	47	550	430	37	27	110	6.8	1040	93	210

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Analysis	86: MR ARD-10-067	87: MR ARD-10-068	88: MR ARD-10-070	89: MR ARD-10-071	90: MR ARD-10-072	91: MR ARD-10-074	92: MR ARD-10-075	93: MR ARD-10-076	94: MR ARD-10-082	95: MR ARD-10-060	96: MR ARD-10-062	97: MR ARD-10-063
Lead [µg/g]	3.0	3.9	1.5	1.7	1.4	5.7	1.4	5.2	1.5	1.9	2.4	9.0
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Tin [µg/g]	0.6	< 0.5	< 0.5	1.0	1.3	1.4	< 0.5	< 0.5	0.7	0.9	< 0.5	0.6
Strontium [µg/g]	4.5	0.59	3.4	4.7	4.7	7.3	4.3	7.2	4.4	1.3	15	4.4
Titanium [µg/g]	790	300	270	68	68	1100	780	1500	59	250	200	37
Thallium [µg/g]	0.14	0.03	0.03	< 0.02	< 0.02	0.41	0.04	0.13	< 0.02	0.11	0.08	0.04
Uranium [µg/g]	0.020	3.4	0.52	0.85	1.8	2.5	3.9	0.099	0.085	0.24	1.2	0.79
Vanadium [µg/g]	110	45	28	62	64	28	51	150	25	100	140	99
Zinc [µg/g]	19	81	15	45	50	32	19	88	3.8	47	37	44

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CERTIFICATE OF ANALYSIS
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Analysis	109: MR ARD-10-059	110: MR ARD-10-61	111: MR ARD-10-053	112: MR ARD-10-054	113: MR ARD-10-119	114: MR ARD-10-120	115: MR ARD-10-121	116: MR ARD-10-122	117: MR ARD-10-123
Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	24000	71000	16000	26000	66000	7400	46000	50000	88000
Arsenic [µg/g]	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.8	< 0.5	0.6	0.5
Barium [µg/g]	65	6.6	9.6	5.6	690	7.3	1000	0.64	510
Beryllium [µg/g]	0.09	0.87	0.07	0.06	0.40	0.33	0.44	0.57	1.5
Bismuth [µg/g]	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	0.16	< 0.09	0.57	0.20
Calcium [µg/g]	5000	5200	14000	11000	4100	330	2100	5000	3700
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.4
Cobalt [µg/g]	23	25	13	18	48	14	11	25	17
Chromium [µg/g]	130	580	73	150	250	38	83	200	17
Copper [µg/g]	106	2.9	115	130	145	4.5	4.8	80	31
Iron [µg/g]	22000	91000	17000	22000	77000	607000	65000	68000	134000
Potassium [µg/g]	5500	130	1800	1300	19000	140	26000	65	40000
Lithium [µg/g]	21	6	14	43	64	6	8	5	18
Magnesium [µg/g]	22000	55000	7300	23000	37000	8700	23000	49000	44000
Manganese [µg/g]	270	560	440	630	370	460	280	540	380
Molybdenum [µg/g]	0.2	0.3	0.1	0.2	0.2	3.6	0.5	4.5	1.7
Sodium [µg/g]	1260	95	910	1430	380	71	630	70	840
Nickel [µg/g]	66	150	36	53	140	20	8.0	55	6.0

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Analysis	109: MR ARD-10-059	110: MR ARD-10-61	111: MR ARD-10-053	112: MR ARD-10-054	113: MR ARD-10-119	114: MR ARD-10-120	115: MR ARD-10-121	116: MR ARD-10-122	117: MR ARD-10-123
Lead [µg/g]	0.42	1.7	1.6	14	1.7	1.5	13	2.5	29
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	14	3.2
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	2.6	< 0.7	1.4	< 0.7
Tin [µg/g]	< 0.5	< 0.5	< 0.5	0.6	2.1	< 0.5	4.6	4.6	5.0
Strontium [µg/g]	9.3	12	13	13	14	1.1	6.3	12	5.7
Titanium [µg/g]	1300	270	730	430	980	190	2500	270	3500
Thallium [µg/g]	0.10	0.03	0.06	0.03	0.25	< 0.02	0.58	0.50	1.5
Uranium [µg/g]	0.046	1.2	0.066	0.066	0.022	0.59	2.6	2.2	3.3
Vanadium [µg/g]	120	120	43	120	180	28	140	58	160
Zinc [µg/g]	23	45	20	39	60	9.9	7.7	44	21

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CERTIFICATE OF ANALYSIS
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Analysis	75: MR ARD-10-089	76: MR ARD-10-090	77: MR ARD-10-091	78: MR ARD-10-097	79: MR ARD-10-077	80: MR ARD-10-078	81: MR ARD-10-079	82: MR ARD-10-081	83: MR ARD-10-083	84: MR ARD-10-084	85: MR ARD-10-086
Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	53000	35000	38000	18000	49000	64000	38000	28000	14000	47000	65000
Arsenic [µg/g]	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Barium [µg/g]	74	190	5.7	16	1200	530	53	160	16	74	330
Beryllium [µg/g]	0.27	1.00	3.2	0.15	0.95	0.31	0.07	1.2	0.15	0.19	1.2
Bismuth [µg/g]	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Calcium [µg/g]	6200	3900	210	11000	2200	1100	40000	640	8600	1800	900
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cobalt [µg/g]	57	5.7	22	17	18	45	16	9.9	18	38	65
Chromium [µg/g]	290	53	61	110	60	240	88	74	89	440	650
Copper [µg/g]	58	1.2	0.9	98	2.5	97	105	1.6	77	65	26
Iron [µg/g]	66000	36000	71000	17000	61000	78000	11000	35000	21000	56000	71000
Potassium [µg/g]	10000	22000	1500	2400	28000	16000	2200	11000	2400	7200	8200
Lithium [µg/g]	47	13	18	24	15	49	8	11	14	34	38
Magnesium [µg/g]	67000	19000	34000	10000	25000	38000	5200	15000	12000	38000	51000
Manganese [µg/g]	880	310	320	360	230	340	510	320	680	410	290
Molybdenum [µg/g]	0.6	44	0.5	0.4	3.0	0.4	0.1	2.0	0.3	0.4	1.2
Sodium [µg/g]	210	580	180	1400	620	280	3230	300	870	270	270
Nickel [µg/g]	360	7.3	40	48	10	120	76	14	61	230	530

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Lead [µg/g]	1.1	14	1.3	5.8	12	1.8	1.6	2.8	0.63	0.45	5.1
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Tin [µg/g]	0.5	1.2	< 0.5	1.3	2.5	0.8	1.0	0.8	< 0.5	0.7	1.0
Strontium [µg/g]	8.8	5.5	0.69	15	6.7	6.3	49	3.7	8.5	3.5	5.3
Titanium [µg/g]	890	950	990	1400	2600	860	990	700	1200	870	450
Thallium [µg/g]	0.16	0.97	0.05	0.05	1.1	0.23	0.07	0.42	0.04	0.08	0.10
Uranium [µg/g]	0.074	5.8	4.3	0.10	1.8	0.028	0.069	1.7	0.36	0.016	0.026
Vanadium [µg/g]	150	7	65	75	150	190	43	21	59	150	130
Zinc [µg/g]	41	32	25	29	44	52	10	22	19	41	30

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Final Report

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Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	78000	14000	71000	4300	71000	44000	34000	18000	23000	100000	47000
Arsenic [µg/g]	< 0.5	1.4	< 0.5	49	< 0.5	< 0.5	1.5	< 0.5	1.2	< 0.5	< 0.5
Barium [µg/g]	5.8	8.0	200	1.4	3.7	420	8.6	25	180	5.6	960
Beryllium [µg/g]	1.2	1.8	0.62	0.27	1.8	0.13	0.33	0.06	0.66	0.68	0.35
Bismuth [µg/g]	0.24	< 0.09	< 0.09	0.33	< 0.09	< 0.09	0.38	0.12	< 0.09	0.18	0.11
Calcium [µg/g]	1500	1800	850	270	4500	22000	3400	10000	1500	1800	1900
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	2.2	0.4	3.0	< 0.2	< 0.2
Cobalt [µg/g]	31	29	85	20	30	33	19	27	28	33	18
Chromium [µg/g]	170	33	1500	66	280	260	170	110	75	180	59
Copper [µg/g]	7.4	0.5	37	5.2	1.5	55	6.9	92	30	0.6	70
Iron [µg/g]	150000	503000	121000	417000	160000	58000	328000	31000	28000	140000	63000
Potassium [µg/g]	490	900	4800	90	270	16000	310	1600	12000	230	29000
Lithium [µg/g]	39	18	25	10	67	23	9	13	10	7	5
Magnesium [µg/g]	63000	13000	55000	1600	54000	21000	21000	8800	12000	62000	21000
Manganese [µg/g]	310	590	380	2560	550	1230	460	960	280	730	170
Molybdenum [µg/g]	3.8	0.3	0.5	30	0.5	0.5	2.4	0.9	16	9.2	1.0
Sodium [µg/g]	87	140	220	130	300	1370	140	1290	290	71	750
Nickel [µg/g]	130	35	750	30	120	130	410	88	50	88	17

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Analysis	98: MR ARD-10-064	99: MR ARD-10-065	100: MR ARD-10-066	101: MR ARD-10-069	102: MR ARD-10-073	103: MR ARD-10-042	104: MR ARD-10-050	105: MR ARD-10-052	106: MR ARD-10-055	107: MR ARD-10-056	108: MR ARD-10-058
Lead [µg/g]	2.1	1.8	4.1	3.9	2.6	0.85	1.4	3.3	16	0.76	32
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	1.4	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Tin [µg/g]	1.4	< 0.5	2.4	1.0	1.8	1.3	2.2	1.0	0.7	0.6	3.0
Strontium [µg/g]	15	6.4	6.5	1.8	11	12	7.5	11	3.2	3.4	8.4
Titanium [µg/g]	76	180	380	110	490	2900	120	870	1400	130	2600
Thallium [µg/g]	1.5	0.04	0.06	0.04	0.02	0.26	0.52	0.27	1.3	0.08	0.71
Uranium [µg/g]	1.00	8.2	0.078	0.39	1.6	0.077	3.2	0.29	5.2	0.46	1.4
Vanadium [µg/g]	62	16	120	9	92	180	97	79	31	190	140
Zinc [µg/g]	99	18	31	4.3	58	45	38	80	722	63	9.3

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Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	21000	82000	20000	73000	31000	10	17000	48000	45000
Arsenic [µg/g]	< 0.5	< 0.5	0.7	< 0.5	1.0	1.7	< 0.5	< 0.5	< 0.5
Barium [µg/g]	110	1300	27	510	12	0.51	96	470	100
Beryllium [µg/g]	0.72	1.1	0.06	1.1	0.16	0.08	0.47	1.9	0.12
Bismuth [µg/g]	< 0.09	< 0.09	< 0.09	0.19	0.46	0.13	< 0.09	< 0.09	< 0.09
Calcium [µg/g]	1000	210	36000	12000	34000	25	2200	2000	1200
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	0.5	0.2	< 0.2	< 0.2	< 0.2
Cobalt [µg/g]	5.5	42	13	55	23	0.25	7.6	7.8	40
Chromium [µg/g]	95	170	54	74	75	< 0.5	130	75	230
Copper [µg/g]	5.1	75	111	33	98	0.1	51	2.8	141
Iron [µg/g]	28000	88000	20000	155000	51000	33	26000	42000	56000
Potassium [µg/g]	7300	15000	3000	31000	1000	< 1	7400	23000	15000
Lithium [µg/g]	8	21	37	17	75	< 2	8	24	35
Magnesium [µg/g]	12000	51000	16000	19000	38000	19	8000	31000	25000
Manganese [µg/g]	280	510	940	140	950	2.3	180	300	220
Molybdenum [µg/g]	2.1	0.2	0.2	18	1.8	0.5	12	1.1	0.6
Sodium [µg/g]	250	340	510	550	380	9	240	630	390
Nickel [µg/g]	8.6	170	35	70	48	< 0.1	16	7.3	120

OnLine LIMS

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LR Report : **CA11533-AUG10**

Analysis	118: MR ARD-10-110	119: MR ARD-10-111	120: MR ARD-10-112	121: MR ARD-10-116	122: MR ARD-10-051	123: MR ARD-10-113	124: MR ARD-10-114	125: MR ARD-10-115	126: MR ARD-10-117
Lead [µg/g]	2.3	7.2	0.52	15	18	0.40	3.7	4.7	0.91
Antimony [µg/g]	1.3	< 0.8	< 0.8	< 0.8	1.7	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	1.1	< 0.7	< 0.7	< 0.7	< 0.7
Tin [µg/g]	0.9	1.2	< 0.5	1.9	2.1	< 0.5	0.6	1.7	0.7
Strontium [µg/g]	8.1	1.9	16	35	14	0.22	4.7	6.8	11
Titanium [µg/g]	640	1100	820	1700	1200	< 0.1	410	1800	1200
Thallium [µg/g]	0.21	0.35	0.06	1.6	0.63	0.27	0.27	0.68	0.20
Uranium [µg/g]	2.0	0.058	0.034	2.6	0.59	0.22	2.1	1.5	0.047
Vanadium [µg/g]	11	180	56	28	130	1	7	38	210
Zinc [µg/g]	16	60	20	26	38	< 0.7	18	41	23

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Thursday, September 30, 2010

Baffinland Iron Mines Corp
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Toronto, ON, M5H 1T1
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Phone: 416-364-8820
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Date Rec. : 31 August 2010
LR Report: **CA11533-AUG10**

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	127: MR ARD-10-118	128: MR ARD-10-124	129: MR ARD-10-125	130: MR ARD-10-126	131: MR ARD-10-127	132: MR ARD-10-128	133: MR ARD-10-129	134: MR ARD-10-130	135: MR ARD-10-131
Sample Date & Time	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA	Date:NA
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	81000	38000	21000	84000	116000	41000	29000	25000	7100
Arsenic [µg/g]	< 0.5	< 0.5	< 0.5	6.9	< 0.5	3.5	154	1.2	27
Barium [µg/g]	4.2	18	260	31	560	5.9	2.1	56	1.6
Beryllium [µg/g]	1.1	2.4	1.1	3.5	1.3	1.7	0.86	0.12	0.44
Bismuth [µg/g]	< 0.09	< 0.09	< 0.09	0.17	< 0.09	0.10	1.0	< 0.09	< 0.09
Calcium [µg/g]	150	260	920	810	2500	1300	350	7400	1800
Cadmium [µg/g]	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cobalt [µg/g]	43	7.8	7.8	44	67	26	72	21	10.0
Chromium [µg/g]	730	150	85	130	580	600	170	120	40
Copper [µg/g]	8.0	0.9	2.3	29	94	29	207	165	31
Iron [µg/g]	132000	74000	21000	216000	145000	98000	225000	33000	6900
Potassium [µg/g]	73	3300	12000	600	10000	240	100	5000	190
Lithium [µg/g]	< 2	52	15	370	32	32	70	39	5
Magnesium [µg/g]	70000	28000	11000	46000	110000	35000	2800	24000	20000
Manganese [µg/g]	940	420	150	630	850	600	570	590	32000
Molybdenum [µg/g]	0.2	0.1	0.7	0.8	0.8	1.2	177	1.7	56
Sodium [µg/g]	89	290	350	170	350	170	250	250	69
Nickel [µg/g]	290	26	8.8	200	310	320	170	59	25

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LR Report : **CA11533-AUG10**

Analysis	127: MR ARD-10-118	128: MR ARD-10-124	129: MR ARD-10-125	130: MR ARD-10-126	131: MR ARD-10-127	132: MR ARD-10-128	133: MR ARD-10-129	134: MR ARD-10-130	135: MR ARD-10-131
Lead [µg/g]	2.2	2.5	6.5	5.7	3.6	3.6	29	1.0	1.2
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	1.0	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	8.9	< 0.7	< 0.7
Tin [µg/g]	< 0.5	< 0.5	0.6	1.5	1.0	0.9	1.9	2.0	1.2
Strontium [µg/g]	1.8	5.6	6.0	7.9	3.6	11	3.5	12	1.9
Titanium [µg/g]	230	690	850	750	1000	150	310	1200	190
Thallium [µg/g]	0.05	0.07	0.48	0.04	0.19	< 0.02	0.67	0.09	0.03
Uranium [µg/g]	2.4	5.6	3.6	3.9	0.89	1.2	1.4	0.031	0.39
Vanadium [µg/g]	110	48	10	55	150	64	120	140	24
Zinc [µg/g]	96	13	27	143	73	20	8.8	16	13

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Friday, October 08, 2010

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Date Rec. : 16 September 2010
LR Report: **CA11051-SEP10**

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CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: 5141	6: 5142	7: 5143	8: 5144	9: 5145	10: 5146	11: 5147	12: 5148	13: 5149	14: 5150
Sample Date & Time			Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A
Mercury [µg/g]	06-Oct-10	08:00	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	06-Oct-10	13:05	43000	29000	25000	28000	31000	75000	18000	23000	16000	33000
Arsenic [µg/g]	06-Oct-10	09:57	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Barium [µg/g]	06-Oct-10	09:57	250	150	140	150	130	540	110	140	170	350
Beryllium [µg/g]	06-Oct-10	09:57	0.95	0.18	0.20	0.24	0.23	0.37	0.27	0.23	0.17	0.60
Bismuth [µg/g]	06-Oct-10	09:57	0.14	0.12	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	0.13	3.9	3.1
Calcium [µg/g]	06-Oct-10	13:06	3100	2900	2000	2000	2300	2200	1400	2100	1500	3600
Cadmium [µg/g]	06-Oct-10	09:57	0.06	0.30	0.07	0.03	0.06	0.03	0.18	0.20	6.0	0.17
Cobalt [µg/g]	06-Oct-10	09:57	26	10	11	11	11	28	6.8	8.8	6.9	24
Chromium [µg/g]	06-Oct-10	09:57	130	60	57	72	67	180	77	88	89	260
Copper [µg/g]	06-Oct-10	09:57	79	35	19	6.2	13	11	25	36	100	66
Iron [µg/g]	06-Oct-10	13:07	67000	48000	36000	40000	42000	89000	23000	28000	26000	41000
Potassium [µg/g]	06-Oct-10	13:08	18000	23000	20000	21000	24000	60000	14000	17000	13000	21000
Lithium [µg/g]	06-Oct-10	09:57	52	32	31	33	35	49	20	24	19	49
Magnesium [µg/g]	06-Oct-10	13:09	34000	13000	13000	15000	21000	57000	10000	15000	11000	34000
Manganese [µg/g]	06-Oct-10	09:57	820	500	360	490	570	810	530	520	650	550
Molybdenum [µg/g]	06-Oct-10	09:57	1.9	4.5	1.9	0.3	2.6	31	3.9	0.7	1.3	2.9
Sodium [µg/g]	07-Oct-10	12:29	410	420	430	430	590	650	570	450	560	430
Nickel [µg/g]	06-Oct-10	09:57	64	5.7	8.9	9.3	18	70	6.7	8.2	7.1	110

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LR Report : **CA11051-SEP10**

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: 5141	6: 5142	7: 5143	8: 5144	9: 5145	10: 5146	11: 5147	12: 5148	13: 5149	14: 5150
Lead [µg/g]	06-Oct-10	09:57	6.8	19	5.4	3.5	3.4	4.7	6.9	9.4	39	3.7
Antimony [µg/g]	06-Oct-10	09:57	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	06-Oct-10	09:57	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Tin [µg/g]	06-Oct-10	09:57	2.2	3.5	1.6	2.6	1.9	1.2	1.8	7.2	3.9	2.7
Strontium [µg/g]	06-Oct-10	09:57	4.1	4.4	4.9	4.1	5.4	4.0	7.8	6.5	8.0	7.1
Titanium [µg/g]	06-Oct-10	13:11	4400	4700	3700	3700	3800	6300	2000	2000	2000	3300
Thallium [µg/g]	06-Oct-10	09:57	0.48	0.69	0.59	0.60	0.78	1.6	0.54	0.51	0.70	1.0
Uranium [µg/g]	06-Oct-10	09:57	3.0	7.1	2.2	1.8	1.4	0.47	4.2	6.7	4.8	2.3
Vanadium [µg/g]	06-Oct-10	09:57	140	24	66	69	73	170	26	43	21	98
Zinc [µg/g]	06-Oct-10	09:57	93	100	61	69	68	170	65	97	350	120

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Date Rec. : 16 September 2010
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CERTIFICATE OF ANALYSIS
Final Report

Analysis	**15: 5151**	**16: 5152**	**17: 5153**	**18: 5154**	**19: 5155**	**20: 5156**	**21: 5157**	**22: 5158**	**23: 5159**	**24: 5160**	**25: 5161**	**26: 5162**	**27: 5163**
Sample Date & Time	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	40000	29000	49000	20000	16000	23000	21000	29000	35000	17000	26000	19000	25000
Arsenic [µg/g]	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Barium [µg/g]	650	450	370	250	83	250	450	390	680	130	95	120	120
Beryllium [µg/g]	0.43	0.30	0.96	0.12	0.56	0.25	0.21	0.24	0.19	0.95	0.12	0.14	0.16
Bismuth [µg/g]	0.73	0.34	4.2	0.70	0.71	0.17	0.12	0.22	0.18	1.3	< 0.09	< 0.09	< 0.09
Calcium [µg/g]	4900	1400	3700	2300	1100	3200	3800	4900	3400	8200	2100	1700	1500
Cadmium [µg/g]	1.1	2.1	0.56	0.14	0.26	0.27	0.13	0.10	0.40	0.08	0.06	0.09	0.04
Cobalt [µg/g]	23	11	24	7.0	4.3	8.3	9.3	8.4	9.1	6.1	11	7.1	8.8
Chromium [µg/g]	310	74	100	75	110	72	83	58	58	87	70	63	60
Copper [µg/g]	150	260	170	20	12	15	28	26	48	12	9.0	3.3	2.9
Iron [µg/g]	49000	41000	65000	31000	21000	41000	36000	49000	58000	26000	36000	26000	35000
Potassium [µg/g]	30000	22000	23000	15000	10000	18000	16000	23000	27000	13000	22000	16000	21000
Lithium [µg/g]	43	32	69	22	31	24	25	27	30	28	30	26	35
Magnesium [µg/g]	33000	16000	42000	9300	10000	12000	12000	14000	17000	10000	15000	10000	14000
Manganese [µg/g]	550	490	880	460	400	560	770	790	800	510	570	460	520
Molybdenum [µg/g]	0.8	2.1	6.3	37	6.2	47	2.0	8.7	1.7	1.4	0.4	0.4	0.5
Sodium [µg/g]	640	590	340	730	490	620	680	740	540	430	430	390	370
Nickel [µg/g]	110	7.4	40	4.9	5.6	5.0	7.0	4.7	7.8	8.1	17	7.4	8.3

OnLine LIMS

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LR Report : **CA11051-SEP10**

Analysis	15: 5151	16: 5152	17: 5153	18: 5154	19: 5155	20: 5156	21: 5157	22: 5158	23: 5159	24: 5160	25: 5161	26: 5162	27: 5163
Lead [µg/g]	7.6	21	120	4.2	28	3.4	5.2	8.0	13	4.7	5.8	6.9	6.1
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	0.9	< 0.7	< 0.7	0.7	< 0.7	0.8	< 0.7
Tin [µg/g]	5.1	11	6.0	2.5	1.6	2.6	1.0	1.5	4.3	2.4	1.6	1.4	2.0
Strontium [µg/g]	12	5.6	6.0	6.2	4.3	6.7	8.5	11	8.2	15	4.7	3.7	3.9
Titanium [µg/g]	3800	2600	4800	2800	1400	3700	2900	4700	4700	2000	3900	2900	3300
Thallium [µg/g]	1.3	0.86	0.74	0.47	0.33	0.62	0.54	0.61	0.82	0.48	0.70	0.52	0.72
Uranium [µg/g]	2.7	7.1	2.6	2.1	2.2	2.4	1.6	4.8	5.6	1.5	1.8	2.6	3.1
Vanadium [µg/g]	73	34	100	33	19	38	26	20	35	23	73	56	53
Zinc [µg/g]	230	270	270	71	100	95	67	78	110	56	68	50	60

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CERTIFICATE OF ANALYSIS
Final Report

Analysis	**28: 5164**	**29: 5165**	**30: 5166**	**31: 5167**	**32: 5168**	**33: 5169**	**34: 5170**	**35: 5171**	**36: 5172**	**37: 5173**	**38: 5174**	**39: 5175**	**40: 5176**
Sample Date & Time	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Aluminum [µg/g]	20000	6200	30000	21000	25000	8900	18000	9300	7500	15000	6700	20000	92000
Arsenic [µg/g]	< 0.5	0.7	< 0.5	< 0.5	< 0.5	< 0.5	0.7	0.6	0.7	0.5	0.6	< 0.5	0.8
Barium [µg/g]	130	41	170	190	170	52	93	67	78	70	38	79	95
Beryllium [µg/g]	0.16	0.62	0.27	0.23	0.49	0.21	0.54	0.34	0.84	0.31	0.45	2.3	2.4
Bismuth [µg/g]	< 0.09	0.23	< 0.09	< 0.09	0.09	0.12	0.34	0.49	0.76	< 0.09	< 0.09	< 0.09	0.09
Calcium [µg/g]	1300	6700	4700	3700	3400	1200	11000	2100	3200	10000	71	230	3400
Cadmium [µg/g]	0.07	0.06	0.22	0.05	0.05	2.9	0.45	0.15	0.22	0.10	0.28	0.20	0.25
Cobalt [µg/g]	7.2	2.1	9.2	7.6	9.2	4.6	21	5.1	3.5	15	2.7	4.3	34
Chromium [µg/g]	80	78	65	67	69	96	390	67	120	370	140	110	700
Copper [µg/g]	6.8	7.1	21	24	14	41	110	92	43	34	17	7.7	13
Iron [µg/g]	29000	7200	47000	30000	36000	13000	26000	20000	16000	23000	8200	16000	94000
Potassium [µg/g]	16000	3300	23000	16000	21000	6600	15000	7700	5000	13000	3200	9000	37000
Lithium [µg/g]	30	9	35	24	32	9	27	20	17	34	6	16	35
Magnesium [µg/g]	10000	4900	16000	14000	17000	6100	17000	6500	4500	14000	3600	16000	86000
Manganese [µg/g]	430	370	760	590	690	200	290	360	330	260	110	320	860
Molybdenum [µg/g]	1.5	0.4	1.5	0.4	6.6	0.7	1.1	0.2	0.7	1.3	1.9	0.4	0.7
Sodium [µg/g]	450	290	510	660	570	790	340	350	650	430	80	140	570
Nickel [µg/g]	7.1	4.0	9.4	7.9	7.7	4.8	100	4.0	5.1	65	5.7	6.6	150

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LR Report : **CA11051-SEP10**

Analysis	28: 5164	29: 5165	30: 5166	31: 5167	32: 5168	33: 5169	34: 5170	35: 5171	36: 5172	37: 5173	38: 5174	39: 5175	40: 5176
Lead [µg/g]	3.7	18	7.4	9.3	8.0	52	55	20	24	7.0	55	11	13
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	0.9	< 0.7	< 0.7	< 0.7	0.8	0.8	0.9	1.2	0.8	1.0	1.1	< 0.7
Tin [µg/g]	0.5	< 0.5	1.2	0.9	1.7	1.2	0.7	1.0	1.7	< 0.5	< 0.5	< 0.5	1.6
Strontium [µg/g]	3.3	13	9.9	13	9.3	14	36	13	18	26	1.6	2.2	3.9
Titanium [µg/g]	2700	670	4300	2700	3300	1100	2500	930	830	2500	65	220	3100
Thallium [µg/g]	0.55	0.16	0.64	0.60	0.74	0.26	0.94	0.40	0.20	0.76	0.08	0.30	1.4
Uranium [µg/g]	0.64	0.78	3.1	1.9	2.7	7.6	3.9	8.1	8.4	2.1	8.3	12	3.2
Vanadium [µg/g]	24	4	29	62	63	13	58	11	6	63	23	27	83
Zinc [µg/g]	49	18	74	69	61	67	36	26	17	29	30	30	170

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Friday, October 08, 2010

Baffinland Iron Mines Corp
Attn : Michael Zurowski

1016-120 Adelaide Street West, Toronto, ON
Canada, M5H 1T1
Phone: 416-364-8820, Fax:pdf

Date Rec. : 16 September 2010
LR Report: **CA11051-SEP10**

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CERTIFICATE OF ANALYSIS
Final Report

Analysis	**41: 5177**	**42: 5178**	**43: 5179**	**44: 5180**	**45: 5181**	**46: 5182**	**47: 5183**	**48: 5184**	**49: 5185**	**50: 5186**	**51: 5187**	**52: 5188**	**53: 5189**
Sample Date & Time	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A	Date:N/A
Mercury [µg/g]	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.1	< 0.1
Aluminum [µg/g]	80000	71000	55000	73000	84000	33000	33000	59000	37000	37000	47000	28000	70000
Arsenic [µg/g]	13	0.9	< 0.5	< 0.5	< 0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Barium [µg/g]	67	2.6	160	270	490	220	260	560	220	270	280	150	700
Beryllium [µg/g]	3.6	0.63	5.1	3.3	3.2	0.90	0.72	1.0	0.57	1.0	1.5	0.52	0.89
Bismuth [µg/g]	< 0.09	0.09	0.10	< 0.09	< 0.09	0.24	< 0.09	< 0.09	0.14	0.16	< 0.09	< 0.09	0.12
Calcium [µg/g]	4000	5900	880	1800	3100	2900	1100	3500	5400	16000	1700	2700	3300
Cadmium [µg/g]	2.6	0.26	0.03	< 0.02	0.02	0.39	0.10	< 0.02	0.03	0.04	< 0.02	0.10	< 0.02
Cobalt [µg/g]	36	73	10	6.4	14	22	21	20	21	16	22	15	24
Chromium [µg/g]	780	2200	100	17	34	82	64	69	49	67	27	74	47
Copper [µg/g]	8.0	67	1.9	0.7	7.6	200	29	1.5	36	29	2.4	26	22
Iron [µg/g]	91000	77000	38000	31000	55000	49000	37000	57000	50000	45000	53000	33000	69000
Potassium [µg/g]	25000	440	21000	35000	43000	21000	22000	38000	20000	15000	25000	16000	45000
Lithium [µg/g]	26	7	52	92	81	23	26	28	24	22	25	15	33
Magnesium [µg/g]	86000	74000	45000	57000	56000	19000	21000	38000	23000	17000	30000	18000	44000
Manganese [µg/g]	280	430	490	440	420	290	340	530	410	410	320	270	570
Molybdenum [µg/g]	53	0.9	2.1	0.8	0.6	0.3	0.3	2.1	0.2	0.2	0.1	0.6	1.3
Sodium [µg/g]	540	30	390	630	760	300	390	730	370	450	430	330	890
Nickel [µg/g]	180	620	26	4.9	23	16	35	38	8.8	13	33	17	30

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LR Report : **CA11051-SEP10**

Analysis	41: 5177	42: 5178	43: 5179	44: 5180	45: 5181	46: 5182	47: 5183	48: 5184	49: 5185	50: 5186	51: 5187	52: 5188	53: 5189
Lead [µg/g]	12	27	14	12	26	18	15	11	5.9	9.7	5.1	12	10
Antimony [µg/g]	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Selenium [µg/g]	< 0.7	0.8	0.7	< 0.7	< 0.7	1.4	1.0	< 0.7	< 0.7	1.3	0.7	1.3	0.8
Tin [µg/g]	1.3	< 0.5	1.3	1.5	1.8	0.6	0.7	1.8	0.8	1.0	1.0	< 0.5	1.5
Strontium [µg/g]	5.2	3.9	4.3	15	14	3.6	3.3	7.2	6.1	15	3.4	2.6	5.3
Titanium [µg/g]	3700	380	840	440	2500	2400	2800	4100	3600	2800	2700	2200	4700
Thallium [µg/g]	0.94	0.21	0.61	0.73	0.90	0.73	0.77	1.1	0.73	0.56	0.72	0.53	1.3
Uranium [µg/g]	1.9	1.8	15	8.2	2.9	2.7	3.7	4.7	3.5	2.7	2.7	1.9	3.5
Vanadium [µg/g]	140	91	27	31	79	62	120	150	48	64	170	38	140
Zinc [µg/g]	450	100	42	46	58	62	63	75	66	53	74	48	80

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APPENDIX C-4

SHAKE FLASK EXTRACTION RESULTS

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SFE (3:1 DI Leach 24h 0.45)

Wednesday, November 17, 2010

Baffinland Iron Mines Corp
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Toronto, ON, M5H 1T1
Canada

Phone: 416-364-8820
Fax:pdf

Date Rec. : 26 October 2010
LR Report: **CA11386-OCT10**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	3: Analysis Approval Date	4: Analysis Approval Time	5: 5164	6: 5171	7: MR ARD 10-019	8: 5145	9: 5169	10: 5181	11: 5153	12: MR ARD 10-077	13: MR ARD 10-079
Sample Date & Time			Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A
Sample [weight(g)]	12-Nov-10	09:39	250	250	250	250	250	250	250	250	250
Volume mL [D.I. H2O]	12-Nov-10	09:39	750	750	750	750	750	750	750	750	750
InitialpH [units]	12-Nov-10	09:39	9.20	9.68	7.80	9.20	9.58	8.91	9.18	8.52	9.74
Final pH [units]	12-Nov-10	09:39	9.87	9.57	8.74	9.78	9.71	9.47	9.76	9.64	9.73
Mercury [mg/L]	16-Nov-10	15:31	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Aluminum [mg/L]	16-Nov-10	15:32	1.50	0.62	0.12	1.24	0.82	0.65	0.43	2.70	0.87
Arsenic [mg/L]	17-Nov-10	13:05	0.0012	0.0016	0.0010	< 0.0002	0.0042	0.0004	< 0.0002	0.0003	0.0003
Barium [mg/L]	17-Nov-10	13:05	0.00231	0.00272	0.00506	0.00111	0.00174	0.00119	0.00265	0.0136	0.00209
Beryllium [mg/L]	17-Nov-10	13:05	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00004	< 0.00002
Bismuth [mg/L]	17-Nov-10	13:05	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	16-Nov-10	15:32	0.73	3.90	18.8	0.16	2.51	1.67	0.77	0.07	6.69
Cadmium [mg/L]	17-Nov-10	13:05	0.000004	< 0.000003	0.000030	0.000003	0.000013	< 0.000003	0.000010	0.000007	< 0.000003
Cobalt [mg/L]	17-Nov-10	13:05	0.000078	0.000073	0.000040	0.000119	0.000126	0.000029	0.000037	0.000187	0.000024
Chromium [mg/L]	17-Nov-10	13:05	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	17-Nov-10	13:05	< 0.0005	0.0006	< 0.0005	0.0007	0.0011	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Iron [mg/L]	16-Nov-10	15:32	0.112	0.076	< 0.002	0.148	0.096	0.069	0.068	0.452	0.010
Potassium [mg/L]	16-Nov-10	15:32	16.1	11.2	4.90	9.97	7.80	10.4	19.3	23.3	8.33
Lithium [mg/L]	17-Nov-10	13:05	0.011	0.008	0.001	0.008	0.004	0.016	0.003	0.002	0.005
Magnesium [mg/L]	17-Nov-10	13:15	0.188	0.464	14.0	0.127	0.353	0.383	0.302	0.226	0.643

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SFE (3:1 DI Leach 24h 0.45)

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Manganese [mg/L]	17-Nov-10	13:15	0.00180	0.00221	0.00535	0.00244	0.00220	0.00081	0.00117	0.00218	0.00105
Molybdenum [mg/L]	17-Nov-10	13:05	0.00553	0.00383	0.0361	0.00187	0.00819	0.00409	0.0160	0.0110	0.00052
Sodium [mg/L]	16-Nov-10	15:31	3.67	7.83	1.52	3.94	8.16	2.78	2.21	1.78	4.38
Nickel [mg/L]	17-Nov-10	13:05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0001	< 0.0001
Lead [mg/L]	17-Nov-10	13:05	0.00025	0.00058	0.00020	0.00128	0.00302	0.00030	0.00041	0.00073	0.00018
Antimony [mg/L]	17-Nov-10	13:05	0.0003	0.0004	0.0004	< 0.0002	0.0017	< 0.0002	0.0005	< 0.0002	0.0003
Selenium [mg/L]	17-Nov-10	13:05	< 0.001	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Tin [mg/L]	17-Nov-10	13:05	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Strontium [mg/L]	16-Nov-10	15:31	0.0025	0.0206	0.137	0.0010	0.0158	0.0161	0.0039	0.0007	0.0133
Titanium [mg/L]	17-Nov-10	13:05	0.0096	0.0036	0.0002	0.0139	0.0075	0.0027	0.0068	0.0271	0.0008
Thallium [mg/L]	17-Nov-10	13:05	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Uranium [mg/L]	17-Nov-10	13:05	0.000584	0.0119	0.000126	0.000316	0.0115	0.000246	0.000020	0.000093	0.000007
Vanadium [mg/L]	17-Nov-10	13:05	0.00635	0.00436	0.00023	0.0156	0.00557	0.00183	0.00884	0.0171	0.0278
Zinc [mg/L]	17-Nov-10	13:05	< 0.001	0.002	< 0.001	< 0.001	0.002	< 0.001	< 0.001	0.001	0.001

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SFE (3:1 DI Leach 24h 0.45)

Wednesday, November 17, 2010

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Final Report

Analysis	14: MR ARD 10-039	15: MR ARD 10-091	16: MR ARD 10-023	17: MR ARD 10-083	18: MR ARD 10-098	19: MR ARD 10-036	20: MR ARD 10-001	21: MR ARD 10-097	22: MR ARD 10-028	23: MR ARD 10-115
Sample Date & Time	Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A	Date: N/A
Sample [weight(g)]	250	250	250	250	250	250	250	250	250	250
Volume mL [D.I. H2O]	750	750	750	750	750	750	750	750	750	750
InitialpH [units]	4.31	6.93	8.78	9.02	9.65	7.31	7.06	9.74	7.38	9.23
Final pH [units]	4.70	7.33	9.34	8.99	9.70	7.95	7.63	9.73	8.16	9.74
Mercury [mg/L]	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Aluminum [mg/L]	1.22	0.02	< 0.01	0.03	0.88	< 0.01	< 0.01	0.55	0.06	2.15
Arsenic [mg/L]	0.0020	< 0.0002	0.0005	0.0006	0.0003	< 0.0002	0.0405	0.0004	0.0005	< 0.0002
Barium [mg/L]	0.0120	0.00102	0.00539	0.00176	0.00121	0.00321	0.0197	0.00057	0.0184	0.00324
Beryllium [mg/L]	0.00157	0.00004	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00003
Bismuth [mg/L]	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Calcium [mg/L]	42.5	2.62	9.55	13.0	3.56	32.2	24.7	4.14	7.32	0.04
Cadmium [mg/L]	0.000912	< 0.000003	< 0.000003	0.000003	< 0.000003	< 0.000003	0.000047	< 0.000003	< 0.000003	< 0.000003
Cobalt [mg/L]	0.420	0.00177	0.000320	0.000117	0.000071	0.000307	0.00248	0.000068	0.000065	0.000037
Chromium [mg/L]	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Copper [mg/L]	0.0259	< 0.0005	< 0.0005	0.0006	< 0.0005	< 0.0005	0.0005	< 0.0005	< 0.0005	0.0006
Iron [mg/L]	21.5	0.026	< 0.002	0.009	0.035	0.007	0.006	0.048	0.037	0.151
Potassium [mg/L]	8.75	4.15	1.06	11.2	17.8	3.26	22.4	8.05	9.00	4.96
Lithium [mg/L]	0.889	0.038	0.006	0.010	0.018	0.013	0.008	0.004	0.003	0.003
Magnesium [mg/L]	193	8.49	13.8	9.75	0.513	42.8	118	0.931	7.15	0.139

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Manganese [mg/L]	39.7	0.179	0.0256	0.0109	0.00371	0.0725	0.739	0.00503	0.0117	0.00164
Molybdenum [mg/L]	0.00024	0.00021	0.00031	0.00687	0.00062	0.00173	0.0540	0.00176	0.00534	0.00101
Sodium [mg/L]	93.4	1.71	0.46	5.49	4.27	0.59	13.9	7.74	0.97	9.28
Nickel [mg/L]	0.808	0.0037	0.0010	0.0004	< 0.0001	0.0006	0.0306	0.0002	0.0003	< 0.0001
Lead [mg/L]	0.00065	0.00058	0.00024	0.00019	0.00041	0.00015	0.00023	0.00042	0.00029	0.00114
Antimony [mg/L]	< 0.0002	< 0.0002	0.0008	< 0.0002	< 0.0002	< 0.0002	0.0003	< 0.0002	0.0003	< 0.0002
Selenium [mg/L]	0.002	< 0.001	< 0.001	< 0.001	< 0.001	0.003	0.001	< 0.001	0.006	< 0.001
Tin [mg/L]	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Strontium [mg/L]	0.0908	0.0032	0.0520	0.0545	0.0144	0.0174	0.156	0.0168	0.0180	0.0005
Titanium [mg/L]	0.0019	0.0006	< 0.0001	0.0004	0.0039	0.0007	0.0005	0.0045	0.0007	0.0099
Thallium [mg/L]	0.00077	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00004	< 0.00002	< 0.00002	< 0.00002
Uranium [mg/L]	0.00132	0.000075	0.000005	0.000011	0.000002	0.000005	0.000003	0.000006	0.000007	0.000088
Vanadium [mg/L]	0.00012	0.00023	0.00009	0.00460	0.0459	0.00049	0.00019	0.0353	0.00048	0.00668
Zinc [mg/L]	0.132	0.001	0.002	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001

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APPENDIX C-5

MINERALOGY BY RIETVELD XRD

Quantitative X-Ray Diffraction by Reitveld Refinement

Report Prepared for:	*Enviromental - Analytical*
Project Number/ LIMS No.	*Custom XRD/MI4512-OCT10*
Reporting Date:	*November 8, 2010*

Instrument:	BRUKER AXS D8 Advance Diffractometer
Test Conditions:	Co radiation, 40 kV, 35 mA Regular Scanning: Step: 0.02°, Step time: 1s, 2θ range: 3-80°
Interpretations :	PDF2/PDF4 powder diffraction databases issued by the International Center for Diffraction Data (ICDD). DiffracPlus Eva and Topas software.
Detection Limit :	0.5-2%. Strongly dependent on crystallinity.

Contents:

Anita Coppaway
Mineralogical Technologist

Huyun Zhou, Ph.D.
Senior Mineralogist

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Method Summary

Mineral Identification and Interpretation:

Mineral identification and interpretation involve matching the diffraction pattern of an unknown material to patterns of single-phase reference materials. The reference patterns are compiled by the Joint Committee on Powder Diffraction Standards - International Center for Diffraction Data (JCPDS-ICDD) database and released on software as Powder Diffraction Files (PDF).

Interpretations do not reflect the presence of non-crystalline and/or amorphous compounds, except when internal standards added by request. Mineral proportions may be strongly influenced by crystallinity, crystal structure and preferred orientations. Minerals or compounds identification and quantitative analysis results should be accompanied by supporting chemical assay data or other tests.

Rietveld Method Quantitative Analysis:

Whole-pattern Rietveld Method Quantitative Analysis is performed by using Topas 4.1 (Bruker AXS), a graphics based profile analysis program built around a general non-linear least squares fitting system, to determine the amount of different phases in a multicomponents sample. Whole pattern analyses are predicated by the fact that the X-ray diffraction pattern is a total sum of both instrumental factors and specimen. Instead other peak intensity-based methods, the Rietveld method uses a least square approach to refine a theoretical line profile until it matches the obtained experimental patterns.

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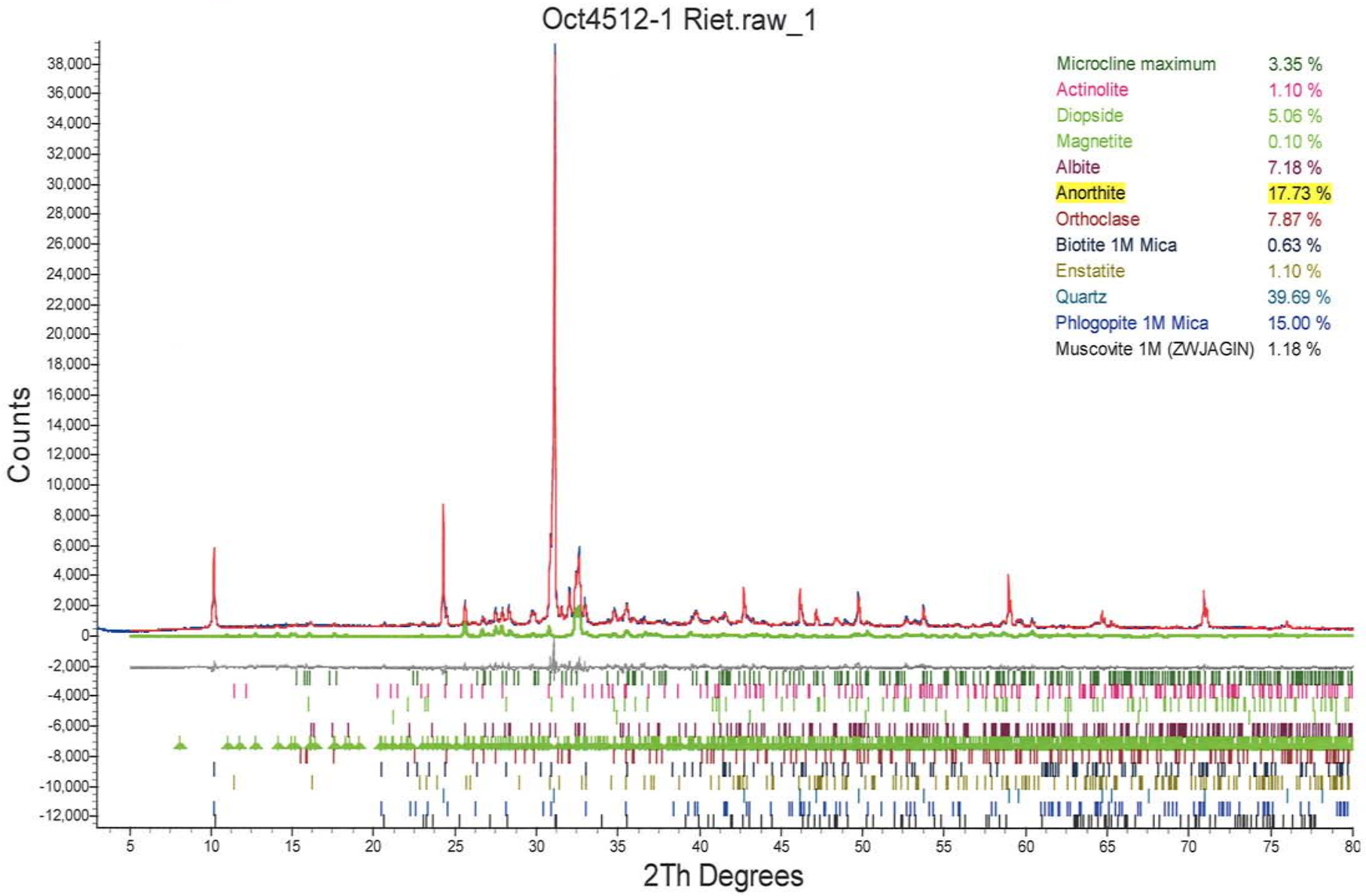
Summary of Rietveld Quantitative Analysis X-ray Diffraction Results

Quantitative X-ray Diffraction Results

Mineral/Compound	5164 (wt %)	5145 (wt %)	6181 (wt %)	MR ARD 10-077 (wt %)	MR ARD 10-091 (wt %)	MR ARD 10-083 (wt %)	MR ARD 10-036 (wt %)
Actinolite	1.1	1.3	--	--	--	17.0	--
Enstatite	1.1	0.8	--	--	--	--	--
Diopside	5.1	5.8	5.0	--	--	14.7	--
Albite	7.2	3.5	2.8	--	--	12.3	--
Anorthite	17.7	24.5	--	--	--	9.4	--
Orthoclase	7.9	8.4	2.8	--	--	5.5	--
Microcline	3.3	2.8	--	--	--	0.8	--
Quartz	39.7	28.5	3.6	38.5	3.8	15.1	43.9
Biotite	0.6	0.6	1.5	0.5	4.5	3.3	--
Phlogopite	15.0	23.3	44.1	40.7	--	--	--
Muscovite	1.2	0.3	22.9	5.3	--	--	--
Kaolinite	--	--	0.6	--	3.3	--	--
Clinochlore	--	--	16.7	7.7	67.7	5.8	44.3
Andalusite	--	--	--	7.4	--	--	--
Epidote	--	--	--	--	--	15.5	--
Magnetite	0.1	0.1	--	--	3.6	0.2	4.3
Hematite	--	--	--	--	17.2	--	3.9
Spinel	--	--	--	--	--	--	3.1
Chromite	--	--	--	--	--	--	0.5
Calcite	--	--	--	--	--	0.4	--
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Mineral/Compound	Formula
Actinolite	$Ca_2(Mg,Fe)_5Si_8O_{22}(OH)_2$
Albite	$NaAlSi_3O_8$
Andalusite	$Al_2(SiO_4)O$
Anorthite	$CaAl_2Si_2O_8$
Biotite	$K(Mg,Fe)_3(AlSi_3O_{10})(OH)_2$
Calcite	$CaCO_3$
Chromite	$FeCr_2O_4$
Clinochlore	$(Mg, Fe)_5 (Si_3Al)O_{10}(OH)_8$
Diopside	$CaMgSi_2O_6$
Enstatite	$(Mg, Fe)_2Si_2O_6$
Epidote	$Ca_2Al_2Fe(SiO_4)(Si_2O_7)(O,OH)_2$
Hematite	Fe_2O_3
Kaolinite	$Al_2Si_2O_5(OH)_4$
Magnetite	Fe_3O_4
Microcline	$KAlSi_3O_8$
Muscovite	$KAl_3(AlSi_3O_{10})(OH)_2$
Orthoclase	$KAlSi_3O_8$
Phlogopite	$KMg_3(AlSi_3O_{10})(OH)_3$
Quartz	SiO_2
Spinel	$MgAl_2O_4$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Microcline maximum 3.35 %
Actinolite 1.10 %
Diopside 5.06 %
Magnetite 0.10 %
Albite 7.18 %
Anorthite 17.73 %
Orthoclase 7.87 %
Biotite 1M Mica 0.63 %
Enstatite 1.10 %
Quartz 39.69 %
Phlogopite 1M Mica 15.00 %
Muscovite 1M (ZWJAGIN) 1.18 %
Counts
38,000
36,000
34,000
32,000
30,000
28,000
26,000
24,000
22,000
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
-2,000
-4,000
-6,000
-8,000
-10,000
-12,000
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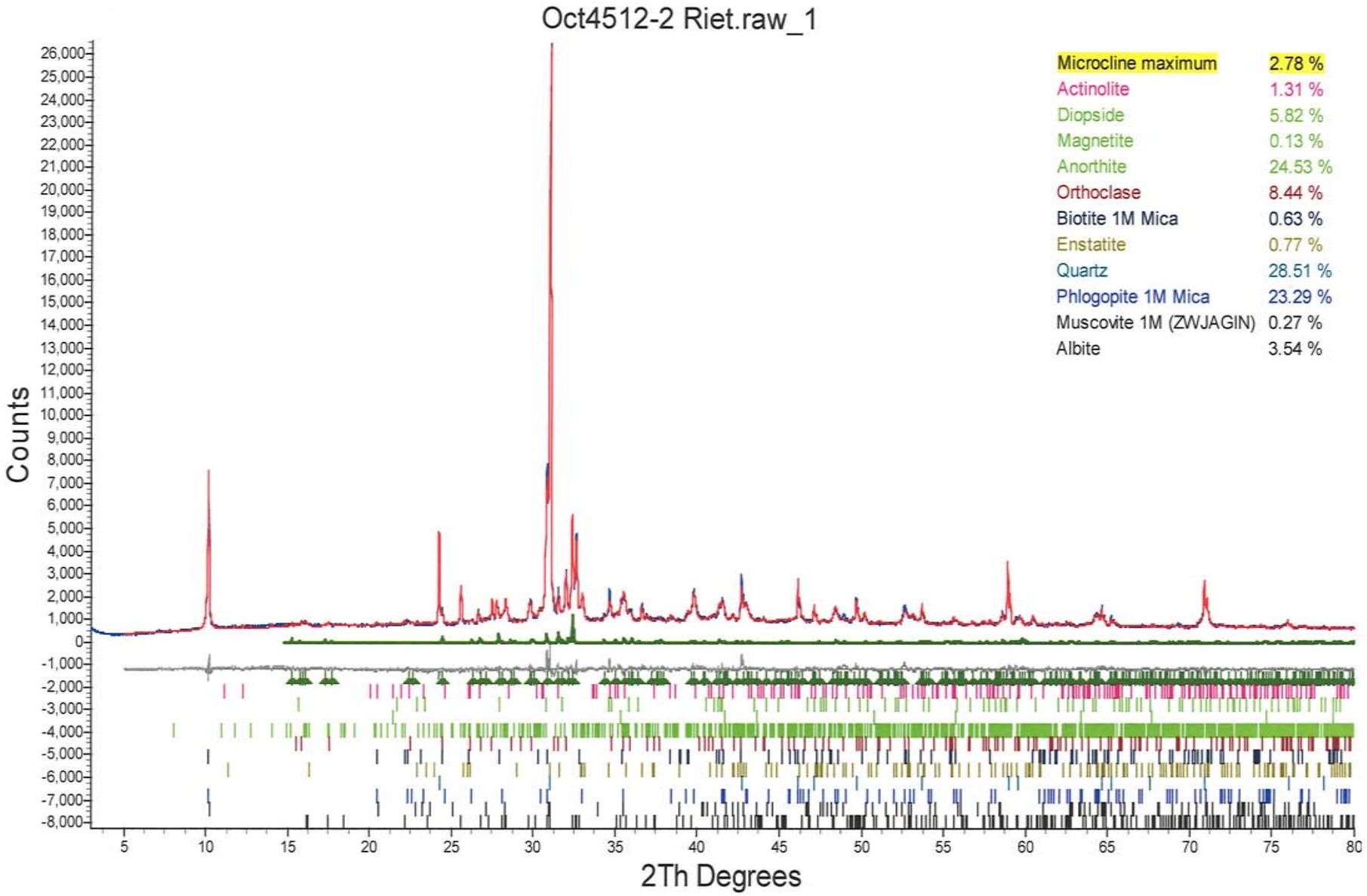
15
20
25
30
35
40
45
50
55
60
65
70
75
80
2Th Degrees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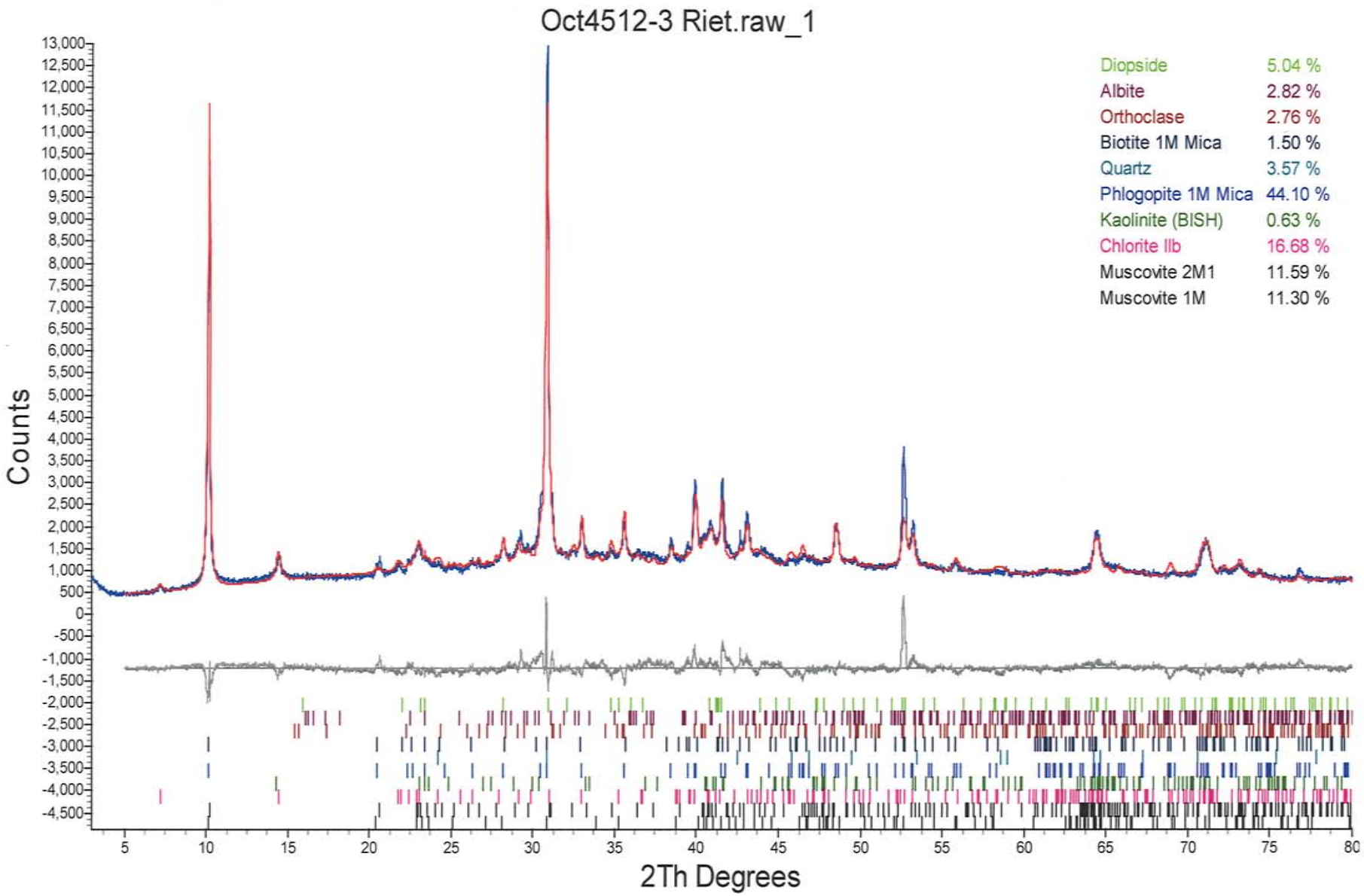
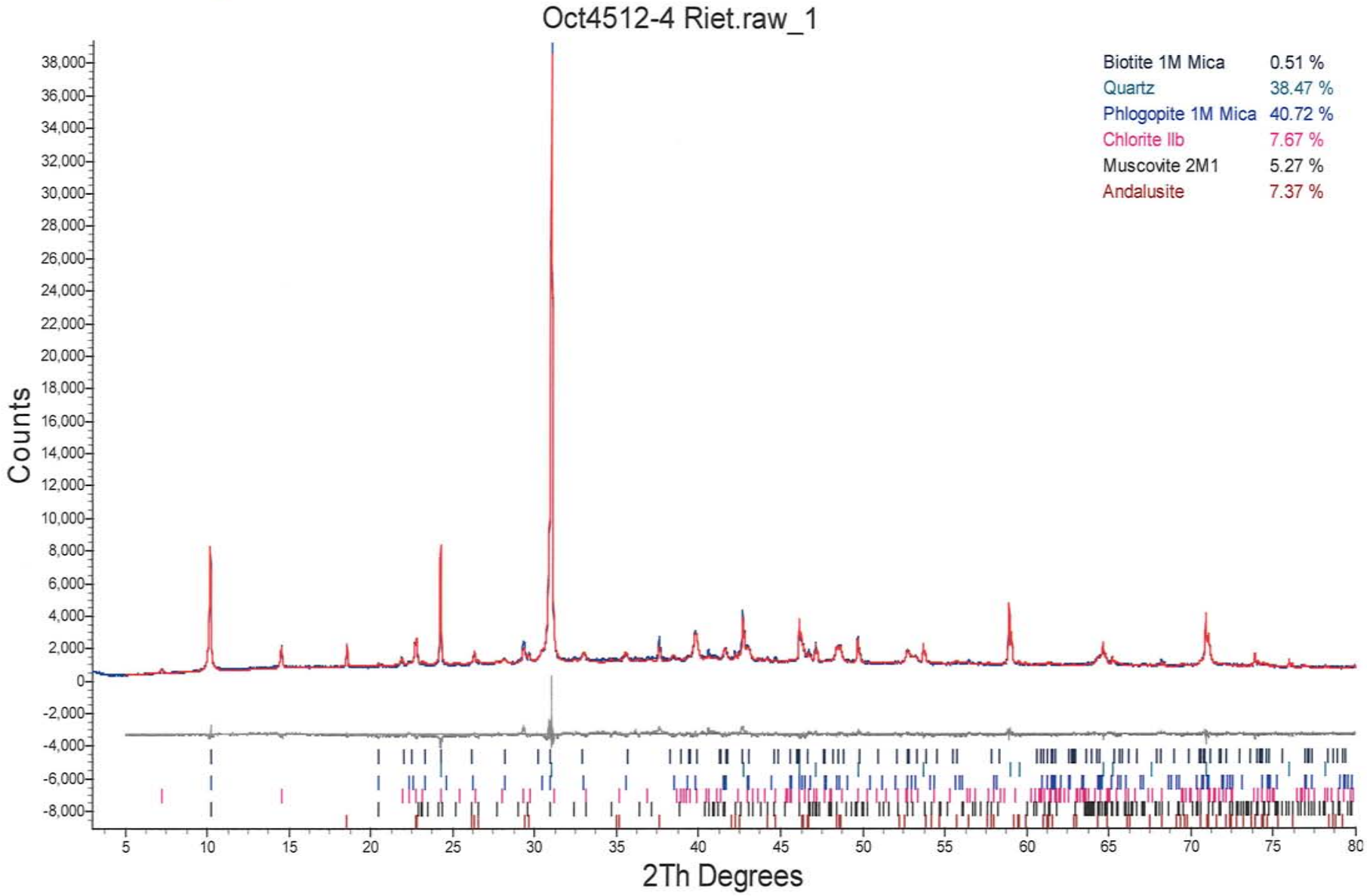
Microcline maximum 2.78 %
Actinolite 1.31 %
Diopside 5.82 %
Magnetite 0.13 %
Anorthite 24.53 %
Orthoclase 8.44 %
Biotite 1M Mica 0.63 %
Enstatite 0.77 %
Quartz 28.51 %
Phlogopite 1M Mica 23.29 %
Muscovite 1M (ZWJAGIN) 0.27 %
Albite 3.54 %
Counts
2Th Degrees

Enviromental - Analytical
Custom XRD/MI4512-OCT10
11/08/2010



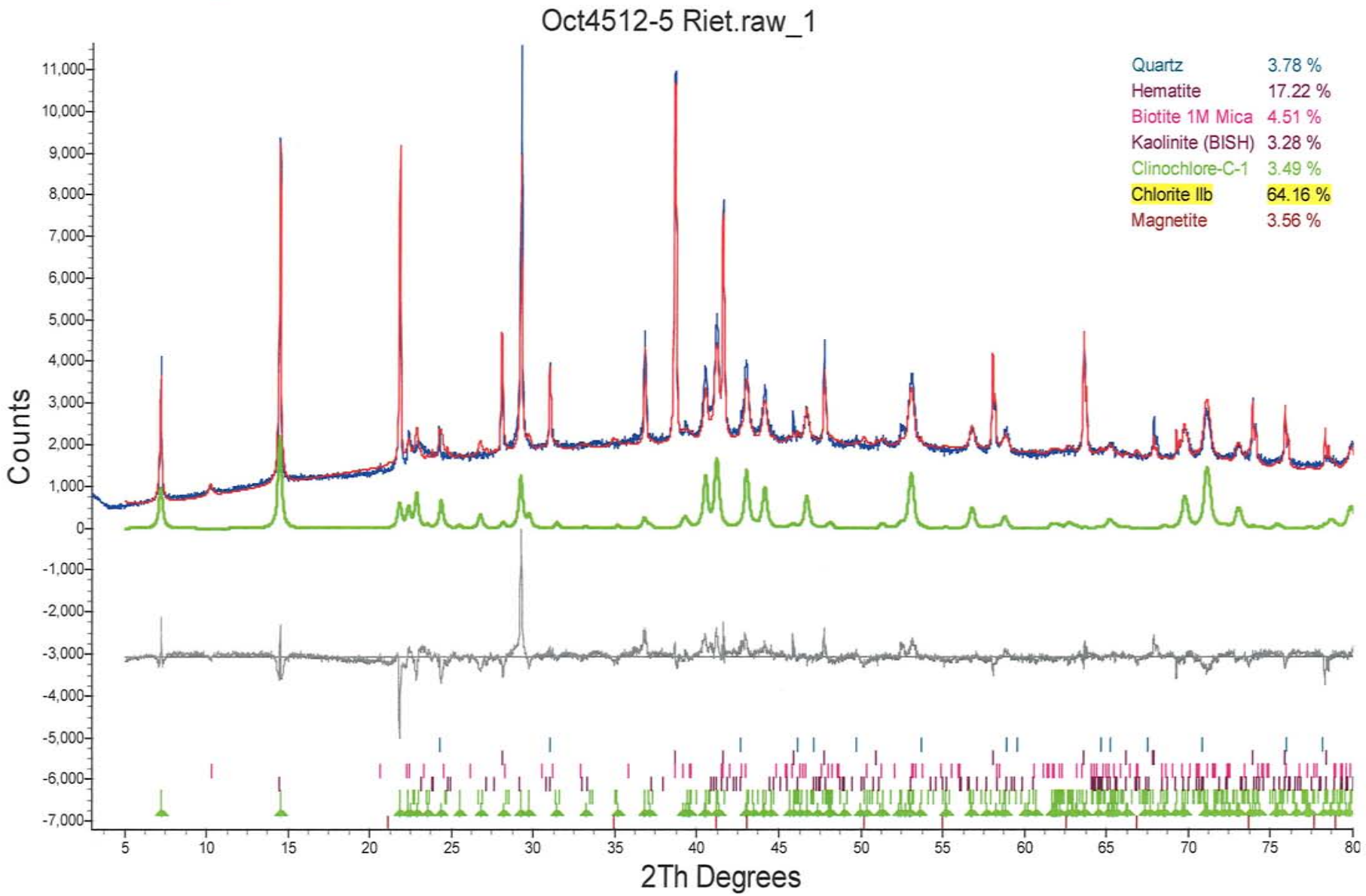
The Qualitative XRD method (METH # 8-8-1) used by SGS Minerals Services, P.O. Box 4300, 185 Concession Street, Lakefield, Ontario, Canada K0L 2H0.
Tel: (705) 652-2000 Fax: (705) 652-6365 Mini-method available upon request.

Enviromental - Analytical
Custom XRD/MI4512-OCT10
11/08/2010

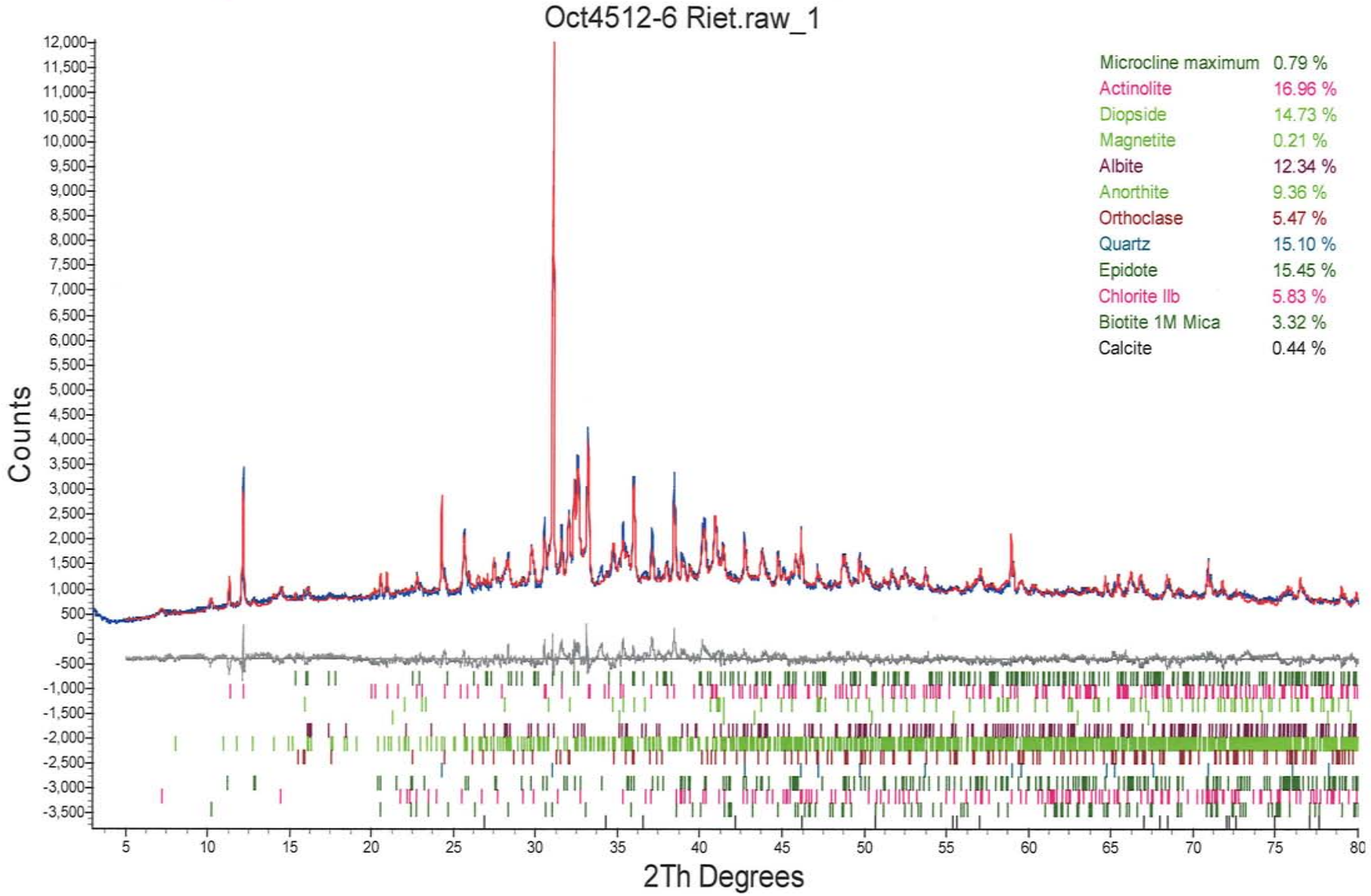


The Qualitative XRD method (METH # 8-8-1) used by SGS Minerals Services, P.O. Box 4300, 185 Concession Street, Lakefield, Ontario, Canada K0L 2H0.
Tel: (705) 652-2000 Fax: (705) 652-6365 Mini-method available upon request.

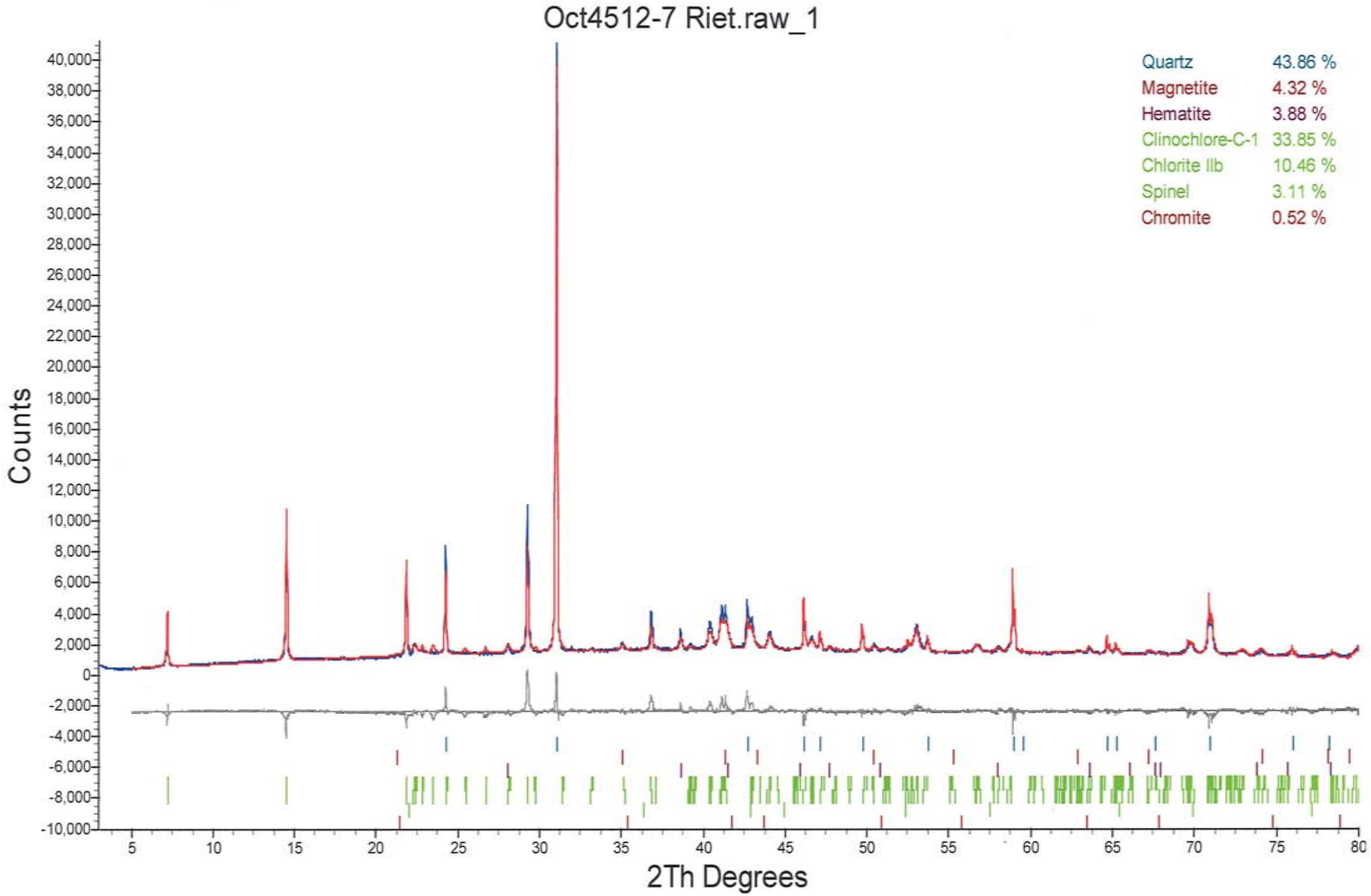
Enviromental - Analytical
Custom XRD/MI4512-OCT10
11/08/2010



The Qualitative XRD method (METH # 8-8-1) used by SGS Minerals Services, P.O. Box 4300, 185 Concession Street, Lakefield, Ontario, Canada K0L 2H0.
Tel: (705) 652-2000 Fax: (705) 652-6365 Mini-method available upon request.


Oct4512-6 Riet.raw_1
Microcline maximum 0.79 %
Actinolite 16.96 %
Diopside 14.73 %
Magnetite 0.21 %
Albite 12.34 %
Anorthite 9.36 %
Orthoclase 5.47 %
Quartz 15.10 %
Epidote 15.45 %
Chlorite IIb 5.83 %
Biotite 1M Mica 3.32 %
Calcite 0.44 %
Counts
2Th Degrees

Enviromental - Analytical
Custom XRD/MI4512-OCT10
11/08/2010



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Tel: (705) 652-2000 Fax: (705) 652-6365 Mini-method available upon request.

APPENDIX D

BAFFINLAND SITE DRAINAGE RESULTS

LIST OF TABLES

Note: Site Drainage Sampling Data (crusher site lysimeter results presented in Table 8)

Table D-1. Weathered Ore and Waste Rock Stockpile Drainage Data Near Bulk Sample Pit (MRY-10)

PARAMETER	UNITS	MMER	CWQG (PAL)	CDWQ	NWB	652435	821636	726623	737178	827284	827277
						2008-08-16	2010-08-13	2009-06-29	2009-06-29	2010-09-07	2010-09-07
						MRY-10	MRY-10	MRY-10	MRY-10	MRY-10	MRY-10
						Total	Total	Dissolved	Total	Dissolved	Total
Chloride	mg/L		230	<250					<1		2
N-NH3 (Ammonia)	mg/L		1.73-38.6[d]								1.25
N-NO3 (Nitrate)	mg/L		13	10					<0.10		9.94
pH		6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5				7.23		7.68
Sulphate	mg/L			<500[c]					<1		5
Total Suspended Solids	mg/L	15	5		120				8		3
Aluminum	mg/L	-	0.005-0.1[a]	-		0.05	2.16	0.0041	0.226	0.0073	0.367
Antimony	mg/L	-		0.006			0.00017	<0.0001	<0.0001	<0.0001	<0.0001
Arsenic	mg/L	0.5	0.005	0.005		<0.001	0.00032	<0.0001	<0.0001	<0.0001	<0.0001
Barium	mg/L	-	-	1		<0.01	0.0556	0.00114	0.00217	0.0104	0.0127
Cadmium	mg/L	-	0.000017	0.005		<0.0001	0.000012	<0.00001	<0.00001	<0.00001	<0.00001
Chromium	mg/L	-	0.001	0.051		<0.001	0.00715	<0.0005	0.00097	<0.0005	0.00135
Copper	mg/L	0.3	0.002-0.004[b]	≤1.0		<0.001	0.00475	0.00078	<0.0005	0.00068	0.00154
Iron	mg/L	-	0.3	<0.3		0.07	3.07	<0.03	0.237	<0.03	0.505
Lead	mg/L	0.2	0.001-0.007[b]	0.01		<0.001	0.00581	<0.00005	0.00016	<0.00005	0.00067
Manganese	mg/L	-	-	≤0.05		<0.01	0.106	0.000703	0.00576	0.00743	0.016
Mercury	mg/L	-	0.026	0.001			<0.00001	<0.00001	<0.00001	0.000014	0.000018
Molybdenum	mg/L	-	0.073	-		<0.005	0.000341	<0.00005	<0.00005	0.000192	0.00028
Nickel	mg/L	0.5	0.025-0.15[b]	-		<0.005	0.00742	<0.0005	<0.0008	<0.0005	0.00146
Selenium	mg/L	-	0.001	-		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	0.5	0.03	≤5.0		<0.01	0.0059	<0.001	0.0019	<0.001	0.003

Note:

Bold value indicates exceedance of MMER limit

MMER = Metal Mining Effluent Regulation

CWGQ (PAL) = Canadian Council of Minister of the Environment (CCME) Canadian Water Quality Guideline for the protection of Aquatic Life

CDWQ = Health Canada - Canadian Drinking Water Quality Guideline

CWGQ (PAL) and CDWQ guidelines shown for reference purposes only (see text).

NWB = Nunavut Water Board Wastewater Criteria

a) varies with pH

b) varies with hardness

c) aesthetic objective

d) varies with pH and temperature

Table D-2. Ore Stockpile Drainage Data at Crusher Site (MRY-11 Test Pit)

PARAMETER	UNITS	MMER	CWQG (PAL)	CDWQ	NWB	827285	827278	821633	821634	821635	827286	827279
						2010-09-07	2010-09-07	2010-08-13	2010-08-13	2010-08-13	2010-09-07	2010-09-07
						MRY-TP1	MRY-TP1	MRY-TP2	MRY-TP3	MRY-TP4	MRY-TP4	MRY-TP4
						Dissolved	Total	Total	Total	Total	Dissolved	Total
Chloride	mg/L		230	<250			1					3
N-NH3 (Ammonia)	mg/L		1.73-38.6[d]				<0.02					<0.02
N-NO3 (Nitrate)	mg/L		13	10			<0.10					2.13
pH		6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5		7.58					7.99
Sulphate	mg/L			<500[c]			16					32
Total Suspended Solids	mg/L	15	5		120		5					15
Aluminum	mg/L	-	0.005-0.1[a]	-		0.0104	0.387	0.0904	0.0482	0.0629	0.0061	0.58
Antimony	mg/L	-		0.006		<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Arsenic	mg/L	0.5	0.005	0.005		<0.0001	<0.0001	0.00025	<0.0001	0.00015	<0.0001	0.00012
Barium	mg/L	-	-	1		0.00486	0.00664	0.0389	0.0157	0.041	0.0194	0.0162
Cadmium	mg/L	-	0.000017	0.005		<0.00001	0.000015	0.000021	<0.00001	0.000011	<0.00001	0.000019
Chromium	mg/L	-	0.001	0.051		<0.0005	0.00141	<0.001	0.00076	0.00078	<0.0005	0.00147
Copper	mg/L	0.3	0.002-0.004[b]	≤1.0		0.00026	0.00151	0.00259	0.00141	0.00201	0.00101	0.00213
Iron	mg/L	-	0.3	<0.3		<0.03	0.746	0.134	0.044	0.076	<0.03	0.874
Lead	mg/L	0.2	0.001-0.007[b]	0.01		<0.00005	0.00129	0.0002	0.00008	0.00013	<0.00005	0.00089
Manganese	mg/L	-	-	≤0.05		0.00891	0.028	0.0151	0.00821	0.0668	0.0237	0.0779
Mercury	mg/L	-	0.026	0.001		<0.00001	<0.00001	0.000018	0.000017	<0.00001	<0.00001	0.000035
Molybdenum	mg/L	-	0.073	-		0.00153	0.00128	0.00042	0.000288	0.000453	0.000632	0.000525
Nickel	mg/L	0.5	0.025-0.15[b]	-		<0.0005	0.00196	0.0033	0.0011	0.00457	0.00116	0.00263
Selenium	mg/L	-	0.001	-		<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001
Zinc	mg/L	0.5	0.03	≤5.0		<0.001	0.0029	0.0275	0.0032	0.0162	<0.001	0.0035

Note:

Bold value indicates exceedance of MMER limit

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CDWQ = Health Canada - Canadian Drinking Water Quality Guideline

CWGQ (PAL) and CDWQ guidelines shown for reference purposes only (see text).

NWB = Nunavut Water Board Wastewater Criteria

a) varies with pH

b) varies with hardness

c) aesthetic objective

d) varies with pH and temperature

Table D-3. Ore Stockpile Drainage Data at Milne Inlet (MRY-12 Drive Points)

PARAMETER	UNITS	MMER	CWQG (PAL)	CDWQ	NWB	828062	828058	828063	828059	828064	828064	828065	828061
						2010-09-09	2010-09-09	2010-09-09	2010-09-09	2010-09-09	2010-09-09	2010-09-09	2010-09-09
						MRY-12-DP1	MRY-12-DP1	MRY-12-DP101	MRY-12-DP101	MRY-12-DP2	MRY-12-DP2	MRY-12-DP3	MRY-12-DP3
						Dissolved	Total *	Dissolved	Total *	Dissolved	Total *	Dissolved	Total *
Chloride	mg/L		230	<250			199		188		272		120
N-NH3 (Ammonia)	mg/L		1.73-38.6[d]				<0.02		<0.02		0.24		<0.02
N-NO3 (Nitrate)	mg/L		13	10			4.47		4.62		2.16		15.2
pH		6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5		8.07		8.07		8.15		7.64
Sulphate	mg/L			<500[c]			457		434		123		48
Total Suspended Solids	mg/L	15	5		120		**11900**		**4170**		**230**		**417**
Aluminum	mg/L	-	0.005-0.1[a]	-		0.0034	12	0.003	8.39	0.0035	7.77	0.0032	2.35
Antimony	mg/L	-		0.006		<0.0002	<0.0005	<0.0002	<0.0005	<0.0002	<0.0002	<0.0002	<0.0002
Arsenic	mg/L	0.5	0.005	0.005		<0.0014	0.0541	<0.0016	0.0343	<0.0018	<0.006	0.00048	0.00095
Barium	mg/L	-	-	1		0.00246	0.0768	0.00271	0.0541	0.00646	0.0329	0.00654	0.0165
Cadmium	mg/L	-	0.000017	0.005		<0.00002	0.000141	0.00002	0.000115	<0.00002	0.000056	<0.00002	0.000023
Chromium	mg/L	-	0.001	0.051		<0.001	0.102	<0.001	0.0602	<0.006	0.148	0.0016	0.0597
Copper	mg/L	0.3	0.002-0.004[b]	≤1.0		<0.004	0.0457	<0.004	0.031	0.00237	0.0215	0.00249	0.0139
Iron	mg/L	-	0.3	<0.3		<0.03	45.4	<0.03	30.1	0.036	7.96	<0.03	2.86
Lead	mg/L	0.2	0.001-0.007[b]	0.01		<0.0001	0.0162	<0.0001	0.0107	<0.0001	0.0053	<0.0001	0.0015
Manganese	mg/L	-	-	≤0.05		0.0509	0.726	0.0479	0.497	0.0378	0.177	0.00453	0.0817
Mercury	mg/L	-	0.026	0.001		0.000015	0.000013	0.000015	0.00003	<0.00001	0.000058	<0.00001	<0.00001
Molybdenum	mg/L	-	0.073	-		0.00551	0.00903	0.00537	0.00754	0.00412	0.00539	0.00342	0.00359
Nickel	mg/L	0.5	0.025-0.15[b]	-		0.0056	0.0595	0.0035	0.04	0.0102	0.0764	0.0031	0.029
Selenium	mg/L	-	0.001	-		<0.008	<0.005	<0.008	<0.005	<0.006	<0.008	<0.002	<0.002
Zinc	mg/L	0.5	0.03	≤5.0		<0.002	0.0352	<0.002	0.0275	0.0039	0.0217	0.0025	0.0118

Note:

* Elevated suspended solids due to silting of drive points during sampling. Total metal concentrations may not be representative and are not included in Max and Min statistics reported in Table 8.

Bold value indicates exceedance of MMER limit

MMER = Metal Mining Effluent Regulation

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NWB = Nunavut Water Board Wastewater Criteria

a) varies with pH

b) varies with hardness

c) aesthetic objective

d) varies with pH and temperature

Table D-4. Seepage Data from Rock Face Near Bulk Sample Pit (MRY-9)

PARAMETER	UNITS	MMER	CWQG (PAL)	CDWQ	NWB	645776 2008-07-25 MRY-9 Total	827276 2010-09-07 MRY-9 Total
Chloride	mg/L		230	<250			
N-NH3 (Ammonia)	mg/L		1.73-38.6[d)]				
N-NO3 (Nitrate)	mg/L		13	10			
pH		6.0 - 9.5	6.5 - 9.0	6.5 - 8.5	6.0 - 9.5		
Sulphate	mg/L			<500[c)]			
Total Suspended Solids	mg/L	15	5		120		
Aluminum	mg/L	-	0.005-0.1[a)]	-			<0.0001
Antimony	mg/L	-		0.006		<0.001	<0.0001
Arsenic	mg/L	0.5	0.005	0.005		0.02	0.00679
Barium	mg/L	-	-	1			<0.0005
Cadmium	mg/L	-	0.000017	0.005		0.003	0.00106
Chromium	mg/L	-	0.001	0.051		0.0030	0.0005
Copper	mg/L	0.3	0.002-0.004[b)]	≤1.0		**1.11**	**0.382**
Iron	mg/L	-	0.3	<0.3		0.016	0.00033
Lead	mg/L	0.2	0.001-0.007[b)]	0.01			<0.005
Manganese	mg/L	-	-	≤0.05			<0.00001
Mercury	mg/L	-	0.026	0.001		<0.005	0.000164
Molybdenum	mg/L	-	0.073	-		<0.005	0.00101
Nickel	mg/L	0.5	0.025-0.15[b)]	-		<0.001	<0.001
Selenium	mg/L	-	0.001	-			1.08
Zinc	mg/L	0.5	0.03	≤5.0		<0.01	0.0059

Note:

Bold value indicates exceedance of MMER limit

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b) varies with hardness

c) aesthetic objective

d) varies with pH and temperature