APPENDIX 8

Geochemical Characterization and Water Quality Predictions

Geochemical Characterization and Water Quality Predictions

Eagle Gold Project

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Project Reference Number
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Geochemical Characterization and Water Quality Predictions

Eagle Gold Project

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Executive Summary

The Eagle Gold Project, a proposed heap leach gold project located near Mayo, Yukon is currently undergoing various studies to support feasibility design and an Environmental Assessment (EA). Included in this program was an evaluation by SRK of the acid rock drainage and metal leaching potential of the waste rock, pit walls and heap leach facility. This report provides a description of the methods and results of the characterization program, water quality predictions and recommendations for waste and water management measures for this site. The results are being utilized for impact assessment evaluations and mitigation and management plans by others.

The Eagle Gold deposit is located within the Tintina Gold Province, an area of more than 150,000 km^2 covering parts of Alaska and the Yukon. Within this area, 15 individual gold belts and districts have been defined, including the heap leach operations at Fort Knox and Brewery Creek. The Eagle Gold deposit has many similarities to these operations, as well as others (Goldfarb et al, 2007), an advantage that has been utilized in the water quality predictions provided in this report.

Geologically the deposit can be simplified and described as an intrusive suite, predominantly granodiorite in composition, emplaced within a metasediment package, predominantly phyllitic in nature. The granodiorite has been subdivided into three units, an oxidized unit, an altered unit and an unaltered unit. Alteration tends to be dominated by albite, potassium feldspar, sericite, carbonate and chlorite and only occurs very locally around veining. While mineralization is associated with the intrusive stock, it is not spatially limited to the intrusive. Gold-bearing veins are found in all of the main geological units including the metasediments.

Gold occurs primarily as pure gold and in association with very small amounts of metallic bismuth [Bi] and arsenopyrite [FeAsS]. Other vein minerals include pyrite/marcasite [FeS_2] > pyrrhotite [$Fe_{1-x}S$] >> sphalerite [(Zn,Fe)S], chalcopyrite[$CuFeS_2$], galena [PbS], molybdenite [MoS_2] and iron oxides/hydroxides as well as metallic bismuth, Pb-Sb-(Cu,Zn) sulphosalts (e.g. bournonite [$PbCuSbS_3$] and boulangerite [$Pb_5Sb_4S_{11}$]) and tetrahedrite [$Cu_{12}Sb_4S_{13}$].

Characterization indicated that carbonates, predominantly calcite, were generally well in excess of sulphides. Calcite content was generally 1 to 4% (from XRD) whereas sulphur was most often less than 0.5% (from Leco S and ICP-S). Static testing showed a strong propensity towards non acid generating conditions with 82% of samples tested having a neutralization potential to acid potential ratio above 4. Acid rock drainage, or ARD, is therefore not anticipated for the Eagle Gold Project.

Kinetic testing and contact water quality predictions based on the kinetic testing results indicate that, although pH conditions are expected to be neutral, moderately elevated concentrations of some trace elements are likely to be present in seepage from the waste rock storage areas and pit walls. The waste rock storage areas may have moderately elevated concentrations of sulphate, and dissolved arsenic, cadmium, manganese, antimony, selenium and uranium (based on a comparison with CCME water quality guidelines for the protection of aquatic life and BC drinking water guidelines). Other parameters that might be present at elevated levels include copper, fluoride, iron, lead, molybdenum, nickel, silver and zinc. Pit wall run-off is expected to be somewhat more dilute, but may still have slightly elevated concentrations of dissolved arsenic and antimony and possibly also selenium and uranium.

Predictions of contact water quality for the heap leach facility are somewhat more complicated as a result of the cyanidation process and subsequent detoxification prior to closure. Predictions for the operational and detoxification stages of the heap leach operations were based on large column tests completed at Kappas Cassiday & Associates (KCA). Based on this data, it is expected that cyanide and soluble metal cyanide complexes would be at concentrations that would be unacceptable for direct discharge to the environment, and any excess water is assumed to require active water treatment. Following detoxification and rinsing of the facility, elevated levels of nitrogen species, Na and residual cyanide complexes (cadmium, copper, nickel, silver, zinc etc) are expected, but are anticipated to decrease relatively quickly with replacement of pore volumes from the facility. Active water treatment is also anticipated during this period. Concentrations of other trace elements such as arsenic, antimony and selenium are expected to diminish more gradually, i.e. for several decades, with a gradual improvement occurring as the more reactive minerals are depleted from the rock. Over the long term in closure, the heap leach facility drainage is expected to be similar to that predicted for waste rock, i.e. with near neutral pH but somewhat elevated concentrations of sulphate, arsenic, cadmium, manganese, antimony, selenium and uranium, and possibly fluoride, copper, iron, mercury, molybdenum, thallium and zinc.

Based on these results and estimates of associated contact water quality, it is anticipated that closure plans for the site will need to consider additional measures for controlling seepage and/or metal concentrations to protect the downstream receiving environment. Management options are currently being evaluated by others, but could include mixing with other site waters, engineered wetlands or other passive treatment options and/or placement of covers to significantly reduce infiltration (see Appendix 18 of the Project Proposal).

The water quality predictions are currently being evaluated within the context of the site water balance and impact assessment being conducted by Stantec.

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1 Introduction and Scope of Report

The Eagle Gold Project, previously also known as Dublin Gulch, is a proposed heap leach gold project located near Mayo, Yukon and is currently undergoing various studies to support feasibility studies and an Environmental Assessment (EA). SRK was retained by Stantec Inc., the lead EA consultant to Victoria Gold, to conduct evaluations related to metal leaching and acid rock drainage (ML/ARD) to support the EA application. This report provides methods and results of the characterization program, water quality predictions and recommendations for waste and water management measures for this site. The results are being utilized for impact assessment evaluations and mitigation and management plans completed by the other EA consultants.

2 Background

2.1 Background of the project

Since the turn of the 20^{th} Century, placer mining has been conducted in this area of the Yukon, with many leases still active in the general vicinity of the project.

Exploration of the Eagle Gold Project has been active at various times since the early 1980’s by groups such as Canada Tungsten Mining Corporation, Queenstake Resources Ltd., First Dynasty Mines Ltd., New Millenium Mining and Strata Gold Inc who, in 2009, was acquired by Victoria Gold Corporation. Victoria Gold Corp. is currently undertaking feasibility level engineering work as well as various studies to support the EA.

2.1.1 Geological background

The deposit is located within the Tintina Gold Province (TGP), an area of more than 150,000 km^2 covering parts of Alaska and the Yukon (Figure 1). The TGP is defined by more than 15 individual gold belts and districts traditionally mined for their placer resources and more recently recognized for their lode gold potential. Technological advances in heap leach mining have allowed for economically successful recovery of gold at operations such as Fort Knox and Brewery Creek.

The geology of the Eagle Gold Project is provided in a number of references including that of Brown et al (2001), Goldfarb et al (2007), Wardrop (2009) and on Victoria Gold’s website. In summary, there are two primary lithological units of relevance: the granodiorite intrusive and the metasedimentary host rock. Both are summarized below.

The granodiorite at Eagle Gold is a cretaceous-aged intrusive stock comprised of four phases; the predominant granodiorite as well as younger phases compositionally consist of quartz diorite, quartz monzonite, leucogranite and aplite dikes and sills that cut both the granodiorite and the surrounding metasediments (StrataGold Corporation, 2009a).

(*Abbreviations as follows: 40 - Fortymile; 60 - Sixtymile; BO - Bonnifield; CH - Chulitna; CL - Circle; DR - Dawson Range; EG - Eagle; FB - Fairbanks; FI - Flat-Iditarod; GP - Goodpaster; HR - Hot Springs-Rampart; KD - Klondike; KT - Kantishna; LT - Livengood-Tolvana; RP - Ruby-Poorboy; RS - Richardson; TB - Tombstone; TG - Tungsten; TY - Tay River*.)

Figure 1: Main Gold Districts of the Tintina Gold Province (from Goldfarb et al., 2007)

The stock intruded the Proterozoic to Lower Cambrian-aged Hyland Group metasediments comprised of interbedded quartzites and phyllitic metasedimentary rocks. The quartzites are said to be variably gritty, micaceous and massive. The phyllitic metasediments are predominantly comprised of muscovite-sericite and chlorite with a relatively thin but definite hornfelsic contact aureole adjacent to the intrusive.

Mineralization in the area is thought to be both spatially and genetically associated with the intrusive stock and has resulted in a scheellite skarn on the southeast side of the stock (known as Mar Tungsten), and tin mineralization is seen to the north (known as Tin Dome), as well as the paragenetically later gold mineralization in the area. Gold mineralization associated with the stock occurs as quartz veins along the intrusive contacts, and as sheeted quartz veins within the granodiorite itself with the most substantial area currently defined being the Eagle Zone. The sheeted veins are discontinuous and vary in widths (typically 0.5 to 1.0 cm in width) and density (from 0 to more than 15 veins per metre) and primarily contain quartz, feldspar +/- muscovite and biotite. Gold occurs primarily as pure gold and in association with very small (less than 1%) amounts of metallic bismuth [Bi] and arsenopyrite [FeAsS]. Other vein minerals include pyrite/marcasite [FeS_2] > pyrrhotite [$Fe_{1-x}S$] >> sphalerite [(Zn,Fe)S], chalcopyrite[$CuFeS_2$], galena [PbS], molybdenite [MoS_2] and iron oxides/hydroxides. Intimately admixed with the sulphides are inclusions of metallic bismuth, Pb-Sb-(Cu,Zn) sulphosalts (e.g. bournonite [$PbCuSbS_3$] and boulangerite [$Pb_5Sb_4S_{11}$]) and tetrahedrite [$Cu_{12}Sb_4S_{13}$]. Suphide particle sizes varied from <5 micron to over 1 mm, with typical sizes on the order of 300 to 800 microns. Alteration is limited and localized to the vestiges of the veins; alteration phases include albite, potassium feldspar, sericite, carbonate and chlorite.

Oxidation products have been noted in weathered ore material. These included oxidation products of bismuth, particularly bismite [Bi_2O_3] and minor bismutite [$Bi_2(CO_3)O_2$] as well as arsenic-bearing hydrous iron oxides and/or scorodite [$Fe(AsO_4)\cdot 2H_2O$]. Oxidation of these samples could be a combination of in-situ weathering in the oxide zone of the deposit (paleo-weathering features) and oxidation that has occurred since sample collection (most samples were in storage for up to 4 years). However, the dominant oxidation process is likely that occurring prior to sampling.

2.1.2 Chronology of ARD/ML investigations

Acid rock drainage and metal leaching (ARD/ML) evaluations to support the current EA were initiated in June 2009. Previous to this, a fairly comprehensive characterization program was conducted by New Millenium Mining Ltd to support a Feasibility Study in 1995/1996 (Lawrence, 1997) and in 2007 StrataGold Corporation conducted a Gap Analysis on the project with some additional testwork being incorporated in to that analysis. Data from both of these previous evaluations has been obtained and integrated into the current study.

3 Program Objectives and Work Program

3.1 Program Objectives

The program objectives were to provide an assessment of the geochemical behaviour of the waste rock piles, pit walls, and heap leach facility associated with the Eagle Gold project and support engineering decisions and impact assessment evaluations for the proposed project. Specifically, for each of these site components, the program focussed on the quantification, description and assessment of:

- acid generating potential and neutralization potential,
- solids metal chemistry,
- mineralogy,
- metal leaching potential,
- rate of sulphide mineral oxidation,
- rate of depletion of neutralization potential,
- relative rate of depletion of neutralization potential compared to acid potential,
- release rates of elements for input into water quality predictions; and,
- water quality predictions that consider full scale conditions and geochemical controls that are likely to be present in each of these facilities.

3.2 Work Program

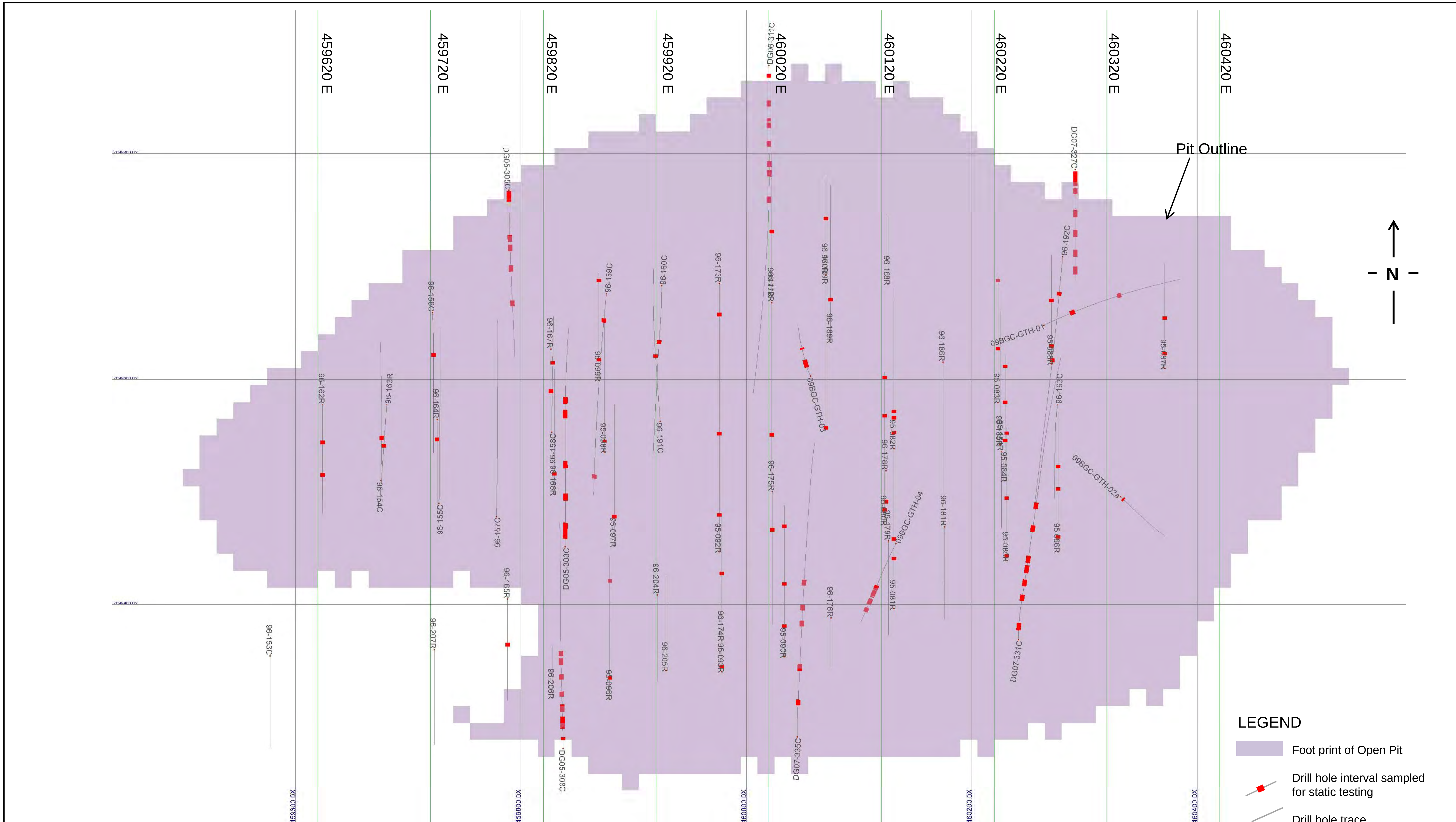
3.2.1 Overview

The work program conducted to achieve the above objectives included a review of assay data from the exploration drilling programs, static and kinetic testing on drill core, and data interpretation. There were two main phases of investigation: studies completed in 1995/96 by Lawrence (1997), and the program initiated by SRK, starting in 2007. Both programs included static and kinetic tests.

3.2.2 Sampling and Sample Representivity

A complete list of samples available for this study is provided in Appendix A. Samples were not available for the 1995/1996 program, however samples from the 2007 program were kept in dry storage and were available for additional testing. In all programs, samples consisted predominantly of drill core from the exploration program and more recently from the geotechnical drilling program. A small subset of the samples in 1995/1996 consisted of grab samples from trench and road cuts, though spatial reference for these were not available.

Samples collected in 1995 and 1996 each represented 5 foot intervals of core. Samples for the 2007 evaluation and 2009 drilling were more variable and selected based on drill log descriptions, ranging in core length from 3 to 11 feet (averaging 9 to 10 feet). A plan showing the spatial distribution of the drill core samples is shown in Figure 2 below. A series of cross sections with the drill core intervals selected for testing is provided in Appendix A.



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Geochemical Characterization

Plan of deposit area showing pit outline and drillhole traces with geochemical sample intervals

Job No: 1CS043.000
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Eagle Gold Project

Date:	Approved:	Figure:
October 2010	KSS	2

3.2.3 Laboratory Procedures

Detailed descriptions of the laboratory testing procedures, including details on the duration and detection limits used in the kinetic testing program are provided in Appendix B. Table 1 provides a summary of the number of samples characterized by each test method.

In brief, the static test work consisted of quantitative analysis of the mineral forms using X-Ray Diffraction (XRD) analysis with Rietveld method of refinement, qualitative optical microscopy, acid-base accounting (ABA), whole rock analysis by X-Ray Fluorescence (XRF) and metal analysis by *aqua-regia* digestion and ICP-MS finish.

Table 1: Summary of Testing Program by Material Type

Sample Type	Estimated Tonnage (Million Tonnes)		Number of Samples Tested by Method				
	Waste	Ore	Acid Base Accounting	Whole Rock Analysis	Metals by ICP-MS	XRD/ Petrography	Kinetic Testing
Metasediment	34	30	101	62	77	3	4
Oxidized Granodiorite	9.0	11	57	47	35	2	3
Unaltered Granodiorite	23	18	66	56	51	2	3
Altered Granodiorite	1.0	6.9	69	50	54	3	7[a]
Metallurgical Composite (ore)			1	0	1	1	2[b]

Notes:

[a] seven tests were conducted, including three individual samples, and one sample that was tested in quadruplicate with a duplicate standard humidity cell as well as two modified procedures.

[b] a standard humidity cell test was completed on the head sample, and a large scale modified kinetic test was completed on the on the same sample following metallurgical testing and detoxification procedures.

Most of the kinetic tests were completed using standard humidity cell protocols (MEND, 1991[1]). In the 1995/96 program (Lawrence 1997), one of the samples was tested in quadruplicate, as a duplicate standard cell as well as in two modified cells defined as a big cell (3 kg) and a tall cell (15 kg), whereby the tall cell was further modified by applying variable infiltration rates. At the time this

[1] This consists of samples sized at minus 1/4 inch crushed (~6 mm). Cells were charged with 1 kg (dry weight) of material and initially flushed with 750 mL of deionized water, with the leachate re-circulated to the top of the cell for a period of 24 hours to maximize flushing of any stored oxidation products in the samples prior to testing. Subsequent cycles followed the operating procedure consisting of circulation of dry air for three days, circulation of humidified air for three days and then flushing with 500 mL of deionized water on the seventh day.

work was completed, metal analyses were more commonly completed using ICP-OES, therefore method detection limits for the earlier tests were slightly higher than for the current program which used ICP-MS methods.

The tests on the metallurgical composite included a standard humidity cell test on the head sample (prior to cyanidation), and on a large column test on the spent ore from an 80 kg metallurgical column test conducted at Kappes Cassidy & Associates (KCA) (as documented in Appendix C). Following cyanidation and detoxification, the metallurgical column was converted to a large scale modified humidity column. The protocol for the modification is provided in Appendix D.

With the exception of the metallurgical column test, the 2007 to 2009 laboratory testing programs were completed at SGS-CEMI in Vancouver. The Reitveld XRD was completed at the University of British Columbia, and the optical mineralogy was done by Kathryn Dunne, P.Geo.

4 Program Results

Results of the analytical program have been interpreted on the basis of four primary rock units: the metasediments, the oxidized granodiorite, the unaltered granodiorite and the altered granodiorite. The block model has classified these as A, B and C material types for oxidized, unaltered and altered respectively. To be consistent, discussions provided here are generally presented on this basis with respect to both static test results and kinetic evaluations.

4.1 Drill Core Assay Database

The drill core assay database for the Eagle Gold Project includes data from 1991 through to 2009, though only core collected from 1996 onwards includes a full ICP suite with sulphur values. There are over 13,000 analyses of sulphur, with values ranging from 0.005% to 11%, with a median of 0.16% (mean of 0.25%). Nearly 90% of all samples assayed reported a sulphur value of <0.5%. In general this reflects the low sulphur content for the deposit. Other parameters that are considered elevated, as compared to 10 times the average crustal abundance[2] include arsenic, antimony and bismuth with median values of 104 ppm, 2.5 ppm and 2 ppm respectively and corresponding mean values of 560 ppm, 9.9 ppm and 17.9 ppm respectively. Histograms of these four parameters of interest are provided in Figure 3 below.

[2] The average crustal abundance for arsenic = 1.8, antimony = 0.2 ppm and bismuth = 0.0082.

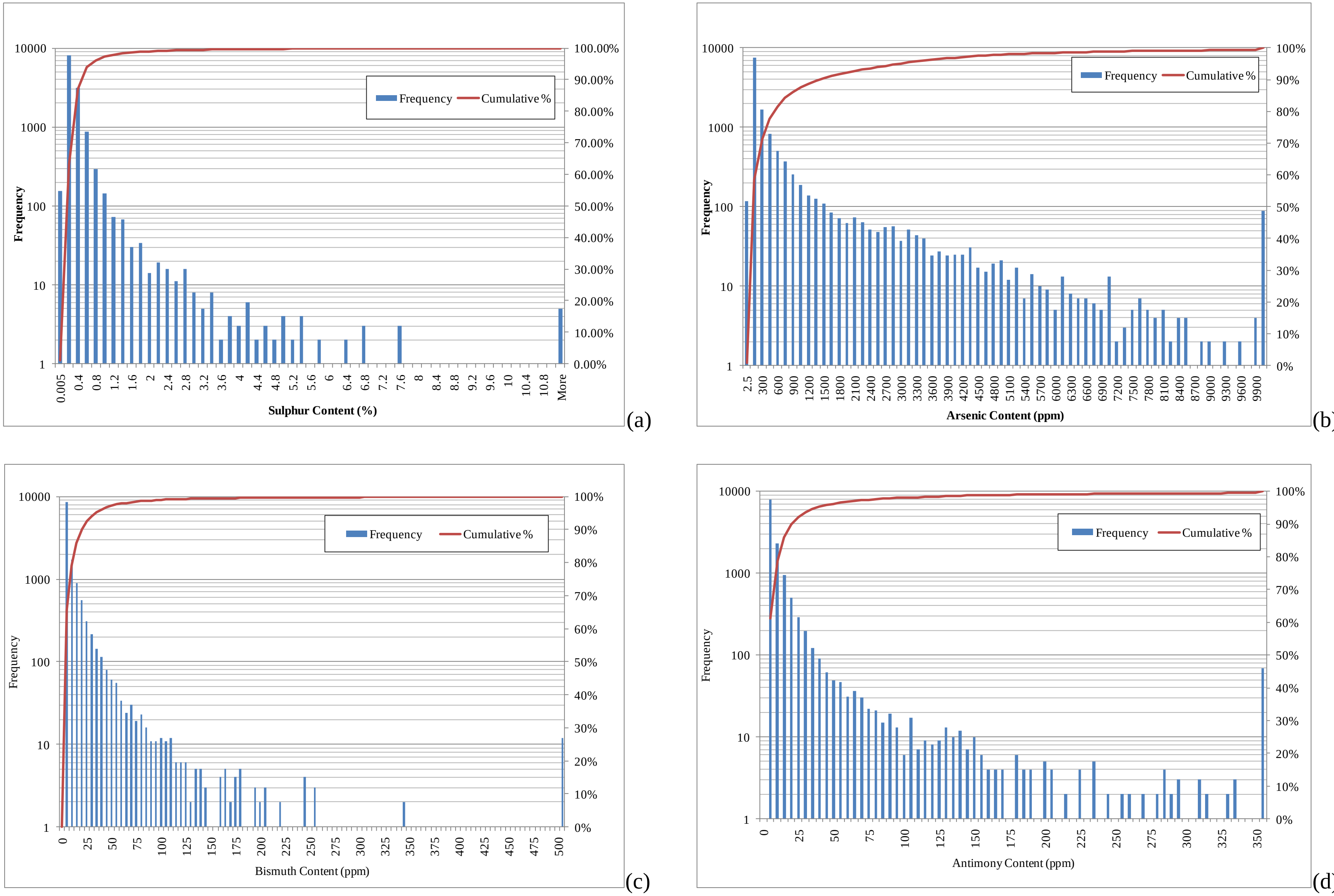


Figure 3: Histograms from drill core assay data for: a) sulphur, b) arsenic, c) bismuth and d) antimony

4.2 Static Test Program

The following sub-sections provide the results from the static testing programs. Individual laboratory results for static testwork overseen by SRK is provided in Appendices E through G, data from the 1996 program is provided in Lawrence, 1997.

4.2.1 Mineralogy

Mineralogical analyses were performed on samples of all four waste rock units, Granodiorite A, B and C and Metasediments as well as a composite ore sample with the purpose of identifying the primary mineral phases with emphasis on the key sulphide and carbonate phases as well as trace minerals present. The detailed quantitative phase XRD is provided in Appendix E and summarized in Table 2. Petrographic reports are provided in Appendix F with key observations discussed below.

The granodiorite samples examined, almost regardless of degree of oxidation or alteration (A, B or C), are dominantly comprised of quartz, biotite/muscovite/clinochlore, potassium feldspar and plagioclase. Oxidation-derived minerals including kaolinite and iron oxides/oxyhydroxides were most prevalent in the samples from the oxide zone of the deposit (Granodiorite A). Altered granodiorite (Granodiorite C) contained higher muscovite and lower feldspar content than the unaltered or oxidized counterparts. All types of granodiorite contain variable amounts of calcite and sulphides consisting of pyrrhotite, pyrite, arsenopyrite, marcasite chalcopyrite, molybdenite and/or sphalerite.

The main minerals present in the metasediment samples include quartz, muscovite/ biotite/ clinochlore, potassium feldspar and plagioclase. Minor minerals measured by QXRD and noted in petrographic analysis include actinolite, calcite, dolomite, andalusite and diopside, particularly in those samples classified as hornfelsed. Sulphides noted in thin section include pyrrhotite (~1%) and trace amounts of arsenopyrite, chalcopyrite, marcasite and pyrite. Also observed was a red-orange-brown iron oxide/oxy-hydroxide phase.

Textures and occurrences of carbonates and sulphides were emphasized in the petrographic analysis. Based on those observations, carbonate is noted to occur as very fine-grained anhedral grains and patchy aggregates replacing feldspar or biotite. Carbonate is also present as fine-grained veinlets and infill to rock/vein fragments and as fine-grained liberated fragments. Sulphides include predominantly pyrrhotite and pyrite with traces of chalcopyrite, arsenopyrite, marcasite, molybdenite and sphalerite. Pyrrhotite oxidation is variable. It occurs as unaltered and locally rimmed and partly replaced by Fe-oxide/oxyhydroxide aggregates or in some instances has weathered to marcasite pseudomorphs. Pyrite is typically fine to very fine grained both as aggregates within rock chips and as liberated grains. When in aggregates, very fine grained marcasite is often present. Pyrite grains are locally pitted though alteration rims are typically not evident. Arsenopyrite is fine-grained and exists as liberated anhedral grains and aggregates without alteration. In nearly all samples evaluated by petrography, carbonates were in excess of sulphides.

Table 2: Results of Quantitative Phase X-Ray Diffractometry Analysis (%)

Mineral	DG07-327 24.69-33.83	DG07-335C 103.02-113.69	DG07-331C 99.97-109.12	DG07-305C 169.03-178.31	DG06-311C 130.45-140.45	DG07-303C 175.26-185.93	DG05-308C 125.00-128.00	DG07-305C 1.52-9.14	DG07-331C 52.92-62.3	DG05-308C 12.19-18.00	KCA 42479
	Granodiorite A	Granodiorite A	Granodiorite A & B	Granodiorite B	Granodiorite B	Granodiorite C	Granodiorite C	Meta-sediment	Meta-sediment	Meta-sediment	Composite Ore
Quartz	34.6	27.2	30.0	32.6	35.7	38.6	41.3	19.0	46.4	32.4	33.2
Muscovite	5.9		3.0	4.5		9.2	24.0	15.9	14.3	16.5	4.6
Biotite	2.5	11.4	6.7	5.8	5.6			14.3	8.4	11.1	6.3
Clinochlore		5.2	4.5	4.3	3.0	3.3	4.4	3.1	3.0	3.2	3.9
Actinolite		5.1						3.0			
K-feldspar	28.6	15.4	28.2	23.6	26.0	21.4	16.2	9.8	11.5	19.0	23.8
Plagioclase	19.6	34.5	23.9	27.1	28.0	22.9	13.3	23.7	13.7	13.9	24.6
Calcite	3.3	1.2	3.2	2.0	1.7	2.2	0.7	1.5	0.7	0.5	3.5
Dolomite/ Ankerite						2.1		1.0			
Kaolinite	5.6										
Siderite			0.5								
Andalusite								1.6	1.9	3.5	
Diopside								7.1			
Pyrite ?						0.4					0.2
Total	**100.1**	**100.0**	**100.0**	**99.9**	**100.0**	**100.1**	**99.9**	**100.0**	**99.9**	**100.1**	**100.1**

Ideal Formula	
Quartz	SiO_2
Muscovite	$KAl_2AlSi_3O_{10}(OH)_2$
Biotite	$K(Mg,Fe)_3(AlSi_3O_{10})(OH)_2$
Clinochlore	$(Mg,Fe^{2+})_5Al(Si_3Al)O_{10}(OH)_8$
Actinolite	$Ca_2(Mg,Fe^{2+})_5Si_8O_{22}(OH)_2$
K-feldspar	$KAlSi_3O_8$
Plagioclase	$NaAlSi_3O_8 – CaAl_2Si_2O_8$
Calcite	$CaCO_3$
Dolomite/ Ankerite	$CaMg(CO_3)_2/Ca(Fe^{2}+Mg,Mn)(CO_3)_2$
Kaolinite	$Al_2Si_2O_5(OH)_4$
Siderite	$Fe^{2+}CO^{3}$
Andalusite	Al_2SiO_5
Diopside	$CaMgSi_2O_6$
Pyrite ?	FeS_2

4.2.2 Whole Rock and Metals Analyses

Whole rock analyses were included in the work conducted in the late 1990's. The results are summarized in Table 3 below by material type. Results indicate that all four units are dominated by silica (65% to 70%) and aluminum (13% to 14%) with minor constituents (>10%) being calcium, iron, potassium, magnesium and sodium. Low to negligible quantities (>1%) of chromium, phosphorus, manganese and titanium were also detected. The results reflect the predominant mineralogy of quartz, feldspars and micas.

Metals by ICP-MS following an aqua-regia digestion were also conducted. A summary is provided in Table 4 and selected parameters are provided in Figures 4 and 5 (see also Appendix G). Elemental results when present in excess of 10 times the average crustal abundances as provided in Price, 1997 are generally considered elevated. For Eagle Gold, these parameters include arsenic, antimony, bismuth and gold (as also noted from drill core), and in some materials boron (only in granodiorites) and tungsten (in metasediments and unaltered granodiorites). Other elements that are inconsistently elevated include cadmium, manganese, molybdenum, sulphur and zinc. For the key parameters of interest, the results for the static sample suite are generally similar to the distribution as described by the drillcore assay database. In general, the mean values are similar between the various litho-alteration units or material types; however the maximum values are often higher in the granodiorite, particularly where alteration is noted.

An evaluation of the gold content with various parameters indicates that there is a correlation between gold and parameters such as arsenic, bismuth, copper, molybdenum, selenium and sulphur, though with significant overlap such that waste grade rock can also contain relatively high levels of these parameters. There is also some correlation seen in the data between sulphur content and parameters such as arsenic, antimony, selenium etc. though not without significant scatter.

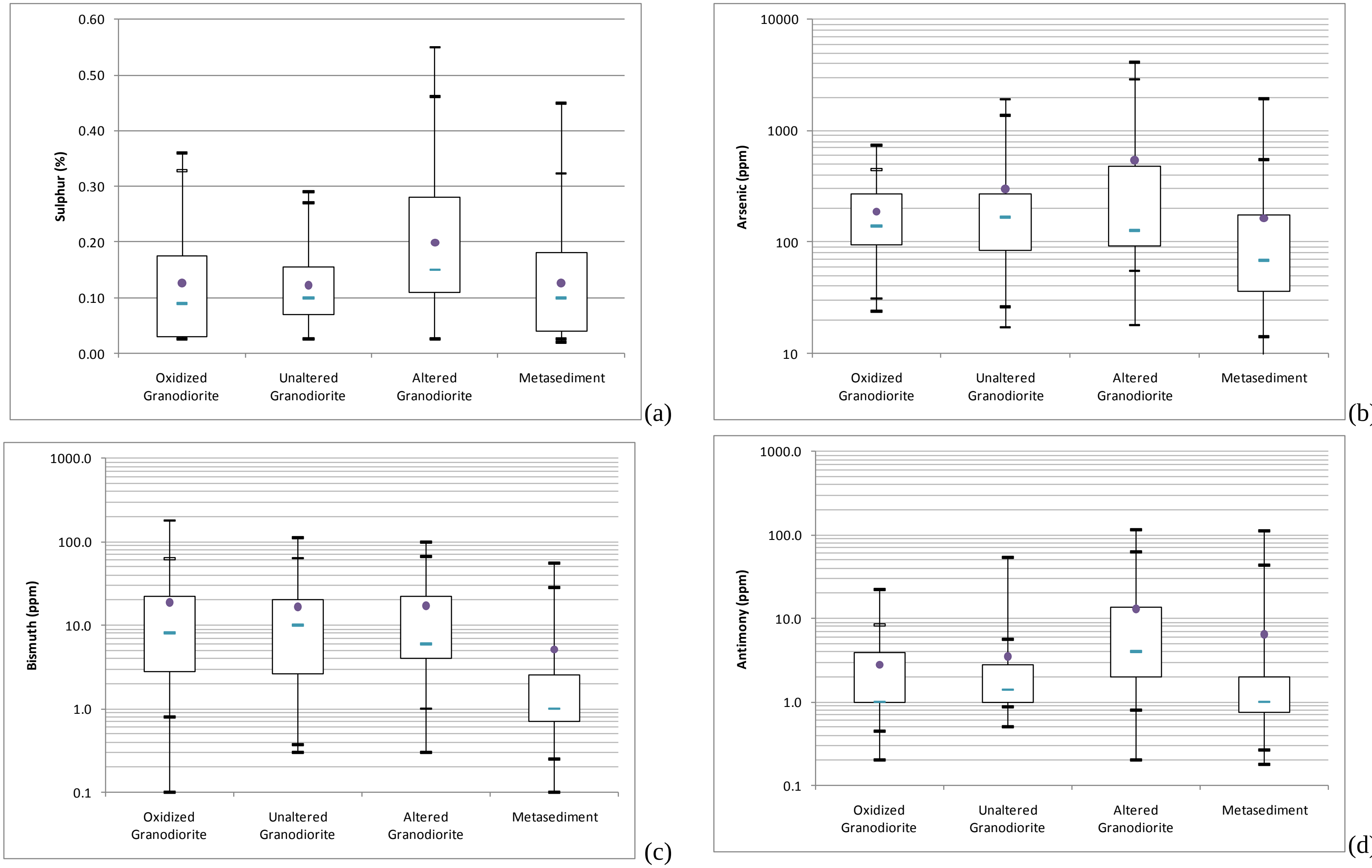
Table 3: Statistical Summary of Whole Rock Analyses (by XRF)

		Metasediments (n=62)			Granodiorite A (Oxidized) (n=170)			Granodiorite B (unaltered) (n=25)			Granodiorite C (altered) (n=35)		
		Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum
Al_2O_3	%	14	5	26	14	5	25	14	13	15	14	12	16
CaO	%	1.14	0.11	4.82	2.50	0.11	4.87	3.08	0.44	4.05	2.97	0.33	5.04
Cr_2O_3	%	0.02	0.01	0.08	0.01	0.01	0.04	0.02	0.01	0.06	0.02	0.01	0.04
Fe_2O_3	%	4.3	1.3	7.7	3.7	1.3	7.5	3.7	3.0	4.5	3.7	2.1	5.5
K_2O	%	3.9	1.3	6.2	4.7	1.3	6.2	4.8	4.3	5.5	4.7	3.9	5.5
MgO	%	1.24	0.20	3.21	1.24	0.20	3.35	1.39	0.55	1.92	1.28	0.56	1.84
MnO	%	0.04	0.01	0.10	0.04	0.01	0.11	0.03	0.01	0.05	0.04	0.01	0.24
Na_2O	%	1.1	0.0	2.3	1.7	0.0	2.5	1.9	0.1	2.5	1.5	0.0	2.3
P_2O_5	%	0.08	0.01	0.22	0.12	0.01	0.22	0.12	0.09	0.15	0.12	0.09	0.14
SiO_2	%	70	50	89	68	53	89	67	63	73	67	62	75
TiO_2	%	0.59	0.21	1.06	0.51	0.20	0.94	0.50	0.43	0.59	0.50	0.27	0.65

Table 4: Statistical Summary of Selected Metals Analysis by ICP-MS Following Aqua Regia Digestion

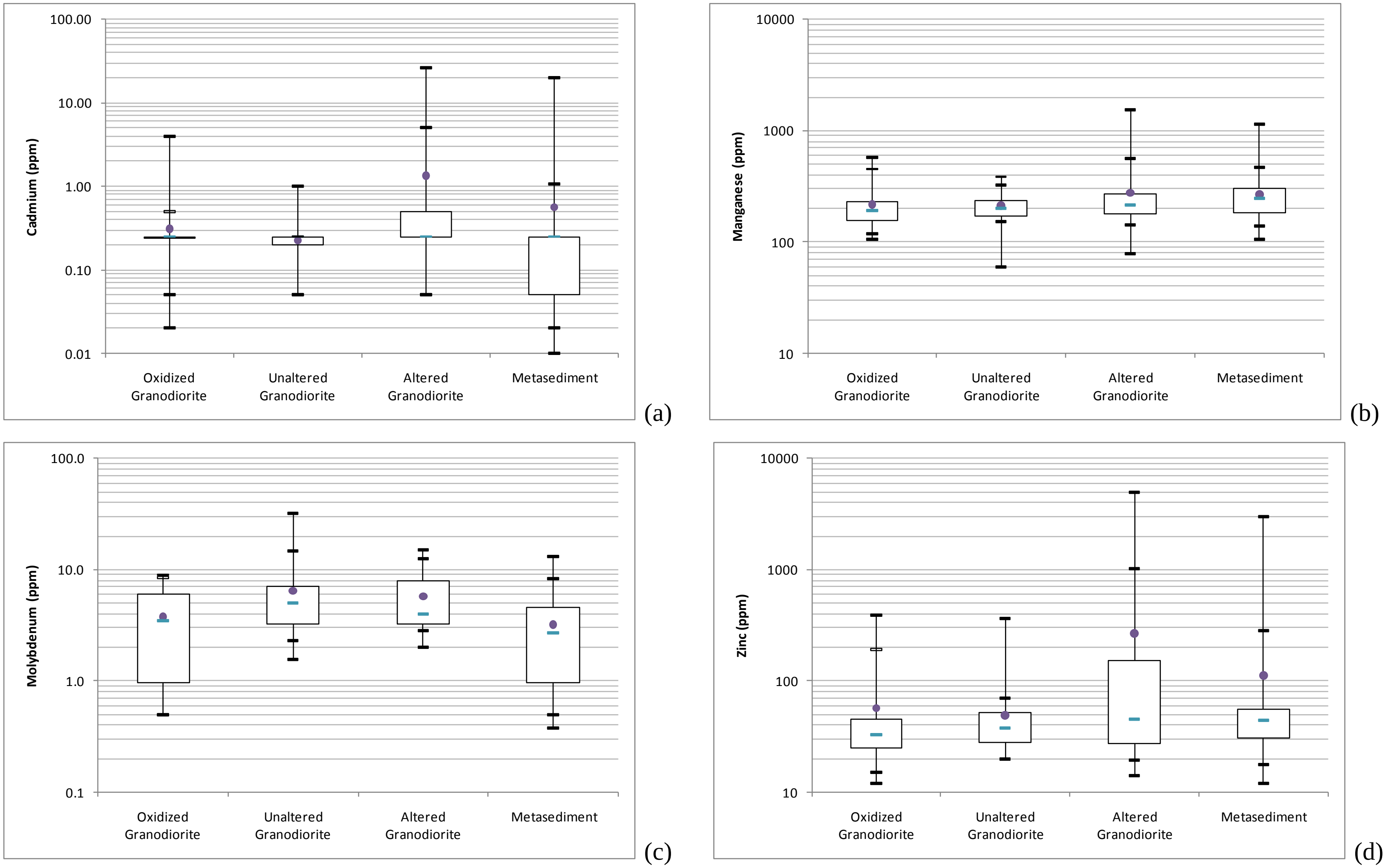
	Metasediments (n=77)			Granodiorite A (oxidized) (n=35)			Granodiorite B (unaltered) (n=51)			Granodiorite C (sericite altered) (n=54)		
	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum
Ag (ppb)	18	0.1	373	1.2	0.1	42	6.2	0.1	120	0.5	0.1	5.4
As(ppm)	163	9	1930	187	24	740	302	17	1915	545	18	4100
Au (ppb)	98	1.7	1267	60	4.6	214	74	11	246	106	18	264
Bi (ppm)	5.1	0.1	56	19	0.1	180	17	0.3	112	17	0.3	100
Cd (ppm)	0.6	0.01	20	0.3	0.02	4.0	0.2	0.1	1.0	1.3	0.1	27
Cu (ppm)	36	6.0	167	30	8.0	115	29	10	68	43	11	167
Fe (%)	2.8	1.2	4.8	2.4	1.7	3.9	2.3	1.8	3.2	2.3	1.3	3.7
Hg (ppb)	3.1	0.01	52	1.0	0.01	18	0.4	0.01	1.0	0.4	0.01	1.0
Mn (ppm)	268	105	1148	218	105	580	213	60	385	276	79	1535
Mo (ppm)	3.2	0.4	13	3.8	0.5	9.0	6.5	1.6	32	5.8	2.0	15
Ni (ppm)	29	9.0	53	21	13	32	21	10	28	22	12	37
Pb (ppm)	14	0.5	220	8.8	2.0	48	17	2.0	264	60	0.5	518
S (%)	0.1	0.03	0.5	0.1	0.03	0.4	0.1	0.03	0.3	0.2	0.03	0.6
Sb (ppm)	6.4	0.2	111	2.8	0.2	22	3.5	0.5	54	13	0.2	114
Se (ppm)	0.6	0.1	3.1	0.7	0.3	1.6	0.8	0.3	2.0	1.4	0.3	3.2
Tl (ppm)	0.5	0.1	0.9	0.5	0.2	0.6	0.4	0.2	0.5	0.6	0.1	10
U (ppm)	1.2	0.5	5.8	1.3	0.5	5.9	2.0	0.5	7.1	2.0	0.5	9.9
W (ppm)	29	0.1	1080	9.1	0.1	70	14	0.4	140	8.9	0.3	94
Zn (ppm)	112	12.0	2999	57	12	392	49	20	364	268	14.0	4920

Complete results are provided in Appendix D.



(This plot is a conventional box and whisker graph, with the upper and lower extremes showing the minimum and maximum values, tick marks outside the box showing the 10th and 90th percentiles, outer margins of the box showing the 25th and 75th percentiles, central dash in the box showing the median value, and dot showing the arithmetic mean).

Figure 4: Mean, minimum and maximum values of selected metals by ICP-MS for a) sulphur, b) arsenic, c) bismuth and d) antimony



(This plot is a conventional box and whisker graph, with the upper and lower extremes showing the minimum and maximum values, tick marks outside the box showing the 10th and 90th percentiles, outer margins of the box showing the 25th and 75th percentiles, central dash in the box showing the median value, and dot showing the arithmetic mean).

Figure 5: Mean, minimum and maximum values of selected metals by ICP-MS for a) cadmium, b) manganese, c) molybdenum and d) zinc

4.2.3 Acid Base Accounting (ABA)

The ABA testing included analyses of paste pH, total inorganic carbon (TIC) total, sulphate and sulphide sulphur, neutralization potential (NP) by the modified Sobek method and calculations of the acid potential (AP), net neutralizing potential (Net NP) as well as the NP/AP ratio. The ABA results are provided in Appendix G and are summarized by material type in Table 5. Results are also shown graphically in the series of plots provided as Figures 6 to 8.

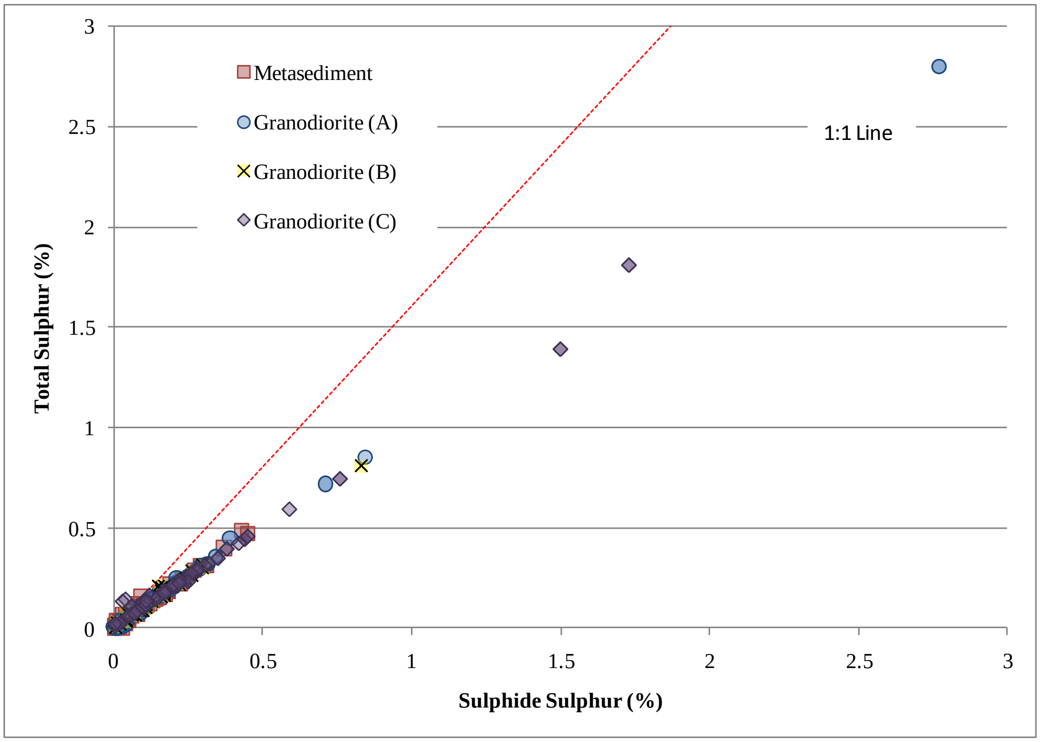
The data shows good agreement between total sulphur and sulphide sulphur, with most of the samples reporting values less than 0.5% (Figure 6). Neutralization potential is dominated by that provided by carbonate minerals and ranges from negligible to values of approximately 55 kg $CaCO_3$/t equivalent. Ratios of neutralization potential (NP) to acid potential (AP) ranged from essentially nil to values well over 100. The mean NP/AP ratio for granodiorite is 20 for the altered granodiorite zone and slightly lower, though well within the range considered non-acid generating, for all other units: 8 for oxidized granodiorite, 7 for the unaltered granodiorite and 5 for metasediments. The vast majority of samples (82% of samples tested) classify as non-acid generating and only 4% classify as having a high potential for ARD using the guidelines of Price, 1997[3]. Graphical representations of the results are shown in Figures 6 to 8. The results for the different material types do not tend to cluster, with no systematic differences by lithology or alteration type strongly indicated.

There is minimal correlation between total sulphur content and ARD potential. All samples with a sulphide sulphur content of greater than 0.4 were classified as potentially acid generating (NP/AP ratios of less than 4). However, below that threshold, classification of ARD potential depended on the NP content.

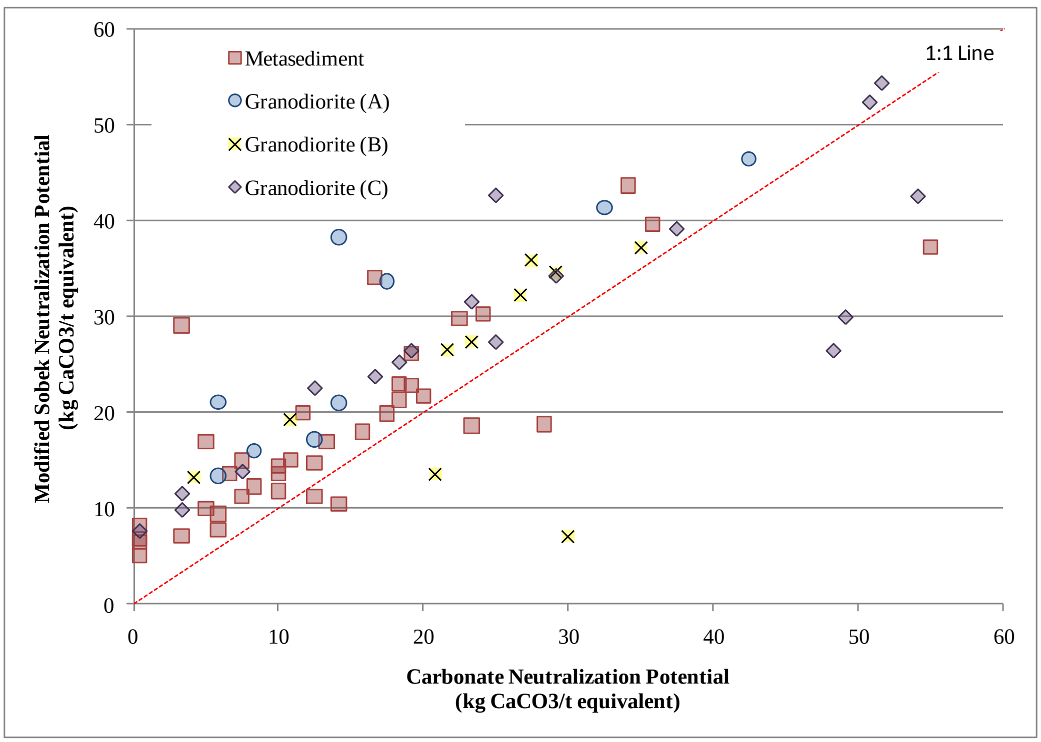
[3] ARD classification criteria recommended by BC Ministry of Energy and Mines (Price, 1997) have been used for this evaluation whereby samples with NP/AP is <1 are considered to have a likely a potential for ARD, samples with NP/AP ratio between 1 and 2 are considered to have a possible potential ARD, samples with ratios between 2 and 4 are considered to have a low potential for acid generation and samples with ratios>4 are considered to be non-acid generating.

Table 5: Statistical Summary of ABA Results by Material Type

Parameter		Metasediment (n=101)			Granodiorite A (Oxidized) (n=57)			Granodiorite B (Unaltered) (n=66)			Granodiorite C (Altered) (n=83)		
		Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum
Paste pH		8.2	6.6	9.1	8.3	6.8	9.2	8.6	7.8	9.3	8.4	7.2	9.3
TIC	%	0.16	0.01	0.66	0.21	0.07	0.51	0.28	0.05	0.42	0.33	0.01	0.65
$CaCO_3$ NP	kg $CaCO_3$/t	14	0.4	55	17	5.8	43	23	4.2	35	26	0.4	54
S(T)	%	0.10	0.002	0.49	0.12	0.002	2.80	0.17	0.01	0.81	0.27	0.01	1.81
$S(SO_4)$	%	0.011	0.005	0.070	0.009	0.005	0.060	0.011	0.005	0.040	0.012	0.005	0.100
$S(S^{-2})$	%	0.09	0.01	0.45	0.11	-0.01	2.77	0.16	0.01	0.83	0.27	0.01	1.73
AP	kg $CaCO_3$/t	2.8	0.06	14	3.7	0.06	87	5.0	0.22	26	8.4	0.15	54
NP	kg $CaCO_3$/t	15	2	44	30	1	85	34	7	77	41	3	92
Net NP	kg $CaCO_3$/t	12	2	30	26	1	-2	29	7	51	32	3	38
NP/AP		5	32	3	8	16	1	7	32	3	5	20	2

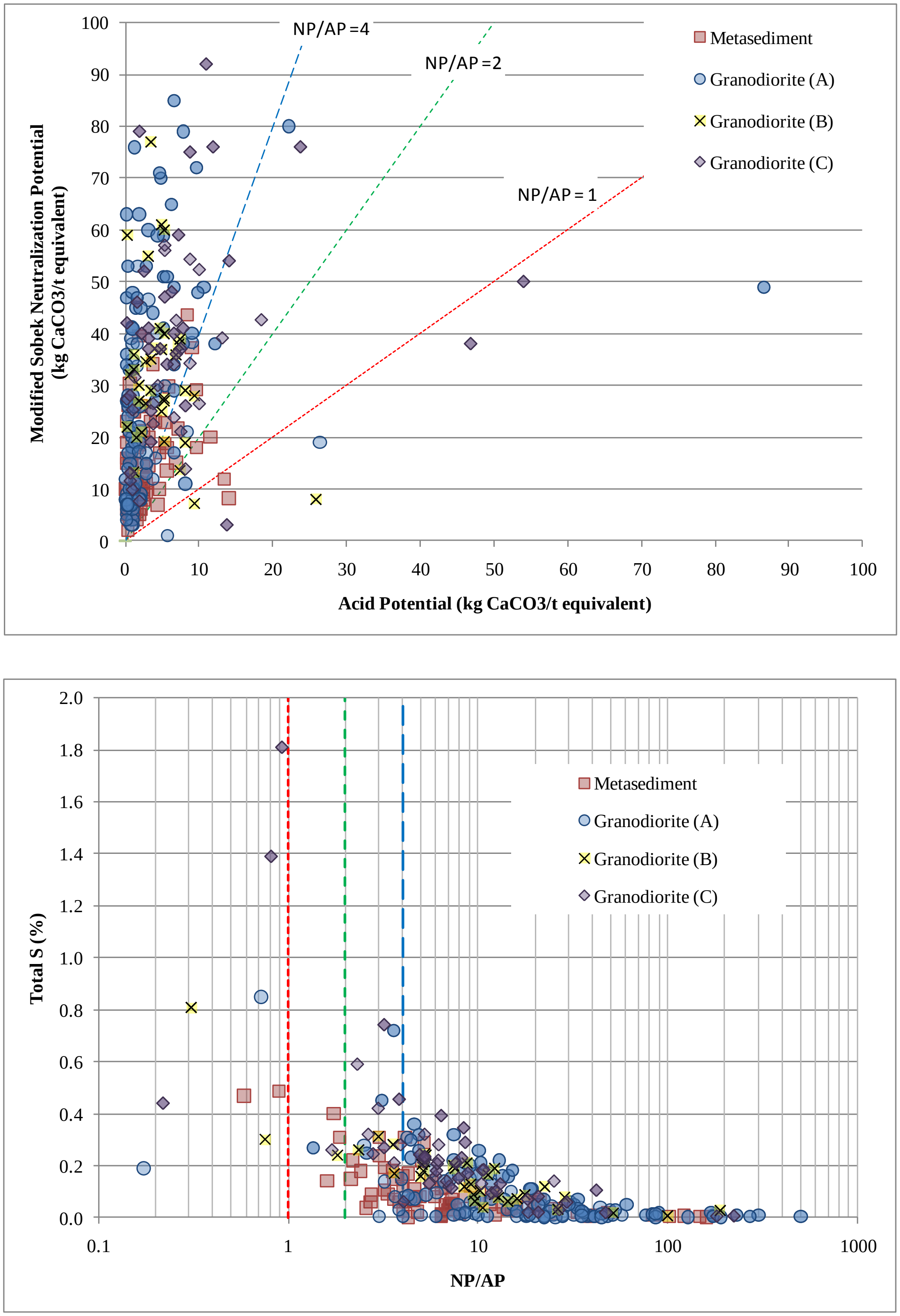


(a)



(b)

Figure 6: Acid base accounting results: (a sulphide sulphur versus total sulphur, and (b carbonate neutralization potential versus modified sobek neutralization potential



(a)

(b)

Figure 7: Acid base accounting results: (a acid potential versus modified sobek neutralization potential and (b NP/AP ratio versus total sulphur

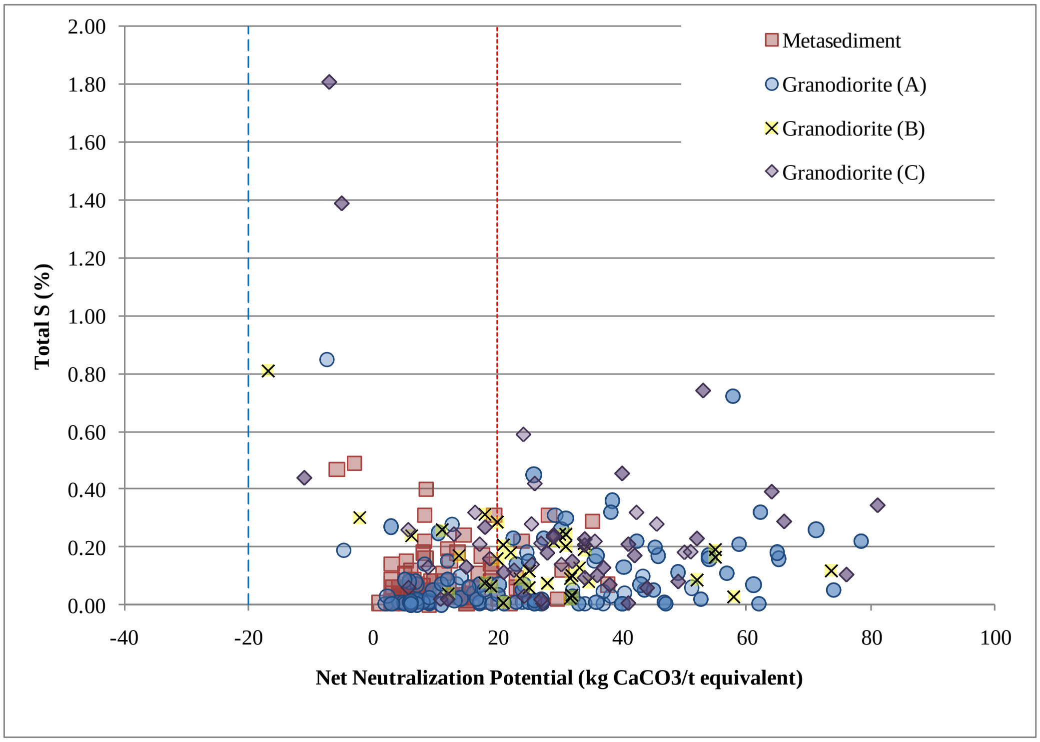


Figure 8: Acid base accounting results: net neutralization potential versus total sulphur

4.3 Kinetic Test Program

Kinetic testing provides information pertaining to sulphide oxidation rates, buffering reactions, metal concentrations and metal release rates.

Laboratory results for the kinetic testwork are provided in Appendix H and described in the following sub-sections. Note that summary figures in Appendix H also include results for a sample called HCol 7B. This sample represents a large scale kinetic test on the residues from a metallurgical column test that had been subjected to gold recovery by cyanidation.

4.3.1 Sample Selection Rationale

The precise sample selection rationale for the work conducted in 1996 was not clearly documented, other than a statement that they were composites representative of the major material types. Comparison of the composition of those samples with the compiled static dataset indicates that they are within the upper range of sulphur values and the lower range of NP values, with the exception of the altered granodiorite which has a higher NP. These samples are therefore likely somewhat conservative with respect to their potential for ARD/ML.

Samples for the 2009/2010 humidity cell testing program were selected from individual intervals rather than composites, and represent each of the main rock types. Further, intervals were selected to closely represent target sulphur contents: the upper end of the range (~95th percentile) and median values (50th percentile).

The ABA results and selected metal values for the kinetic sample set are shown in Table 6. Metal contents for the parameters of interest generally provide a range above and below the mean values as determined in the larger static sample set. For example, the metasediment unit has an anticipated mean arsenic content of 163 ppm (Table 4); the kinetic samples representing metasediments have arsenic contents of 34, 1614, 507 and 70 ppm respectively.

Conditional formatting has been applied to Table 6 to highlight the relative amounts of some key parameters. This formatting highlights that the humidity cell tests on the altered granodiorite samples typically had the highest metal concentrations. This is expected given that the altered granodiorites in the full dataset tended to have higher metal concentrations in comparison to other rock units.

A plot of acid potential (AP) versus neutralization potential (NP) for the kinetic sample suite is also shown in Figure 9. The distribution of samples in the kinetic sample suite is very similar to that from the larger static suite plotted in Figure 7. Samples selected for kinetic testing have NP/AP values between 1.7 and 44, with approximately half having NP/AP ratios below 4 and half with ratios above 4. It is noted that the kinetic sample set is somewhat biased towards lower NP/AP ratios than the larger sample population would suggest, indicating a conservative bias.

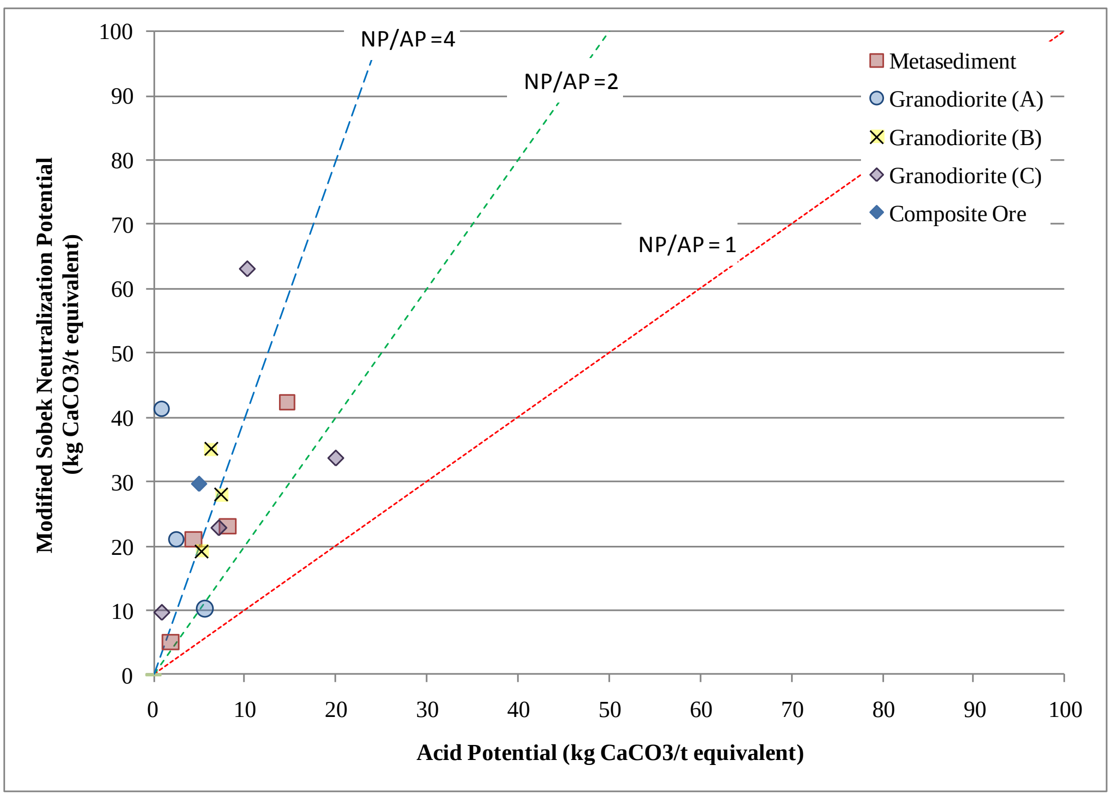


Figure 9: Acid potential versus neutralization potential for samples in kinetic testing program

Table 6: Acid Base Accounting Results of Samples Selected for Humidity Cell Testwork

Humidity Cell #	Sample ID	Rock Type	Test Type	Paste pH	Total Sulphur	Sulphate Sulphur	Sulphide Sulphur	AP	CaCO3 NP	NP	Net NP	NP/AP	As	Au	Cd	Cu	Sb
					(Wt.%)	(Wt.%)	(Wt.%)	(kg CaCO3/Tonne)					ppm	ppb	ppm	ppm	ppm
DGK 1	23066	Metasediment	Standard Cell	8.3	0.14		0.14	4.4		21.0	16.6	4.77	34.0		<.5	19.0	20.0
DGK 2	23064	Unaltered Granodiorite	Standard Cell	8.2	0.20		0.20	6.3		35.0	28.7	5.56	566		1	23	12
DGK 3	23067	Oxidized Granodiorite	Standard Cell	8.3	0.08		0.08	2.5		21.0	18.5	8.40	88		<.5	22	2
DGK 4	23069	Altered Granodiorite	Standard Cell	8.5	0.33		0.33	10.3		63.0	52.7	6.12	246		1	34	28
DGK 5	23069	Altered Granodiorite	Duplicate of DGK 4	8.5	0.33		0.33										
DGK 6	23069	Altered Granodiorite	Tall Cell	8.5	0.33		0.33										
DGK 7	23069	Altered Granodiorite	Big Cell	8.5	0.33		0.33										
HC 1*	DG07-331C 52.92-62.3	Metasediment	Standard Cell	8.8	0.50	0.03	0.47	14.7	45.0	42.3	27.6	2.88	1613.8	1270	0.1	95.8	8.4
HC 2*	DG07-305C 1.52-9.14	Metasediment (hornfelsic)	Standard Cell	8.0	0.32	0.06	0.26	8.1	6.7	23.1	15.0	2.84	507.3	118.1	<0.1	54.8	0.3
HC 3*	DG07-305C 169.03-178.31	Unaltered Granodiorite	Standard Cell	8.8	0.27	0.03	0.24	7.5	22.5	28.0	20.5	3.73	100.9	45.7	0.1	51.3	1.4
HC 4*	DG07-311C 99.97-109.12	Altered Granodiorite	Standard Cell	8.6	0.67	0.03	0.64	20.0	33.3	33.7	13.7	1.69	3438.5	373.5	0.3	85.4	9.1
HC 5*	DG07-335C 103.02-113.69	Oxidized Granodiorite	Standard Cell	8.5	0.20	0.02	0.18	5.6	6.7	10.3	4.7	1.83	46	16.6	<0.1	19.7	0.9
HC 6*	DG07-303C 175.26-185.93	Altered Granodiorite	Standard Cell	8.2	0.34	0.11	0.23	7.2	10.0	22.9	15.7	3.19	40.4	23.9	<0.1	21.0	0.1
HC 7	KCA No. 42979	Composite Ore Feed	Standard Cell	8.0	0.18	0.02	0.16	5.0	25.8	29.7	24.7	5.94	202	551.2	0.17	38.0	4.9
HC 8**	DG05-308C 12.19-18.00	Metasediment	Standard Cell	8.8	0.06	0.005	0.06	1.9	0.4	5.1	3.2	2.72	70.4	3.2	0.05	23.3	0.3
HC 9**	DG06-311C 130.45-140.45	Unaltered Granodiorite	Standard Cell	9.3	0.17	0.005	0.17	5.3	10.8	19.2	13.9	3.61	189.4	92.8	0.2	28.8	1.2
HC 10**	DG07-327C 24.69-33.83	Oxidized Granodiorite	Standard Cell	8.5	0.04	0.01	0.03	0.9	32.5	41.4	40.5	44.16	105.8	100.4	0.05	30.4	4.4
HC 11**	DG05-308C 125.00-128.00	Altered Granodiorite	Standard Cell	8.1	0.13	0.1	0.03	0.9	3.3	9.8	8.9	10.45	601.7	138.1	2.8	166.7	70.1
HCol 7B	KCA No. 42979	Leached Composite Ore	Metallurgical Column	8.0	0.18	0.02	0.16	5.0	25.8	29.7	24.7	5.94	202	551.2	0.17	38.0	4.9

Notes
* sample selected to represent 95th percentile for sulphur content
** sample selected to represent 50th percentile for sulphur content.

4.3.2 Kinetic Behaviour of Metasediments

The metasediment rock type is represented in the kinetic testing program by four samples: DGK1, HC 1, HC 2 and HC 8 (Table 6) which range in sulphur content from 0.06% (HC 8) to 0.5% (HC 1), NP/AP ratios from 2.7 to 4.8, arsenic content from 34 ppm (DGK 1) to 1614 ppm (HC 1), and variable distributions of other parameters of interest as shown in Table 6.

Results for the test duration are summarized in Table 7 as steady state concentrations and in Table 8 as release rates for key parameters (see Appendix E for full details). Steady state concentrations represent the average concentrations for the period of time following the initial flush for each individual sample. The initial flush was determined from inspection of results on a sample specific basis and was generally within the first few weeks of testing. Results for key parameters are provided in Figure 10 below with the full set of parameters graphically provided in Appendix E.

In all cases, calculations of depletion times indicated that NP would outlast sulphur supporting the classification of non acid generating potential for this material.

The pH for all the metasediment samples remained buffered throughout the test duration to pH values between 7 and 8, with alkalinity values (~ 10 to 20 mg $CaCO_3$eq/L) typically four times the acidity (<5 mg $CaCO_3$eq/L) reported. Steady state concentrations of sulphate were slightly more variable but generally low (ranging from 3 to 84 mg/L) with similarly low electrical conductivities (~50 µmhos/cm or lower). Concentrations of arsenic vary somewhat, with two of the four metasediment samples reporting concentrations on the order of 0.005 mg/L (DGK1 and HC1) and two of the four samples (HC2 and HC8) reporting concentrations almost an order of magnitude higher (~0.03 mg/L). It is noted that the concentration of arsenic in the leachate does not tend to correlate strongly with the amount of arsenic in the sample in solid form (sample HC1 contains the highest arsenic content but does not yield the highest concentrations). While difficult to quantify, the degree to which arsenic leaching is seen in the humidity cells may be related to the degree of prior oxidation (a result of geological oxidation in-situ and possibly sample oxidation while in storage) as noted in petrographic examination. Nearly all other parameters of interest are in low concentrations (Appendix E). Other parameters of concern for the project (antimony, cadmium, molybdenum, manganese and zinc) are generally detected but are at low concentrations.

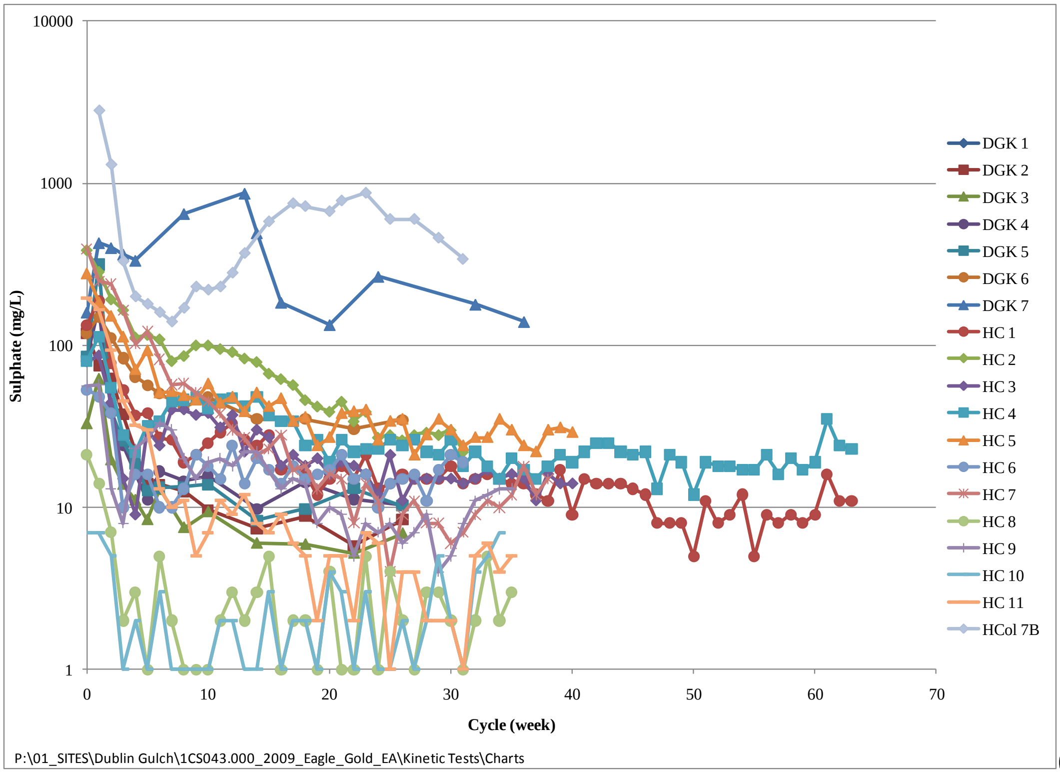
Table 7: Summary of Steady State Concentrations for Selected Parameters

	pH	Sulphate	Fluoride	Al	As	Ca	Cd	Cu	Fe	Mg	Mn	Sb	Se	U	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
DGK 1	7.18	34	n.a.	0.20	0.011	15	0.0008	0.01	0.03	2.12	0.03	0.022	0.20	n.a.	0.01
DGK 2	7.64	30	n.a.	0.20	0.019	16	0.0003	0.01	0.03	2.50	0.03	0.113	0.20	n.a.	0.01
DGK 3	7.59	16	n.a.	0.20	0.043	11	0.0004	0.01	0.03	1.00	0.01	0.006	0.20	n.a.	0.01
DGK 4	7.69	34	n.a.	0.20	0.034	12	0.0004	0.01	0.03	2.62	0.01	0.130	0.20	n.a.	0.01
DGK 5	7.74	44	n.a.	0.20	0.034	14	0.0003	0.01	0.03	3.26	0.02	0.157	0.20	n.a.	0.01
DGK 6	7.75	66	n.a.	0.20	0.054	23	0.0003	0.01	0.03	5.81	0.02	0.344	0.20	n.a.	0.01
DGK 7	7.89	354	n.a.	0.20	0.036	81	0.0003	0.01	0.03	21.16	0.07	0.538	0.20	n.a.	0.01
HC 1	7.42	22	0.05	0.08	0.006	16	0.00001	0.001	0.01	0.88	0.01	0.002	0.001	0.001	0.0007
HC 2	7.40	85	0.30	0.04	0.029	44	0.00001	0.001	0.02	2.37	0.03	0.001	0.004	0.001	0.0012
HC 3	7.73	24	0.43	0.09	0.003	15	0.00001	0.001	0.005	1.86	0.01	0.042	0.002	0.03	0.0007
HC 4	7.74	28	0.14	0.06	0.060	24	0.00001	0.001	0.003	3.14	0.01	0.059	0.004	0.02	0.0010
HC 5	7.51	52	0.05	0.06	0.009	28	0.00001	0.001	0.01	1.27	0.02	0.000	0.002	0.004	0.0006
HC 6	7.92	19	0.20	0.10	0.005	15	0.00001	0.001	0.005	3.04	0.004	0.054	0.003	0.03	0.0005
HC 7	7.64	50	0.13	0.07	0.020	36	0.00001	0.001	0.004	2.22	0.01	0.047	0.004	0.01	0.0006
HC 8	7.27	3	0.05	0.04	0.034	4	0.00001	0.0005	0.01	0.25	0.002	0.001	0.0003	0.002	0.0004
HC 9	7.55	16	0.18	0.10	0.002	14	0.00003	0.001	0.004	1.36	0.01	0.015	0.001	0.05	0.0014
HC 10	7.71	2	0.22	0.03	0.006	7	0.00001	0.0004	0.01	2.97	0.001	0.0002	0.0004	0.002	0.0012
HC 11	7.43	20	0.33	0.02	0.129	18	0.0001	0.001	0.01	1.80	0.03	0.008	0.01	0.002	0.01
Hcol 7B	7.96	580	1.18	1.15	1.048	116	0.0003	0.01	0.27	4.00	0.01	0.826	0.02	0.14	0.04

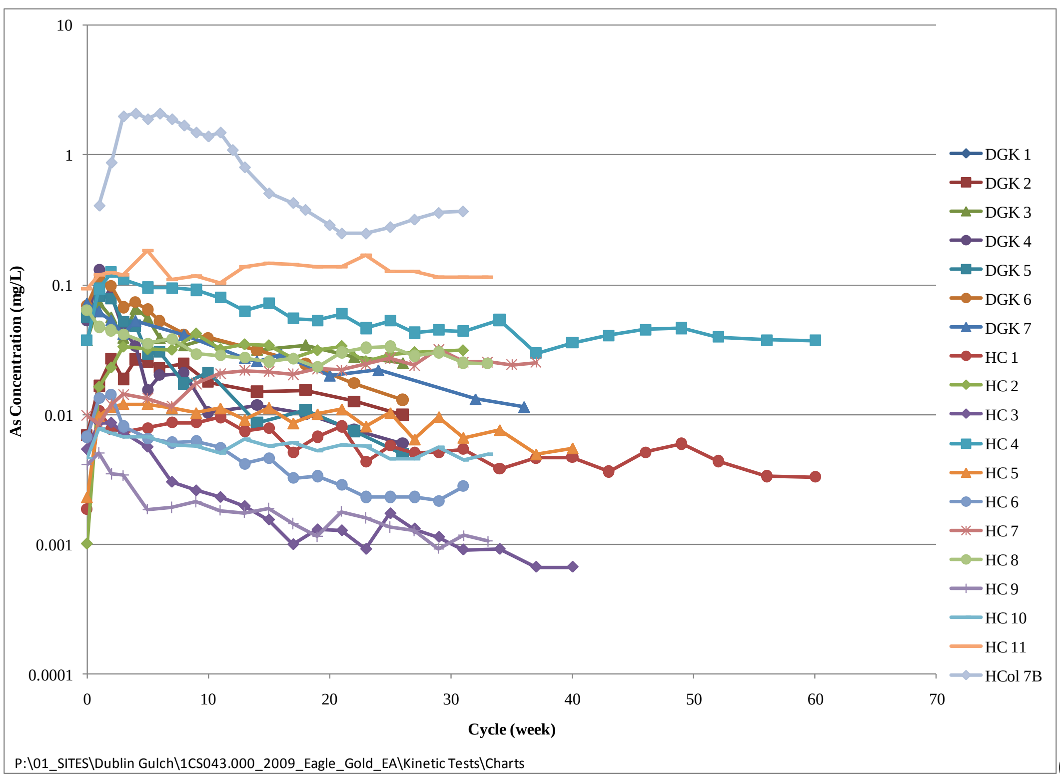
Note complete results are provided in Appendix H.

Table 8: Summary of Steady State Release Rates

Humidity	Rock Type	Sulphate	Fluoride	Al	As	Ca	Cd	Cu	Fe	Mg	Mn	Sb	Se	U	Zn
Cell #		mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk
DGK 1	Metasediment	4.5		0.089	0.0048	3.22	2E-04	0.00445	0.0134	0.38	0.0045	0.00302	0.08901		0.0026
DGK 2	Unaltered Granodiorite	4.9		0.091	0.0075	4.68	9E-05	0.00454	0.0136	0.71	0.0063	0.04606	0.09081		0.0024
DGK 3	Oxidized Granodiorite	3.1		0.091	0.0144	3.12	9E-05	0.00456	0.0137	0.27	0.0023	0.00195	0.09129		0.0023
DGK 4	Altered Granodiorite	5.6		0.090	0.0053	3.36	9E-05	0.00449	0.0135	0.90	0.0043	0.03431	0.08976		0.0023
DGK 5	Altered Granodiorite	5.5		0.092	0.0069	3.78	9E-05	0.00461	0.0138	1.02	0.0049	0.04285	0.09210		0.0024
DGK 6	Altered Granodiorite	5.7		0.029	0.0045	2.98	3E-05	0.00147	0.0044	0.86	0.0021	0.04656	0.02947		0.0014
DGK 7	Altered Granodiorite	13.7		0.006	0.0009	3.24	9E-06	0.00031	0.0009	0.84	0.0027	0.01809	0.00618		0.0003
HC 1	Metasediment	7.2	0.013	0.035	0.0026	5.41	3E-06	0.00024	0.0024	0.21	0.0027	0.00058	0.00022	0.0004	0.0002
HC 2	Metasediment (hornfelsic)	28.8	0.134	0.022	0.0164	14.12	5E-06	0.00041	0.0028	0.53	0.0053	0.00025	0.00102	0.0003	0.0006
HC 3	Unaltered Granodiorite	9.4	0.158	0.039	0.0008	6.62	4E-06	0.00032	0.0018	0.80	0.0035	0.01656	0.00046	0.0126	0.0004
HC 4	Altered Granodiorite	11.8	0.033	0.027	0.0249	10.24	6E-06	0.00035	0.0013	1.40	0.0030	0.02502	0.00127	0.0091	0.0005
HC 5	Oxidized Granodiorite	18.7	0.017	0.029	0.0041	8.72	2E-06	0.00037	0.0041	0.32	0.0063	0.00007	0.00031	0.0016	0.0002
HC 6	Altered Granodiorite	7.4	0.043	0.048	0.0018	6.05	3E-06	0.00038	0.0022	1.33	0.0020	0.02352	0.00110	0.0147	0.0003
HC 7	Composite Ore Feed	9.0	0.025	0.035	0.0109	8.85	4E-06	0.00027	0.0018	0.49	0.0014	0.02358	0.00065	0.0043	0.0003
HC 8	Metasediment	1.1	0.011	0.016	0.0138	1.34	2E-06	0.00017	0.0036	0.08	0.0007	0.00028	0.00009	0.0007	0.0002
HC 9	Unaltered Granodiorite	6.8	0.036	0.049	0.0008	6.62	5E-06	0.00023	0.0018	0.59	0.0036	0.00632	0.00031	0.0186	0.0009
HC 10	Oxidized Granodiorite	1.0	0.052	0.016	0.0026	3.07	4E-06	0.00013	0.0035	1.25	0.0007	0.00009	0.00010	0.0011	0.0006
HC 11	Altered Granodiorite	2.6	0.071	0.012	0.0618	3.98	2E-05	0.00027	0.0056	0.39	0.0048	0.00340	0.00249	0.0005	0.0004
HCol 7B	Leached Composite Ore	16	0.026	0.034	0.0305	3.67	6E-06	0.00021	0.0074	0.14	0.0023	0.02601	0.00029	0.0057	0.0009



(a)



(b)

Figure 10: Time trends of kinetic test leachate concentrations for key parameters a) sulphate and b) arsenic

4.3.3 Kinetic Behaviour of Granodiorites

Oxidized Granodiorite

The oxidized granodiorite is represented in the kinetic testing program by three samples: DGK3, HC 5, and HC 10 (Table 6) which range in sulphur content from 0.04% (HC 10) to 0.2% (HC 5), NP/AP ratios from 1.8 to 44, arsenic content from 46 ppm (HC 5) to 106 ppm (HC 10), and variable distributions of other parameters of interest as shown in Table 6.

Results for the test duration are summarized in Tables 7 and 8 as steady state concentrations and release rates with selected graphs shown in Figure 10 (also see Appendix E). Again calculations of NP depletion and sulphur depletion support the classification as non acid generating potential for this material.

As with the metasediment samples, the oxidized granodiorite samples remained buffered to pH values between 7 and 8 throughout the duration of testwork. Acidity values were low (<5 mg $CaCO_3$eq/L), with alkalinity values at least 4 to 5 times greater (~15 to 35 mg $CaCO_3$eq/L) and generally low concentrations of sulphate (~10 to 30 mg/L). Metals of particular interest tend to vary sample to sample such as arsenic, which varies again from values of approximately 0.005 mg/L to 0.03 mg/L depending on the sample, antimony from values <0.0002 to 0.005 mg/L and uranium concentrations on the order of 0.0025 mg/L.

Unaltered Granodiorite

The unaltered granodiorite is represented in the kinetic testing program by three samples: DGK2, HC 3, and HC 9 (Table 6) which range in sulphur content from 0.17% (HC 9) to 0.27% (HC 3), NP/AP ratios from 3.7 to 5.6, arsenic content from 101 ppm (HC 3) to 566 ppm (DGK 2), and variable distributions of other parameters of interest as shown in Table 6.

As for previous rock types, results for the test duration are summarized in Tables 7 and 8 and graphically provided in Figure 10 and Appendix E. Calculations of NP depletion and sulphur depletion times indicate that NP would outlast depletion of the sulphides, supporting the classification as non acid generating potential the unaltered granodiorite as well.

These samples remained buffered to pH values between 7 and 8 throughout the duration of testwork. Conductivity values were typically ~70 µmhos/cm, acidity values were low (<5 mg $CaCO_3$eq/L), with alkalinity values again 4 to 5 times greater (~20 mg $CaCO_3$eq/L or higher). Concentrations of sulphate in the leachate were low (generally < 30 mg/L). Fluoride concentrations were as high as 0.4 mg/L. Concentrations of arsenic varied on a sample by sample basis; ranging from values of approximately 0.0007 mg/L (in HC3) to values of 0.015 mg/L (in DGK2). Other metals were typically low, with the possible exception of uranium which was reported at values on the order of 0.01 to 0.02 mg/L.

Altered Granodiorite

The altered granodiorite is represented in the kinetic testing program by four samples: DGK4 through DGK7 (splits of the same sample), HC 4, HC 6, and HC 11 (Table 6) which range in sulphur content from 0.13% (HC 11) to 0.67% (HC 4), NP/AP ratios from 1.7 to 10.5, arsenic content from 40 ppm (HC 6) to 3439 ppm (HC 4), and variable distributions of other parameters of interest as shown in Table 6.

Results for the test duration are summarized in Tables 7 and 8 as steady state concentrations and release rates and graphically provided in Figure 10 and in Appendix E. None of the samples were predicted to become acid generating based on depletion calculations for neutralization potential and sulphur.

In the standard tests, values of pH remained within the range of 7 to 8, conductivity typically ranged from ~35 to 70 µmhos/cm, acidity values were typically less than 5 mg $CaCO_3$eq/L and alkalinity in the range of ~20 to 50 mg $CaCO_3$eq/L. Sulphate concentrations in the standard cells were generally on the order of 10 to 20 mg/L. The highest arsenic concentrations observed in any of the waste rock samples were reported in HC6 and HC11, with values of ~0.1 mg/L. Concentrations of antimony ranged from 0.005 to 0.05 mg/L. Uranium values were variable, but up to 0.025 mg/L in one sample (HC6) and fluoride concentrations were on the order of 0.2 mg/L. Neither uranium nor fluoride was reported in the 1996 program data.

In the modified cells (big and tall cells), concentrations of major cations (i.e. calcium, magnesium, potassium and sodium) were higher than in the standard tests, though release rates were very similar. This was also seen in the data for sulphate, manganese antimony etc. where concentrations differed with sample size and release rates were more similar. This trend did not hold for arsenic however, where concentrations were similar in DGK4 through DGK7 regardless of sample size or infiltration rate, perhaps indicating a solubility control for As. Lawrence (1997) had also concluded that the leachate chemistry from the tall cell, which was subjected to variable infiltration rates, indicated that for many parameters, concentrations also varied in direct response to changes in infiltration volumes, while other parameters were unaffected (e.g. arsenic).

4.4 Metallurgical Related Test Results

The humidity cell tests on the ore composite was labelled as HC 7, while the large column test on the metallurgical residues was labelled as HCol 7B. The head sample for both these tests contained 0.18% total sulphur, 202 ppm arsenic and contents of other parameters of interest as provided in Table 6. Results for these tests are summarized along with the other kinetic tests in Tables 7 and 8 and graphically provided in Figure 10 and in Appendix E.

The key differences between these two tests were scale, water addition rates, and the effects of cyanidation. Both the column that had been subjected to cyanidation (post-detoxification) and the humidity cell reported buffered pH. Higher concentrations were generally reported in the column leachate. Conductivity values in the humidity cell averaged 150 µmhos/cm, while that from the large column averaged 1344 µmhos/cm. Concentrations of sulphate similarly varied by an order of magnitude between the two tests with average concentrations of 50 mg/L and 580 mg/L for the cell and column respectively (though it is recognized that the column had not reached steady state trends at the time of reporting). Concentrations of arsenic for example averaged 0.02 and 1.05 mg/L from the cell and column respectively; antimony varied from 0.05 to 0.8 mg/L, selenium varied from 0.002 to 0.04 mg/L, uranium varied from 0.01 to 0.14 mg/L and fluoride concentrations averaged 0.1 and 1.2 mg/L in the cell and column respectively.

The results in terms of release rates are less variable between test sizes. Most parameters showed similar release rates between the cell and the column. In general parameters associated to the release of metals by sulphide oxidation were slightly higher from the column, notably sulphate, arsenic, cadmium, iron and zinc; whereas those that are associated with the dissolution of carbonates tended to be slightly higher in the humidity cell, such as calcium and magnesium.

Concentrations in the column continued to vary significantly throughout the testing such that the differences for most parameters appear to diminish with continued testing. The diminishing trends however vary on a parameter by parameter basis such that reagent related species (cyanide, sodium) and species that complex with cyanide (e.g. copper, cadmium etc) appear to decrease quickly, whereas those that can be mobilized as a result of on-going sulphide oxidation (e.g. sulphate, arsenic etc.) decrease less rapidly. These trends are seen when the data from HCol 7B (i.e. the leaching post-detoxification) is plotted in time sequence with the data collected by KCA during cyanidation and detoxification leaching of this same column (Figures 11 to 16).

Residual concentrations of sodium in the column from reagent addition during cyanidation were high, though declining throughout the testwork from values in excess of 700 to ~20 mg/L. Cyanide species similarly decline from leaching to detoxification through the subsequent testwork (Figure 11). It is recognized that the magnitude of concentrations of these parameters as well as the dynamics of their break down will be dependent on treatment during detoxification. The concentrations presented here do not necessarily reflect what would happen over the short term in the full scale heap leach facility.

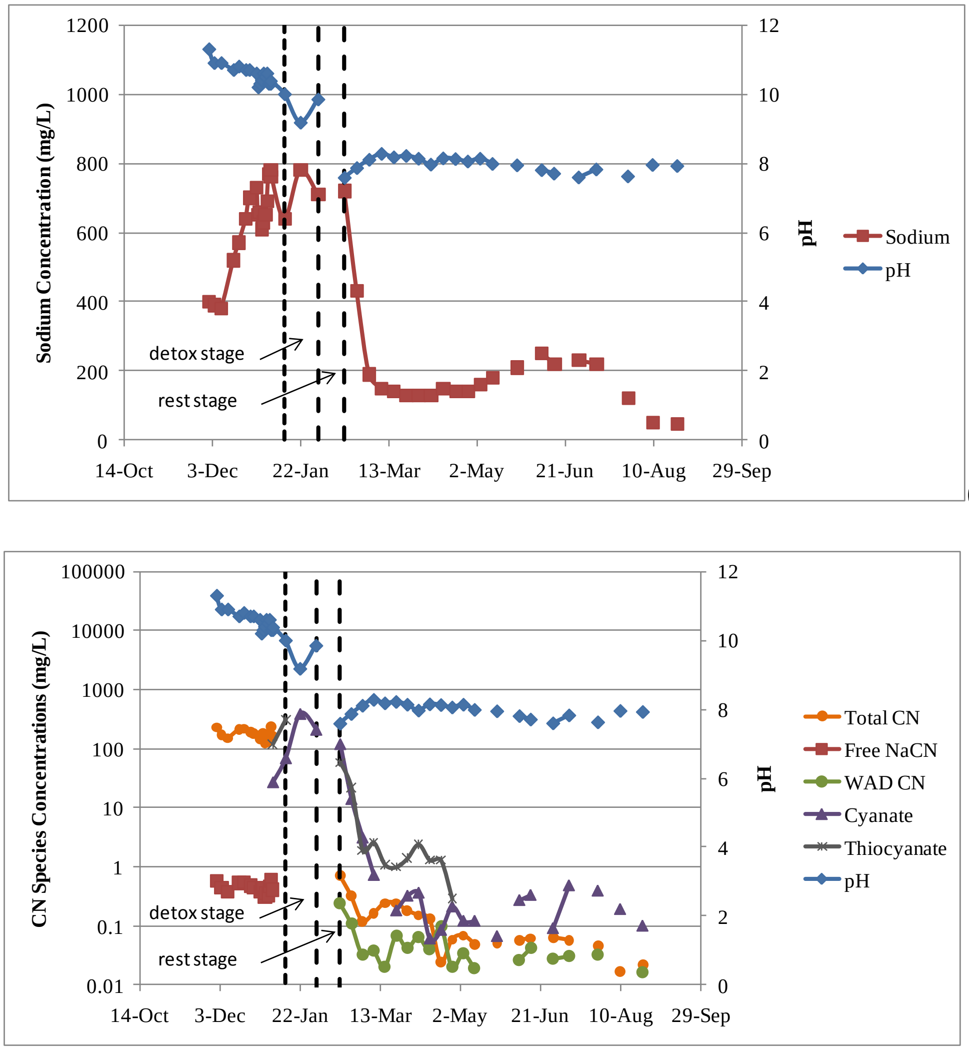
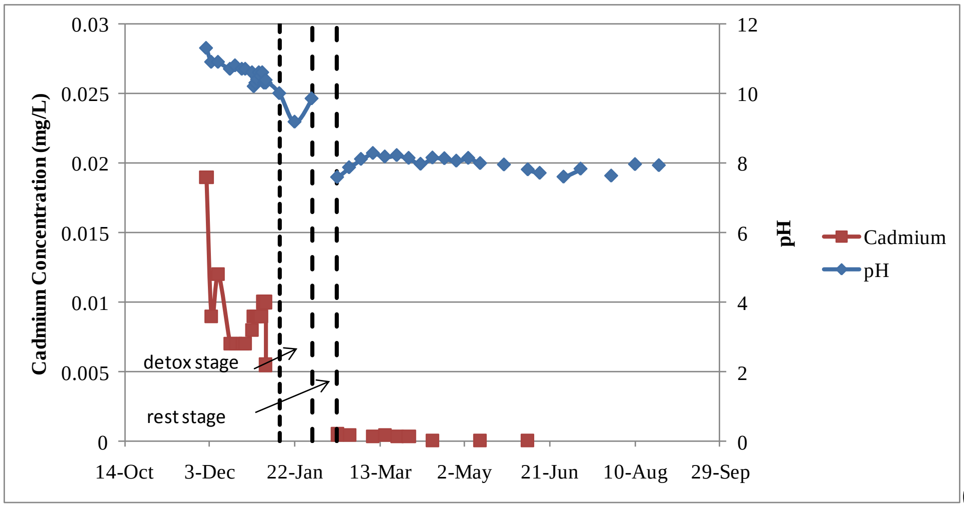
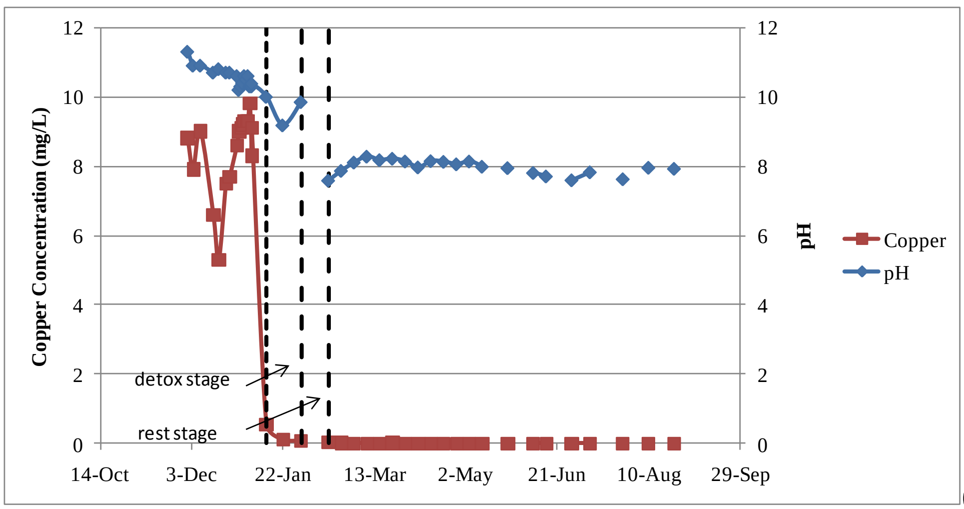


Figure 11: Concentrations of a) cyanide species and b) sodium during leaching, detox and subsequent modified humidity column testing

Parameters that form weak acid dissociable complexes with cyanide (WAD CN) such as cadmium, copper, nickel, zinc and silver show a steep and rapid decline following the detoxification test stage. This is shown in Figures 12 and 13.



(a)



(b)

Figure 12: Concentration trends of metals that form weak acid dissociable cyanide complexes: a) cadmium and b) copper

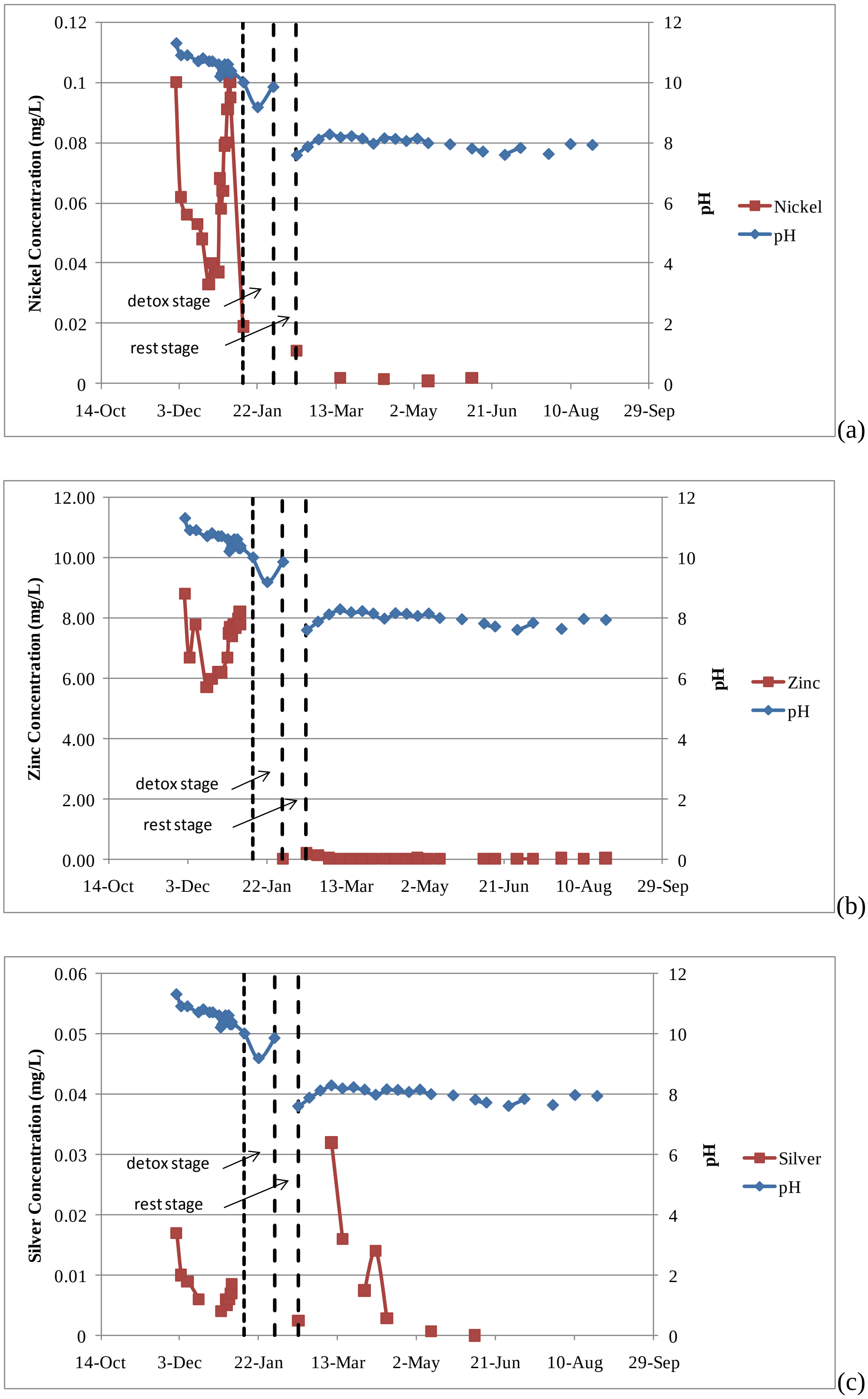
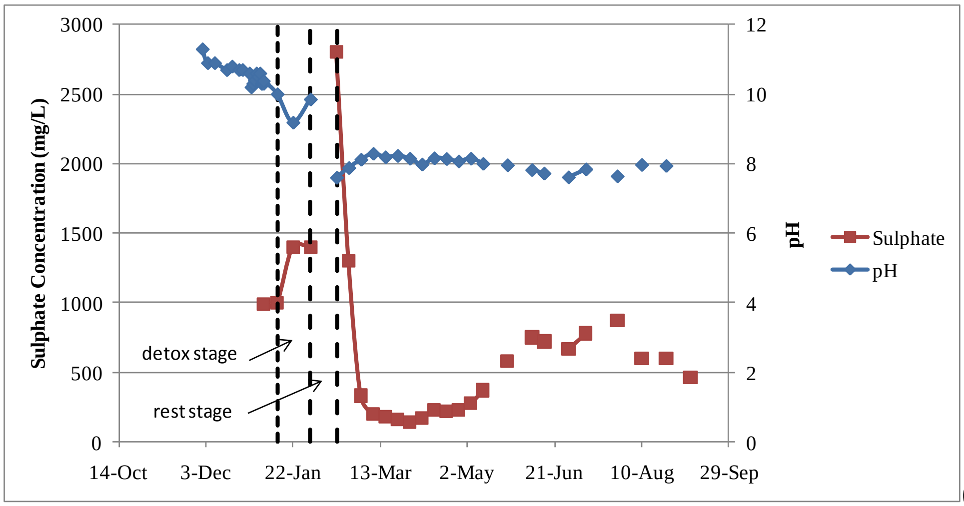
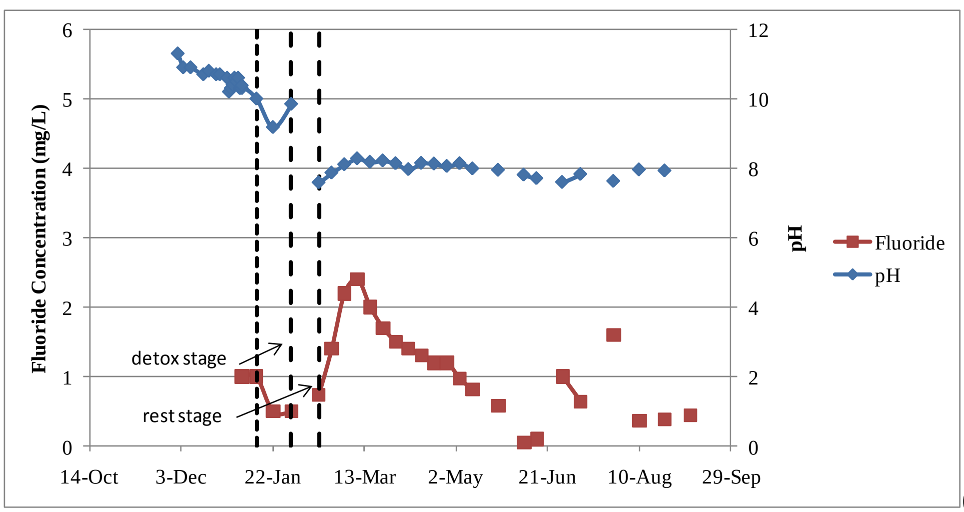


Figure 13: Concentration trends of metals that form weak acid dissociable cyanide complexes: a) nickel, b) zinc and c) silver

Parameters that are anticipated to be leached from the various rocks naturally, in the absence of cyanide, show a slightly different trend through the test conducted. These include sulphate, fluoride, arsenic, antimony and uranium and are shown in Figures 14 to 16. The results generally show a sharp increase in concentration following a short rest period[4] followed by a general decline to concentrations more similar to that reported in the smaller humidity cell (HC7). For most parameters, the increase in concentrations can be attributed to the reduction in water to rock ratios following conversion of the test from a metallurgical column to a humidity column test. The complete set of figures for this testwork is provided in Appendix H.



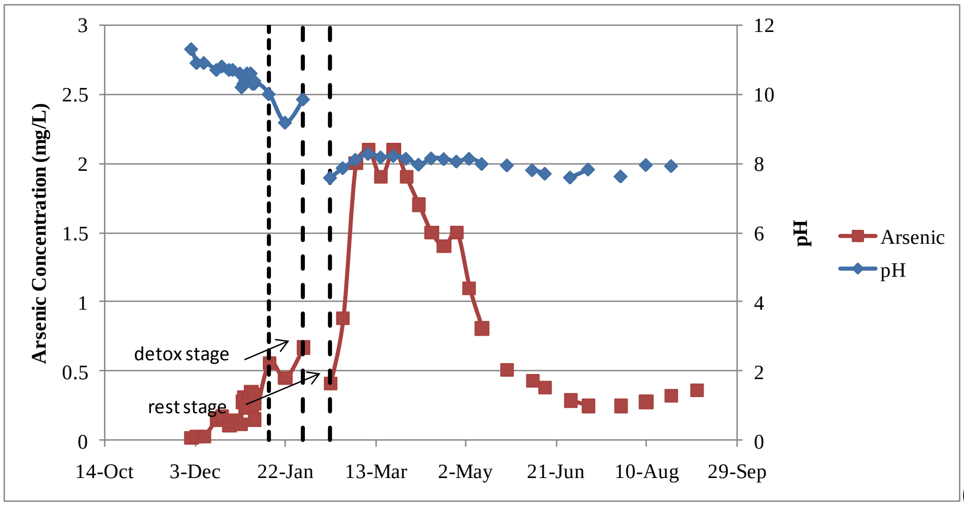
(a)



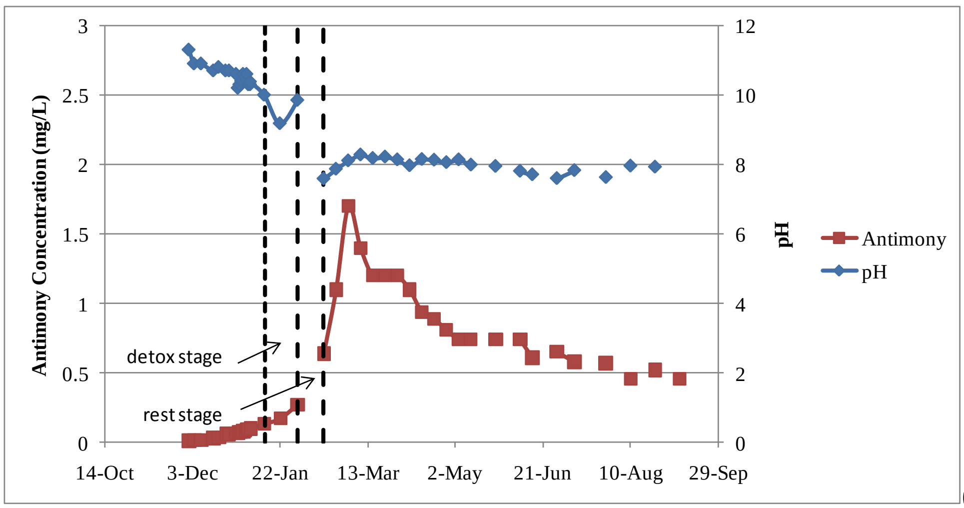
(b)

Figure 14: Concentration trends of metals that are anticipated to leach naturally: a) sulphate and b) fluoride

[4] The rest period constituted 2 weeks following detoxification testing and prior to the initiation of the modified humidity cell testwork.

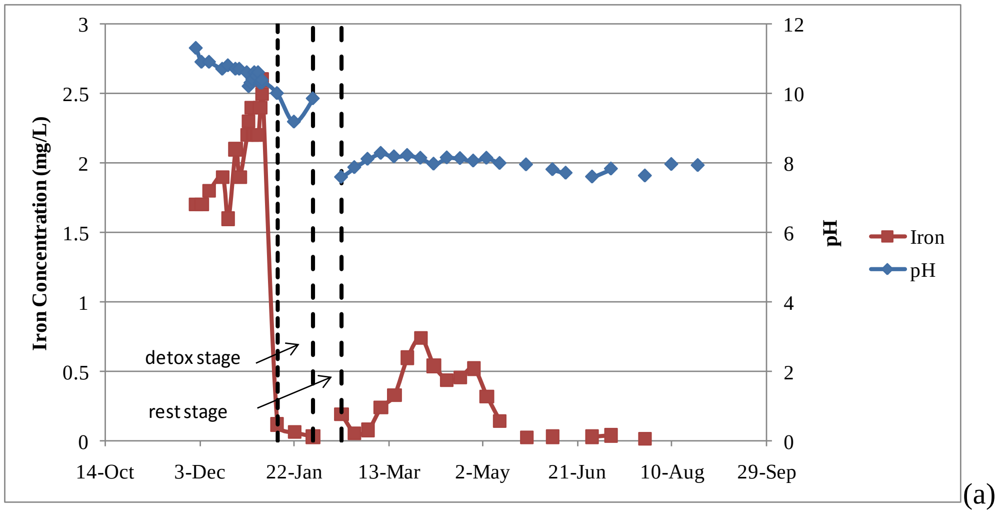


(a)



(b)

Figure 15: Concentration trends of metals that are anticipated to leach naturally: a) arsenic and b) antimony



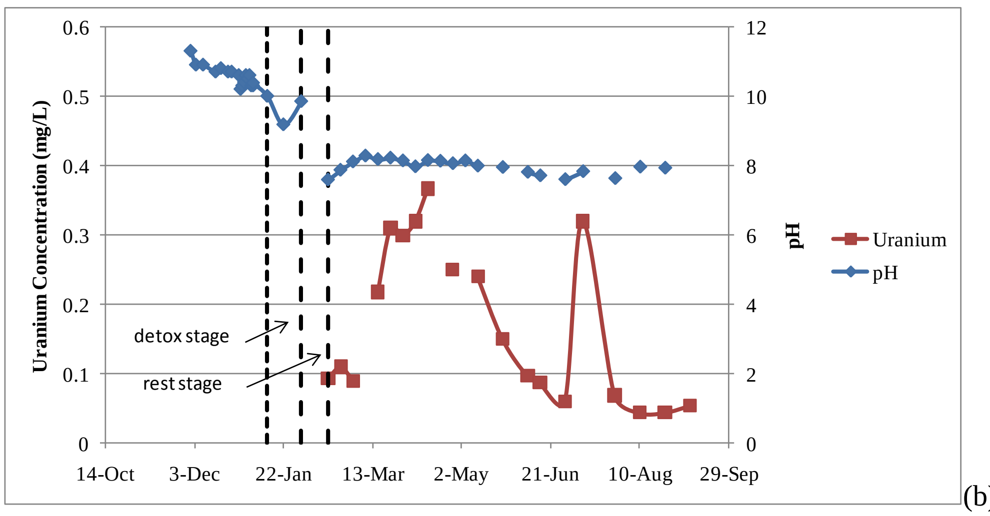


Figure 16: Concentration trends of metals that are anticipated to leach naturally: a) iron and b) uranium

5 Source Term Water Quality Predictions

The results of the kinetic program described in Section 4 were used to produce source term water quality predictions, or estimates of the quality of contact water in the waste rock storage areas (WRSAs), pit wall run-off and the heap leach facility. Predictions for the WRSAs and the pit were made for year 1, year 3, year 5 and year 7 of operations where applicable, as well as in closure and consisted of annual average concentrations of dissolved metals. Predictions for the heap leach facility were only for closure. Although analytical data from the KCA testwork for cyanidation and detoxification were provided in Section 4.4, many of these process related parameters (cyanide and nitrogen species) will be significantly affected by treatment processes during detoxification and rinsing. Therefore predictions for the cyanide and nitrogen species will be provided based on treatment evaluations by Stantec. Likewise nutrient predictions for the waste rock piles depend on explosives use and efficiency calculations and were also completed by Stantec. Predicted source terms were used as inputs to the water quality impact assessment work.

Results from kinetic tests do not directly represent field concentrations. Adjustments must be conducted to compensate for differences between lab measured release rates (in units of mg/kg/wk) and anticipated field release rates. This typically includes adjustments for grain size differences, temperature differences, the proportion and mass of various rock types and differences in water flow as provided in the equation below and described in greater detail in Appendix H.

$$M_{adj} = R \text{ x } k_{rm} \text{ x } k_{gs} \text{ x } k_f \text{ x } k_T$$

Where:

M_{adj} = the adjusted metal leach mass (in mg/wk)
R_i = metal leach rate as observed by humidity cell testing (in mg/kg/wk)
K_{rm} = adjustment factor to correct for rock mass and material mixtures (in kg)
K_{gs} = adjustment factor to correct for grain size effects (unitless)
k_f = adjustment factor to correct for flow path development, or degree of flushing (unitless)
k_T = adjustment factor to correct for temperature effects (unitless)

Information on rock mass and material mixtures were provided by Scott Wilson & Associates (via email communication, G. Ehasoo (Scott Wilson & Associates), May 18, 2010), and were estimated based on geological models of the deposit area. This information included annual estimates of tonnages to various facilities by material type (lithology, oxidation and alteration) as well as estimates of exposed surface area within the pit walls by material type. This information is provided in Table 9, with tonnages for the pit wall exposures being calculated from the relative surface areas and an assumed depth of reactive material of 2 metres.

The adjustment factors for grain size differences (Table 9) account for the fact that the <6mm sized fraction reflects the vast majority of the reactive surface area in the rock mass. The adjustment assumed here was based on observations and particle size distribution analyses of run-of-mine waste rock from the Fort Knox mine (via email communication, D. Parr (Fairbanks Gold Mining Inc.), December 16, 2009). Specifically it was assumed that 20% of the metasediment waste rock consisted of material similar to that tested in the humidity cell (i.e. was <6mm), while the granodiorite was assumed to be slightly more coarse, with 15% of the material assumed to be present in the reactive size fraction of <6mm. The spent ore in the heap leach facility will be much finer than waste rock as the current project is proposing a high pressure grind, with an estimated 90% being in the size fraction represented by <6mm.

The humidity cell procedure provides for uniformly irrigated water, though in the field not all material is contacted by infiltrating water. The adjustment factor to correct for flow path development, or degree of flushing accounts for the mass of material, or proportion of rock, that is likely to be in contact with infiltrating water in a given facility. The adjustment factor used here assumed that one-third of the material in the waste rock piles and the spent ore heap leach facility (i.e. post irrigation) would be in contact with infiltrating water. A slightly higher assumption was applied to the pit wall predictions, with the assumption that half of the surfaces would be in contact with water. These estimates are based on the professional judgement of the authors based on experiences elsewhere.

The adjustment factor to correct for temperature considers that the humidity cells are operated at a temperature of approximately 20˚C, whereas annual average temperatures at the site for the data on record indicate values between approximately 2˚C and -5˚C. Lower temperatures tend to slow the rate of chemical oxidation as described by the Arrhenius equation (see Appendix H for details). An adjustment factor of 0.2 was used (Table 9) which corresponds to an average annual temperature of approximately 2˚C, i.e. that the oxidation rate at 2˚C is roughly 20% that that would occur at room temperature.

Once the release rates are adjusted, or scaled to the anticipated field release rates, concentrations are calculated by dividing the adjusted release rates by the anticipated flow rates as in the equation below. Flows used in these predictions were based on the water balance estimates for average hydrological scenarios conducted by Stantec on the average hydrological conditions (Table 10).

$$C_{adj} = (M_{adj} / Q) \times 52$$

Where:

C_{adj} = the adjusted unequilibrated field concentration (in mg/L)
M_{adj} = the adjusted metal leach rate (in mg/wk)
Q = flows in contact with leachable rock (in L/wk)

Resulting predictions represent dissolved concentrations. Nitrogen species were not included in the predictions.

Table 9: Summary of Adjustment Factors Utilized in Source Term Predictions

Facility	Time Step	Adjustment Factors									
		Rock Mass & Material Mixtures in Million Tonnes (k_{rm})				Grain Size Effects (k_{gs})				Flow Path Development, or Degree of Flushing (k_f)	Temperature Effects (k_T)
		meta-sediment	oxide granodiorite	unaltered granodiorite	altered granodiorite	meta-sediment	oxide granodiorite	unaltered granodiorite	altered granodiorite		
Platinum Gluch WRSA	yr 1	0.90	0.05	0.25	0.00	0.20	0.15	0.15	0.15	0.30	0.20
	yr 3	5.69	1.06	2.73	0.01	0.20	0.15	0.15	0.15	0.30	0.20
	yr 7	5.69	1.06	2.73	0.01	0.20	0.15	0.15	0.15	0.30	0.20
Eagle Pup WRSA	yr 1	1.81	0.10	0.50	0.00	0.20	0.15	0.15	0.15	0.30	0.20
	yr 3	7.75	1.44	3.72	0.02	0.20	0.15	0.15	0.15	0.30	0.20
	yr 5	25.70	4.63	12.50	0.36	0.20	0.15	0.15	0.15	0.30	0.20
	yr 7	28.03	7.97	20.06	0.95	0.20	0.15	0.15	0.15	0.30	0.20
	closure	28.03	7.97	20.06	0.95	0.20	0.15	0.15	0.15	0.30	0.20
Pit Wall Runoff	yr 1	0.44	0.16	0.25	0.00	0.20	0.15	0.15	0.15	0.50	0.20
	yr 3	0.90	0.80	0.72	0.04	0.20	0.15	0.15	0.15	0.50	0.20
	yr 5	1.20	1.18	0.68	0.08	0.20	0.15	0.15	0.15	0.50	0.20
Pit Wall Runoff + In Pit Backfill	closure	1.09	1.33	1.33	0.19	0.20	0.15	0.15	0.15	0.50	0.20
Heap Leach Facility	closure	29.62	11.39	18.22	6.91	0.90	0.90	0.90	0.90	0.30	0.20

Table 10: Estimated Average Annual Flows for Source Term Concentration Estimates

Facility	Time Step	Estimated Average Annual Flows	
		m^3/yr	L/s
Platinum Gluch WRSA	yr 1	709,960	23
	yr 3	420,149	13
	yr 7	1,229,541	39
Eagle Pup WRSA	yr 1	127,442	4
	yr 3	578,975	18
	yr 5	670,904	21
	yr 7	1,681,151	53
	closure	2,890,242	92
Pit Wall Runoff	yr 1	66,567	2
	yr 3	168,585	5
	yr 5	206,668	7
Pit Wall Runoff + In Pit Backfill	closure	221,505	7
Heap Leach Facility	closure	428,653	14

Predicted concentrations in contact waters were then evaluated within the geochemical speciation software platform PHREEQC, produced by the U.S. Geological Survey, with the MINTEQA2 thermodynamic database produced by the U.S. EPA. The geochemical speciation was used to determine whether the concentrations within the facilities exceed solubility constraints for any specific mineral species that might be anticipated to precipitate. Mineral phases that were selected as possible equilibrium phases included barite [$BaSO_4$], brochantite [$Cu_4SO_4(OH)_6$], calcite [$CaCO_3$], chalcedony [cryptocrystalline SiO_2], ferrihydrite [FeOOH], fluorite [CaF_2], gibbsite [$Al(OH)_3$], gypsum [$CaSO_4 \cdot 2H_2O$], otavite [$CdCO_3$] and uraninite [UO_2], though in many instances most of these phases were undersaturated.

Predicted output was also compared to an analog dataset which included water quality data from waste rock seepage as well as from spent ore heap leach facilities from geologically similar deposits and climates. Sites considered included:

- Fort Knox Mine
- True North Mine
- Pogo Mine
- Brewery Creek Mine
- Zortman/Landusky Mines, as well as
- Eagle Pup natural drainage baseline data

The analog sites were evaluated using best professional judgement, and were used to establish an upper bound on concentrations of all parameters of interest as summarized in Tables 11 (for waste rock & pit wall analogs) and 12 (for spent ore heap leach facilities). Rationale for the upper bounds selected is also provided in these tables and a set of figures illustrating the analog dataset in Appendices I and J for waste rock/pit wall and heap leach facility analogs respectively.

Data from analog sites were included in the evaluation to provide an empirical check on predicted, or scaled-up concentrations, which tend to include a number of conservative estimates. The analog data was found to be most relevant for parameters that; a) were often below or near analytical detection limits in the humidity cell leachate (e.g. boron, bismuth, chromium, phosphorus, thallium, vanadium) and/or b) were not constrained by supersaturated species in thermodynamic modeling runs and/or c) are involved in processes that cannot be reliably modelled such as attenuation, co-precipitation etc. Parameters for which these conditions applied tended to be over-estimated. In these cases the analog data was sometimes used to help bound the predictions.

As an example, Figure 17 below provides an example of the analog data considered for the waste rock storage areas and pit wall run off predictions for arsenic. The analog data set includes some sources that became acidic (e.g. Zortman. /Landusky waste rock) or that had influence of localized acidity (Brewery Creek Blue Pit). For Eagle Gold, only the data in the circum-neutral pH range was considered. A large variation is seen in the analog data at neutral pH, with arsenic concentrations ranging from <0.001 mg/L to slightly over 1 mg/L.

Where possible, solids chemistry and geology were considered. The Brewery Creek solids chemistry indicated median values dependent on lithology (highest in the quartz monzonite units) ranging from 29 to 586 ppm arsenic whereas Eagle Gold solids characterization suggests median values depending on lithology (highest in granodiorite) were from ~ 70 ppm to 170 ppm. The mineralized stockpile at Pogo had median arsenic content of 199 ppm in the solids and may be a more appropriate analog for Eagle Gold.

A conservative upper bound of 1.4 mg/L was selected, which is higher than the Pogo data and corresponded to the highest value reported by Mueller et al. (2003) in a post-mining study at Brewery Creek. This value was similar to the majority of values from the Brewery Creek monitoring data available for this evaluation[5].

[5] Note the extreme values from Brewery Creek were excluded in part due to the higher arsenic values in the solids at Brewery Creek as compared to Eagle Gold as well as the influence of acidic drainage to the Blue Pit drainage.

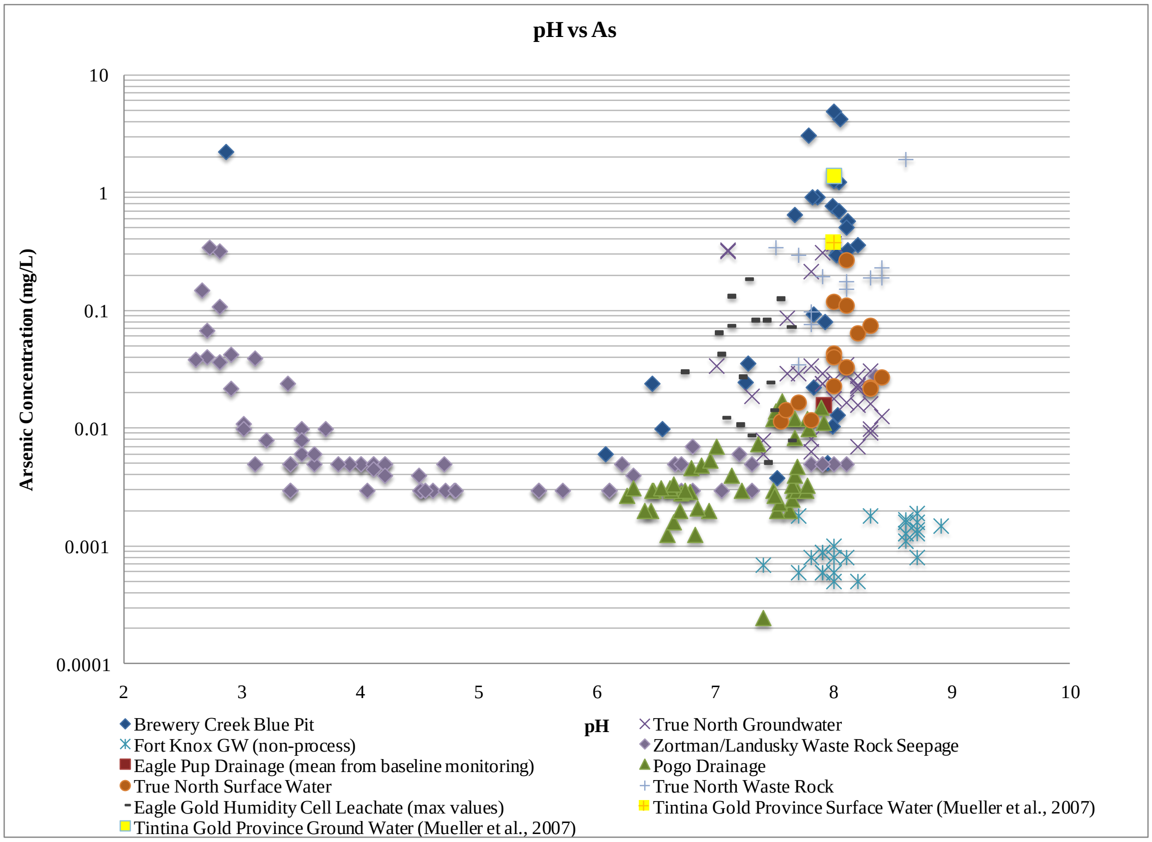


Figure 17: Analog site data for waste rock storage areas showing pH versus dissolved arsenic concentrations

Table 11: Analog-Based Upper Bound Concentration Estimates for Waste Rock Storage Facilities and Pit Wall Run-off Water Quality

Parameter	Upper Bound		General Comments and Rationale
in mg/L	Value	Source	
pH	7 to 8.5	HCs	strong pH data in HC testwork to support a pH limit to the upper bounds selected from analog sites, i.e. to exclude acidic solutions
SO4	1820	True North (GW)	The highest concentration from the buffered analog sites is 1820 mg/L from True North (GW), surface water, with likely less residence time is likely lower, perhaps best approximated by Pogo max of 1520 mg/L
F	2.87	Eagle Gold Humidity Cell Leachates	True North max in GW is 1.5 mg/L, Fort Knows had values up to ~ 1.2 mg/L and Pogo was slightly lower with max of 0.6 mg/L. Highest humidity cell leachate is greater than the analog values
Al	0.6	Brewery Creek	Data from Zortman/Landusky is excluded since low pH conditions influenced the concentrations of Al even in buffered solutions from this site, there were likely colloidal Al levels higher than would be expected at sites where pH values were consistently near neutral. Solids chemistry for Al not known from Brewery Creek, but given the geology, it could be similar to Eagle Gold.
As	1.4	Brewery Creek (monitoring data and Mueller et al, 2003)	Brewery Creek solids chemistry indicated median values dependent on lithology (highest in the quartz monzonite units) ranged from 29 to 586 ppm As, 90th percentiles were up to 2829 ppm As (SRK, 1994). Sediment geochemistry from the Tintina Gold Province as in Mueller et al (2007) had a median of 1670 ppm. Eagle Gold solids characterization suggests median values depending on lithology (highest in granodiorite), from ~ 70 ppm to 170 ppm, with the max value being 4100 ppm (SRK, in progress). The mineralized stockpile at Pogo had median As content of 199 ppm in the solids (max of 361 ppm) and may be a more appropriate analog for Eagle Gold.
Ca	1060	Pogo	Pogo drainage max up to 1060 mg/L, supported by a number just below this value, most other analog sites had Ca values less than 350 mg/L
Cd	0.005	Pogo, BC	Solids chemistry for Cd at Pogo not available. Pogo is the only analog site within the buffered pH range with Cd concentrations above the humidity cell leachate max values.
Cu	0.07	Brewery Creek	Most values in the near neutral pH range for analog sites are below 0.02 mg/L, with the exception of one from Brewery Creek up to 0.07 mg/L, since the max value from the HCs was ~ 0.02 mg/L, upper bound chosen as 0.07.
Fe	6.4	True North (SW)	A lot of variablility in the analog sites for Fe concentration, Pogo and Brewery Creek (with a few exceptions) was generally <0.1 mg/L, True North surface water values have a max of 6.4 mg/L and the Groundwater is as high as 11.4 mg/L. This could very likely be higher as an influence of reducing conditions in GW, therefore the upper bound was selected from the surface water data
Hg	0.0001	Pogo, BC	Most values well below this, other than for Zortman/Landusky which had a higher detection limit and acidic pH values
Mg	374	Pogo	Brewery Creek and True North have lower Mg, with max values of 52.5 mg/L and 63.9 mg/L respectively (though the TN GW is slightly higher), Fort Knox and Pogo have higher Mg, maximum values of 236 and 374 mg/L respectively.
Mn	4.6	Pogo	Most analog sites have values of Mn in the few mg/L. Brewery Creek max is 4.18 mg/L, Fort Knox is 2.2 mg/L, Pogo is 4.6 mg/L and True North is <1
Mo	0.09	Eagle Gold Humidity Cell Leachates	Analog sites all below the maximum value from the humidity cell leachates. Brewery Creek maximum value was close (0.08 mg/L).
Se	0.0627	Eagle Gold Humidity Cell Leachates	Highest value from near neutral analog sites is from Pogo with value of ~ 0.04 mg/L, Zortman/Landusky report value up to 1.4 mg/L but at a low pH (3.7). The Eagle Gold humidity cell program provided a maximum value of 0.0627 mg/L. This value agrees fairly well with the adjusted Se as based on SO4:Se ratios
Sb	1.4	Brewery Creek	Solids chemistry for True North indicates average Sb of 164 ppm in the waste and 1324 ppm in the ore (from dnr-aba.xls file), solids data for Brewery Creek indicates median Sb values varying by lithology from 4 ppm to 87 ppm. Eagle Gold static characterization indicates significantly lower averages (from 1 to 4 ppm, max of 114 ppm), suggesting that Brewery Creek would be the better analog than True North
Tl	0.0016	Brewery Creek	Not reported at many sites, and often less than detection. Brewery Creek max value is 0.0016 mg/L, Pogo max value is 0.0014 mg/L.
U	0.141	Eagle Gold Humidity Cell Leachates	Eagle Gold humidity cell leachate higher than any of the analog sites, Pogo max was 0.05 mg/L.
Zn	1.8	Pogo	Pogo max is 1.8 mg/L, but most values, including those from Brewery Creek are much lower (with the exception of one sample with acidic pH), typically less than 0.2 mg/L

Note: Graphs presenting the complete set of analog data, and an expanded table with additional parameters is provided in Appendix K

Table 12: Analog-Based Upper Bound Concentration Estimates for Spent Ore Heap Leach Facility Water Quality

Parameter	Upper Bound		General Comments and Rationale
in mg/L	Value	Source	
pH	8	Hcol 7B	strong pH data in KCA testwork to support a pH limit to the upper bounds selected from analog sites, i.e. to exclude acidic solutions
SO4	3443	Landusky Oxide HL	The upper bound of the Landusky Oxide HL, which corresponds relatively well with the maximum from the KCA Hcol 7B (2800 mg/L), the only values from analog sites that were higher generally included ore with higher sulphide contents
F	5.6	Landusky Oxide HL	Highest value in the anticipated pH range, though it is noted that F was known to be elevated in the Landusky mine, often in complex with elevated Al. This might suggest a very conservative upper bound for Eagle Gold, not reported in the Brewery Creek or Fort Knox datasets.
As	6	Brewery Creek Metallurgical Column	The metallurgical column for Brewery Creek reported a maximum of 6 mg/L As (SRK, 1994), though it is noted that the highest value from the heap leach monitoring in the data available from Brewery Creek was 0.7 mg/L. The KCA HCol 7B has a maximum value of 2.1 mg/L that came down an order of magnitude in subsequent leaches. This value is likely very conservative, perhaps by an order of magnitude.
Ca	343	Landusky Oxide HL	Maximum value for Brewery Creek is 308 mg/L, for the KCA pregnant solutions is 260 mg/L, the Fort Knox process water is 153 mg/L and the HCol 7B (other than initial flush of 530) is 300 mg/L
Cd	0.031	Landusky Oxide HL	The maximum from the Landusky Oxide HL is 0.031 whereas the maximum from the KCA pregnant solutions is 0.02 mg/L. Data for the HCol 7B show lower values (up to 0.005 mg/L) and values from Brewery Creek and Fort Knox are on the order of 0.001 mg/L.
Cu	0.468	Landusky Oxide HL	Most values in the near neutral pH range are in the range of 0.01 (Brewery Creek) to 0.03 (Fort Knox). Landusky Oxide HL had higher values and could indicate contributions from localized higher sulphide material in the heap as has been hypothesized. At higher pH, values up to approximately 9 mg/L are seen, the HCol 7B reports the highest value of 0.035 mg/L.
Fe	21.4	Landusky Oxide HL	Brewery Creek HLF maximum is 8.29 mg/L, Fort Knox is 5.78 mg/L, the KCA pregnant solutions were 2.6 and the HCol 7B maximum is 0.74 mg/L. All of which are higher than is being predicted and could be elevated in analogs if in CN complexes.
Hg	0.0071	Landusky Oxide HL	Most values well below this, Brewery Creek is 0.0001, Fort Knox is 0.0004, KCA pregnant solutions is 0.0023 and the Hcol 7B is 0.000075. Hg could be elevated as a CN complex and over time decrease.
Mg	135	Landusky Oxide HL	Maximum concentrations for Mg are quite variable. Brewery Creek max is 62 mg/L, Fort Knox max is 24 mg/L, the KCA pregnant solutions were consistently <DL and HCol 7B max is 9.4 mg/L
Mn	1.386*	Landusky Oxide HL	Maximum value for Brewery Creek is 0.362 mg/L, for Fort Knox is 0.688 mg/L, the KCA pregnant solution max is 0.019 mg/L and the Hcol 7B maximum is 0.024 mg/L.
Na	1988	Landusky Oxide HL	Sodium concentrations are dependent on process solution chemistry and not necessarily applicable to analog assessments. Values varied between analogs from 511 mg/L max at Brewery Creek, 55.6 at Fort Knox, 770 mg/L in the KCA column pregnant solutions and 720 max in the HCol 7B. Values as demonstrated in the HCol 7B decline with time after operations.
Mo	0.2	HCol 7B	Molybdenum was not reported at Fort Knox or Zortman/Landusky, at Brewery Creek the max value is 0.0387 mg/L and in the process solution from the KCA column the max value is 0.25 mg/L. With rinsing and pH values near neutral, values will likely be lowered to values < 0.1 mg/L
Ni	0.91	Landusky Oxide HL	Brewery Creek and Fort Knox have lower maximums (0.02 and 0.06 respectively), the pregnant solutions in KCA column were 0.1 mg/L but Hcol 7B maximum is lower at 0.011 mg/L. Ni was a known parameter of concern at Landusky and is not anticipated to be the same at Eagle Gold unless as a CN complex, therefore this upper bound is likely conservative.
Pb	0.120	HCol 7B	Most values are low and there is large variability in the analog set; Landusky max is 0.07 mg/L, Brewery Creek max is 0.015 mg/L and Fort Knox max is 0.0015 mg/L.
Se	0.345	Landusky Oxide HL	Higher values are reported for the more sulphidic heap leach facilities at Zortman and Landusky, but for the oxide heaps values are lower. Brewery Creek max is 0.193 mg/L, though Fort Knox is 0.0047 mg/L, the KCA column pregnant solutions max is 0.09 mg/L and the max from the HCol 7B is 0.091 mg/L.
Sb	1.7	HCol 7B	Antimony values at Landusky and Fort Knox are lower (0.009 and 0.0188 mg/L respectively), but max in the Brewery Creek data set is similar (1.49 mg/L). Concentrations in the pregnant solutions were lower, but increasing with time to a max of 0.099 mg/L.
Tl	0.009	Landusky Oxide HL	Not reported at many sites, and often less than detection. Brewery Creek max value is 0.00032 mg/L and the HCol 7B max is 0.00019 mg/L.
U	0.367	HCol 7B	Uranium is often not reported. Maximum values in the Brewery Creek dataset is 0.0246 mg/L.
Zn	14.9	Landusky Oxide HL	Zinc concentrations are highly variable among sites. Brewery Creek data max is 0.0629 mg/L, Fort Knox data max is 2.95 mg/L, the KCA column pregnant solutions are up to 8.8 mg/L and the HCol 7B max is 0.2 mg/L.

Note: Graphs presenting the complete set of analog data, and an expanded table with additional parameters is provided in Appendix K

Results of the source term estimates as described above are provided in Table 13 for the waste rock storage facilities and pit run-off predictions and in Table 14 for the heap leach facility. Those parameters for which the upper bounds from the analog comparison were used to cap the predicted concentrations are identified with footnotes in each of these tables. It is also noted that estimates of water quality in the operational and detoxification/rinsing stages are also provided in Table 14 as taken directly from the KCA testwork described in Section 4.4 (i.e. were not scaled-up). It is noted that during operations and detoxification there would not be untreated discharge from the facility.

A number of parameters included in the predictions were susceptible to influences of detection limits whereby many if not all of the analyses from the humidity cell program reported values less than their respective detection limits. In these cases, the process used in these predictions was to assume the values were equal to detection limits and is likely to have over-estimated anticipated field conditions. Parameters which have suffered from this over-estimation are given in red text in the tables below and include chloride, phosphorus, boron, bismuth, chromium, cadmium, mercury, silver, tin, thallium, titanium and vanadium.

Predicted concentrations were compared to B.C. drinking water guidelines and CCME guidelines for the protection of aquatic life as a basis for evaluating whether or not estimates are considered ‘elevated’. Contact water quality as predicted here does not consider mixing with other sources, internal dilution from undisturbed areas on the site, or water management controls, and therefore do not represent discharge to the environment. These values will be used as one component of the evaluations for the impact assessment being conducted concurrently by Stantec to assess anticipated discharge water quality. The comparisons indicate that concentrations of dissolved sulphate, arsenic, cadmium, manganese, antimony, selenium and uranium, and possibly copper, fluoride, iron, lead. Molybdenum, nickel, silver and zinc (Table 13) from the waste rock storage areas would be considered elevated.

Pit water run-off is anticipated to be similar though more dilute, with significantly less reactive surface area. Concentrations of arsenic and antimony are still anticipated to be elevated and to a lesser extent also selenium and uranium (Table 13). This suite of parameters largely reflects the sulphur mineral suite present; namely arsenopyrite (As), sphalerite (Zn, Cd), chalcopyrite (Cu), molybdenite (Mo) and sulphosalts (Sb). Se and U may be present as substitution ions in these minerals or as unique minerals not previously described. Constituents of carbonate mineralogy are also reflected in the predictions (Ca, Mg, Mn and Sr).

Predictions of contact water quality for the heap leach facility are somewhat more complicated as a result of the cyanidation process and subsequent detoxification prior to closure. Predictions for the operational and detoxification stages of the heap leach operations were based on large column tests completed at Kappes Cassiday & Associates (KCA). Based on this data, it is expected that cyanide and soluble metal cyanide complexes would be at concentrations that would be unacceptable for direct discharge to the environment, and any excess water is assumed to require active water treatment. During detoxification and rinsing of the facility, elevated levels of nitrogen species, sodium and residual cyanide complexes (cadmium, copper, nickel, silver, zinc etc) are expected, but are anticipated to decrease relatively quickly with replacement of pore volumes from the facility and treatment activities. Concentrations of other trace elements such as arsenic, antimony, selenium etc are expected to diminish more gradually, i.e. for several decades, with a gradual improvement occurring as the more reactive minerals are depleted from the rock. Over the long term in closure, the heap leach facility drainage is expected to be similar to that predicted for waste rock, i.e. with near neutral pH but somewhat elevated concentrations of sulphate, arsenic, cadmium, manganese, antimony, selenium and uranium, and possibly fluoride, copper, iron, mercury, molybdenum, thallium and zinc.

The period of time for which the water quality transitions from one affected by cyanidation to a more long term rock weathering character is in large part dependent on the length of time for replacement of pore volumes within the facility and treatment activities in the short term following operations. Initial estimates indicate that it may take a few 10's of years to replace one to two pore volumes within the facility and suggests that water management (quantity and/or quality) is likely to be required for some period of time in closure.

Implementation of a cover on closure has been proposed, though not currently described in detail. A cover would be anticipated to reduce infiltration and therefore contaminant loads, however the effect of covers on the concentrations can vary. If the effect of a cover reduces the contact of infiltration with the bulk of the rock, improved seepage quality could result. However the opposite has also been observed at reclaimed waste facilities, whereby reduced infiltration results in essentially less dilution and higher concentrations of many constituents (unless controlled by solubility limits of secondary mineral phases). The primary contaminants of concern, namely arsenic and antimony are currently anticipated to be solubility limited and would not likely become more concentrated with placement of a cover.

Table 13: Predicted source term water qualities for the waste rock storage facilities and pit wall run-off

Parameter[1] (in mg/L unless otherwise noted)	Minimum Detection Limits	Upper Bound from Analog Assessment	Highest Value from Humidity Cell Leachates[2]	Platinum Gluch WRSA			Eagle Pup WRSA					Pit Wall Runoff (includes small backfill pile on closure)			
				Average Years			Average Years					Average Years			
				Year 1	Year 3	Closure	Year 1	Year 3	Year 5	Year 7	Closure	Year 1	Year 3	Year 5	Closure
pH (s.u.)				7.5	7.1	7.1	7.1	7.1	7.2	7.0	7.1	7.5	7.5	7.5	7.5
SO_4		1820	866	236	1002	909	935	962	1589	774	946	129	128	137	143
alkalinity as HCO_3		433	176	159	248	234	244	248	321	218	245	106	121	124	149
Cl	<0.5	159	20	10	14	13	8	8	10	9	8	3	4	4	4
F		2.9	2.9	1.8	1.5	1.4	1.4	1.4	1.9	1.2	1.4	1.1	1.0	1.1	1.1
P[5]	<0.002	0.78	0.03	0.9	0.78	3.8	0.78	0.78	0.78	0.78	0.78	0.5	0.6	0.6	0.7
Al		0.60	0.15	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
As[5]		1.40	0.18	0.2	1.4	1.2	1.4	1.4	1.4	1.4	1.4	0.2	0.3	0.2	0.2
Ba		1.78	0.10	0.01	0.004	0.004	0.003	0.003	0.002	0.005	0.003	0.01	0.01	0.01	0.01
B[5]	<0.05	0.05	<0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Bi[5]	<0.000005	0.01	0.0001	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cr[5]	<0.0001	0.03	0.001	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02
Ca		1060	190	142	375	409	368	360	256	461	365	82	85	88	98
Cd	<0.000005	0.005	0.004	0.001	0.007	0.008	0.007	0.007	0.006	0.008	0.007	0.001	0.001	0.001	0.001
Cu[5]		0.07	0.02	0.03	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.02	0.02	0.02	0.03
Fe		6.40	0.36	0.07	1.1	0.4	1.0	1.1	2.8	1.7	1.0	0.05	0.05	0.05	0.06
K		22	20	27	43	41	28	27	35	30	27	12	14	15	17
Li		0.02	0.07	0.05	0.60	0.21	0.50	0.60	1.74	0.91	0.50	0.03	0.03	0.04	0.04
Pb		0.07	0.01	0.004	0.05	0.02	0.05	0.05	0.16	0.08	0.05	0.003	0.003	0.003	0.004
Mg		374	48	43	73	68	27	29	37	33	29	6	7	7	9
Mn		4.60	0.29	0.08	1.08	0.36	0.91	1.06	3.07	1.62	0.91	0.05	0.05	0.05	0.06
Hg[5]	<0.00001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Mo[5]		0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.07	0.08	0.08	0.09
Ni[5]		1.28	0.10	0.06	0.77	0.26	0.66	0.76	1.28	1.11	0.60	0.04	0.04	0.04	0.05
Ag[5]	<0.000005	0.002	0.0001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Na		38	136	7	12	11	4	4	6	5	5	2	3	3	4
Sb[5]		1.40	0.69	0.10	1.40	0.60	1.15	1.40	1.40	1.40	1.40	0.09	0.10	0.08	0.14
Se[6]		0.06	0.06	0.01	0.05	0.05	0.05	0.05	0.08	0.04	0.05	0.01	0.01	0.01	0.01
Si		34	4	4	5	5	5	5	5	5	5	2	2	2	3
Sn[5]	<0.00001	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Tl[5]	<0.000002	0.002	0.000	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Ti[5]	<0.0005	0.002	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
U		0.14	0.14	0.02	0.40	0.14	0.26	0.41	0.51	0.73	0.42	0.02	0.03	0.02	0.04
V[5]	<0.0002	0.02	0.001	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Zn		1.80	0.10	0.02	0.28	0.09	0.24	0.27	0.81	0.40	0.23	0.01	0.02	0.02	0.02

Notes:

1. Parameters noted in red suffer from detection limit influences, i.e. humidity cell leachate values were consistently or often less than detection and scaling of detection limits results in excessively conservative numbers (possibly by an order of magnitude or more).
2. Highest concentrates most often were reported from the larger humidity cell consisting of 15 kg of sample (27 cm x 36 cm cell) in which water application rates of 682, 71, 0 and 920 mL per week over 4 consecutive weeks was conducted to simulate seasonal infiltration variations (Lawrence, 1997).
3. Nitrogen species not included in source term calculations (as they are based on drill core test results)
4. CN species not included in waste rock storage area predictions
5. Concentrations limited by upper bounds in analog assessment
6. Concentrations adjusted based on observed ratios with SO4 from humidity cell leachate and predicted SO4 from thermodynamic equilibrium

Table 14: Predicted source term water qualities for the heap leach facility

Parameter[1] (in mg/L unless otherwise noted)	Minimum Detection Limits	Upper Bound from Analog Assessment[2]	Highest value from modified humidity cell (Hcol 7B)	HLF			
				Average Hydrologic Conditions			
				Operations[3]	Detoxification / Rinsing[4]	Post Closure	
						Short Term[5]	Long Term[6]
pH (s.u.)		8		11.3	10.0	7.3	7.2
SO4		3443	2800	990	1400	2800	2244
alkalinity as HCO3		601	170	570	570	352	347
Cl		36	36	35	44	36	36
F		5.6	2.4	0.50	0.50	2.40	2.22
P	<0.5	1.3	0.06	0.3	0.3	0.1	0.4
Al		3.8	2.6	0.30	0.30	2.60	0.03
As		6	2.1	0.4	0.7	6.0	4.3
Ba		0.7	0.17	0.083	0.083	0.17	0.002
B	<0.1	0.5	0.5	0.15	0.15	0.5	0.50
Bi	<0.000005	0.007	0.007	0.3	0.3	0.007	0.005
Cr	<0.005	0.02	0.003	0.01	0.01	0.004	0.02
Ca		343	530	260	260	530	268
Cd	<0.0003	0.03	0.0005	0.009	0.009	0.004	0.002
Cu		0.47	0.04	9.80	9.80	0.11	0.12
Fe		21.4	0.74	2.60	2.60	0.74	0.61
Pb		0.12	0.12	0.25	0.25	0.19	0.01
Mg		135	13	1.5	1.50	45	248
Mn		1.4	0.03	0.02	0.0190	0.6	0.7
Hg[7]	<0.00001	0.007	0.00008	0.00095	0.00008	0.0004	0.002
Mo		0.2	0.2	0.3	0.3	0.2	0.2
Ni	<0.010	0.9	0.01	0.1	0.100	0.01	0.1
Ag	<0.005	0.04	0.03	0.02	0.0170	0.03	0.0006
Na		1988	720	780	780	720	165
Sb		1.7	1.7	0.10	0.27	1.7	1.7
Se		0.35	0.09	0.1	0.1	0.2	0.3
Tl	<0.001	0.009	0.0002	0.002	0.002	0.0004	0.004
U		0.37	0.37	0.001	0.01	0.37	0.37
Zn		15	0.2	8.80	8.80	0.57	0.14

Notes:

1 Parameters noted in red suffer from detection limit influences, i.e. humidity cell leachate values were consistently or often less than detection and scaling of detection limits results in excessively conservative numbers (possibly by an order of magnitude or more).

2 Upper Bound Values from Analog Assessment could be influenced by cyanide complexes, particularly for As, Cu, Co, Fe, Hg, Ni and Zn

3 Assumes maximum values from the KCA metallurgical column (operation phase) to reflect a build-up of constituents over time with re-circulation. A few notable exceptions were Ba (high outlier excluded), as well as Cd, Cr and Hg which did not show cumulative build-up with cycles (median values used in these cases).

4 Given the method of rotational irrigation proposed, including during the detox/rinsing phase, the water quality in this period is likely to be a mixture of various water types evaluated to date. Throughout the detox phase, when solutions will continue to be re-circulated, it has been assumed that solutions could still reflect operational phase chemistry for many parameters. A few notable exceptions are for parameters that reported higher values in the detox stage of the metallurgical column evaluation. Therefore the higher of the operations phase expectations and the monitored values for the detox testwork have been assumed (except for pH).

5 Based on calculations of pore volume flushes and treatment activities, this short-term stage is anticipated to be on the order of 10's of years following detox/rinsing

6 Currently assumes 100% net infiltration, i.e. no cover; current best estimates of timing is many 10's to 100 years post detox

7 Additional analytical work is being conducted to confirm Hg values as a result of QA/QC issues.

6 Conclusions and Recommendations

Based on the characterization results as described in the various sections above, the following conclusions and recommendations are provided.

6.1 Waste Rock Storage Areas

There are two waste rock storage areas (WRSAs) planned for the project, the Platinum Gulch WRSA and the Eagle Pup WRSA. There will be approximately 9.5 million tonnes placed in Platinum Gulch in the first 3 years of operation, consisting of approximately 60% metasediments, 29% unaltered granodiorite and 11% oxidized granodiorite. The Eagle Pup WRSA will be approximately 57 million tonnes consisting of 49% metasediments, 14% oxidized granodiorite, 35% unaltered granodiorite and 2% altered granodiorite and will be in operation throughout the life of mine.

The geochemical characteristics of both facilities are anticipated to be similar, though the mass in each will vary and could have an effect on seepage quality. Based on the static characterization work conducted, neither facility is anticipated to produce acidic seepage, though metal leaching at neutral pH is anticipated to occur. Predictions of contact water quality are provided for the different time steps through operations and indicate that concentrations of sulphate, and dissolved arsenic, cadmium, manganese, antimony, selenium and uranium are anticipated to be elevated. Other parameters that might be present at elevated levels include copper, fluoride, iron, lead, molybdenum, nickel, silver and zinc.

The water quality predictions are currently being evaluated within the context of the site water balance and impact assessment being conducted by Stantec. However, based on these findings, it is anticipated that closure plans for this site will need to consider measures for controlling seepage and/or metal concentrations to reduce the amount of metal loading to the receiving environment.

6.2 Pit Wall Run-off

The exposed pit wall is anticipated to be comprised of approximately 26% metasediment, 37% oxidized granodiorite, 32% unaltered granodiorite and 5% altered granodiorite on a surface area basis, a similar moisture to that anticipated in the WRSAs. On closure, the pit will also include a small backfill area of approximately 0.3 million tonnes of generally similar proportions by material type.

As with the waste rock, acid rock drainage (ARD) per se is not anticipated to occur within the pit, but that neutral pH metal leaching may result in water quality with slightly elevated concentrations of dissolved arsenic and antimony and possibly selenium and uranium.

The geometry of the pit itself is not conducive to the formation of a pit lake on closure. A small pond may form at the bottom, though this has not been considered in the predictions, i.e. there was no assumption of an effective reduction of surface area exposure resulting from the creation of a pit lake. Evaluation of whether the pit run-off will require additional management on closure depends largely on how the water will be managed, or mixed with other site waters prior to discharge to the receiving waters. This is being evaluated by Stantec.

6.3 Heap Leach Facility

The heap leach facility is anticipated to consist of 66 million tonnes of ore (spent ore on closure) comprised of 45% metasediment, 17% oxidized granodiorite, 28% unaltered granodiorite and 10% altered granodiorite. Over the long term in closure, the heap leach facility drainage is expected to be similar to that predicted for the Eagle Pup WRSA. Expectations are for near neutral pH with somewhat elevated concentrations of sulphate, arsenic, cadmium, manganese, antimony, selenium and uranium, and possibly fluoride, copper, iron, mercury, molybdenum, thallium and zinc. In the short term, elevated levels of nitrogen species, sodium and cyanide and cyanide complexes (cadmium, copper, nickel, silver, zinc etc) are also likely to occur but are anticipated to decrease depending in part on treatment activities and on infiltrating water displacement of the resident porewater within the facility. Concentrations of other parameters such as arsenic, antimony and selenium are expected to diminish more gradually.

The duration of time for which heap leach facility water will require additional management and/or treatment is currently being evaluated within the context of the site water balance and impact assessment (Stantec). However, it is anticipated that measures to control seepage and/or metal concentrations will be required to reduce the amount of metal loadings to the environment over the longer-term. Potential control measures include possible treatment alternatives, water handling options and cover scenarios. The predictions here assumed no cover, or dilution with other site waters and on that basis indicate that treatment may be required for a few 10’s of years or more following detoxification of the heap.

7 References

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This report “**Geochemical Characterization and Water Quality Predictions, Eagle Gold Project**” has been prepared by SRK Consulting Canada (Inc.).

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All data used as source material plus the text, tables, figures, and attachments of this document have been reviewed and prepared in accordance with generally accepted professional engineering and environmental practices.

Appendices

Appendix A: Sample Descriptions

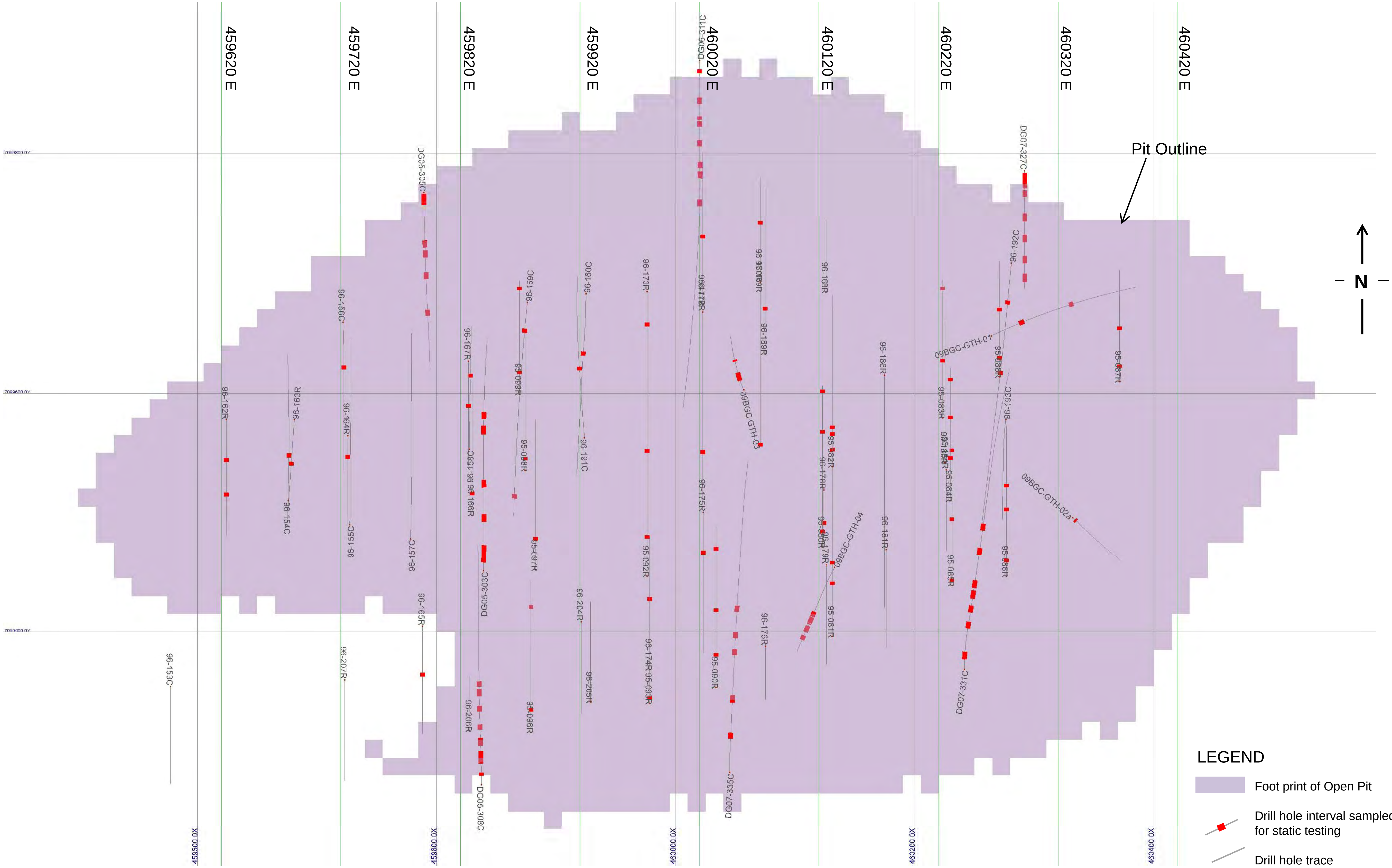
Drill_Hole_ ID	Sample_#	From_ft	To_ft	Rock Type	ABA	Whole Rock	ICP Metals (aqua regia)	XRD/Petrography	Humidity Cell	Modified Humidity Cell (3 kg tall cell)	Modified Humidity Cell (15 kg large cell)	Metallurgical Test Column (80 kg)
Composite	23066			Metasediment Composite	1		1		1			
DG 95-87-R	52218	75	80	Metasediment	1	1	1					
96-156C	111270	50	55	Metasediment	1	1						
96-156C	111310	235	240	Metasediment	1	1						
96-158C	111554	105	110	Metasediment	1	1						
96-158C	111577	210	215	Metasediment	1	1						
96-159C	111662	30	35	Metasediment	1	1						
96-159C	111702	215	220	Metasediment	1	1						
96-160C	111833	70	75	Metasediment	1	1						
96-191C	111996	100	105	Metasediment	1	1						
96-153C	112462	425	430	Metasediment	1	1						
96-162R	120109	50	55	Metasediment	1	1						
96-162R	120119	95	100	Metasediment	1	1						
96-163R	120224	55	60	Metasediment	1	1						
96-164R	120314	25	30	Metasediment	1	1						
96-167R	120680	55	60	Metasediment	1	1						
96-169R	120878	100	105	Metasediment	1	1						
96-170R	121036	210	215	Metasediment	1	1						
96-171R	121174	100	105	Metasediment	1	1						
96-171R	121207	240	245	Metasediment	1	1						
96-173R	121527	40	45	Metasediment	1	1						
96-175R	121827	50	55	Metasediment	1	1						
96-175R	121954	590	595	Metasediment	1	1						
96-176R	122008	220	225	Metasediment	1	1						
96-178R	122109	40	45	Metasediment	1	1						
96-189R	123238	65	70	Metasediment	1	1						
DG05-308C	G019202	12.19	16.00	metasedimentary	1		1	1	1			
DG07-327C	G019216	2.50	12.50	metasedimentary	1		1					
DG07-331C	G019224	12.80	22.80	metasedimentary	1		1					
DG07-331C	G019225	52.92	62.30	metasedimentary	1		1	1	1			
DG07-331C	G019226	73.76	82.91	metasedimentary	1		1					
DG07-335C	G019231	49.68	58.83	metasedimentary	1		1					
DG07-311C	G019244	15.20	21.10	metasedimentary	1		1					
DG07-311C	G019247	62.20	72.54	metasedimentary	1		1					
DG 95-82-R	51752	45	50	Metasediment	1	1	1					
DG 95-82-R	51754	55	60	Metasediment	1	1	1					
DG 95-85-R	52066	5	10	Metasediment	1	1	1					
DG 95-85-R	52084	95	100	Metasediment	1	1	1					
DG 95-85-R	52106	195	200	Metasediment	1	1	1					
DG 95-86-R	52139	20	25	Metasediment	1	1	1					
DG 95-86-R	52154	95	100	Metasediment	1	1	1					
DG 95-86-R	52198	295	300	Metasediment	1	1	1					
ABA3	52493	trench wall		Metasediment	1	1	1					
ABA4	52494	trench wall		Metasediment	1	1	1					
ABA5	52495	trench wall		Metasediment	1	1	1					
ABA7	52497	road cut		Metasediment	1	1	1					
ABA8	52498	road cut		Metasediment	1	1	1					
ABA10	52500	trench wall		Metasediment	1	1	1					
DG 95-134-R	70869	20	25	Metasediment	1	1	1					
DG 95-134-R	70902	180	185	Metasediment	1	1	1					
DG 95-134-R	70928	310	315	Metasediment	1	1	1					
DG 95-102-C	72877	60	65	Metasediment	1	1	1					
DG 95-102-C	72885	100	105	Metasediment	1	1	1					
DG 95-102-C	72910	215	220	Metasediment (broken core)	1	1	1					
DG 95-99-R	75920	30	35	Metasediment	1	1	1					
DG 95-99-R	75946	155	160	Metasediment	1	1	1					
DG 95-119-R	77175	20	25	Metasediment	1	1	1					
DG 95-119-R	77223	250	255	Metasediment	1	1	1					
DG 95-125-R	77383	50	55	Metasediment	1	1	1					
DG 95-125-R	77406	160	165	Metasediment	1	1	1					
DG 95-132-R	78402	10	15	Metasediment	1	1	1					
DG 95-132-R	78471	520	525	Metasediment	1	1	1					
ABA11	79451	road/trench cut wall		Metasediment	1	1	1					
ABA14	79454	out-crop at end of road		Metasediment	1	1	1					
ABA15	79455	cut bank		Metasediment	1	1	1					
ABA20	79460	top of trench		Metasediment	1	1	1					
ABA23	79463	road cut		Metasediment	1	1	1					
09BGC-GTH-03	ST-01	46.42	51.85	Metasediment	1		1					
09BGC-GTH-03	ST-02	51.85	57.91	Metasediment	1		1					
09BGC-GTH-03	ST-03	57.91	64.01	Metasediment	1		1					

Drill_Hole_ ID	Sample_#	From_ft	To_ft	Rock Type	ABA	Whole Rock	ICP Metals (aqua regia)	XRD/Petrography	Humidity Cell	Modified Humidity Cell (3 kg tall cell)	Modified Humidity Cell (15 kg large cell)	Metallurgical Test Column (80 kg)
09BGC-GTH-03	ST-04	64.01	70.10	Metasediment	1		1					
09BGC-GTH-03	ST-05	70.10	76.20	Metasediment	1		1					
09BGC-GTH-03	ST-06	76.20	82.35	Metasediment	1		1					
09BGC-GTH-03	ST-07	82.35	88.17	Metasediment	1		1					
09BGC-GTH-04	ST-08	167.03	173.13	Metasediment	1		1					
09BGC-GTH-04	ST-09	173.13	178.91	Metasediment	1		1					
09BGC-GTH-04	ST-10	178.91	184.71	Metasediment	1		1					
09BGC-GTH-04	ST-11	184.71	191.41	Metasediment	1		1					
09BGC-GTH-04	KT-01	191.41	201.26	Metasediment	1		1					
09BGC-GTH-04	ST-12	201.26	206.81	Metasediment	1		1					
09BGC-GTH-04	ST-13	206.81	212.75	Metasediment	1		1					
09BGC-GTH-04	ST-14	214.27	218.84	Metasediment	1		1					
09BGC-GTH-04	ST-15	224.94	229.51	Metasediment	1		1					
09BGC-GTH-04	ST-16	229.51	235.69	Metasediment	1		1					
09BGC-GTH-04	KT-02	235.69	246.27	Metasediment	1		1					
09BGC-GTH-04	ST-17	246.27	249.37	Metasediment	1		1					
09BGC-GTH-04	ST-18	263.14	269.20	Metasediment	1		1					
09BGC-GTH-04	ST-19	269.20	275.22	Metasediment	1		1					
09BGC-GTH-04	ST-20	275.22	281.28	Metasediment	1		1					
DG05-308C	G019204	27.00	34.00	hornfelsic metasedimentary	1		1					
DG05-308C	G019208	69.95	77.45	hornfelsic metasedimentary	1		1					
DG05-308C	G019211	92.96	100.00	hornfelsic metasedimentary	1		1					
DG05-308C	G019215	128.00	132.21	hornfelsic metasedimentary	1		1					
DG07-305C	G019236	1.52	9.14	hornfelsic metasedimentary	1		1	1	1			
DG07-305C	G019237	9.14	18.29	hornfelsic metasedimentary	1		1					
DG07-305C	G019239	68.00	77.72	hornfelsic metasedimentary	1		1					
DG07-305C	G019240	82.30	92.30	hornfelsic metasedimentary	1		1					
DG 95-87-R	52207	20	25	Metasediment (quartzite)	1	1	1					
DG 95-119-R	77178	35	40	Metasediment (quartzite)	1	1	1					
DG 95-132-R	78449	240	245	Metasediment (quartzite)	1	1	1					
ABA22	79462	trench wall		Metasediment (quartzite)	1	1	1					
				Count	101	62	77	3	4	0	0	0
Composite	23064			Unaltered Granodiorite Composite	1		1		1			
96-154C	111085	420	425	Unaltered Granodiorite	1	1						
96-155C	111205	450	455	Unaltered Granodiorite	1	1						
96-155C	111219	515	520	Unaltered Granodiorite	1	1						
96-159C	111794	640	645	Unaltered Granodiorite	1	1						
96-160C	111970	645	705	Unaltered Granodiorite	1	1						
96-191C	112127	700	705	Unaltered Granodiorite	1	1						
96-192C	112170	140	145	Unaltered Granodiorite	1	1						
96-192C	112235	440	445	Unaltered Granodiorite	1	1						
96-192C	11232	750	755	Unaltered Granodiorite	1	1						
96-193C	112447	355	360	Unaltered Granodiorite	1	1						
96-165R	120498	390	395	Unaltered Granodiorite	1	1						
96-166R	120778	30	35	Unaltered Granodiorite	1	1						
96-174R	121786	525	530	Unaltered Granodiorite	1	1						
96-175R	121949	565	570	Unaltered Granodiorite	1	1						
96-179R	122253	390	395	Unaltered Granodiorite	1	1						
96-185R	122771	615	620	Unaltered Granodiorite	1	1						
96-186R	122929	590	595	Unaltered Granodiorite	1	1						
96-186R	122959	720	725	Unaltered Granodiorite	1	1						
96-189R	123317	400	405	Unaltered Granodiorite	1	1						
96-204R	123697	250	255	Unaltered Granodiorite	1	1						
96-205R	123777	200	205	Unaltered Granodiorite	1	1						
DG 95-80-R	1083	410	415	Unaltered Granodiorite - chl, bis	1	1	1					
DG 95-80-R	1112	550	555	Unaltered Granodiorite	1	1	1					
DG 95-80-R	1143	695	700	Unaltered Granodiorite	1	1	1					
DG 95-81-R	1299	655	660	Unaltered Granodiorite	1	1	1					
DG 95-81-R	1342	880	885	Unaltered Granodiorite	1	1	1					
DG 95-83-R	1399	405	410	Unaltered Granodiorite - (chl)	1	1	1					
DG 95-83-R	1441	595	600	Unaltered Granodiorite - (chl)	1	1	1					
DG 95-84-R	1457	545	550	Unaltered Granodiorite	1	1	1					
DG 95-85-R	1496	415	420	Unaltered Granodiorite	1	1	1					
DG 95-86-R	1555	360	365	Unaltered Granodiorite	1	1	1					
DG 95-87-R	1694	525	530	Unaltered Granodiorite	1	1	1					
DG 95-82-R	51816	345	350	Unaltered Granodiorite	1	1	1					
DG 95-83-R	51920	80	85	Unaltered Granodiorite	1	1	1					
DG 95-83-R	51944	185	190	Unaltered Granodiorite	1	1	1					
DG 95-86-R	52162	130	135	Unaltered Granodiorite		1	1					
DG 95-132-R	70756	520	525	Unaltered Granodiorite (chlor)	1	1	1					

Drill_Hole_ ID	Sample_#	From_ft	To_ft	Rock Type	ABA	Whole Rock	ICP Metals (aqua regia)	XRD/Petrography	Humidity Cell	Modified Humidity Cell (3 kg tall cell)	Modified Humidity Cell (15 kg large cell)	Metallurgical Test Column (80 kg)
DG 95-134-R	70935	345	350	Unaltered Granodiorite	1	1	1					
DG 95-96-R	75492	180	185	Unaltered Granodiorite	1	1	1					
DG 95-99-R	75998	400	405	Unaltered Granodiorite	1	1	1					
DG 95-116-R	76948	250	255	Unaltered Granodiorite	1	1	1					
DG 95-119-R	77366	930	935	Unaltered Granodiorite	1	1	1					
DG 95-125-R	77479	505	510	Unaltered Granodiorite	1	1	1					
96-192C	112150	50	55	Unaltered Granodiorite	1	1						
96-172R	121369	180	185	Unaltered Granodiorite	1	1						
DG05-308C	G019205	34.00	44.00	unaltered granodiorite - w or w/o carbonate, no sulphide (in veins)	1		1					
DG05-308C	G019206	50.11	60.11	unaltered granodiorite - w or w/o carbonate, no sulphide (in veins)	1		1					
DG07-327C	G019221	82.60	92.60	unaltered granodiorite - w or w/o carbonate, no sulphide (in veins)	1		1					
DG07-331C	G019228	105.77	115.52	unaltered granodiorite - w or w/o carbonate, no sulphide (in veins)	1		1					
DG07-331C	G019229	150.30	159.11	unaltered granodiorite - w or w/o carbonate, no sulphide (in veins)	1		1					
DG07-305C	G019241	112.78	122.86	unaltered granodiorite - w or w/o carbonate, no sulphide (in veins)	1		1					
DG07-305C	G019242	169.03	178.31	unaltered granodiorite - w or w/o carbonate, no sulphide (in veins)	1		1	1	1			
DG07-311C	G019251	130.45	140.45	unaltered granodiorite - w or w/o carbonate, no sulphide (in veins)	1		1	1	1			
DG 95-102-C	72903	185	190	Unaltered Granodiorite	1	1	1					
DG 95-96-R	75565	525	530	Unaltered Granodiorite	1	1	1					
09BGC-GTH-01	KT-03	74.45	88.02	Granodiorite	1		1					
09BGC-GTH-01	KT-04	205.60	216.33	Granodiorite	1		1					
					57	47	35	2	3	0	0	0
96-159C	111804	685	690	Sericite/chlorite Altered Granodiorite	1	1						
96-169R	120912	245	250	Sericite/chlorite Altered Granodiorite	1	1						
96-170R	121149	690	695	Sericite/chlorite Altered Granodiorite	1	1						
96-171R	121241	385	390	Sericite/chlorite Altered Granodiorite	1	1						
96-175R	121939	525	530	Sericite/chlorite Altered Granodiorite	1	1						
96-185R	122785	675	680	Sericite/chlorite Altered Granodiorite	1	1						
DG 95-80-R	1055	280	285	Sericite/Chlorite Altered Granodiorite	1	1	1					
DG 95-80-R	1056	285	290	Sericite/Chlorite Altered Granodiorite	1	1	1					
DG 95-80-R	1063	315	320	Sericite/Chlorite Altered Granodiorite	1	1	1					
DG 95-80-R	1128	625	630	Sericite/Chlorite Altered Granodiorite	1	1	1					
DG 95-83-R	1375	295	300	Sericite/Chlorite Altered Granodiorite	1	1	1					
DG 95-84-R	1467	590	595	Sericite/Chlorite Altered Granodiorite	1	1	1					
DG 95-82-R	51855	525	530	Sericite/Chlorite Granodiorite	1	1	1					
DG 95-88-R	52288	200	205	Sericite/Chlorite Granodiorite	1	1	1					
DG 95-92-R	52972	180	185	Sericite/Chlorite Granodiorite	1	1	1					
DG 95-133-R	70842	285	290	Sericite/Chlorite Granodiorite	1	1	1					
DG 95-97-R	75735	610	615	Sericite/Chlorite Granodiorite (clay)	1	1	1					
DG 95-98-R	75860	470	475	Sericite/Chlorite Granodiorite (clay)	1	1	1					
96-168R	120822	220	225	Sericite/chlorite Altered Granodiorite	1	1						
96-184R	122626	335	340	Sericite/chlorite Altered Granodiorite	1	1						
DG05-308C	G019214	125.00	128.00	altered granodiorite (chlorite/sericite), no sulphide	1		1	1	1			
DG07-327C	G019217	12.50	22.50	altered granodiorite (chlorite/sericite), no sulphide	1		1					
DG07-311C	G019248	93.35	97.95	altered granodiorite (chlorite/sericite), no sulphide	1		1					
DG07-311C	G019252	163.70	173.70	altered granodiorite (chlorite/sericite), no sulphide	1		1					
DG07-311C	G019254	220.37	230.25	altered granodiorite (chlorite/sericite), no sulphide	1		1					
DG07-303C	G019256	175.26	185.93	altered granodiorite (chlorite/sericite), no sulphide	1		1	1	1			
DG07-303C	G019259	108.20	118.20	altered granodiorite (chlorite/sericite), no sulphide	1		1					
DG07-303C	G019263	11.00	18.29	altered granodiorite (chlorite/sericite), no sulphide	1		1					
DG 95-134-R	71019	755	760	Sericite/Chlorite Granodiorite (clay)	1	1	1					
DG 95-116-R	76983	415	420	Sericite/Chlorite Granodiorite	1	1	1					
Composite	23069			Altered Granodiorite Composite	1		1		2	1	1	
96-166R	120647	565	570	Sericite/chlorite Altered Granodiorite - aspy	1	1						

Drill_Hole_ ID	Sample_#	From_ft	To_ft	Rock Type	ABA	Whole Rock	ICP Metals (aqua regia)	XRD/Petrography	Humidity Cell	Modified Humidity Cell (3 kg tall cell)	Modified Humidity Cell (15 kg large cell)	Metallurgical Test Column (80 kg)
96-158C	111624	425	430	Sericite/chlorite Altered Granodiorite - py	1	1						
96-157C	111493	535	540	Unaltered Granodiorite - po, cpy	1	1						
96-157C	111485	500	505	Unaltered Granodiorite - py, po	1	1						
96-157C	111511	620	625	Unaltered Granodiorite -py, po	1	1						
96-165R	120481	315	320	Weathered Granodiorite - aspy	1	1						
96-156C	111367	495	500	Weathered Granodiorite - py, po	1	1						
DG 95-81-R	1178	105	110	Weathered Granodiorite - py	1	1	1					
DG 95-81-R	1259	490	495	Unaltered Granodiorite - (chl); py; aspy	1	1	1					
DG 95-83-R	1386	345	350	Sericite/chlorite Altered Granodiorite - aspy	1	1	1					
DG 95-84-R	1477	635	640	Sericite/Chlorite Altered Granodiorite - py	1	1	1					
DG 95-85-R	1519	525	530	Sericite/Chlorite Altered Granodiorite - py	1	1	1					
DG 95-87-R	1647	305	310	Sericite/Chlorite Altered Granodiorite - aspy	1	1	1					
DG 95-87-R	1675	440	445	Sericite/Chlorite Altered Granodiorite - py; aspy	1	1	1					
DG 95-93-R	51623	680	685	Unaltered Granodiorite - py	1	1	1					
DG 95-82-R	51865	575	580	Sericite/Chlorite Granodiorite - py	1	1	1					
DG 95-82-R	51902	750	755	Unaltered Granodiorite - po; bis	1	1	1					
DG 95-84-R	51965	60	65	Weathered Granodiorite - py, aspy	1	1	1					
DG 95-84-R	52008	260	265	Unaltered Granodiorite - py	1	1	1					
DG 95-88-R	52316	330	335	Sericite/Chlorite Granodiorite - aspy	1	1	1					
DG 95-90-R	52721	580	585	Sericite/Chlorite Granodiorite - py	1	1	1					
DG 95-92-R	53208	580	585	Unaltered Granodiorite - aspy	1	1	1					
DG 95-116-R	76908	60	65	Weathered Granodiorite - py; po	1	1	1					
DG 95-117-R	77034	165	170	Sericite/Chlorite Granodiorite - py; aspy	1	1	1					
DG 95-119-R	77253	390	395	Sericite/Chlorite Granodiorite - aspy; py	1	1	1					
DG 95-119-R	77317	695	700	Sericite/Chlorite Granodiorite - po	1	1	1					
DG05-308C	G019213	112.00	122.00	granodiorite with sulphide, altered	1		1					
DG07-327C	G019222	110.03	120.29	granodiorite with sulphide, altered	1		1					
DG07-327C	G019223	132.89	143.56	granodiorite with sulphide, altered	1		1					
DG07-331C	G019230	181.97	191.11	granodiorite with sulphide, altered	1		1					
DG07-335C	G019235	237.13	246.28	granodiorite with sulphide, altered	1		1					
DG07-311C	G019249	99.97	109.12	granodiorite with sulphide, altered	1		1	1	1			
DG07-311C	G019253	179.22	189.06	granodiorite with sulphide, altered	1		1					
DG07-303C	G019255	195.07	204.22	granodiorite with sulphide, altered	1		1					
DG07-303C	G019261	24.08	34.08	granodiorite with sulphide, altered	1		1					
DG 95-134-R	70981	565	570	Sericite/Chlorite Granodiorite - po; cpy	1	1	1					
DG 95-97-R	75673	315	320	Sericite/Chlorite Granodiorite - (clay); py	1	1	1					
09BGC-GTH-03	KT-06	146.40	155.55	Altered Granodiorite	1		1					
					69	50	54	3	4	1	1	0
Composite	23067			Weathered Granodiorite Composite	1		1		1			
96-154C	111005	50	55	Weathered Granodiorite	1	1						
96-158C	111617	395	400	Weathered Granodiorite	1	1						
96-159C	111809	705	710	Weathered Granodiorite	1	1						
96-160C	111955	630	635	Weathered Granodiorite	1	1						
96-163R	120280	300	305	Weathered Granodiorite	1	1						
96-164R	120384	320	325	Weathered Granodiorite	1	1						
96-165R	120421	60	65	Weathered Granodiorite	1	1						
96-172R	121474	630	635	Weathered Granodiorite	1	1						
96-172R	121495	720	725	Weathered Granodiorite	1	1						
96-207R	122978	295	300	Weathered Granodiorite	1	1						
96-206R	123906	260	265	Weathered Granodiorite	1	1						
96-207R	123964	235	240	Weathered Granodiorite	1	1						
DG 95-80-R	1001	20	25	Weathered Granodiorite	1	1	1					
DG 95-80-R	1031	165	170	Weathered Granodiorite	1	1	1					
DG 95-80-R	1044	225	230	Weathered Granodiorite	1	1	1					
DG 95-81-R	1172	75	80	Weathered Granodiorite	1	1	1					
DG 95-81-R	1213	270	275	Weathered Granodiorite	1	1	1					
DG 95-85-R	1491	390	395	Weathered Granodiorite	1	1	1					
DG 95-87-R	1644	290	295	Weathered Granodiorite	1	1	1					
DG 95-87-R	1662	375	380	Weathered Granodiorite	1	1	1					

Drill_Hole_ ID	Sample_#	From_ft	To_ft	Rock Type	ABA	Whole Rock	ICP Metals (aqua regia)	XRD/Petrography	Humidity Cell	Modified Humidity Cell (3 kg tall cell)	Modified Humidity Cell (15 kg large cell)	Metallurgical Test Column (80 kg)
DG 95-93-R	51511	150	155	Weathered Granodiorite	1	1	1					
DG 95-93-R	51584	495	500	Weathered Granodiorite	1	1	1					
DG 95-84-R	51979	120	125	Weathered Granodiorite	1	1	1					
DG 95-84-R	51990	175	180	Weathered Granodiorite	1	1	1					
DG 95-87-R	52249	220	225	Weathered Granodiorite	1	1	1					
DG 95-88-R	52251	25	30	Weathered Granodiorite	1	1	1					
DG 95-88-R	52265	95	100	Weathered Granodiorite	1	1	1					
ABA1	52491	trench wall		Weathered Granodiorite	1	1	1					
ABA2	52492	trench wall		Weathered Granodiorite	1	1	1					
ABA6	52496	road cut		Weathered Granodiorite	1	1	1					
DG 95-90-R	52608	45	50	Weathered Granodiorite	1	1	1					
DG 95-90-R	52623	110	115	Weathered Granodiorite - 20% FeOxide	1	1	1					
DG 95-90-R	52642	200	205	Weathered Granodiorite	1	1	1					
DG 95-92-R	52946	55	60	Weathered Granodiorite	1	1	1					
DG 95-93-R	53229	5	10	Weathered Granodiorite	1	1	1					
DG 95-133-R	70792	45	50	Weathered Granodiorite	1	1	1					
DG 95-135-R	71036	15	20	Weathered Granodiorite	1	1	1					
DG 95-135-R	71058	125	130	Weathered Granodiorite	1	1	1					
DG 95-96-R	75461	30	35	Weathered Granodiorite	1	1	1					
DG 95-97-R	75616	45	50	Weathered Granodiorite	1	1	1					
DG 95-98-R	75765	15	20	Weathered Granodiorite	1	1	1					
DG 95-117-R	77006	35	40	Weathered Granodiorite	1	1	1					
ABA13	79453	cut bank		Weathered Granodiorite	1	1	1					
ABA16	79456	bank		Weathered Granodiorite	1	1	1					
ABA17	79457	trench wall		Weathered Granodiorite	1	1	1					
ABA19	79459	trench wall		Weathered Granodiorite	1	1	1					
96-162R	120181	380	365	Weathered Granodiorite	1	1						
96-163R	120296	370	375	Weathered Granodiorite	1	1						
96-181R	122445	415	420	Weathered Granodiorite	1	1						
DG07-327C	G019218	24.69	33.83	oxidized granodiorite (with carbonate)	1		1	1	1			
DG07-327C	G019220	55.17	65.84	oxidized granodiorite (with carbonate)	1		1					
DG07-331C	G019227	92.05	102.72	oxidized granodiorite (with carbonate)	1		1					
DG07-335C	G019232	103.02	113.69	oxidized granodiorite (with carbonate)	1		1	1	1			
DG07-335C	G019233	173.13	182.27	oxidized granodiorite (with carbonate)	1		1					
DG07-335C	G019234	197.51	207.41	oxidized granodiorite (with carbonate)	1		1					
DG07-303C	G019260	64.01	74.01	oxidized granodiorite (with carbonate)	1		1					
DG07-303C	G019262	18.29	24.08	oxidized granodiorite (with carbonate)	1		1					
ABA9	52499	road cut		Weathered Granodiorite	1	1	1					
DG 95-102-C	72867	15	20	Weathered Granodiorite	1	1	1					
DG 95-102-C	72893	135	140	Weathered Granodiorite	1	1	1					
ABA12	79452	trench wall		Weathered Granodiorite	1	1	1					
ABA18	79458	trench wall		Weathered Granodiorite	1	1	1					
ABA21	79461	road cut		Weathered Granodiorite	1	1	1					
ABA24	79464	trench wall		Weathered Granodiorite	1	1	1					
09BGC-GTH-02a	KT-05	15.60	25.25	Oxidized Granodiorite	1		1					
					66	56	51	2	3	0	0	0
KCA No. 42979				Composite Ore Sample	1		1	1	1			1



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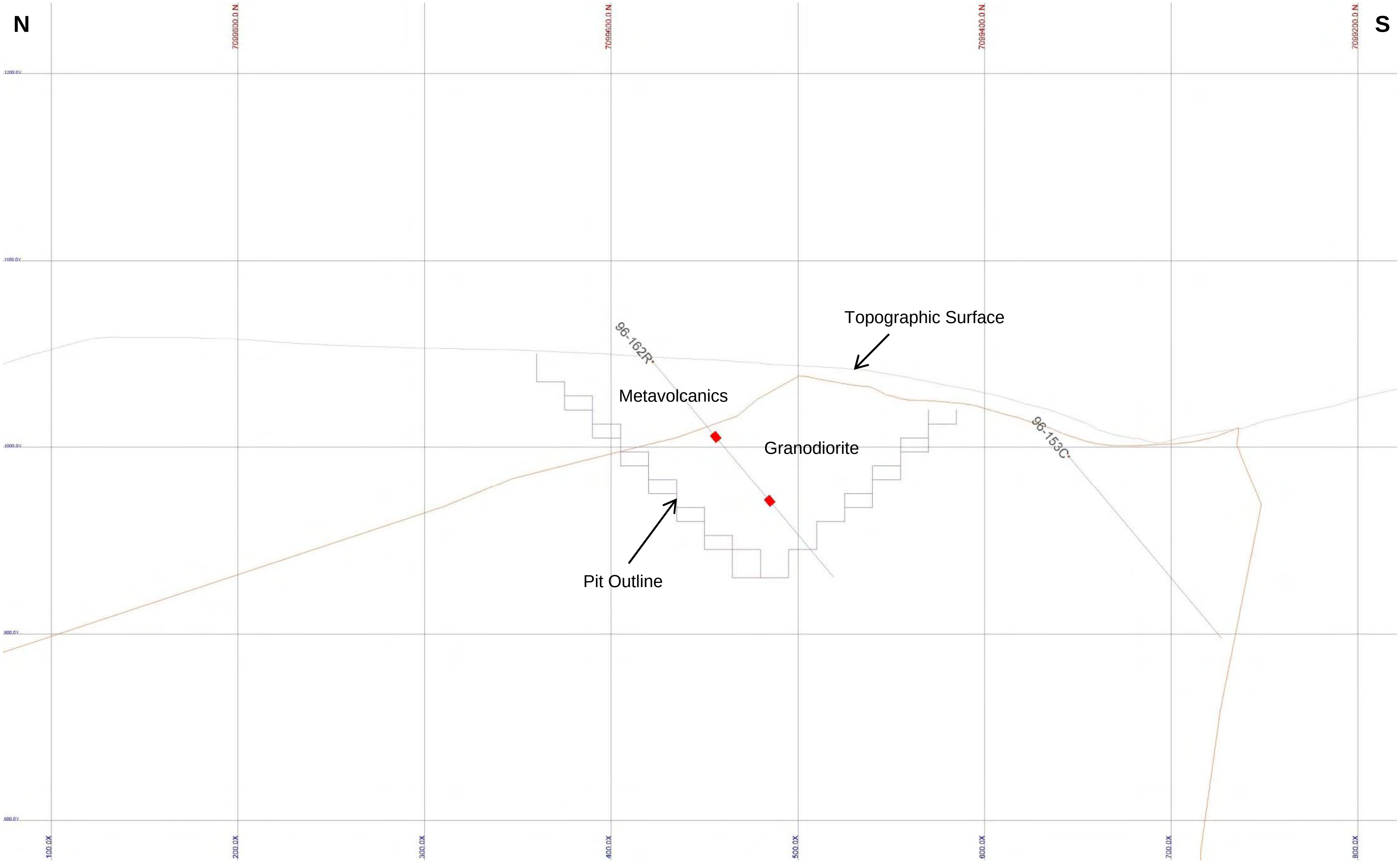
Victoria GOLD CORP

Geochemical Characterization

Plan of deposit area showing pit outline and drillhole traces with geochemical sample intervals

Job No: 1CS043.000 Filename: Figure A1_Plan_20101122.ppt	Eagle Gold Project	Date: October 2010	Approved: KSS	Figure: A1



Sample Interval

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Geochemical Characterization

Section 459620 E
Showing Sample intervals for Ml/ARD Characterization

Job No: 1CS043.000	Eagle Gold Project	Date: October 2010	Approved: KSS	Figure: **A2**
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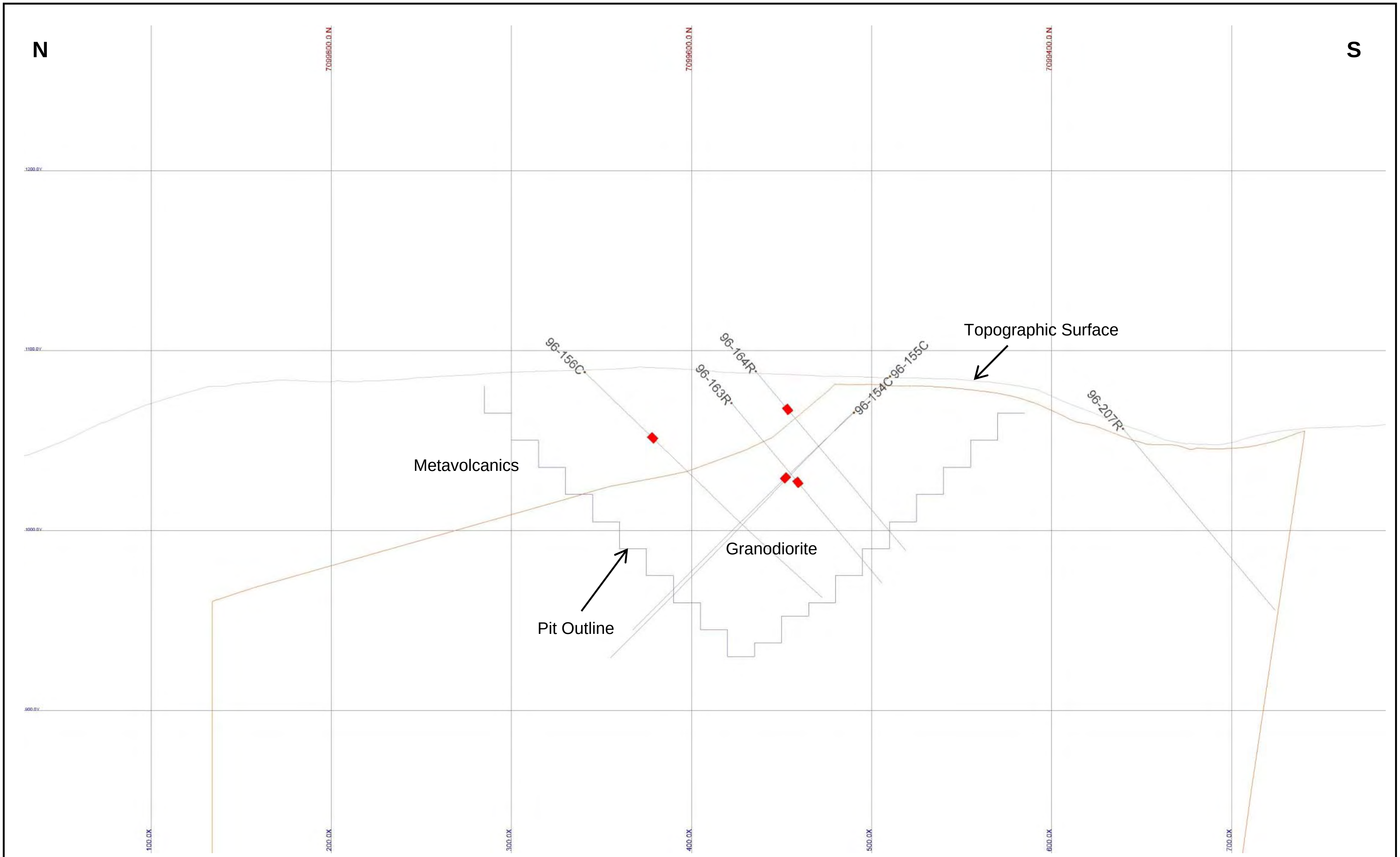

Sample Interval

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Geochemical Characterization

Section 459720 E
Showing Sample intervals for MI/ARD Characterization

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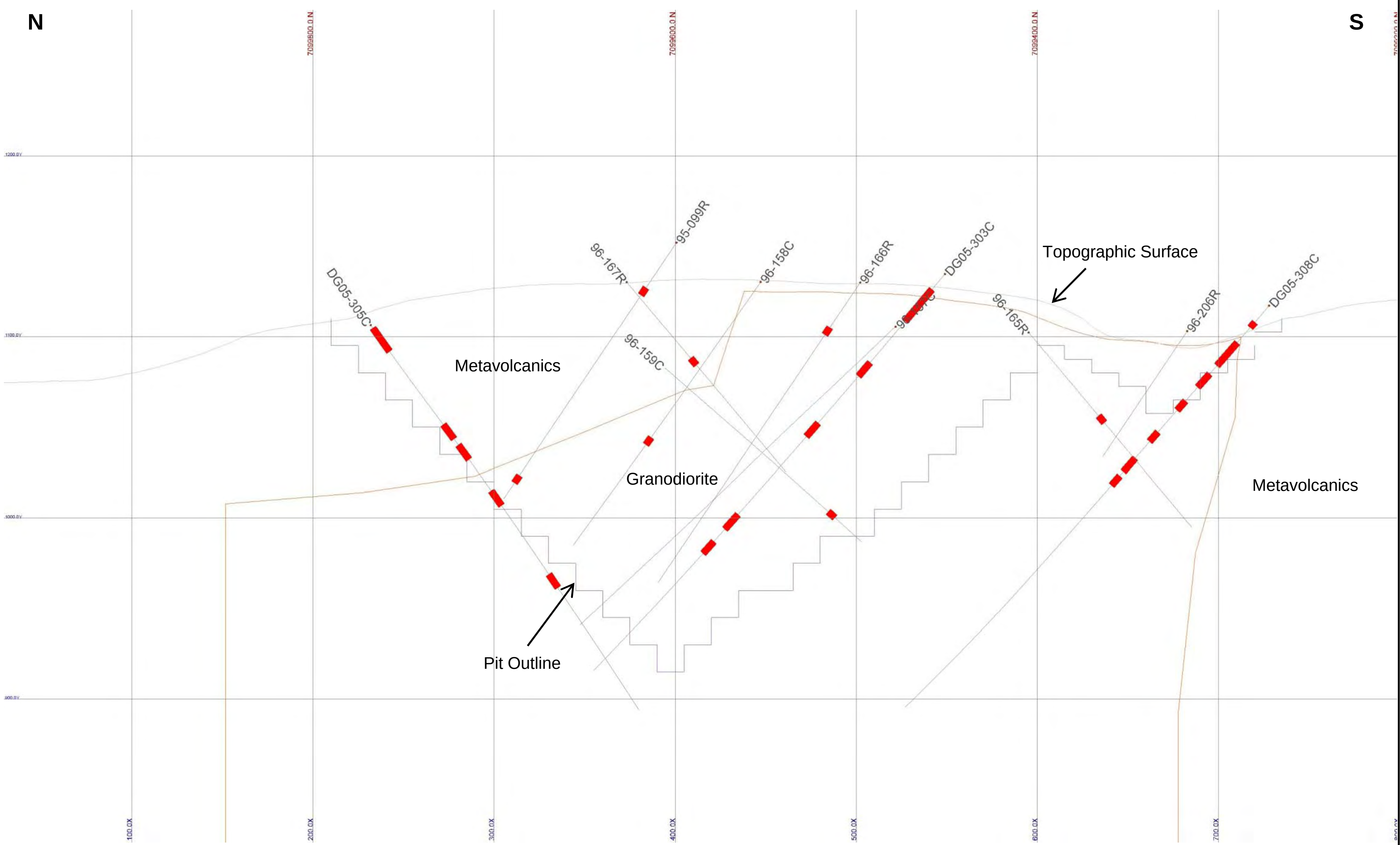

Sample Interval

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Geochemical Characterization

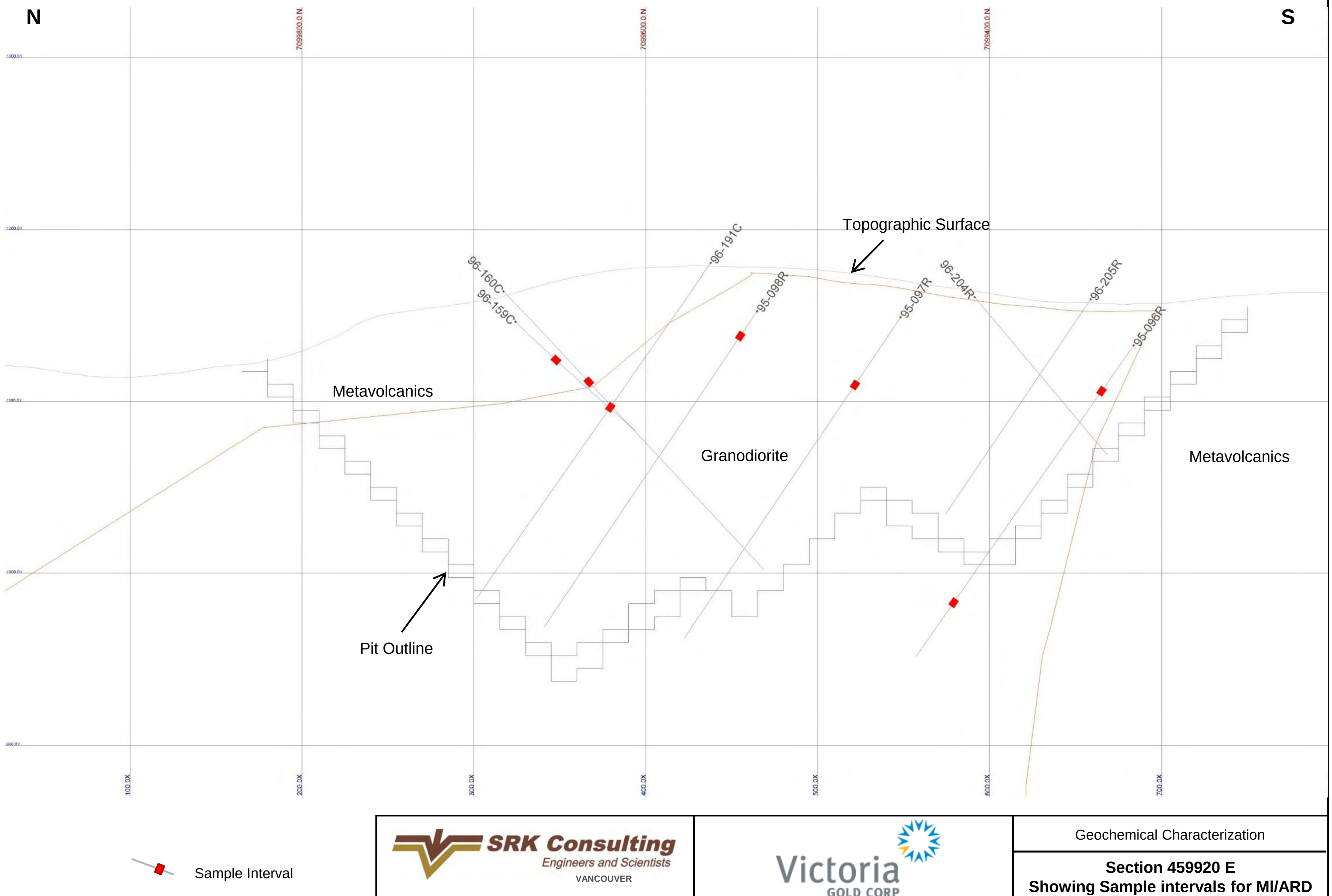
Section 449820 E
Showing Sample intervals for Ml/ARD Characterization

Job No: 1CS043.000

Filename: Figures A2_A10_Sections_20101122.pptx

Eagle Gold Project

Date:	Approved:	Figure:
October 2010	KSS	**A4**



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Victoria Gold Corp

Geochemical Characterization

Section 459920 E
Showing Sample intervals for MI/ARD Characterization

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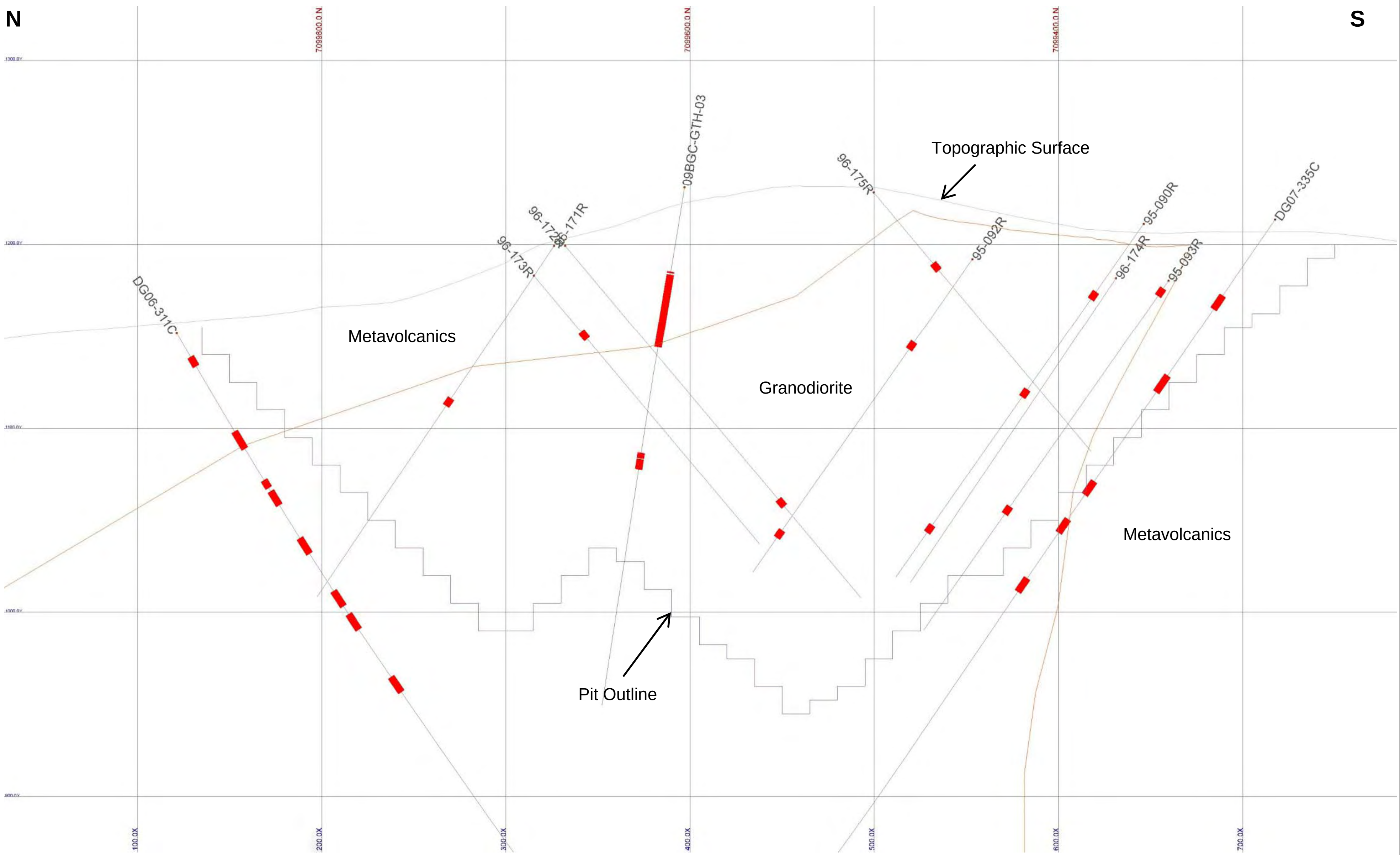
Eagle Gold Project			
Date: October 2010	Approved: KSS	Figure: A5	



Sample Interval

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Geochemical Characterization

Section 460020 E Showing Sample intervals for MI/ARD Characterization

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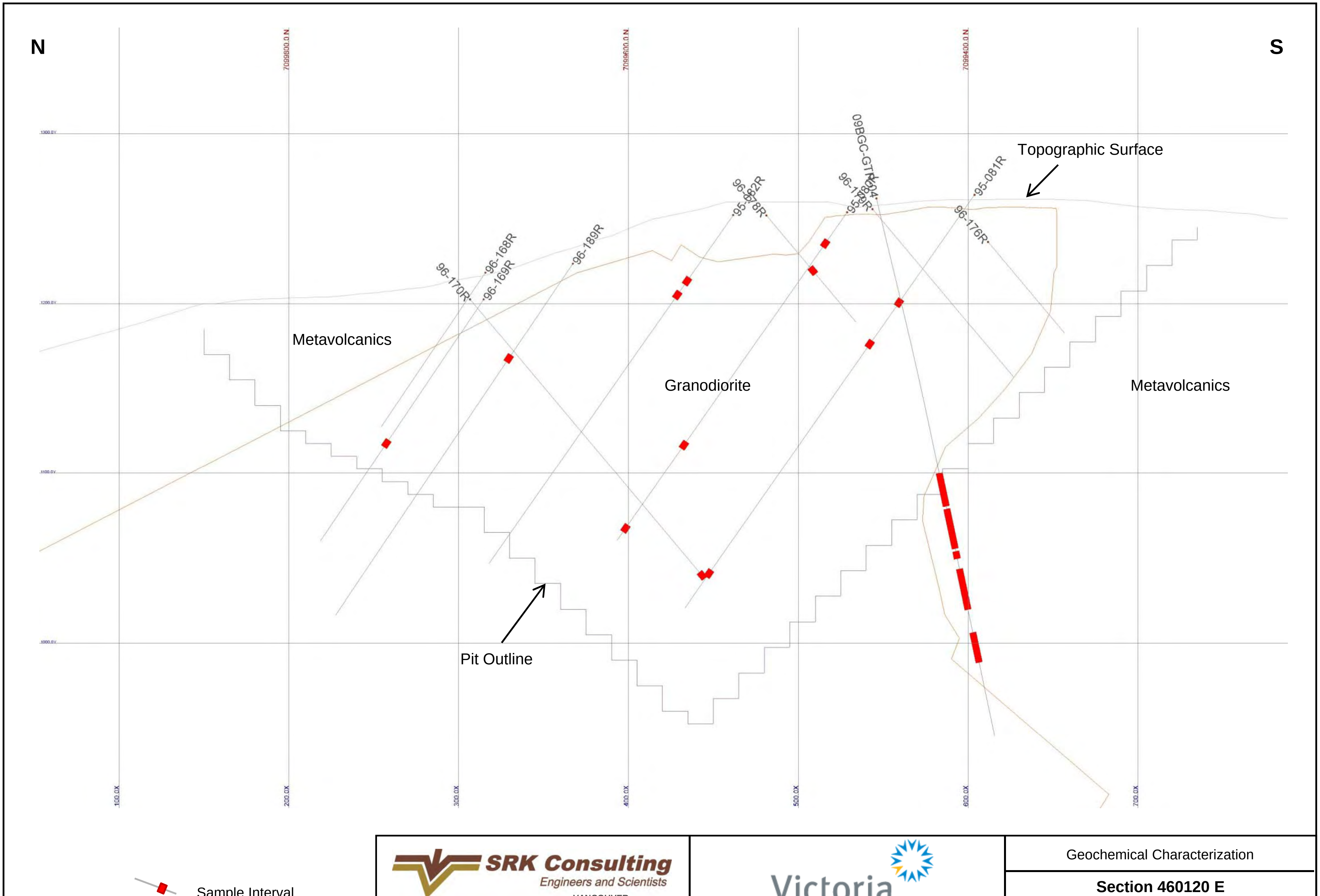

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Geochemical Characterization

Section 460120 E
Showing Sample intervals for MI/ARD Characterization

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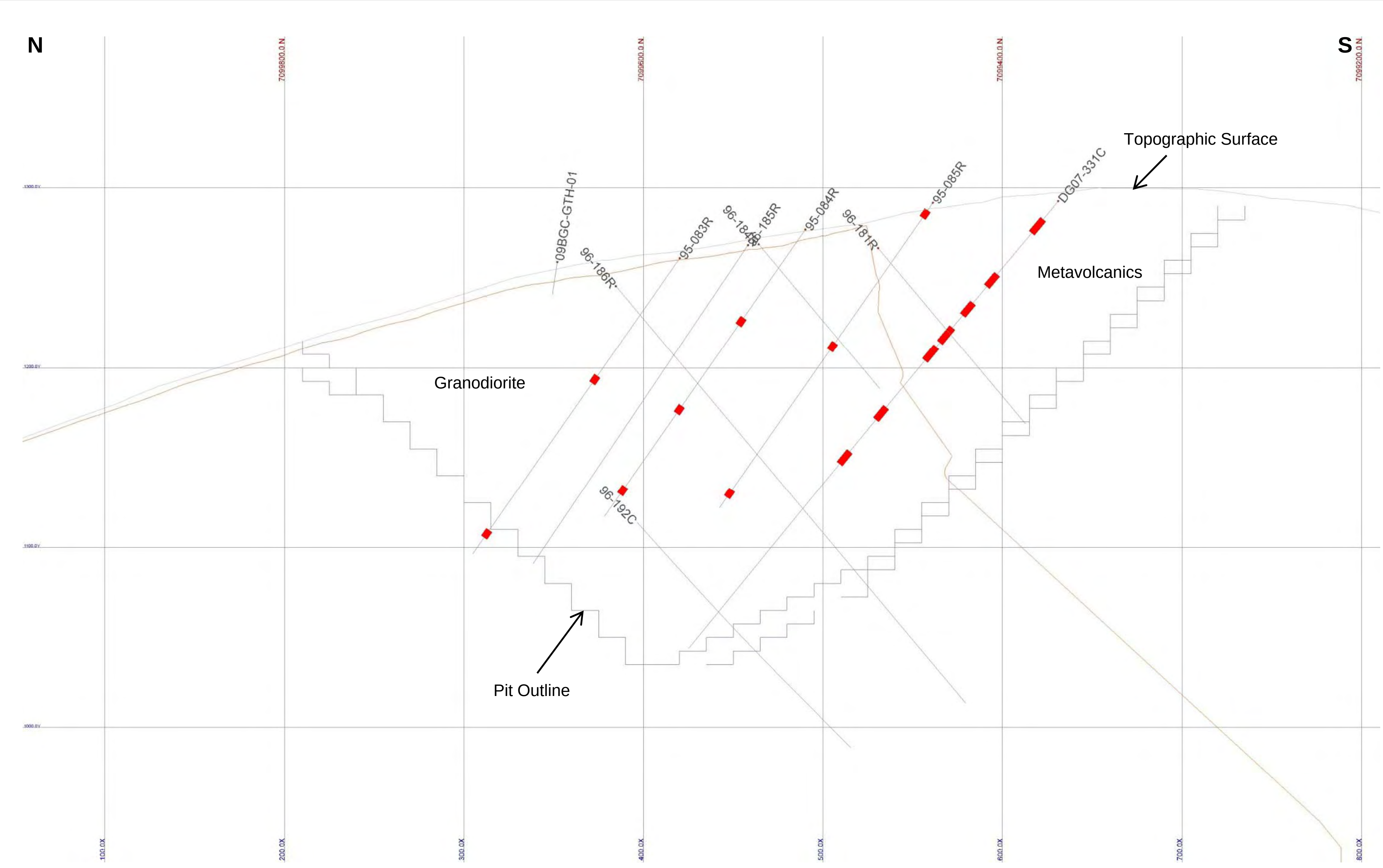

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Section 460220 E
Showing Sample intervals for MI/ARD Characterization

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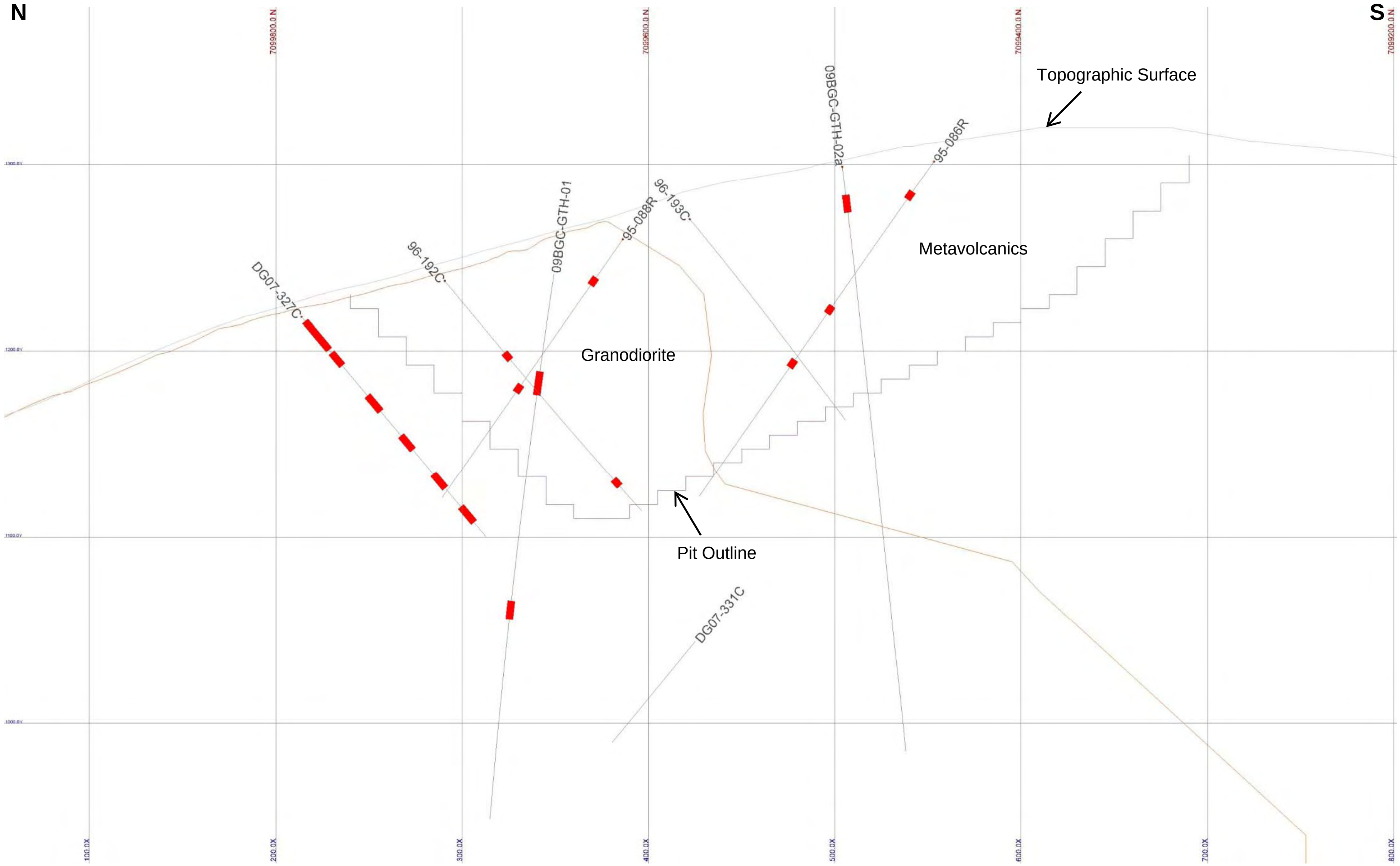
Filename: Figures A2_A10_Sections_20101025.pptx

Eagle Gold Project

Date: October 2010
Approved: KSS
Figure: **A8**



Sample Interval

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Geochemical Characterization

Section 460320 E Showing Sample intervals for MI/ARD Characterization

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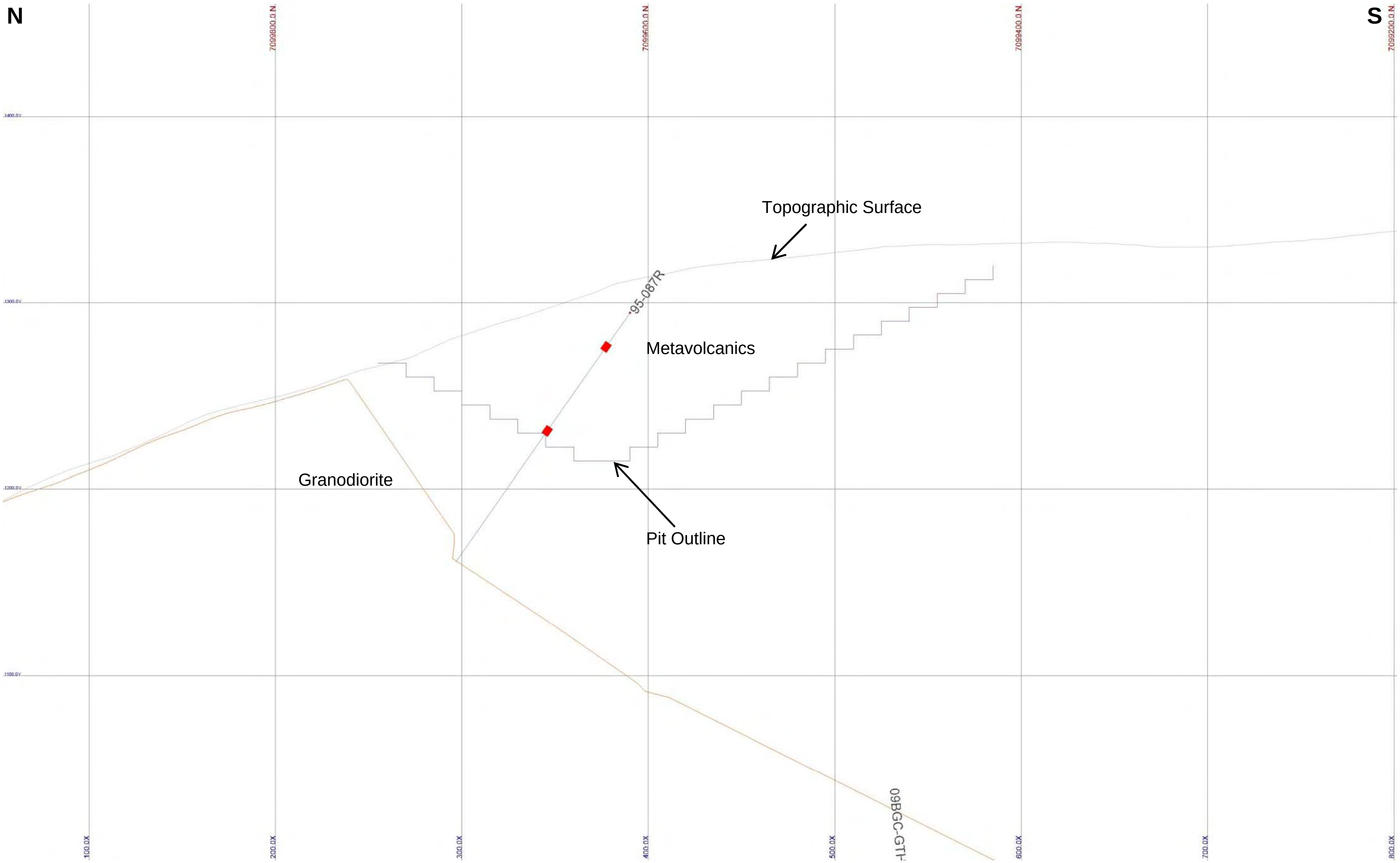

Sample Interval

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Geochemical Characterization

Section 460420 E
Showing Sample intervals for MI/ARD Characterization

Job No:	1CS043.000	Eagle Gold Project	Date: October 2010	Approved: KSS	Figure: **A10**
Filename:	Figures A2_A10_Sections_20101122.pptx				

Appendix B: Procedures of Testing Methodologies Utilized in the Program

Procedures of Testing Methodologies Utilized in the Program

Acid Base Accounting

The samples were analyzed at SGS Canada Inc. according to the Modified Acid Base Accounting procedure outlined in MEND Project 1.16.1b, 1991.

Whole Rock Analysis

Whole Rock Analysis was carried out at Assayers Canada Ltd. A 0.100 g pulverized sample is fused with a lithium metaborate/lithium carbonate flux, followed by digestion of the glass disk in 10% nitric acid and analysis of the solution by ICP-MS.

Total Metals

Total metals were conducted by Assayers Canada Ltd. on a pulverized sample by digesting 0.500 g in aqua regia at 95^{o}C for 1.5 hours. The extract is then diluted to 20.0 mL and analyzed for metals by ICP-MS.

Mineralogical Characterization

Polished thin sections of selected samples were prepared by Vancouber Petrographics Ltd. These sections and offcut mounts were evaluated by Kathryn Dunne, P.Geo. The primary objectives were to evaluate the mineralogy with particular emphasis on sulphide minerals and any carbonate minerals present. Results are provided in Appendix B.

X-Ray Diffractometry was conducted at the University of British Columbia. Samples were reduced into fine powder to the optimum grain-size range for X-ray analysis (<10μm) grinding under ethanol in a vibratory McCrone Micronising Mill for 7 minutes. Step-scan X-ray powder-diffraction data were collected over a range 3-80°2θ with CoKα radiation on a standard Siemens (Bruker) D5000 Bragg-Brentano diffractometer equipped with an Fe monochromator foil, 0.6 mm (0.3°) divergence slit, incident- and diffracted-beam Soller slits and a Vantec-1 strip detector. The long fine-focus Co X-ray tube was operated at 35 kV and 40 mA, using a take-off angle of 6°. Results are shown in Appendix C.

Kinetic Tests

Kinetic tests for the current phase of testing are being conducted using the standard humidity cell protocol (MEND, 1991). The samples consisted of minus 1/4 inch crushed rock (~6 mm). Splits of samples as loaded were submitted for static testing procedures and mineralogical assessments. Cells were charged with 1 kg (dry weight) of material and initially flushed with 750 mL of deionized water, with the leachate re-circulated to the top of the cell for a period of 24 hours to maximize flushing of any stored oxidation products in the samples prior to testing. Subsequent cycles followed the operating procedure consisting of circulation of dry air for three days, circulation of humidified air for three days and then flushing with 500 mL of deionized water on the seventh day. Leachates were submitted for analyses of pH, conductivity, ORP, acidity, alkalinity, sulphate, chloride, fluoride and dissolved metals using ICP-MS methods weekly for the first 4 cycles of testing with metals bi-weekly thereafter. Method detection limits are provided in Table B1. Specific details on the samples used to charge the columns, water addition rates, and test duration are provided in Table B2.

In addition to the on-going testwork, kinetic testing conducted in 1996/1997 and reported in (Lawrence, 1997) has been used in these evaluations. The previous work consisted of standard humidity cell procedure as is currently being conducted, i.e. 1 kg humidity cells with samples crushed to minus ~1/4 inch (6 mm) and subjected to 3 days of dry air, 3 days of humid air and 1 day of flushing (500 mL per flush). Each sample was subjected to 26 cycles or weeks of testing. Modified humidity cells were also run during this program on the altered granodiorite material consisting of a tall (3 kg) cell with the same infiltration rates as the standard cell, and a large (15 kg) cell with variable infiltration rates. General parameters measured included volume of leachate, pH, conductivity, alkalinity and sulphate and metals were analyzed at ALS Ltd. The detection limits achieved for many of the parameters in the table are not considered adequate for the current EA (e.g. Al, Cd, Hg, Se, Ag) as they are generally higher than might be anticipated to be water quality guidelines in receiving waters for the protection of aquatic life. Specific details on the samples used to charge the columns, water addition rates, and test duration are provided in Table B2.

Table B1. Method Detection Limits for the Kinetic Test Programs

Dissolved Metals	2009 Program	1996 Program	Units
Aluminum Al	0.0002	0.2	mg/L
Antimony Sb	0.00002		mg/L
Arsenic As	0.00002		mg/L
Barium Ba	0.00002	0.01	mg/L
Beryllium Be	0.00001		mg/L
Bismuth Bi	0.000005	0.1	mg/L
Boron B	0.05		mg/L
Cadmium Cd	0.000005	0.0002	mg/L
Calcium Ca	0.05		mg/L
Chromium Cr	0.0001	0.01	mg/L
Cobalt Co	0.000005	0.01	mg/L
Copper Cu	0.00005	0.01	mg/L
Iron Fe	0.001	0.03	mg/L
Lead Pb	0.000005	0.001	mg/L
Lithium Li	0.0005		mg/L
Magnesium Mg	0.05		mg/L
Manganese Mn	0.00005	0.005	mg/L
Mercury Hg	0.01	0.05	ug/L
Molybdenum Mo	0.00005	0.03	mg/L
Nickel Ni	0.00002	0.02	mg/L
Phosphorus P	0.002	0.3	mg/L
Potassium K	0.05	2	mg/L
Selenium Se	0.00004	0.2	mg/L
Silicon Si	0.1		mg/L
Silver Ag	0.000005	0.01	mg/L
Sodium Na	0.05	2	mg/L
Strontium Sr	0.00005		mg/L
Sulphur (S)	3		mg/L
Thallium Tl	0.000002		mg/L
Thorium, Th		0.1	mg/L
Tin Sn	0.00001	0.3	mg/L
Titanium Ti	0.0005		mg/L
Uranium U	0.000002		mg/L
Vanadium V	0.0002		mg/L
Zinc Zn	0.0001	0.005	mg/L
Zirconium Zr	0.0001		mg/L

Note: 1996 detection limits only identifed when a <DL was reported. MDLs for parameters consistently above their respective levels are not known.

Table B2. Kinetic Test Details

Program	Humidity Cell #	Sample ID	Rock Type	Test Type	Diameter (cm)	Height (cm)	Mass of Rock (kg)	Water Addition Rate (L)	Duration At Time of Reporting (weeks)
Lawrence (1997)	DGK 1	23066	Metasediment	Standard Cell	10.00	20.00	1.00	0.50	31.00
	DGK 2	23064	Unaltered Granodiorite	Standard Cell	10.00	20.00	1.00	0.50	31.00
	DGK 3	23067	Oxidized Granodiorite	Standard Cell	10.00	20.00	1.00	0.50	31.00
	DGK 4	23069	Altered Granodiorite	Standard Cell	10.00	20.00	1.00	0.50	31.00
	DGK 5	23069	Altered Granodiorite	Duplicate of DGK 4	10.00	20.00	1.00	0.50	31.00
	DGK 6	23069	Altered Granodiorite	Tall Cell	10.00	42.00	3.02	0.50	31.00
	DGK 7	23069	Altered Granodiorite	Big Cell	27.00	36.00	15.00	variable	31.00
This Program	HC 1*	DG07-331C 52.92-62.3	Metasediment	Standard Cell	10.20	25.50	1.00	0.50	60.00
	HC 2*	DG07-305C 1.52-9.14	Metasediment (hornfelsic)	Standard Cell	10.20	25.50	1.00	0.50	31.00
	HC 3*	DG07-305C 169.03-178.31	Unaltered Granodiorite	Standard Cell	10.20	25.50	1.00	0.50	40.00
	HC 4*	DG07-311C 99.97-109.12	Altered Granodiorite	Standard Cell	10.20	25.50	1.00	0.50	63.00
	HC 5*	DG07-335C 103.02-113.69	Oxidized Granodiorite	Standard Cell	10.20	25.50	1.00	0.50	40.00
	HC 6*	DG07-303C 175.26-185.93	Altered Granodiorite	Standard Cell	10.20	25.50	1.00	0.50	31.00
	HC 7	KCA No. 42979	Composite Ore Feed	Standard Cell	10.20	25.50	1.00	0.50	38.00
	HC 8**	DG05-308C 12.19-18.00	Metasediment	Standard Cell	10.20	25.50	1.00	0.50	35.00
	HC 9**	DG06-311C 130.45-140.45	Unaltered Granodiorite	Standard Cell	10.20	25.50	1.00	0.50	35.00
	HC 10**	DG07-327C 24.69-33.83	Oxidized Granodiorite	Standard Cell	10.20	25.50	1.00	0.50	34.00
	HC 11**	DG05-308C 125.00-128.00	Altered Granodiorite	Standard Cell	10.20	25.50	1.00	0.50	35.00
	HCol 7B	KCA No. 42979	Leached Composite Ore	Metallurgical Column	20.32	162.56	80.00	3.00	27.00

Notes
* sample selected to represent 95th percentile for sulphur content
** sample selected to represent 50th percentile for sulphur content.

Appendix C: Eagle Gold Project, Interim Report of Metallurgical Test Work (KCA 2010)

Eagle Gold Project
Interim Report of Metallurgical Test Work
November 2010

Prepared for:

StrataGold Corporation
680 – 1066 West Hasting Street
Vancouver, BC V6E 3X2
Canada

Prepared by:

KCA

Kappes, Cassiday & Associates
7950 Security Circle
Reno, Nevada 89506

Project No. 366 C **File: 8166**

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7950 Security Circle Reno, Nevada 89506
Telephone: (775) 972-7575 FAX: (775) 972-4567

10 November 2010

Eagle Gold Project
Interim Report of Metallurgical Test Work
November 2010

1.0 Introduction to Interim Report

This interim report discusses the metallurgical test work completed to date on a Master Composite sample developed from core initially worked on by Kappes, Cassiday & Associates (KCA) in 1996.

The test work completed to date included the preparation of the Master Composite sample by SGS Lakefield. Lakefield utilized a laboratory scale High Pressure Grinding Roll (HPGR) unit to crush a portion of the Master Composite to a particle size of 80% passing 3.641 millimeters.

The crushed material was returned to KCA and a sodium cyanide column leach test was conducted over a 33 day leach period. Following the leach phase the leach solution was treated with hydrogen peroxide to neutralize the Weak Acid Dissociable (WAD) Cyanide and the solution recycled to the column of leached tailings. The detox/rinse test work was continued until a WAD cyanide value of less than 0.2 mg/L was obtained in the column effluent.

After completion of the detox test work the column of leached and detoxified material underwent a modified humidity cell test program.

The humidity cell test is continuing at this point and final column tailings have not been assay for gold or silver. For the purpose of this report the weighted average grade of the Master Composite material based upon the head screen analysis with assays by size fraction was utilized as an estimate for the grade of the material leached in the column.

2.0 Sample Receipt and Preparation

In July 1995, the laboratory facility of Kappes, Cassiday & Associates (KCA) in Reno, Nevada received core material from the Dublin Gulch Project located in the Central Yukon Territory of Canada. Portions of this material were stored at KCA in sealed steel drums.

In June 2009, Victoria Gold acquired its interest in the Dublin Gulch Property (which contains the Eagle Gold Project) as a result of its takeover of of the previous owner.

In September 2009, selected stored crushed reject samples received in July 1995 were utilized to generate the Eagle Gold Master Composite (KCA Sample No. 42979).

Sample preparation was conducted utilizing each of the three (3) separate core intervals, used to generate the Master Composite, to provide material for head analyses.

Portions of the reject core intervals (crushed to minus 50 millimeters) were then combined to generate the Eagle Gold Master Composite (KCA Sample No. 42979).

A portion of the Master Composite was then sent to SGS for High Pressure Grinding Roll (HPGR) test work.

The HPGR product was returned to KCA for additional metallurgical test work including head screen analyses, agglomeration test work, cyanide column leach test work, detoxification and Humidity Cell Testing (HCT).

A description of the selected stored reject core intervals utilized to generate the Master Composite is presented in Table 2-1.

Table 2-1.
Eagle Gold Project
Master Composite
KCA Sample No. 42979
Description and Weights of Reject Core Material

KCA Sample No.	Core Hole	Interval From, meters	Interval To, meters	Unit Type	Description	Crush Size, millimeters	Weight, kg	Weight to Composite, kg
22602	74 C	47.3	99.1	C1	Sericite altered granodiorite	50	594	41.25
22603	74 C	99.1	177.2	B	Fresh to weakly altered granodiorite	50	938	41.25
22616	76 C	22.9	190.0	A	Weathered granodiorite	50	1955	67.50
42979					**Master Composite**			**150.00**

Note: Core Hole, Interval, Unit Type and Description provided by First Dynasty Mine/ Ivanhoe Goldfields, LTD (1995).

2.1 Sample Preparation of the Master Composite (KCA Sample No. 42979)

Sample preparation of the reject core intervals (crushed to minus 50 millimeters) was conducted individually but identically as follows:

1. The minus 50 millimeter crushed material was coned three (3) times and quartered.

2. One quarter was selected and stage crushed to minus 6.3 millimeters.

3. From the minus 6.3 millimeter crushed material a 10 kilogram portion was split out and crushed to nominal 1.70 millimeters.

4. From the nominal 1.70 millimeter crushed material two (2) 500 gram portions were split out and pulverized individually to 80% passing 0.075 millimeters.

5. The pulverized portions were assayed for gold and silver by standard fire assay and wet chemistry methods. A portion of one pulverized portion was also utilized for multi-element, whole rock, total carbon, total sulfur (sulfur speciation) and mercury analyses. In addition to these analyses, a cold cyanide soluble copper shake test was conducted.

6. In addition to the head analyses, a portion of one pulverized portion was utilized for Acid Base Accounting (ABA) test work.

7. From the remaining quarter splits (minus 50 millimeter crushed material) the follow portions were split out and combined to generate the Eagle Gold Master Composite (KCA Sample No. 42979); 41.25 kilograms (KCA Sample No. 22602), 41.25 kilograms (KCA Sample No 22603) and 67.50 kilograms (KCA Sample No. 22616). The reject material for each separate core interval was stored individually.

8. The Eagle Gold Master Composite (150 kilograms) was sent to SGS for High Pressure Grinding Roll (HPGR) test work. The crushed product was then returned to KCA for additional metallurgical test work.

9. The HPGR product was thoroughly blended. An 80-kilogram portion was split out and utilized for a cyanide column leach test work, a 10-kilogram portion was split out and utilized for a head screen analysis and four (4) 2-kilogram portions were split out and utilized for agglomeration test work. The reject material was stored.

3.0 Head Analyses

Head analyses were completed on each of the three (3) separate reject core intervals, received in July 1995 and crushed to minus 50 millimeters, utilized to generate the Eagle Gold Master Composite (KCA Sample No. 42979).

The reject core material (crushed to minus 50 millimeters) from each separate interval was coned three (3) times and quartered. One quarter was selected and stage crushed to minus 6.3 millimeters. A 10-kilogram portion was then split out and crushed to nominal 1.70 millimeters. From the nominal 1.70 millimeter crushed material two (2) 500 gram portions were split out and pulverized individually to 80% passing 0.075 millimeters.

Each pulverized portion was analyzed for gold and silver by standard fire assay and wet chemistry methods.

A portion of one pulverized portion was assayed semi-quantitatively by means of inductively coupled argon plasma – optical emission spectrophotometer (ICAP-OES) for an additional series of elements and for a whole rock analyses. In addition to these semi-quantitative analyses, the sample was assayed by quantitative methods for total carbon, total sulfur (sulfur speciation) and mercury. A cyanide soluble copper shake test was conducted on a portion of the pulverized head material.

3.1 Head Analyses for Gold and Silver

Head analyses for gold and silver were completed by standard fire assay and wet chemistry methods.

The results of the head analyses for gold and silver are presented in Table 3-1.

Table 3-1.
Eagle Gold Project
Reject Core Intervals
Head Analyses – Gold and Silver

KCA Sample No.	Unit Type	Assays 2009		
		Assay 1, gms Au/MT	Assay 2, gms Au/MT	Average Assay, gms Au/MT
22602	C1	0.47	0.28	0.37
22603	B	0.44	0.37	0.41
22616	A	0.98	0.92	0.95

KCA Sample No.	Unit Type	Assays 2009		
		Assay 1, gms Ag/MT	Assay 2, gms Ag/MT	Average Assay, gms Ag/MT
22602	C1	5.3	1.6	3.4
22603	B	2.0	6.5	4.2
22616	A	1.5	1.3	1.4

3.2 Head Analyses for Multi-elements

A portion of the pulverized material for each core interval was assayed semi-quantitatively by means of inductively coupled argon plasma – optical emission spectrophotometer (ICAP-OES) as well as by flame atomic absorption spectrophotometer (FAAS) methods for an additional series of elements and for a whole rock analyses. In addition to these semi-quantitative analyses, the samples were assayed by quantitative methods for total carbon, total sulfur (sulfur speciation) utilizing a LECO CS 400 unit.

The results of the multi-element analyses are presented in Table 3-2. The results of the whole rock analyses are presented in Table 3-3.

Table 3-2.
Eagle Gold Project
Reject Core Intervals
Head Analyses – Multi-element Analyses

Constituent	Unit	Apr-96			Oct-09		
		KCA Sample No. 22602	KCA Sample No. 22603	KCA Sample No. 22616	KCA Sample No. 22602	KCA Sample No. 22603	KCA Sample No. 22616
Al	%				7.63	7.74	8.19
As	mg/kg	150	670	40	223	416	158
Ba	mg/kg	227	258	208	1531	1524	1555
Bi	mg/kg	14.0	5.4	7.03	24	24	26
C_{total}	%	0.50	0.46	0.19	0.54	0.49	0.14
Ca	%				2.51	2.41	2.34
Cd	mg/kg	6.03	6.14	2.14	7	6	6
Co	mg/kg				13	12	12
Cr	mg/kg	52.5	46.1	24.9	93	90	116
Cu	mg/kg	27.7	15.9	8.11	38	33	20
$Cu_{(cyanide\ soluble)}$	mg/kg				8	6	6
Fe	%	2.00	1.85	0.71	2.54	2.39	2.39
Hg	mg/kg	<2.00	<2.00	<2.00	<0.05	<0.05	<0.05
K	%				3.69	3.85	3.80
Mg	%				1.07	0.88	0.93
Mn	mg/kg	217	212	66.5	271	231	182
Mo	mg/kg	58.8	49.2	23.9	3	2	1
Na	%				1.59	1.60	1.76
Ni	mg/kg	16.3	15.4	7.94	28	30	32
Pb	mg/kg	25.6	191	1.10	42	38	24
S_{total}	%	0.34	0.44	0.08	0.21	0.22	0.05
$S_{sulfide}$	%	0.26	0.31	<0.01	0.11	0.07	<0.01
$S_{sulfate}$	%	<0.01	0.13	<0.03	0.10	0.15	0.05
Sb	mg/kg	<0.05	16.4	<0.05	9	10	5
Sr	mg/kg				417	431	466
Ti	%				0.30	0.28	0.33
V	mg/kg				44	34	38
W	mg/kg				35	25	11
Zn	mg/kg	45.2	297	9.08	95	52	33

Table 3-3.
Eagle Gold Project
Reject Core Intervals
Head Analyses - Lithium Metaborate Fusion - Whole Rock Analyses

Constuituent	Units	KCA Sample No. 22602		KCA Sample No. 22603		KCA Sample No. 22616	
SiO_2	%	64.53		64.99		66.66	
Si	%		30.17		30.38		31.16
Al_2O_3	%	14.17		14.80		15.00	
Al	%		7.50		7.83		7.94
Fe_2O_3	%	3.68		3.39		3.36	
Fe	%		2.57		2.37		2.35
CaO	%	3.60		3.59		3.10	
Ca	%		2.57		2.57		2.22
MgO	%	1.68		1.42		1.51	
Mg	%		1.01		0.86		0.91
Na_2O	%	2.14		2.21		2.38	
Na	%		1.59		1.64		1.77
K_2O	%	4.52		4.78		4.49	
K	%		3.75		3.97		3.73
TiO_2	%	0.51		0.49		0.53	
Ti	%		0.31		0.29		0.32
MnO	%	0.03		0.03		0.02	
Mn	%		0.02		0.02		0.02
SrO	%	0.05		0.05		0.06	
Sr	%		0.04		0.04		0.05
BaO	%	0.17		0.17		0.18	
Ba	%		0.15		0.15		0.16
Cr_2O_3	%	0.02		0.02		0.02	
Cr	%		0.01		0.01		0.01
P_2O_5	%	0.12		0.12		0.14	
P	%		0.05		0.05		0.06
LOI (1,093^{o}C)	%	4.21		3.52		1.73	
SUM	%	99.43		99.58		99.18	

Note: For the purpose of calculation, for values less than the detection limit a value of ½ the detection limit is utilized.

Note: The SUM is the total of the oxide constituents and the loss on ignition.

3.3 Head Screen Analyses with Assays by Size Fraction

Portions of the reject core intervals (crushed to minus 50 millimeters) were then combined to generate the Eagle Gold Master Composite (KCA Sample No. 42979).

A portion of the Master Composite was then sent to SGS for High Pressure Grinding Roll (HPGR) test work. The HPGR product was returned to KCA for additional metallurgical test work. From the HPGR product a 10-kilogram portion was split out and utilized for a head screen analysis.

The head screen analysis is summarized in Table 3-4.

The complete head screen analysis is presented in Table 3-5.

The head screen analysis is presented, graphically, in Figure 3-1.

Table 3-4.
Eagle Gold Project
Master Composite
KCA Sample No. 42979
Summary of Head Screen Analyses – Gold and Silver

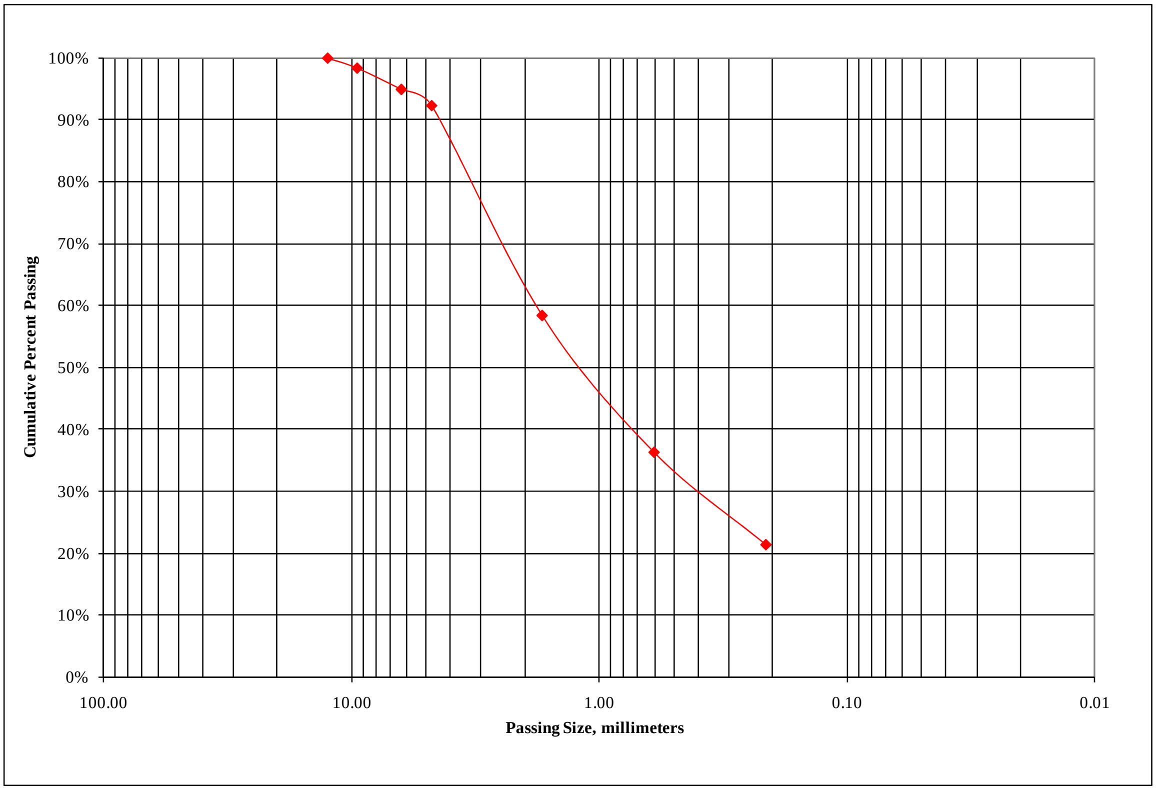
KCA Sample No.	Description	Calc. P_{80} Size, mm	Weighted Avg. Head Assay, gms Au/MT	Weighted Avg. Head Assay, gms Ag/MT
42979	Master Composite	3.641	0.51	1.79

Table 3-5.
Eagle Gold Project
Master Composite
KCA Sample No. 42979
HPGR Crushed Product (Calculated P80 = 3.641 millimeters)
Head Screen Analysis with Assays by Size Fraction

			Dry Screen Analysis				Analysis of Gold Content			
KCA Sample No.	Passing, mm	Retained, mm	Sample Weight, kg	Weight Distribution, %	Cumulative Weight Retained, %	Cumulative Weight Passing, %	Assay 1, gms Au/MT	Assay 2, gms Au/MT	Average Assay, gms Au/MT	Weight Au, %
42979		12.50	0.00				---	---	---	---
	12.50	9.50	0.16	1.61%	1.61%	100.00%	0.14	0.14	0.14	0.45%
	9.50	6.30	0.34	3.43%	5.05%	98.39%	0.30	0.55	0.43	2.91%
	6.30	4.75	0.26	2.62%	7.67%	94.95%	0.17	0.23	0.20	1.03%
	4.75	1.70	3.36	33.91%	41.57%	92.33%	0.73	0.36	0.55	36.70%
	1.70	0.600	2.19	22.10%	63.67%	58.43%	0.37	0.39	0.38	16.55%
	0.600	0.212	1.48	14.93%	78.61%	36.33%	0.41	0.34	0.37	10.98%
	0.212	Pan	2.12	21.39%	100.00%	21.39%	0.74	0.75	0.74	31.38%
Total -			9.91	100.00%			0.57	0.45	0.51	100.00%
Detection -							0.10	0.10		

			Dry Screen Analysis				Analysis of Silver Content			
KCA Sample No.	Passing, mm	Retained, mm	Sample Weight, kg	Weight Distribution, %	Cumulative Weight Retained, %	Cumulative Weight Passing, %	Assay 1, gms Ag/MT	Assay 2, gms Ag/MT	Average Assay, gms Ag/MT	Weight Ag, %
42979		12.50	0.00				---	---	---	---
	12.50	9.50	0.16	1.61%	1.61%	100.00%	2.06	2.06	2.06	1.85%
	9.50	6.30	0.34	3.43%	5.05%	98.39%	1.71	1.71	1.71	3.28%
	6.30	4.75	0.26	2.62%	7.67%	94.95%	1.37	1.71	1.54	2.26%
	4.75	1.70	3.36	33.91%	41.57%	92.33%	1.71	1.37	1.54	29.16%
	1.70	0.600	2.19	22.10%	63.67%	58.43%	1.37	1.37	1.37	16.89%
	0.600	0.212	1.48	14.93%	78.61%	36.33%	1.37	3.43	2.40	19.98%
	0.212	Pan	2.12	21.39%	100.00%	21.39%	2.06	2.40	2.23	26.58%
Total -			9.91	100.00%			1.66	1.93	1.79	100.00%
Detection -							1.70	1.70		

Figure 3-1.
Eagle Gold Project
Master Composite
KCA Sample No. 42979
Head Screen Analyses



4.0 Acid Base Accounting

A pulverized portion from each of the three (3) separate core intervals was utilized for Acid Base Accounting (ABA) test work.

The ABA analysis is a static test used to determine the acid producing or acid consuming potential of a mined material.

The ABA analysis is comprised of three distinct determinations. To facilitate the comparison of values, the neutralizing potential, (NP), acid potential (AP) and net neutralization potential (NNP) are expressed in units of metric tonnes $CaCO_3$ equivalent per 1000 metric tonnes of material

1. In the procedure utilized to determine the neutralization potential (NP) of a mined material the sample is treated with an excess of standardized hydrochloric acid (HCl) at ambient temperature for a 24 hour period. During this period, the pH of the sample is checked, to insure that sufficient acid is available for consumption reaction. After the test period, the un-reacted acid is titrated with a standardized base to a neutral pH to calculate the calcium carbonate equivalent of the acid consumed.

2. In calculating the acid potential (AP) of a mined material determinations are made for the percentage of total sulfur, sulfate sulfur, and sulfide sulfur by difference in the test sample. Standards and blanks are used in the sample set to insure accuracy. The acid potential of the sample in tonnes $CaCO_3$ equivalent per 1000 tonnes is given by,

   AP = Percent “Sulfur” x 31.25

   That is assuming that 31.25 tonnes of $CaCO_3$ is needed to neutralize the acid, potentially generated, from 1 tonne of material containing 1 % sulfur.

3. The net neutralization potential (NNP) in tonnes $CaCO_3$, equivalent per 1000 tonnes of material is given by the difference of the neutralization potential and the acid potential.

   NNP = NP – AP

If a negative NNP value is determined, the material may be classified as a potentially acid producing material. Conversely, if the NNP value is positive, then the material may be classified as a potentially acid consuming material. This test does not reflect the long-term acid producing potential of a material due to geological or bacterial degradation.

Data in the table allows for the calculation of two values: acid potential (AP) and net neutralization potential (NNP).

The total sulfur (as %S) provides for the maximum potential acid generating or neutralizing potential of a mined material. The most common way to calculate the overall AP value in the mining industry today is to use the sulfide sulfur content. However, since the calculated sulfide sulfur content is below the analytical detection limit for the core interval identified as Unit Type A (KCA Sample No. 26616) the total sulfur content was utilized to calculate the overall AP value.

The net neutralization potential (NNP - based upon total sulfur content) for the core intervals indicated that the material has a net ability to neutralize or consume acid.

The results of the ABA analyses utilizing pulverized material from each of the three (3) separate core intervals are presented in Table 4-1.

Table 4-1.
Eagle Gold Project
Reject Core Intervals
Acid Base Accounting

KCA Sample No.	Unit Type	Apr-96							Oct-09						
		Total Sulfur, %	Sulfide Sulfur, %	Sulfate Sulfur, %	Paste pH	NP	AP	NNP	Total Sulfur, %	Sulfide Sulfur, %	Sulfate Sulfur, %	Paste pH	NP	AP	NNP
22602	C1	0.34	0.26	<0.01	8.22	47	10.6	36	0.21	0.11	0.10	7.6	51	7	44
22603	B	0.44	0.31	0.13	8.48	40	13.8	26	0.22	0.07	0.15	8.2	50	7	43
22616	A	0.08	<0.01	<0.03	8.47	18	2.5	16	0.05	<0.01	0.05	8.2	17	2	15

Notes: In tonnes CaCO3 equivalent per 1,000 tonnes of material.

Note: Net Neutralization Potential (NNP) = Neutralization Potential (NP) - Acidification Potential (AP).

5.0 Preliminary Agglomeration Test Work

Agglomeration tests were completed on four (4) 2 kilogram portions of the Eagle Gold Master Composite HPGR crushed product (calculated P_{80} 3.641 millimeters).

The crushed material was tested with the addition of 0, 2, 4 and 8 kilograms of Portland Type II cement per metric tonne of ore.

The percolation tests were conducted in small (7.5 cm inner diameter) columns at a range of cement levels with no compressive load applied. The purpose of the percolation tests was to examine the permeability of the material under various cement agglomeration levels.

The non-agglomerated (no cement added) percolation test failed. The percolation tests utilizing material agglomerated with 2, 4 and 8 kilograms of Portland Type II cement per metric tonne of ore passed.

5.1 Agglomeration and Percolation Test Procedure

Agglomeration tests were conducted on 2 kilogram portions of HPGR crushed material (calculated P_{80} 3.641 millimeters). Agglomeration tests were conducted utilizing 0, 2, 4 and 8 kilograms of Portland Type II cement per metric tonne of ore. The procedure used for these tests was as follows:

1. A 2 kilogram split of material was placed into the agglomerating drum and a specified amount of cement was added.

2. The drum was rotated for several minutes to mix the ore and cement thoroughly.

3. The material was sprayed with a solution of tap water to form the agglomerates. The amount of solution required for agglomeration was recorded.

4. The agglomerates were then placed into a 75 millimeter diameter column and the initial ore height was recorded. The agglomerates were allowed to cure for a period of 24 hours.

5. Solution was applied to the column at a rate of 10 - 12 liters per hour per square meter of column surface area for 72 hours. Changes in the height of the ore in the column, agglomerate stability and percolation problems were recorded.

6. After 72 hours of solution application, the sides of the column were tapped sharply until the ore height within the column remained stable. The final ore height was recorded.

7. The exit line from the column was clamped off and the column was flooded with solution to a level equal to 25 - 50 millimeters above the ore surface.

8. The clamp was removed and while the solution level above the ore was maintained, the solution flow rate from the bottom of the column was measured.

5.2 Discussion of Results

The complete results of this test program (including a pass/fail analysis of the information) are shown in Table 5-1.

Over the test period the pH of the effluent solution was monitored. In general a pH below 10 was an indication of a low pH and not acceptable for leaching. However, a high pH (a pH greater than 11.5) would also be noted as high.

In the non-compacted agglomeration tests, KCA generally considers a slump of over 10% as an indication of failure. One item also examined is the consistency of results with regard to slump. KCA would expect a lower slump with higher cement levels.

The slumps calculated for the agglomerated columns were negligible (0% slump was obtained).

The typical heap design solution application rate of 10 - 12 LpHr/m^2 is utilized when examining the agglomeration data. When examining results from this type of agglomeration tests KCA considers a measured flow of one hundred times (100X) the heap design rate as a “pass”. A measured flow less than 100X the heap design flow is not necessarily a failure. If there are enough tests with enough consistency between tests, and all other points indicate a “pass”, then KCA sometimes will “pass” a test with less than the 100X flow. However, we will never pass a test at 10X and probably not at 50X.

In examining the Pellet Breakdown, it is felt that 10% is marginally acceptable and anything higher is a failure. In general we allow more range in the allowable Pellet Breakdown as this is a subjective value based on the visual observation of the pellets after the test by the technicians performing the test.

Pellet breakdown for the agglomerated column tests for each separate crush size was not significant (less than 3%).

Solution color and clarity typically is an indicator of agglomerate failure. This information is utilized in coordination with both slump as well as Pellet Breakdown to determine if the test passes.

It is believed that these types of tests are indicative of cement requirements for a low, single lift heap height (6 meter maximum) and provide cement levels for larger scale column test work. Compacted permeability tests may be required to evaluate heap heights over 6 meters.

Table 5-1.
Eagle Gold Project
Master Composite
HPGR Crushed Product (Calculated P_{80} = 3.641 millimeters)
Summary of Agglomeration Test Work

KCA Sample No.	KCA Test No.	Description	Top Size of Material, mm	Cement, kg/MT$_{dry\ ore}$	Water Added, mLs	Column Area, m^2	Dry Weight, kg	Initial Height, cm	Ht. on Day 3 of Leaching, cm	Final Height, cm	pH on Day 3	pH Comment	% Slump	Slump Result	Apparent Bulk Density, MT_{dry}/M^3	Flow Out, $LpHr/m^2$	Flow Result	Visual Estimate of % Pellet Breakdown	Pellet Result	Out Flow Solution, Color and Clarity	Solution Result	Overall Test Result
42979	43421 A	Master Composite	3.641	0	0.0	0.005	2.0	27.94	27.94	27.94	N/A	N/A	0%	Pass	1.57	-	Fail	N/A	Fail	N/A	Fail	Fail
	43421 B		3.641	2	154.9	0.005	2.0	31.12	31.12	31.12	11.5	Good	0%	Pass	1.41	10,702	Pass	<3	Pass	Colorless & Clear	Pass	Pass
	43421 C		3.641	4	176.0	0.005	2.0	32.39	32.39	32.39	11.8	High	0%	Pass	1.35	18,237	Pass	<3	Pass	Colorless & Clear	Pass	Pass
	43421 D		3.641	8	167.3	0.005	2.0	33.66	33.66	33.66	12.1	High	0%	Pass	1.30	23,601	Pass	<3	Pass	Colorless & Clear	Pass	Pass

6.0 Column Leach Test Work

A single column leach test was completed utilizing the Eagle Gold Master Composite HPGR crushed product (calculated P_{80} 3.641 millimeters).

The material utilized for the column leach test was agglomerated with 2 kilograms of Portland Type II cement per metric tonne of ore prior to loading into the column.

Following the leaching period, detoxification test work utilizing a hydrogen peroxide (copper catalyzed peroxide) detoxification method was completed. The detoxification procedure was continued until a WAD cyanide value less than 0.2 mg/L was obtained for three (3) consecutive days.

The final barren solution and the final detox solution, for each separate column leach test were analyzed for a Profile II metals analysis, total cyanide and Weak Acid Dissociable (WAD) cyanide. The column tailings after detoxification were submitted for Humidity Cell Testing (HCT). The HCT test work was on-going at the time of this report.

The column leach test is described in Table 6-1.

Table 6-1.
Eagle Gold Project
Master Composite
Column Leach Test Parameters

KCA Sample No.	KCA Test No.	Crush Size, mm	Column Diameter, meters	Initial Charge Height, meters	Charge Weight, kilograms
42979	43276	100% minus 12.5	0.203	1.702	80.00

Note: Calculated P_{80} based upon head screen analysis – 3.641 millimeters.

6.1 Column Leach Test Recoveries

Column tailings assays were not available for this report as the HCT test work was on-going at the time of this report.

Column test recoveries for this report were based upon the average head screen analysis data as shown in Table 6-1.

Table 6-2.
Eagle Gold Project
Master Composite
KCA Sample No. 42979
Minus 12.5 millimeter Crushed Material (Calculated P_{80} = 3.641 millimeters)
Head Screen Analysis with Assays by Size Fraction

KCA Sample No.	Description	Calc. P_{80} Size, mm	Weighted Avg. Head Assay, gms Au/MT	Weighted Avg. Head Assay, gms Ag/MT
42979	Master Composite	3.641	0.506	1.79

Preliminary results for the column leach test are presented in Table 6-1.

Gold recovery for the Master Composite column test, utilizing material crushed utilizing a High Pressure Grinding Roll (HPGR) to minus 12.5 millimeters was 96% after 33 days of leaching. This recovery was based upon an estimated head grade of 0.506 gms Au/MT. Sodium cyanide consumption was 0.40 kg/MT and cement addition was 2.0 kg/MT.

Column test recovery results contained in the body of this report were based upon carbon assays vs. the estimated head as no tailings assays were available. Recovery results contained in the attached appendix (Appendix A) were based upon the daily solution assays vs. an estimated calculated head (solution assays + estimated tailings assays).

When an outside party submits samples, KCA can estimate gold recovery for an ore body based upon the assumption that the ore to be mined will be similar to the samples tested. For feasibility study purposes, KCA normally discounts laboratory gold recoveries by two to three percentage points when estimating field recoveries. This assumes a well-managed heap leach operation, and if agglomeration is required, it is assumed that this process is completed correctly.

Based upon KCA's experience with mostly clean non-reactive ores, cyanide consumption in production heaps would be only 25 to 33 percent of the laboratory column test consumptions. For ores containing high amounts of leachable copper, higher factors would be utilized.

Table 6-3.
Eagle Gold Project
Master Composite
KCA Sample No. 42979
KCA Test No. 43276
Minus 12.5 millimeter Crushed Material (Calculated P_{80} = 3.641 millimeters)
Cyanide Column Leach Test
Metal Recoveries and Chemical Consumption

Days Leaching	Cumulative, t_s/t_o	Solution Extraction, gms Au/MT	Carbon Weight, grams	Metal on Carbon Extraction, gms Au/MT	Extraction, % Au	Cumulative Extraction, % Au	NaCN Consumed, kg/MT	Cement Added, kg/MT
0-9	1.00	0.343	185.57	0.418	83%	83%	0.17	2.00
9-20	2.32	0.030	167.98	0.043	8%	91%	0.10	0.00
21-33	3.79	0.020	182.19	0.025	5%	96%	0.13	0.00
	Total:	0.393		0.486			0.40	2.00
	Estimated Tail:	0.020		0.020				
	Estimated Head:	0.413		0.506				

t_s/t_o = Tonnes of solution effluent per tonne of dry ore leached.

Days Leaching	Cumulative, t_s/t_o	Solution Extraction, gms Ag/MT	Carbon Weight, grams	Metal on Carbon Extraction, gms Ag/MT	Extraction, % Ag	Cumulative Extraction, % Ag	NaCN Consumed, kg/MT	Cement Added, kg/MT
0-9	1.00	0.09	185.57	0.11	6%	6%	0.17	2.00
9-20	2.32	0.00	167.98	0.01	1%	7%	0.10	0.00
21-33	3.79	0.01	182.19	0.00	0%	7%	0.13	0.00
	Total:	0.10		0.13			0.40	2.00
	Estimated Tail:	1.66		1.66				
	Estimated Head:	1.76		1.79				

t_s/t_o = Tonnes of solution effluent per tonne of dry ore leached.

Column Parameters

KCA Sample No.	42979	KCA Test No.	43276
Dry Weight Ore, kg:	80.00	Column Area, m^2:	0.032
Initial Ore Height, m:	1.702	Column Volume (initial), m^3:	0.055
Final Ore Height, m:	1.702	Column Volume (final), m^3:	0.055
Slump, %:	0.0%	Apparent Bulk Density (final), MT_{dry}/m^3:	1.450
Cement Addition, kg/MT:	2.00	Retained Moisture, L/MT_{dry}:	n/a
Agglom. Water Added, liters (1 gpL NaCN):	4.15	Mercury on C-1 Carbon, mg/kg:	0.98
Hydrated lime added during loading, kg/MT:	0.00	Final Percolation Rate, L/Hr/m^2:	n/a

6.2 Cyanide Column Leach Tests, Description of Apparatus

6.2.1 Drip Leach Test Apparatus

The column tests were run as a continuously drained drip leach tests.

This type of test most accurately reflects actual heap leach conditions and is normally run when the material contains enough fines to prevent channeling of solution down individual rock faces.

The apparatus used for this test is shown schematically in Figure 6-1.

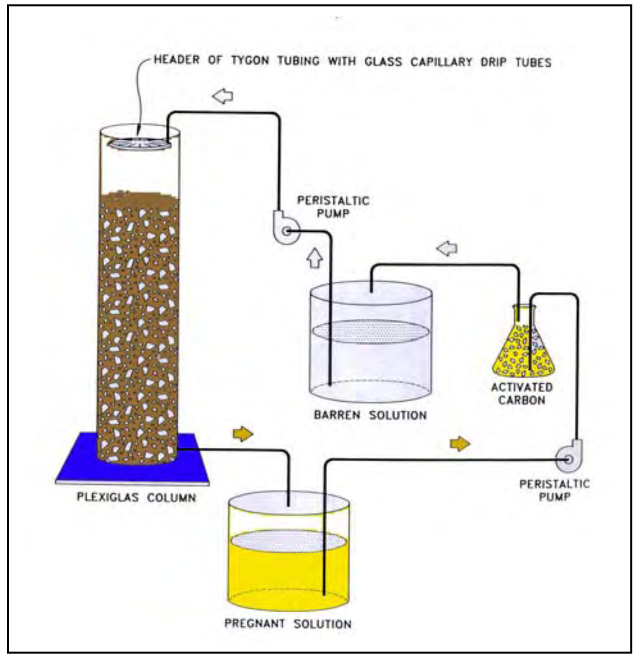
6.2.2 Column Setup

The material to be leached was placed into a Plexiglas column with an inside diameter of 203.2 millimeters (cross sectional area of 0.032 square meters).

Alkaline cyanide solution was continuously distributed onto the material through a header of Tygon tubing with glass-capillary drip tubes. Flow rate of solution dripping onto the material was controlled with a peristaltic pump to approximately 10-12 liters per hour per square meter of column surface (target flow rate of 10 liters per hour per square meter of column surface).

The solution exiting the leach column was collected in the bottom (floor – pregnant leach solution) tank. Leach solution was checked each cycle for pH, NaCN, Au and Ag. Copper was checked periodically. The solution was then passed through a bottle of activated carbon over a period of 24 hours to recover the gold and silver in solution. After passing through the bottle of activated carbon, the solution was re-assayed for pH, NaCN, Au and Ag. Sodium cyanide was then added, if necessary, to maintain the solution at "target" levels (discussed in the History section). The leach solution was then recycled to the material for another 24 hour leach period. Two (2) batches of leach solution were used so that while one batch was applied to the column, the other was run through the carbon.

Figure 6-1.
Eagle Gold Project
Column Leach Test Apparatus



6.3 History of Cyanide Column Leach Tests

6.3.1 Start-up of Tests

The initial leach solution for the column tests contained 1.0 grams sodium cyanide per liter of solution.

6.3.2 Solution Color and Clarity

The initial and final solution color and clarity were monitored for each column test.

The solution color and clarity for the column tests are summarized in Table 6-9.

Table 6-9.
Eagle Gold Project
Master Composite
Cyanide Column Leach Test Work
Effluent Solutions, Color and Clarity

KCA Sample No.	KCA Test No.	Color and Clarity of Initial Column Effluent	Color and Clarity of Final Column Effluent
42979	43276	Clear and Yellow	Clear and Yellow

A "colorless and clear" solution exiting the columns is indicative of the fact that no fines migrated within the column of ore. Metal buildup in solution is usually denoted by a significant color change in the solution (i.e. a yellow color is typically indicative of higher levels of iron and a light blue solution might be indicative of a solution containing higher levels of copper). The absence of color could be indicative that no build up of metals in solution occurred during leach.

6.4 Copper Analyses in Solutions

Interim pregnant (effluent) cyanide leach solutions were assayed (solution analysis by flame atomic absorption spectrophotometer methods) periodically for copper content.

The lowest and highest copper values in solution data obtained over the leach period are summarized in Table 6-10.

Table 6-10.
Eagle Gold Project
Master Composite
Cyanide Column Leach Test Work
Copper Concentration in Column Leach Solutions

KCA Sample No.	KCA Test No.	Low Copper, mg/L	High Copper, mg/L
42979	43276	3.87	21.8

Copper minerals dissolve in cyanide solutions at varying rates and to varying degrees. Copper in cyanide leach solutions is not desirable as copper can consume sodium cyanide, consume dissolved oxygen, decrease precious metal dissolution rates, interfere with solution processing techniques and end up in the final doré. At ambient temperatures copper dissolution is generally highest for the carbonate copper minerals Azurite and Malachite going to lower dissolutions for copper silicates (Chrysocolla) and copper iron sulfides (Chalcopyrite). In cyanide starved systems the presence of Chalcopyrite can act to remove gold from solution (preg-rob). Chalcocite mineralization typically shows a copper dissolution of greater than 90%.

The range of copper in solution obtained for this series of column leach tests would be considered low and generally not note worthy in relationship to the processing of the material. The low copper in solution values obtained during the column leach tests confirmed the results obtained for copper in the head analyses.

6.5 Cyanide Strength and Alkalinity

The initial leach solution for the column test contained 1.0 grams sodium cyanide per liter of leach solution. Cyanide strength of the on-flow solutions was then maintained at 0.5 grams per liter sodium cyanide. Protective alkalinity in the tests was maintained by the initial addition of hydrated lime. The leach solution was monitored to ensure that it was in the pH range of 10-11.

Reagent consumption data for the column leach tests are summarized in Table 6-11.

Table 6-11.
Eagle Gold Project
Master Composite
Cyanide Column Leach Test Work
Column Leach Tests, Reagent Consumptions

KCA Sample No.	KCA Test No.	NaCN Consumed, kg/MT	Hydrated Lime Added, kg/MT	Cement Added, kg/MT
42979	43276	0.40	0.00	2.00

6.6 Mercury Analyses

The granular activated carbon samples utilized for the column tests for precious metal adsorption were air dried and then assayed for mercury as well as precious metal content.

The results of the mercury and gold analyses on the individual carbon samples are summarized in Table 6-12. The ratio of gold adsorbed to mercury adsorbed is also presented.

Table 6-12.
Eagle Gold Project
Master Composite
Cyanide Column Leach Test Work
Mercury Concentrations

KCA Sample No.	KCA Test No.	Carbon Period	Carbon Weight, grams	Carbon Assay, grams Au/MT	Carbon Assay, gms Hg/MT	Ratio Au : Hg
42979	43276	C-1	185.57	180.26	0.98	184
		C-2	167.98	20.43	0.59	35
		C-3	182.19	10.83	0.29	37

6.7 Percent Slump and Final Apparent Bulk Density

The height of material in the column test was measured before and after leaching. This height was utilized to calculate the “slump” during leaching as well as to calculate the final apparent bulk density for the material in the column.

The height, slump and final apparent bulk density from the column leach tests are summarized in Table 6-13.

The percent slump of a column gives an indication of potential permeability problems in production heaps. KCA typically classifies slumps larger than 10% as high. The calculated percent slump values for the Eagle Gold column leach tests were low, ranging from 0% to 0.8%.

Table 6-13.
Eagle Gold Project
Master Composite
Cyanide Column Leach Test Work
Percent Slump and Final Apparent Bulk Density

KCA Sample No.	KCA Test No.	Crush Size, mm	Initial Ht., meters	Final Ht., meters	Slump, %	Final Apparent Bulk Density, MTdry/m^3
42979	43276	-12.5	1.702	1.702	0.0%	1.449

7.0 Detoxification Test Work

7.1 Leachate Chemistry

As outlined in Section 6.0 of this report, the cyanide column leach test was conducted as a two (2) batch leach solution closed circuit test.

Alkaline cyanide solution was continuously distributed onto the material through a header of Tygon tubing with glass-capillary drip tubes utilizing a peristaltic pump.

The leachate or pregnant leach solution (PLS) exiting the leach column was collected in the bottom tank. The PLS was checked each cycle for pH, gold, silver and sodium cyanide.

The solution was then passed through a bottle of activated carbon over a period of 24 hours to recover the gold and silver in solution. After passing through the bottle of activated carbon, the solution was re-assayed for pH, gold silver and sodium cyanide. Sodium cyanide was then added, if necessary, to maintain the solution at "target" levels. The leach solution was then recycled to the material for another 24 hour leach period.

Two (2) batches of leach solution were used so that while one batch was applied to the column, the other was run through the carbon.

A portion of the PLS from the Eagle Gold Master Composite HPGR crushed product column test was sampled twice weekly for Profile II analysis beginning on day 10 of the column leach test.

Following the active leach period (the period where the PLS was passed through activated carbon to recover the gold and silver in solution) the PLS from the column leach test was continuously recycled through the column at an application rate of 10 $L/hr/M^2$ for four (4) consecutive days (day 33-36 of the column leach test).

The recycled PLS (Batch 2) was then combined with the final barren solution from the active leach period (Batch 1). A portion of the combined solution was submitted for a Profile II analysis.

The remaining combined solution was then continuously applied to the column at an application rate of 10 $L/hr/M^2$. The PLS was sampled daily for a Profile II analysis. The PLS was recycled until the solution constituents approached equilibrium.

The final recycled PLS was combined with the remaining feed solution. The composite solution was measured and assayed for copper, iron, Weak Acid Dissociable (WAD) cyanide and total cyanide. A portion of the composite solution was submitted for a designated suite analysis. The remaining solution was utilized for detoxification test work.

The Profile II analyses for the PLS are presented in Table 7-1.

Table 7-1
Eagle Gold Project
Master Composite
KCA Sample No. 42979
KCA Test No. 43276
Leachate Chemistry

Parameter	Units	1-Dec	4-Dec	8-Dec	15-Dec	18-Dec	22-Dec	24-Dec	28-Dec	29-Dec	30-Dec	31-Dec	1-Jan	2-Jan	3-Jan	4-Jan	5-Jan	5-Jan Comp
Aluminum	mg/L	0.3	<0.3	<0.3	<0.3	<0.2	<0.2	0.1	0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Antimony	mg/L	0.012	0.015	0.013	0.031	0.036	0.059	0.054	0..062	0.068	0.075	0.076	0.080	0.085	0.094	0.092	0.099	0.095
Arsenic	mg/L	0.02	0.03	0.03	0.15	0.17	0.11	0.14	0.12	0.28	0.31	0.24	0.30	0.31	0.35	0.33	0.30	0.27
Barium	mg/L	0.71	0.058	0.057	0.083	0.064	0.072	0.06	0.051	0..061	0.065	0.056	0.062	0.061	0.070	0.076	0.067	0.069
Beryllium	mg/L	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Bismuth	mg/L	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.2	<0.2	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Boron	mg/L	<0.3	<0.3	<0.3	<0.3	<0.2	<0.2	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	mg/L	0.019	0.009	0.012	0.007	0.007	0.007	0.007	0.008	0.009	0.009	0.009	0.009	0.009	0.010	0.010	0.010	0.010
Calcium	mg/L	260	220	200	240	220	180	180	140	190	200	170	170	170	190	210	200	200
Chromium	mg/L	0.035	0.03	0.027	0.02	0.013	0.012	0.014	0.014	0.013	0.013	0.010	0.010	0.009	0.009	0.008	0.008	0.008
Cobalt	mg/L	0.9	0.86	0.9	0.83	0.30	0.69	0.65	0.85	0.73	0.77	0.74	0.82	0.72	0.76	0.81	0.74	0.73
Copper	mg/L	8.8	7.9	9	6.6	5.3	7.5	7.7	8.6	9.0	9.1	9.2	9.3	9.3	9.3	9.8	8.3	8.3
Gallium	mg/L	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.2	<0.2	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Iron	mg/L	1.7	1.7	1.8	1.9	1.6	2.1	1.9	2.2	2.3	2.4	2.2	2.2	2.2	2.2	2.4	2.6	2.5
Lanthanum	mg/L	<0.3	<0.3	<0.3	<3	<0.2	<0.2	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Lead	mg/L	0.017	0.009	0.007	0.006	0.008	0.005	0.004	<0.004	<0.004	0.010	<0.004	0.008	0.004	<0.004	<0.004	<0.004	0.006
Lithium	mg/L	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.2	<0.2	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Magnesium	mg/L	<3	<3	<3	<3	<2	<2	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2
Manganese	mg/L	0.01	<0.01	0.01	<0.01	<0.004	<0.004	<0.004	0.008	<0.004	<0.004	0.019	<0.008	<0.008	0.017	<0.008	<0.004	<0.004
Mercury	mg/L	0.0023	0.0012	0.001	0.0014	0.0012	<0.0002	0.0008	0.0003	0.0006	0.0008	0.0003	0.0005	0.0006	0.0010	0.0013	0.0009	0.0011
Molybdenum	mg/L	0.22	0.21	0.23	0.22	0.21	0.22	0.22	0.25	0.24	0.24	0.23	0.24	0.24	0.25	0.25	0.25	0.25
Nickel	mg/L	0.1	0.062	0.056	0.053	0.048	0.033	0.040	0.037	0.068	0.058	0.064	0.079	0.080	0.091	0.10	0.10	0.10
Potassium	mg/L	26	25	23	27	27	26	25	25	24	25	25	25	26	28	31	32	32
Scandium	mg/L	<0.3	<0.3	<0.3	<0.3	<0.2	<0.2	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Selenium	mg/L	0.09	0.08	0.08	0.06	0.06	0.06	0.06	0.07	0.074	0.076	0.07	0.073	0.076	0.078	0.079	0.07	0.08
Silver	mg/L	0.017	0.01	0.009	0.006	<0.004	<0.004	<0.004	<0.004	0.004	<0.004	<0.004	0.006	0.005	0.006	0.007	0.007	0.007
Sodium	mg/L	400	390	380	520	570	640	700	730	650	660	610	630	650	690	770	760	780
Strontium	mg/L	8.4	6.7	6.1	3.2	6.1	5.5	5.6	5.2	5.2	5.4	4.9	5.1	5.1	5.5	6.2	6.0	6.1
Thallium	mg/L	<0.003	<0.003	<0.003	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Tin	mg/L	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.2	<0.2	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Titanium	mg/L	<0.3	<0.3	<0.3	<0.3	<0.2	<0.2	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Vanadium	mg/L	0.046	0.061	0.082	0.11	0.12	0.1	0.11	0.12	0.11	0.1	0.11	0.11	0.11	0.11	0.10	0.097	0.096
Zinc	mg/L	8.8	6.7	7.8	5.7	6.0	6.2	6.2	6.7	7.5	7.7	7.4	7.8	7.7	7.8	8.0	7.8	7.8
pH	units	11.3	10.9	10.9	10.7	10.8	10.7	10.7	10.6	10.2	10.3	10.4	10.6	10.5	10.6	10.3	10.3	--
Free NaCN	g/L	0.58	0.44	0.38	0.53	0.55	0.48	0.45	0.37	0.43	0.45	0.31	0.36	0.33	0.46	0.59	0.41	--
Volume	L	10.83	9.37	10.11	8.46	9.43	8.85	9.38	16.1	8.44	8.11	7.34	7.99	6.51	9.09	8.02	6.65	--
Type	2 Batch System	P	P	P	P	P	P	P	P/B	P	P	P	P	P	P	P	P	P
Comments									Feed	Effluent 1	Effluent 2	Effluent 3	Effluent 4	Effluent 5	Effluent 6	Effluent 7	Effluent 8	Effluent 8 + Remaining Feed

Note: P/B - preg and barren combined - 28 December 2009.

Note: Metals Analyses only.

7.2 Detoxification Test Work

Detoxification test work utilizing a hydrogen peroxide (copper catalyzed peroxide) detoxification method was conducted on the column leach test residue.

The final recycled PLS was combined with the remaining feed solution. The combined solution was measured and assayed for copper, iron, Weak Acid Dissociable (WAD) cyanide and total cyanide. A portion of the combined solution was submitted for a designated suite analysis.

Based upon the copper and total cyanide analysis, copper sulfate pentahydrate ($CuSO_4.5H_2O$) and hydrogen peroxide (35% H_2O_2) were added to the remaining composite solution from the column leach test to reduce the WAD cyanide to less than 0.2 mg/L.

Copper sulfate pentahydrate ($CuSO_4.5H_2O$) was added to the composite solution to produce an overall copper level in solution of 20% of the WAD cyanide concentration. Hydrogen peroxide was added at a level equivalent to 300% of theoretical based upon the total cyanide level. The solution was then sparged with air and mixed for a period of four hours in an open vessel. After the four hour time period the solution was assayed for residual hydrogen peroxide and WAD cyanide before being cycled onto the column (Phase I).

The detoxification effluent was measured daily (days 1-6). Hydrogen peroxide and copper were added daily to the effluent based upon the initial total cyanide and copper levels. The effluents from day 7 and 8 of the detoxification period were measured, combined, assayed for copper, iron, Weak Acid Dissociable (WAD) cyanide, total cyanide and sampled for the designated suite analysis.

Based upon the copper and total cyanide analysis, copper sulfate pentahydrate was added to the composite solution to produce an overall copper level in solution of 20% of the WAD cyanide concentration. Hydrogen peroxide was added at a level equivalent to 500% of theoretical based upon the total cyanide level. The solution was sparged with air and mixed for a period of four hours in an open vessel. After the four hour time period the solution was assayed for residual hydrogen peroxide and WAD cyanide before being cycled onto the column (Phase II).

The detoxification procedure was continued until a WAD cyanide value less than 0.2 mg/L was obtained for three (3) consecutive days (Phase I-III). Following detoxification, the column was allowed to completely drain down. The final detoxification solution (final effluent plus drain down solutions) was sampled for the designated suite analysis.

The column was allowed to rest for a seven (7) day period prior to initiating modified Humidity Cell Testing (HCT).

The initial and final values for total and WAD cyanide are presented in Table 7-2.

Table 7-2.
Eagle Gold Project
Master Composite
HPGR Crushed Material
Summary of Detoxification Test Results
Total and WAD Cyanide

KCA Sample No.	KCA Test No.	Description	Detoxification Period, Days	Initial Total Cyanide, mg/L	Final Total Cyanide, mg/L	Initial WAD Cyanide, mg/L	Final WAD Cyanide, mg/L
42979	43276	Master Composite	27	288.6	2.07	268.4	0.16

7.3 Detoxification Procedure

The Master Composite HPGR column leach test (KCA Test No. 43276) was treated as follows:

1. The final recycled PLS was combined with the remaining feed solution. The combined solution was measured and assayed for copper, iron, WAD and total cyanide. A portion of the combined solution was submitted for a designated suite analysis.

2. Based upon the total cyanide and copper analysis, hydrogen peroxide and copper, if needed, were added to detoxify the combined solution, (copper catalyzed peroxide). The solution was then sparged with air and mixed for a period of four hours in an open vessel. After the four hour time period the solution was assayed for residual hydrogen peroxide and WAD cyanide before being cycled onto the column.

3. The columns were then restarted with the detoxified solution. Daily additions of hydrogen peroxide and copper were added to the leach solution based on the initial total cyanide and copper values. Solution circulation through the column material was continued.

4. Every seven (7) days thereafter, the effluent solutions from the two batch cycle were combined, sampled and analyzed. The hydrogen peroxide and copper additions were adjusted accordingly. Detoxification continued until a WAD cyanide value less than 0.2 mg/L was obtained for three (3) consecutive days.

5. The final detoxification solution (final effluent plus drain down solutions) were combined, thoroughly mixed and sampled for the designated suite analysis, WAD and total cyanide analyses.

6. The column was allowed to rest for a seven (7) day period prior to initiating modified Humidity Cell Testing (HCT).

Total chemical additions are summarized in Table 7-3.

Table 7-3.
Eagle Gold Project
Master Composite
HPGR Crushed Material
Detoxification Test Work
Summary of Chemical Additions

KCA Sample No.	KCA Test No.	Column Weight, kg	35% H_2O_2 Applied, gms	10 gpL $CuSO_4 \cdot 5H_2O$, mLs	100% H_2O_2 Applied, gms/MT	Copper Added, gms/MT
42979	43276	80	147.05	489	643	16

Daily detoxification data showing total and WAD cyanide analyses and chemical additions for the column are presented in Table 7-4 and Table 7-5.

Chemical additions of 35% H_2O_2 are reported in grams, (gms) added and copper, as 10g/L $CuSO_4.5H_2O$, are reported in milliliters, (mL), added. The complete results can be found in the Appendix.

The wet chemistry and metals analyses, total cyanide and weak acid dissociable cyanide analyses for the final recycled PLS solution, interim detoxification solutions and final detoxification solution are presented in Table 7-6.

Table 7-4.
Eagle Gold Project
Master Composite
KCA Sample No. 42979
KCA Test No. 43276
HPGR Crushed Material (Calculated P_{80} = 3.641 millimeters)
Daily Detoxification Data

Date	Description	P/D*	Cycle	pH	Free NaCN, gpL	Volume, kg	100% H_2O_2, grams	Cu, grams	WAD, mg/L	WAD, grams	Total, mg/L	Cu, mg/L	Fe, mg/L	H_2O_2, mg/L	Sample mLs out	Add H_2O_2:WAD CN	$CuSO_4$, mLs	35% H_2O_2, grams	Volume, kg
5-Jan	Start Detox	P	0	10.3	0.40	14.67			268.40	3.937	288.60	8.79	2.29		900				
6-Jan	Detox w/ Anal.	P/1	1	10.3	0.40	13.69	15.57	0.61	268.40	3.674	288.60	8.79	2.29		--	4	240.00	44.50	
7-Jan		D	2	8.5	<0.01	13.93			3.22	0.045		5.01	0.00	8	125				
8-Jan	Detox 1	P	3	10.4	0.39	6.26	7.12	0.14				8.31	2.30		50		55	20.35	6.26
9-Jan		D		8.5	<0.01	6.34						6.61	1.24	12	50				
9-Jan	Detox 1	P	4	10.6	0.16	7.71	8.77	0.17				2.37	0.00		50		68	25.06	7.71
10-Jan		D		8.5	<0.01	7.72						3.62	0.01	12	50				
10-Jan	Detox 1	P	5	10.5	0.11	6.65	7.56	0.15				1.26	0.47		50		59	21.61	6.65
11-Jan		D		8.5	<0.01	6.70						3.68	0.02	12	50				
11-Jan	Detox 1	P	6	10.0	0.17	7.65	8.70	0.17				1.16	0.27		50		67	24.86	7.65
12-Jan		D		8.5	<0.01	7.74						3.25	0.00	2	50				
12-Jan	Period 2	P	7	10.6	0.03	6.41						0.59	0.11		50				6.41
13-Jan	Period 2	P		10.6	0.01	8.18						0.42	0.15		50				8.18
13-Jan	Detox w/ Anal.	P/2	8	10.6	0.01	14.60	0.61	0.00	2.79	0.041	5.98	0.59	0.16		850	15	0	1.74	
14-Jan		D		10.0	<0.01	14.38			0.57	0.008	4.00	0.03	0.00	<1	250				
15-Jan	Detox 2	P	9	10.2	0.04	6.44	0.27	0.00				0.32	0.08		50		0	0.77	6.44
16-Jan		D		10.0	<0.01	6.44						0.46	0.00	<1	50				
16-Jan	Detox 2	P	10	10.0	0.02	7.51	0.31	0.00				0.16	0.04		50		0	0.90	7.51
17-Jan		D		10.0	<0.01	7.51						0.08	0.00	<1	50				
17-Jan	Detox 2	P	11	10.1	0.01	5.88	0.25	0.00				0.21	0.06		50		0	0.71	5.88
18-Jan		D		8.5	<0.01	5.88						0.90	0.00	<1	50				
18-Jan	Detox 2	P	12	10.2	0.01	5.22	0.22	0.00				0.21	0.05		50		0	0.63	5.22
19-Jan		D		8.6	<0.01	5.22						0.51	0.02	<1	50				
19-Jan	Detox 2	P	13	10.1	0.02	6.07	0.26	0.00				0.36	0.04		50		0	0.73	6.07
20-Jan		D		8.5	<0.01	6.07						0.04	0.00	<1	50				
20-Jan	Detox 2	P	14	10.1	<0.01	4.22	0.18	0.00				0.96	0.00		50		0	0.51	4.22
21-Jan		D		8.6	<0.01	4.22						0.11	0.00	<1	50				
21-Jan	Period 3	P	15	9.9	<0.01	4.63						0.04	0.06		50				4.63
22-Jan	Period 3	P		9.9	<0.01	4.92						0.02	0.01		50				4.92
22-Jan	Detox w/ Anal.	P/3	16	9.9	<0.01	9.55	0.40	0.00	0.38	0.004	4.05	0.03	0.02		850	111	0	1.15	

Note: P = Pregnant Solution and D = Detox Solution.

Table 7-5.
Eagle Gold Project
Master Composite
KCA Sample No. 42979
KCA Test No. 43276
HPGR Crushed Material (Calculated P_{80} = 3.641 millimeters)
Daily Detoxification Data

Date	Description	P/D*	Cycle	pH	Free NaCN, gpL	Volume, kg	100% H_2O_2, grams	Cu, grams	WAD, mg/L	WAD, grams	Total, mg/L	Cu, mg/L	Fe, mg/L	H_2O_2, mg/L	Sample mLs out	Add H_2O_2:WAD CN	$CuSO_4$, mLs	35% H_2O_2, grams	Volume, kg
23-Jan		D		8.8	<0.01	8.70			0.11	0.001	3.14	0.00	0.00	<1	250				
24-Jan	Detox 3	P	17	10.2	<0.01	5.00	0.21	0.00				0.00	0.04		25		0	0.60	5.00
25-Jan		D		8.2	<0.01	5.00						0.27	0.00	<1	25				
25-Jan	Detox 3	P	18	10.1	<0.01	4.93	0.21	0.00				0.00	0.00		25		0	0.59	4.93
26-Jan		D		8.9	<0.01	4.93						0.00	0.00	<1	25				
26-Jan	Detox 3	P	19	9.9	<0.01	5.05	0.21	0.00				0.57	0.00		25		0	0.61	5.05
27-Jan		D		8.6	<0.01	5.05						0.00	0.00	<1	25				
27-Jan	Detox 3	P	20	9.6	<0.01	4.64	0.20	0.00				0.39	0.00		25		0	0.56	4.64
28-Jan		D		8.4	<0.01	4.64						0.03	0.00	<1	25				
28-Jan	Detox 3	P	21	9.8	<0.01	4.76	0.20	0.00				0.01	0.00		25		0	0.56	4.76
29-Jan		D		8.5	<0.01	4.76						0.08	0.00	<1	25				
29-Jan	Detox 3	P	22	9.8	<0.01	5.11	0.21	0.00				0.00	0.00				0	0.61	5.11
30-Jan		D		8.6	<0.01	5.11						0.00	0.00	<1	25				
30-Jan	Period 4	P	23	9.8	<0.01	5.00						0.08	0.00		25				5.00
31-Jan	Period 4	P		9.8	<0.01	4.87						0.08	0.00		25				4.87
1-Feb	Cycle w/ Anal.	P/4	24	9.8	<0.01	9.87			0.16	0.002	2.07	0.08	0.03			0			
Total -							51.44	1.24									489	147.05	127.11

Note: P = Pregnant Solution and D = Detox Solution.

Table 7-6.
Eagle Gold Project
Master Composite
KCA Sample No. 42979
KCA Test No. 43276
HPGR Crushed Material (Calculated P_{80} = 3.641 millimeters)
Detoxification Solution Analyses

Parameter	Units	WETLAB 1001034-001 5-Jan-10	WETLAB 1001094-001 13-Jan-10	WETLAB 1001201-001 22-Jan-10	WETLAB 1002002-001 1-Feb-10
Cyanate	mg/L	27	69	390	210
Thiocyanate	mg/L	120	310	<100	<100
Ammonia, as nitrogen	mg/L	46	44	71	60
pH	Units	10.38 (10.3)	10.00 (10.6)	9.18 (9.9)	9.85
Bicarbonate (HCO_3)	mg/L	<1.0	6.0	70.0	<1.0
Carbonate (CO_3)	mg/L	190	100	34	49
Hydroxide (OH)	mg/L	84	<1.0	<1.0	6.0
Total Alkalinity	mg/L as $CaCO_3$	570	170	110	99
Chloride	mg/L	35	30	39	44
Fluoride	mg/L	<1.0	<1.0	<0.50	<0.50
Sulfate	mg/L	990	1000	1400	1400
Nitrate Nitrogen	mg/L	<10	<10	2.9	2.9
Nitrite Nitrogen	mg/L	0.43	0.61	2.1	1.7
Total Kjeldahl Nitrogen	mg/L	74	130	130	99
Total Nitrogen	mg/L	75	130	140	100
Total Cyanide	mg/L	380 (288.60)	290 (5.98)	0.82 (4.05)	0.33 (2.07)
Total Dissolved Solids (TDS)	mg/L	2500	2300	2800	2600
WAD Cyanide	mg/L	280 (268.40)	1.3 (2.79)	0.3 (0.38)	0.11 (0.16)
Silica	mg/L	28	26	25	27
Aluminum	mg/L	0.090	0.072	<0.045	0.047
Barium	mg/L	0.061	0.049	0.059	0.056
Beryllium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth	mg/L	<0.10	<0.10	<0.10	<0.10
Boron	mg/L	<0.10	<0.10	<0.10	<0.10
Cadmium	mg/L	0.0055	<0.0010	<0.0010	<0.0010
Calcium	mg/L	180	150	200	170
Chromium	mg/L	0.014	0.013	0.0057	0.0050
Cobalt	mg/L	0.86	0.81	1.0	0.96
Copper	mg/L	9.1 (8.79)	0.55 (0.59)	0.11 (0.03)	<0.050 (0.08)
Gallium	mg/L	<0.10	<0.10	<0.10	<0.10
Iron	mg/L	2.6 (2.29)	0.12 (0.16)	0.062 (0.02)	0.034 (0.03)
Lead	mg/L	<0.010	<0.010	<0.010	<0.010
Lithium	mg/L	<0.10	<0.10	<0.10	<0.10
Magnesium	mg/L	<0.50	<0.50	<0.50	<0.50
Manganese	mg/L	<0.0050	<0.0050	<0.0050	<0.0050
Molybdenum	mg/L	0.22	0.19	0.25	0.22
Nickel	mg/L	0.095	0.019	<0.010	<0.010
Phosphorous	mg/L	<0.50	<0.50	<0.50	<0.50
Potassium	mg/L	34	25	30	27
Scandium	mg/L	<0.10	<0.10	<0.10	<0.10
Silver	mg/L	0.0085	<0.0050	<0.0050	<0.0050
Sodium	mg/L	780	640	780	710
Strontium	mg/L	6.1	4.3	6.1	5.1
Tin	mg/L	<0.10	<0.10	<0.10	<0.10
Titanium	mg/L	<0.10	<0.10	<0.10	<0.10
Vanadium	mg/L	0.094	0.1	0.068	0.061
Zinc	mg/L	8.2	<0.010	<0.010	0.024
Mercury	mg/L	0.086	0.076	0.059	0.079
Antimony	mg/L	0.095	0.13	0.17	0.27
Arsenic	mg/L	0.15	0.56	0.45	0.67
Selenium	mg/L	0.068	0.055	0.070	0.069
Thallium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010
Uranium	mg/L	<0.0020	<0.0020	<0.010	<0.010

Notes: KCA results shown in ( ). Increase in results shown in red. Analysis ? Shown in blue.

8.0 Humidity Cell Test Work

9.0 Assaying Procedures

9.1 Heads and Tails

Head assays were run as one assay ton fire assays on duplicate splits for gold and silver. For gold analyses gravimetric and AA finish were utilized. The silver analyses were completed by gravimetric finish.

Tailings assays were run as one assay ton fire assays on duplicate splits for gold and silver analyses by standard fire assay methods with flame atomic absorption spectrophotometer (FAAS) finish for gold and gravimetric and four (4) acid digestion finish for silver.

9.2 Carbon Assays

The loaded granular activated carbon was dried and weighed. Two samples were split out and assayed and the remainder saved for reference. The carbon for assay was roasted to convert it to ash, then conventionally fire assayed.

9.3 Solution Assays

Solution assays were made every cycle on an atomic absorption spectrophotometer, using gold and silver standards. The solution assays were used merely to check on the progress of the column tests, since actual extractions were based on fire assays of the activated carbon.

9.4 Cyanide Assays

Sodium cyanide concentrations in leach solutions were determined using a colorimetric titration using a silver nitrate titrant and 5-[p-(Dimethylamino)- benzylidene]-rhodanine as the indicator. Free cyanide was determined by titrating 25 mL of the leach solution to the colorimetric end point. A few drops of 1N sodium hydroxide solution were then added to break up any base metal cyanide complexes and the titration continued until the end point was reached again to determine the "total" cyanide in solution.

9.5 Multi-Element and Whole Rock Assays

Material for a multi-element analysis was digested using a four acid digestion. This digestion provided a total digestion. The resulting solution was then assayed semi-quantitatively by means of a Perkin-Elmer 2000 DV ICAP-OES. Whole rock analysis was conducted using a lithium metaborate fusion followed by ICAP-OES analysis. Certified standards were utilized for both types of analyses.

9.6 Carbon and Sulfur Assays

Carbon and sulfur speciation were determined by means of a LECO CS 400 carbon/sulfur determinator with induction furnace. Each sample set included two quality control samples, a blank and a standard check.

Appendix

Project:	Eagle Gold	Head Screen, gms Au/MT: 0.506	gms Ag/MT: 1.79
Sample Description:	Master Composite	Head Assay, gms Au/MT: n/a	gms Ag/MT: n/a
Test No.:	43276	Extracted, gms Au/MT: 0.395	gms Ag/MT: 0.10
Sample I.D.:	42979	Tail Assay, gms Au/MT: n/a	gms Ag/MT: n/a
Initial Ht., meters:	1.7018	Est. Calculated Head, gms Au/MT: 0.413	gms Ag/MT: 1.76
Crush Size, mm:	12.5	Weight of Sample, kg: 80.00	
Column I.D., meters:	0.203	Column Surface Area, square meters: 0.032	
		Cement Addition, grams: 160.00	kg/MT: 2.00
		Hydrated Lime Addition, grams: 0.00	kg/MT: 0.00

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Date	pH, units	Free NaCN, gpL	Total NaCN, gpL	$Ca(OH)_2$ Added, grams	Cum. Lime Added, kg/MT	NaCN Added, grams	Cum. NaCN Consumed, kg/MT	Days Run	Water Added, grams	Carbon Bottle	Au, mg/L	Ag, mg/L	Cu, mg/L	Volume, mLs
21-Nov	---	---	---	0.00	0.00	14.15	0.00		14,150	---	---	---	---	---
21-Nov	---	---	---	---	---	---		0	---	---	---	---	---	---
22-Nov	---	---	---	0.00	0.00	9.30	0.18		9,300	---	---	---	---	---
22-Nov	11.5	0.73	0.73	---	---	---		1	---	C-1	2.11	0.71	21.8	7,190
23-Nov	10.4	0.47	0.47	0.00	0.00	2.10	0.23		2,100	---	0.00	0.01	---	7,190
23-Nov	11.3	1.00	1.00	---	---	---		2	---	---	0.52	0.10	3.87	9,400
24-Nov	10.9	0.95	0.95	0.00	0.00	0.00	0.14		---	---	0.00	0.01	---	9,400
24-Nov	11.2	0.59	0.59	---	---	---		3	---	---	0.26	0.03	4.63	8,460
25-Nov	11.2	0.57	0.57	0.00	0.00	0.73	0.12		800	---	0.00	0.00	---	8,460
25-Nov	11.5	0.63	0.63	---	---	---		4	---	---	0.15	0.03	9.8	8,590
26-Nov	11.3	0.60	0.60	0.00	0.00	0.70	0.17		700	---	0.02	0.01	---	8,590
26-Nov	11.4	0.76	0.76	---	---	---		5	---	---	0.14	0.02	---	9,120
27-Nov	11.3	0.71	0.71	0.00	0.00	0.00	0.15		---	---	0.02	0.00	---	9,120
27-Nov	11.5	0.60	0.60	---	---	---		6	---	---	0.16	0.01	---	7,690
28-Nov	11.1	0.60	0.60	0.00	0.00	1.60	0.16		1,600	---	0.01	0.00	---	7,690
28-Nov	11.4	0.62	0.62	---	---	---		7	---	---	0.07	0.01	8.27	10,650
29-Nov	11.3	0.56	0.56	0.00	0.00	0.00	0.18		---	---	0.00	0.00	---	10,650
29-Nov	11.5	0.68	0.68	---	---	---		8	---	---	0.08	0.01	8.48	8,390
30-Nov	11.2	0.63	0.63	0.00	0.00	0.72	0.16		1,600	---	0.00	0.00	---	8,390
30-Nov	11.5	0.57	0.57	---	---	---		9	---	---	0.04	0.01	---	10,280
1-Dec	11.1	0.55	0.55	0.00	0.00	0.00	0.17		---	XC-1	0.00	0.00	---	10,280
1-Dec	11.3	0.58	0.58	---	---	---		10	---	C-2	0.02	0.01	---	10,830
2-Dec	10.9	0.45	0.45	0.00	0.00	0.00	0.16		---	---	0.00	0.00	---	10,830
2-Dec	11.4	0.57	0.57	---	---	---		11	---	---	0.06	0.01	7.98	9,590
3-Dec	11.0	0.50	0.50	0.00	0.00	0.00	0.16		---	---	0.00	0.00	---	9,590
3-Dec	11.4	0.54	0.54	---	---	---		12	---	---	0.04	0.01	---	10,630
4-Dec	10.6	0.47	0.47	0.00	0.00	0.00	0.15		---	---	0.00	0.00	---	10,630
4-Dec	10.9	0.44	0.44	---	---	---		13	---	---	0.03	0.01	---	9,370
5-Dec	10.9	0.69	0.69	0.00	0.00	0.00	0.16		---	---	0.00	0.00	---	9,370
5-Dec	11.1	0.71	0.71	---	---	---		14	---	---	0.03	0.01	---	8,660
6-Dec	10.9	0.42	0.42	0.00	0.00	0.00	0.15		---	---	0.00	0.00	---	8,660
6-Dec	11.1	0.43	0.43	---	---	---		15	---	---	0.01	0.00	---	10,670
7-Dec	10.5	0.44	0.44	0.00	0.00	0.00	0.17		---	---	0.00	0.00	---	10,670
7-Dec	10.9	0.38	0.38	---	---	---		16	---	---	0.02	0.01	---	8,610
8-Dec	10.5	0.43	0.43	0.00	0.00	0.00	0.17		---	---	0.00	0.00	---	8,460
8-Dec	10.9	0.38	0.38	---	---	---		17	---	---	0.00	0.00	---	10,110
9-Dec	10.6	0.34	0.34	0.00	0.00	2.60	0.19		---	---	0.01	0.00	---	10,110
9-Dec	10.9	0.34	0.34	---	---	---		18	---	---	0.03	0.01	6.82	8,650
10-Dec	10.5	0.34	0.34	0.00	0.00	2.90	0.23		600	---	0.01	0.00	---	8,650
10-Dec	10.9	0.33	0.33	---	---	---		19	---	---	0.03	0.00	---	9,150
11-Dec	10.4	0.30	0.30	0.00	0.00	2.80	0.27		---	---	0.00	0.00	---	9,150
11-Dec	10.8	0.54	0.54	---	---	---		20	---	---	0.00	0.01	---	9,760
12-Dec	10.6	0.45	0.45	0.00	0.00	0.00	0.27		---	XC-2	0.00	0.01	---	9,760

1	16	17	18	19	20	21	22	23	24	25	26
Date	Flow Rate Preg, L/Hr/M^2	Cum. T Sol'n. / T Ore	Solution, gms Au/MT	Solution Cumulative Recov., gms Au/MT	Recovered Gold Solution	Cumulative Recovered Gold Solution	Percent of Total Recovered Gold	Solution, gms Ag/MT	Solution Cumulative Recov., gms Ag/MT	Recovered Silver Solution	Cumulative Recovered Silver Solution
21-Nov			0.00	0.000	0.0%			0.00	0.00	0.0%	
21-Nov	0.00	0.09	0.00	0.000	0.0%	0%	0%	0.00	0.00	0.0%	0%
22-Nov			0.00	0.000	0.0%			0.00	0.00	0.0%	
22-Nov	9.24	0.09	0.19	0.190	45.9%	46%	48%	0.06	0.06	3.6%	4%
23-Nov			0.00	0.190	0.0%			0.00	0.06	-0.1%	
23-Nov	12.08	0.21	0.06	0.251	14.8%	61%	64%	0.01	0.07	0.7%	4%
24-Nov			0.00	0.251	0.0%			0.00	0.07	-0.1%	
24-Nov	10.87	0.31	0.03	0.278	6.7%	67%	71%	0.00	0.08	0.2%	4%
25-Nov			0.00	0.278	0.0%			0.00	0.08	0.0%	
25-Nov	11.04	0.42	0.02	0.294	3.9%	71%	75%	0.00	0.08	0.2%	5%
26-Nov			0.00	0.292	-0.5%			0.00	0.08	-0.1%	
26-Nov	11.72	0.53	0.02	0.308	3.9%	75%	78%	0.00	0.08	0.1%	5%
27-Nov			0.00	0.306	-0.6%			0.00	0.08	0.0%	
27-Nov	9.88	0.63	0.02	0.321	3.7%	78%	81%	0.00	0.08	0.1%	5%
28-Nov			0.00	0.320	-0.2%			0.00	0.08	0.0%	
28-Nov	13.68	0.76	0.01	0.330	2.3%	80%	84%	0.00	0.08	0.1%	5%
29-Nov			0.00	0.330	0.0%			0.00	0.08	0.0%	
29-Nov	10.78	0.87	0.01	0.338	2.0%	82%	86%	0.00	0.08	0.1%	5%
30-Nov			0.00	0.338	0.0%			0.00	0.08	0.0%	
30-Nov	13.21	1.00	0.01	0.343	1.2%	83%	87%	0.00	0.09	0.1%	5%
1-Dec			0.00	0.343	0.0%			0.00	0.09	0.0%	
1-Dec	13.91	1.13	0.00	0.346	0.7%	84%	88%	0.00	0.09	0.1%	5%
2-Dec			0.00	0.346	0.0%			0.00	0.09	0.0%	
2-Dec	12.32	1.25	0.01	0.353	1.7%	85%	89%	0.00	0.09	0.1%	5%
3-Dec			0.00	0.353	0.0%			0.00	0.09	0.0%	
3-Dec	13.66	1.39	0.01	0.358	1.3%	87%	91%	0.00	0.09	0.1%	5%
4-Dec			0.00	0.358	0.0%			0.00	0.09	0.0%	
4-Dec	12.04	1.50	0.00	0.362	0.9%	88%	92%	0.00	0.09	0.1%	5%
5-Dec			0.00	0.362	0.0%			0.00	0.09	0.0%	
5-Dec	11.13	1.61	0.00	0.365	0.8%	88%	93%	0.00	0.09	0.1%	5%
6-Dec			0.00	0.365	0.0%			0.00	0.09	0.0%	
6-Dec	13.71	1.74	0.00	0.366	0.3%	89%	93%	0.00	0.09	0.0%	5%
7-Dec			0.00	0.366	0.0%			0.00	0.09	0.0%	
7-Dec	11.06	1.85	0.00	0.369	0.5%	89%	93%	0.00	0.09	0.1%	5%
8-Dec			0.00	0.369	0.0%			0.00	0.09	0.0%	
8-Dec	12.99	1.98	0.00	0.369	0.0%	89%	93%	0.00	0.09	0.0%	5%
9-Dec			0.00	0.367	-0.3%			0.00	0.09	0.0%	
9-Dec	11.11	2.09	0.00	0.371	0.8%	90%	94%	0.00	0.09	0.1%	5%
10-Dec			0.00	0.370	-0.3%			0.00	0.09	0.0%	
10-Dec	11.76	2.20	0.00	0.373	0.8%	90%	95%	0.00	0.09	0.0%	5%
11-Dec			0.00	0.373	0.0%			0.00	0.09	0.0%	
11-Dec	12.54	2.32	0.00	0.373	0.0%	90%	95%	0.00	0.10	0.1%	5%
12-Dec			0.00	0.373	0.0%			0.00	0.09	-0.1%	

Project:	Eagle Gold	Head Screen, gms Au/MT:	0.506	gms Ag/MT:	1.79
Sample Description:	Master Composite	Head Assay, gms Au/MT:	n/a	gms Ag/MT:	n/a
Test No.:	43276	Extracted, gms Au/MT:	0.395	gms Ag/MT:	0.10
Sample I.D.:	42979	Tail Assay, gms Au/MT:	n/a	gms Ag/MT:	n/a
Initial Ht., meters:	1.7018	Est. Calculated Head, gms Au/MT:	0.413	gms Ag/MT:	1.76
Crush Size, mm:	12.5	Weight of Sample, kg:	80.00		
Column I.D., meters:	0.203	Column Surface Area, square meters:	0.032		
		Cement Addition, grams:	160.00	kg/MT:	2.00
		Hydrated Lime Addition, grams:	0.00	kg/MT:	0.00

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Date	pH, units	Free NaCN, gpL	Total NaCN, gpL	$Ca(OH)_2$ Added, grams	Cum. Lime Added, kg/MT	NaCN Added, grams	Cum. NaCN Consumed, kg/MT	Days Run	Water Added, grams	Carbon Bottle	Au, mg/L	Ag, mg/L	Cu, mg/L	Volume, mLs
12-Dec	10.6	0.45	0.45	0.00	0.00	0.00	0.27		---	XC-2	0.00	0.01	---	9,760
12-Dec	10.9	0.55	0.55	---	---	---		21	---	C-3	0.03	0.01	---	8,300
13-Dec	10.0	0.33	0.33	0.00	0.00	3.20	0.25		1,000	---	0.00	0.00	---	8,300
13-Dec	10.9	0.37	0.37	---	---	---		22	---	---	0.03	0.01	---	8,750
14-Dec	10.3	0.37	0.37	0.00	0.00	2.00	0.31		---	---	0.00	0.00	---	8,750
14-Dec	10.6	0.44	0.44	---	---	---		23	---	---	0.01	0.01	---	10,510
15-Dec	10.6	0.41	0.41	0.00	0.00	0.00	0.31		---	---	0.00	0.01	---	10,510
15-Dec	10.7	0.53	0.53	---	---	---		24	---	---	0.02	0.01	---	8,460
16-Dec	10.4	0.49	0.49	0.00	0.00	1.70	0.29		800	---	0.00	0.01	---	8,460
16-Dec	10.5	0.39	0.39	---	---	---		25	---	---	0.01	0.01	7.63	10,170
17-Dec	10.5	0.35	0.35	0.00	0.00	2.50	0.32		---	---	0.00	0.00	---	10,170
17-Dec	10.7	0.40	0.40	---	---	---		26	---	---	0.02	0.00	---	9,190
18-Dec	10.6	0.35	0.35	0.00	0.00	2.30	0.35		---	---	0.00	0.00	---	9,190
18-Dec	10.8	0.55	0.55	---	---	---		27	---	---	0.01	0.01	---	9,430
19-Dec	10.6	0.43	0.43	0.00	0.00	0.00	0.36		---	---	0.00	0.01	---	9,430
19-Dec	10.8	0.46	0.46	---	---	---		28	---	---	0.00	0.01	---	8,990
20-Dec	10.6	0.37	0.37	0.00	0.00	2.10	0.35		---	---	0.00	0.00	---	8,990
20-Dec	10.7	0.48	0.48	---	---	---		29	---	---	0.01	0.00	---	9,420
21-Dec	10.7	0.41	0.41	0.00	0.00	0.00	0.37		---	---	0.01	0.00	---	9,420
21-Dec	10.7	0.42	0.42	---	---	---		30	---	---	0.03	0.01	---	8,200
22-Dec	10.6	0.44	0.44	0.00	0.00	2.40	0.37		1,100	---	0.00	0.01	---	8,200
22-Dec	10.7	0.48	0.48	---	---	---		31	---	---	0.00	0.01	---	8,850
23-Dec	10.7	0.38	0.38	0.00	0.00	2.00	0.39		---	---	0.00	0.01	---	8,850
23-Dec	10.7	0.45	0.45	---	---	---		32	---	---	0.00	0.01	6.93	9,380
24-Dec	10.5	0.39	0.39	0.00	0.00	0.00	0.41		---	---	0.00	0.00	---	9,380
24-Dec	10.6	0.53	0.53	---	---	---		33	---	---	0.02	0.01	---	7,490
28-Dec	10.5	0.33	0.33	0.00	0.00	2.00	0.40		---	XC-3	0.00	0.00	---	7,490
28-Dec	10.6	0.41	0.41	---	---	---		37	---	---	0.02	0.00	---	8,610
29-Dec	10.6	0.41	0.41	0.00	0.00	0.00	0.43		---	---	0.02	0.00	---	8,610
29-Dec	10.2	0.43	0.43	---	---	---		38	---	---	0.02	0.01	---	8,440
30-Dec	10.2	0.43	0.43	0.00	0.00	0.00	0.42		---	---	0.02	0.01	---	8,440
30-Dec	10.3	0.45	0.45	---	---	---		39	---	---	0.03	0.01	8.00	8,110
31-Dec	10.3	0.45	0.45	0.00	0.00	0.00	0.42		---	---	0.03	0.01	---	8,110
31-Dec	10.4	0.31	0.31	---	---	---		40	---	---	0.02	0.01	---	7,340
1-Jan	10.4	0.31	0.31	0.00	0.00	4.00	0.43		---	---	0.02	0.01	---	7,340

1	16	17	18	19	20	21	22	23	24	25	26
Date	Flow Rate Preg, $L/Hr/M^2$	Cum. T Sol'n. / T Ore	Solution, gms Au/MT	Solution Cumulative Recov., gms Au/MT	Recovered Gold Solution	Cumulative Recovered Gold Solution	Percent of Total Recovered Gold	Solution, gms Ag/MT	Solution Cumulative Recov., gms Ag/MT	Recovered Silver Solution	Cumulative Recovered Silver Solution
12-Dec			0.00	0.373	0.0%			0.00	0.09	-0.1%	
12-Dec	10.66	2.43	0.00	0.376	0.8%	91%	95%	0.00	0.10	0.1%	5%
13-Dec			0.00	0.376	0.0%			0.00	0.10	0.0%	
13-Dec	11.24	2.54	0.00	0.380	0.8%	92%	96%	0.00	0.10	0.1%	5%
14-Dec			0.00	0.380	0.0%			0.00	0.10	0.0%	
14-Dec	13.50	2.67	0.00	0.381	0.3%	92%	97%	0.00	0.10	0.1%	6%
15-Dec			0.00	0.381	0.0%			0.00	0.10	-0.1%	
15-Dec	10.87	2.77	0.00	0.383	0.5%	93%	97%	0.00	0.10	0.1%	6%
16-Dec			0.00	0.383	0.0%			0.00	0.10	-0.1%	
16-Dec	13.07	2.90	0.00	0.384	0.3%	93%	97%	0.00	0.10	0.1%	6%
17-Dec			0.00	0.384	0.0%			0.00	0.10	0.0%	
17-Dec	11.81	3.01	0.00	0.387	0.6%	94%	98%	0.00	0.10	0.0%	6%
18-Dec			0.00	0.387	0.0%			0.00	0.10	0.0%	
18-Dec	12.12	3.13	0.00	0.388	0.3%	94%	98%	0.00	0.10	0.1%	6%
19-Dec			0.00	0.388	0.0%			0.00	0.10	-0.1%	
19-Dec	11.55	3.25	0.00	0.388	0.0%	94%	98%	0.00	0.10	0.1%	6%
20-Dec			0.00	0.388	0.0%			0.00	0.10	0.0%	
20-Dec	12.10	3.36	0.00	0.389	0.3%	94%	99%	0.00	0.10	0.0%	6%
21-Dec			0.00	0.388	-0.3%			0.00	0.10	0.0%	
21-Dec	10.54	3.47	0.00	0.391	0.7%	95%	99%	0.00	0.10	0.1%	6%
22-Dec			0.00	0.391	0.0%			0.00	0.10	-0.1%	
22-Dec	11.37	3.58	0.00	0.391	0.0%	95%	99%	0.00	0.10	0.1%	6%
23-Dec			0.00	0.391	0.0%			0.00	0.10	-0.1%	
23-Dec	12.05	3.69	0.00	0.391	0.0%	95%	99%	0.00	0.10	0.1%	6%
24-Dec			0.00	0.391	0.0%			0.00	0.10	0.0%	
24-Dec	9.62	3.79	0.00	0.393	0.5%	95%	100%	0.00	0.10	0.1%	6%
28-Dec			0.00	0.393	0.0%			0.00	0.10	0.0%	
28-Dec	11.06	3.89	0.00	0.395	0.5%	96%	100%	0.00	0.10	0.0%	6%
29-Dec			0.00	0.393	-0.5%			0.00	0.10	0.0%	
29-Dec	10.84	4.00	0.00	0.395	0.5%	96%	100%	0.00	0.10	0.1%	6%
30-Dec			0.00	0.393	-0.5%			0.00	0.10	-0.1%	
30-Dec	10.42	4.10	0.00	0.396	0.7%	96%	100%	0.00	0.10	0.1%	6%
31-Dec			0.00	0.393	-0.7%			0.00	0.10	-0.1%	
31-Dec	9.43	4.19	0.00	0.395	0.4%	96%	100%	0.00	0.10	0.1%	6%
1-Jan			0.00	0.393	-0.4%			0.00	0.10	-0.1%	

Project:	Eagle Gold	Head Screen, gms Au/MT: 0.506	gms Ag/MT:	1.79
Sample Description:	Master Composite	Head Assay, gms Au/MT: n/a	gms Ag/MT:	n/a
Test No.:	43276	Extracted, gms Au/MT: 0.395	gms Ag/MT:	0.10
Sample I.D.:	42979	Tail Assay, gms Au/MT: n/a	gms Ag/MT:	n/a
Initial Ht., meters:	1.7018	Est. Calculated Head, gms Au/MT: 0.413	gms Ag/MT:	1.76
Crush Size, mm:	12.5	Weight of Sample, kg: 80.00		
Column I.D., meters:	0.203	Column Surface Area, square meters: 0.032		
		Cement Addition, grams: 160.00	kg/MT:	2.00
		Hydrated Lime Addition, grams: 0.00	kg/MT:	0.00

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Date	pH, units	Free NaCN, gpL	Total NaCN, gpL	$Ca(OH)_2$ Added, grams	Cum. Lime Added, kg/MT	NaCN Added, grams	Cum. NaCN Consumed, kg/MT	Days Run	Water Added, grams	Carbon Bottle	Au, mg/L	Ag, mg/L	Cu, mg/L	Volume, mLs	Flow Rate Preg, L/Hr/M^2	Cum. T Sol'n. / T Ore	Solution, gms Au/MT	Solution Cumulative Recov., gms Au/MT	Recovered Gold Solution	Cumulative Recovered Gold Solution	Percent of Total Recovered Gold	Solution, gms Ag/MT	Solution Cumulative Recov., gms Ag/MT	Recovered Silver Solution	Cumulative Recovered Silver Solution
1-Jan	10.6	0.36	0.36	---	---	---		41	---	---	0.05	0.01	8.36	4,990	6.41	4.26	0.00	0.396	0.8%	96%	100%	0.00	0.10	0.0%	6%
2-Jan	10.6	0.36	0.36	0.00	0.00	0.00	0.51		---	---	0.05	0.01	---	4,990			0.00	0.393	-0.8%			0.00	0.10	0.0%	
2-Jan	10.5	0.33	0.33	---	---	---		42	---	---	0.04	0.01	8.60	6,510	8.36	4.34	0.00	0.396	0.8%	96%	100%	0.00	0.10	0.0%	6%
3-Jan	10.5	0.33	0.33	0.00	0.00	1.80	0.51		---	---	0.04	0.01	---	6,510			0.00	0.393	-0.8%			0.00	0.10	0.0%	
3-Jan	10.6	0.46	0.46	---	---	---		43	---	---	0.04	0.01	8.43	9,090	11.68	4.45	0.00	0.397	1.1%	96%	101%	0.00	0.10	0.1%	6%
4-Jan	10.6	0.46	0.46	0.00	0.00	0.00	0.50		---	---	0.04	0.01	---	9,090			0.00	0.393	-1.1%			0.00	0.10	-0.1%	
4-Jan	10.3	0.59	0.59	---	---	---		44	---	---	0.04	0.01	---	8,020	10.30	4.55	0.00	0.397	1.0%	96%	101%	0.00	0.10	0.1%	6%
5-Jan	10.3	0.59	0.59	0.00	0.00	0.00	0.47		---	---	0.04	0.01	---	8,020			0.00	0.393	-1.0%			0.00	0.10	-0.1%	
5-Jan	10.3	0.41	0.41	---	---	---		45	---	---	0.06	0.01	---	6,650	8.54	4.63	0.00	0.398	1.2%	96%	101%	0.00	0.10	0.0%	6%
8-Jan	10.3	0.41	0.41	0.00	0.00	0.00	0.49		---	---	0.06	0.01	---	6,650			0.00	0.393	-1.2%			0.00	0.10	0.0%	
8-Jan	10.4	0.39	0.39	---	---	---		48	---	---	0.06	0.02	8.31	6,260	8.04	4.71	0.00	0.397	1.1%	96%	101%	0.00	0.10	0.1%	6%
11-Jan	10.4	0.39	0.39	0.00	0.00	0.00	0.51		---	---	0.06	0.02	---	6,260			0.00	0.393	-1.1%			0.00	0.10	-0.1%	
11-Jan	10.0	0.17	0.17	---	---	---		51	---	---	0.05	0.01	1.16	7,650	9.83	4.81	0.00	0.397	1.2%	96%	101%	0.00	0.10	0.1%	6%
12-Jan	10.0	0.17	0.17	0.00	0.00	0.00	0.53		---	---	0.05	0.01	---	7,650			0.00	0.393	-1.2%			0.00	0.10	-0.1%	
12-Jan	10.6	0.03	0.03	---	---	---		52	---	---	0.03	0.01	0.59	6,410	8.24	4.89	0.00	0.395	0.6%	96%	100%	0.00	0.10	0.0%	6%
13-Jan	10.6	0.01	0.01	0.00	0.00	0.00	0.56		---	---	0.03	0.01	---	6,410			0.00	0.393	-0.6%			0.00	0.10	0.0%	
13-Jan	10.6	0.01	0.01	---	---	---		53	---	---	0.05	0.01	0.42	8,190	10.52	4.99	0.01	0.398	1.2%	96%	101%	0.00	0.10	0.1%	6%
15-Jan	10.2	0.04	0.04	0.00	0.00	0.00	0.58		---	---	0.05	0.01	---	8,190			-0.01	0.393	-1.2%			0.00	0.10	-0.1%	
15-Jan	10.2	0.04	0.04	---	---	---		55	---	---	0.03	0.00	0.32	6,440	8.27	5.07	0.00	0.395	0.6%	96%	100%	0.00	0.10	0.0%	6%
16-Jan	10.0	0.02	0.02	0.00	0.00	0.00	0.57		---	---	0.03	0.00	---	6,440			0.00	0.393	-0.6%			0.00	0.10	0.0%	
16-Jan	10.0	0.02	0.02	---	---	---		56	---	---	0.02	0.01	0.16	7,510	9.65	5.16	0.00	0.395	0.5%	96%	100%	0.00	0.10	0.1%	6%
17-Jan	10.1	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.02	0.01	---	7,510			0.00	0.393	-0.5%			0.00	0.10	-0.1%	
17-Jan	10.1	0.01	0.01	---	---	---		57	---	---	0.04	0.01	0.21	5,880	7.55	5.24	0.00	0.396	0.7%	96%	100%	0.00	0.10	0.0%	6%
18-Jan	10.2	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.04	0.01	---	5,880			0.00	0.393	-0.7%			0.00	0.10	0.0%	
18-Jan	10.2	0.01	0.01	---	---	---		58	---	---	0.07	0.00	0.21	5,220	6.71	5.30	0.00	0.397	1.1%	96%	101%	0.00	0.10	0.0%	6%
19-Jan	10.1	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.07	0.00	---	5,220			0.00	0.393	-1.1%			0.00	0.10	0.0%	
19-Jan	10.1	0.01	0.01	---	---	---		59	---	---	0.02	0.00	0.36	6,070	7.80	5.38	0.00	0.394	0.4%	95%	100%	0.00	0.10	0.0%	6%
20-Jan	9.9	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.04	0.01	---	6,070			0.00	0.391	-0.7%			0.00	0.10	0.0%	
20-Jan	9.9	0.01	0.01	---	---	---		60	---	---	0.04	0.01	0.41	4,630	5.95	5.44	0.00	0.393	0.6%	95%	100%	0.00	0.10	0.0%	6%
21-Jan	10.1	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.04	0.00	---	4,630			0.00	0.391	-0.6%			0.00	0.10	0.0%	
21-Jan	10.1	0.01	0.01	---	---	---		61	---	---	0.04	0.00	0.04	4,220	5.42	5.49	0.00	0.393	0.5%	95%	100%	0.00	0.10	0.0%	6%
22-Jan	8.8	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.05	0.00	---	4,220			0.00	0.391	-0.6%			0.00	0.10	0.0%	
22-Jan	8.8	0.01	0.01	---	---	---		62	---	---	0.05	0.00	0.02	4,920	6.32	5.55	0.00	0.394	0.7%	95%	100%	0.00	0.10	0.0%	6%
24-Jan	10.2	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.04	0.00	---	4,920			0.00	0.391	-0.6%			0.00	0.10	0.0%	
24-Jan	10.2	0.01	0.01	---	---	---		64	---	---	0.04	0.00	0	5,000	6.42	5.61	0.00	0.394	0.6%	95%	100%	0.00	0.10	0.0%	6%
25-Jan	10.1	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.05	0.01	---	5,000			0.00	0.391	-0.8%			0.00	0.10	0.0%	
25-Jan	10.1	0.01	0.01	---	---	---		65	---	---	0.05	0.00	1.27	4,930	6.33	5.68	0.00	0.394	0.7%	95%	100%	0.00	0.10	0.0%	6%
26-Jan	9.9	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.02	0.00	---	4,930			0.00	0.392	-0.3%			0.00	0.10	0.0%	
26-Jan	9.9	0.01	0.01	---	---	---		66	---	---	0.02	0.00	0.57	5,050	6.49	5.74	0.00	0.394	0.3%	95%	100%	0.00	0.10	0.0%	6%
27-Jan	9.6	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.06	0.00	---	5,050			0.00	0.390	-0.9%			0.00	0.10	0.0%	
27-Jan	9.6	0.01	0.01	---	---	---		67	---	---	0.06	0.00	0	4,640	5.96	5.80	0.00	0.393	0.8%	95%	100%	0.00	0.10	0.0%	6%
28-Jan	9.8	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.04	0.00	---	4,640			0.00	0.391	-0.6%			0.00	0.10	0.0%	
28-Jan	9.8	0.01	0.01	---	---	---		68	---	---	0.04	0.00	0.01	4,760	6.12	5.86	0.00	0.394	0.6%	95%	100%	0.00	0.10	0.0%	6%
29-Jan	9.8	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.04	0.00	---	4,760			0.00	0.391	-0.6%			0.00	0.10	0.0%	
29-Jan	9.8	0.01	0.01	---	---	---		69	---	---	0.04	0.00	0.08	5,110	6.57	5.92	0.00	0.394	0.6%	95%	100%	0.00	0.10	0.0%	6%
3-Feb	9.7	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.04	0.00	---	5,100			0.00	0.391	-0.6%			0.00	0.10	0.0%	
3-Feb	9.7	0.01	0.01	---	---	---		74	---	---	0.04	0.00	0.05	7,110	9.14	6.01	0.00	0.395	0.9%	96%	100%	0.00	0.10	0.0%	6%
4-Feb	9.7	0.01	0.01	0.00	0.00	0.00	0.58		---	---	0.06	0.00	---	7,110			-0.01	0.389	-1.3%			0.00	0.10	0.0%	
4-Feb	9.7	0.01	0.01	---	---	---		75	---	---	0.06	0.00	0	6,970	8.96	6.10	0.01	0.395	1.3%	96%	100%	0.00	0.10	0.0%	6%

Appendix D: Procedure for Kinetic Testing of Eagle Gold Metallurgical Test Column (HCol7B)

Procedure for Kinetic Testing of Eagle Gold Metallurgical Test Column (HCol7B)

Once detoxification of the Dublin Gulch metallurgical column was completed, the column was converted to a modified humidity cell test to evaluate the potential for dissolution and mobility of chemical constituents from the spent heap material within the column. The following procedure for a modified large-scale humidity cell test was followed and involved the sequential leaching of the spent ore material through a regular cycle of exposure to wet air in a controlled laboratory environment. This test simulated the interaction of meteoric water with the spent heap leach material under field conditions and was designed to produce a weekly effluent that was submitted for major and trace element chemistry. This procedure was not intended to generate data for the evaluation of long term depletion of solutes within the column or for the determination of the potential for acid generating potential and rate of sulfide oxidation. A separate humidity cell test was conducted on the feed material to address these data requirements (HC 7).

Procedure Summary

The modified humidity cell test was conducted using the metallurgical column immediately following complete detoxification of the heap material. The standard Humidity Cell Test procedure (ASTM D 5744) was modified to account for differences between a standard humidity cell and the large scale humidity cell that was conducted in the metallurgical column set-up. These differences included a larger column, greater sample volume, lower rock to water ratio and larger grain size for the large scale humidity cell in comparison to the standard humidity cell.

Similar to the ASTM methodology, the test was run for a minimum of 20 weeks (27 weeks at the time of reporting) and followed a seven-day cycle. During the seven-day cycle, water-saturated air (approximately 95% relative humidity) was introduced at the bottom of the column. Following the humid air cycle, distilled water was drip applied to the column and the extracted solution collected for analysis. Key parameters including pH, alkalinity/acidity, electrical conductivity, iron and sulfate were measured on a weekly basis in addition to major and trace element analysis of the effluent by an offsite laboratory. After ten weeks of testing, the frequency of major and trace element analysis was reduced. Once a month a split sample was sent to a second laboratory for QA/QC measures and to obtain lower detection limits for key parameters.

At the time of reporting, the test was still on-going. Once the test is terminated, it is anticipated that the column will be rested for a week and rinsed again to determine if significant salt accumulation occurs during the resting period. Following this final rinse, the column will be dismantled and representative splits of the spent heap material will be obtained for multiple element analysis, acid base accounting and mineralogy to complete the environmental characterization.

Extraction Fluid Type and Volume

The feed or initial leach solution is referred to as the ‘extraction fluid’ and the column effluent is referred to as the ‘effluent’. The extraction fluids consist of distilled water that is purified by distillation, ion exchange, reverse osmosis, electrodialysis or combination thereof to obtain a Type III extraction fluid water at 18 to 27^{o}C (APHA, 1992).

The HCT ASTM does not specify the volume of extraction fluid to be used per a given mass of sample, only that once the weekly volume has been selected, that weekly volume must remain constant throughout the test period. For the purposes of this test, the volume of the extraction fluid was that considered the minimum amount of water required to obtain sufficient effluent for analytical testing (2.25 liters). However, because some of the extraction fluid was lost as moisture in the sample, the weekly extraction fluid volume was first estimated to be 5 liters and refined to 3 liters on cycle #3.

Modified Humidity Cell Test Procedure

Following detoxification, the column was allowed to completely drain down and rested for *one week* prior to initiating the modified humidity cell test procedure. During this rest period, the column was aerated by applying humid feed air (approximately 95% relative humidity) to the bottom of the column at a low influx rate (1 to 10 L/min depending upon column conditions).

Following the drain down and rest period, the column underwent an initial leach cycle. Week 0 and characterized the initial condition of the column. For the subsequent leach, 5 liters of extraction fluid was applied to the column using a drip trickle method at a rate slow enough that water did not flood the surface of the column (approximately 4-5 mL/min over a ~24 hour period). From cycle #3 onwards, the volume was adjusted to 3 liters. The column was then allowed to drain down for *two days* following application of the extraction fluid and the draining effluent was collected in a clean collection vessel. Following the drain down period, the pH of the effluent was measured and the final effluent weight, date and time was recorded.

Following the drain down period, the effluent was mixed to ensure homogeneity and then transferred to a 250 mL sample bottle for analysis in the onsite lab. This sample was analyzed for the following parameters: pH, Eh, alkalinity/acidity, electrical conductivity, iron, and sulfate. Another 1.75 liters of effluent was transferred through a filtration device equipped with a 0.45 mm filter for analysis of dissolved solutes at WetLabs in Reno, Nevada In the following aliquots:

- 500-mLs preserved with nitric acid for metals analysis
- 250-mLs preserved with sulfuric acid for nutrients analysis
- 1-L preserved with sodium hydroxide for cyanide analysis

In addition a 250 mL aliquot of unfiltered and unpreserved effluent was produced for general chemistry analysis at WetLabs. The complete analytical suite for the WetLab samples is provided in Table D1 along with the method detection limits (MDL).

Following the leachate cycle, was the wet-air portion of the weekly cycle during which the feed air was routed through a water filled humidifier and metered to the bottom of the column at a constant low influx rate (1 to 10 L/min depending upon column conditions). The feed air line contained an oil/water trap in advance of the flowmeter. The water temperature in the humidifier was maintained at 30 + 2^{o}C to ensure the sparged air maintained a relative humidity of approximately 95%. The duration of the wet-air cycle was 4 days.

On the seventh day following the 4 days of wet-air application, the next leach was conducted using the same method described above.

Table D1: Analytical Suite for WetLabs

Parameter	WETLAB Lowest MDL	Required MDL	Units	Parameter	WETLAB Lowest MDL	Required MDL	Units
pH	0.1	0.1	pH	Cobalt	0.006	0.0001	mg/L
Total Dissolved Solids	1	10	mg/L	Copper	0.001	0.0001	mg/L
Alkalinity, Total	1	2	mg/L	Gallium	0.1	--	mg/L
Bicarbonate	1	--	mg/L	Iron	0.01	0.03	mg/L
Carbonate	1	--	mg/L	Lead	0.0025	0.00005	mg/L
Chloride	0.1	0.5	mg/L	Lithium	0.1	0.005	mg/L
Fluoride	0.05	0.02	mg/L	Magnesium	0.5	0.1	mg/L
Sulfate	0.1	0.5	mg/L	Manganese	0.005	0.00005	mg/L
WAD Cyanide	0.01	0.005	mg/L	Mercury	0.0001	0.00005	mg/L
Total Cyanide	0.01	0.005	mg/L	Molybdenum	0.01	0.00005	mg/L
Cyanate	0.01	--	mg/L	Nickel	0.01	0.0005	mg/L
Thiocyanate	0.01	--	mg/L	Phosphorus	0.5	0.3	mg/L
Nitrate Nitrogen	0.1	0.005	mg/L	Potassium	0.5	2	mg/L
Nitrite Nitrogen	0.1	0.001	mg/L	Scandium	0.1	--	mg/L
Ammonia as N	0.05	0.02	mg/L	Selenium	0.003	0.001	mg/L
Total Nitrogen	0.7	0.06	mg/L	Silicon	0.1	0.05	mg/L
Aluminum	0.045	0.001	mg/L	Silver	0.005	0.00001	mg/L
Antimony	0.0006	0.0001	mg/L	Sodium	0.5	2	mg/L
Arsenic	0.001	0.0001	mg/L	Strontium	0.1	0.0001	mg/L
Barium	0.01	0.00005	mg/L	Thallium	0.001	0.0001	mg/L
Beryllium	0.001	0.0005	mg/L	Tin	0.1	0.0001	mg/L
Bismuth	0.1	0.0005	mg/L	Titanium	0.1	0.01	mg/L
Boron	0.1	0.01	mg/L	Uranium	0.002	0.00001	mg/L
Cadmium	0.0003	0.00005	mg/L	Vanadium	0.01	0.001	mg/L
Calcium	0.5	0.05	mg/L	Zinc	0.01	0.001	mg/L
Chromium	0.005	0.0005	mg/L				

During the coarse of this program, QA/QC evaluations identified certain analytical issues for antimony, uranium and mercury analyses. The descriptions for each parameter are provided below.

- Antimony –the Sb concentration in the solution was high enough that the 200.8 method provided an erroneous result (specifically a very low number) as a result Sb results from method 200.7 were ultimately reported in place of the 200.8 data.
- Uranium – similar to that for antimony, uranium values were initially erroneous; however these were not re-done at WetLabs at the time of reporting, U values relied upon for reporting were the QA/QC values obtained from SGS Canada.

- Mercury – Initially Wetlab conducted mercury analysis with the EPA method 245.1 and reported higher than expected values. The QA/QC values were approximately 1000 times lower. Re-analysis by WetLabs using the cold vapour method obtained a non-detect value, more consistent with QA/QC values. It was determined that the EPA method 245.1 is sensitive to tungsten oxide, which is present in the samples. Therefore, this method reported a false positive for mercury. As with the uranium data, values used for this reporting were only those reported by the QA/QC program conducted at SGS Canada.

Appendix E: X-Ray Diffractometry Results

QUANTITATIVE PHASE ANALYSIS OF SIX POWDER SAMPLES USING THE RIETVELD METHOD AND X-RAY POWDER DIFFRACTION DATA.

(Project: 0789 Strata Gold Corp – P.O. 41918)

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EXPERIMENTAL METHOD

The six samples of **Project 0789 Strata Gold Corp** were reduced into fine powder to the optimum grain-size range for X-ray analysis (<10μm) grinding under ethanol in a vibratory McCrone Micronising Mill for 7 minutes. Step-scan X-ray powder-diffraction data were collected over a range 3-80°2θ with CoKα radiation on a standard Siemens (Bruker) D5000 Bragg-Brentano diffractometer equipped with an Fe monochromator foil, 0.6 mm (0.3°) divergence slit, incident- and diffracted-beam Soller slits and a Vantec-1 strip detector. The long fine-focus Co X-ray tube was operated at 35 kV and 40 mA, using a take-off angle of 6°.

RESULTS AND DISCUSSION

The X-ray diffractograms were analyzed using the International Centre for Diffraction Database PDF-4 using Search-Match software by Siemens (Bruker). X-ray powder-diffraction data were refined with Rietveld program Topas 3 (Bruker AXS).

The results of quantitative phase analysis by Rietveld refinement are given in Table 1. These amounts represent the relative amounts of crystalline phases normalized to 100%. The Rietveld refinement plots for the samples are shown in Figures 1 – 6.

Table 1. Results of quantitative phase analysis (wt.%)

Mineral	**Ideal formula**	**DG07-303C 175.26-185.93**	**DG07-305C 1.52-9.14**	**DG07-305C 169.03-178.31**	**DG07-331C 52.92-62.30**	**DG07-331C 99.97-109.12**	**DG07-335C 103.02-113.69**
Quartz	SiO_2	38.6	19.0	32.6	46.4	30.0	27.2
Muscovite	$KAl_2AlSi_3O_{10}(OH)_2$	9.2	15.9	4.5	14.3	3.0	
Biotite	$K(Mg,Fe)_3(AlSi_3O_{10})(OH)_2$		14.3	5.8	8.4	6.7	11.4
Clinochlore	$(Mg,Fe^{2+})_5Al(Si_3Al)O_{10}(OH)_8$	3.3	3.1	4.3	3.0	4.5	5.2
Actinolite	$Ca_2(Mg,Fe^{2+})_5Si_8O_{22}(OH)_2$		3.0				5.1
K-feldspar	$KAlSi_3O_8$	21.4	9.8	23.6	11.5	28.2	15.4
Plagioclase	$NaAlSi_3O_8$ – $CaAl_2Si_2O_8$	22.9	23.7	27.1	13.7	23.9	34.5
Calcite	$CaCO_3$	2.2	1.5	2.0	0.7	3.2	1.2
Dolomite/Ankerite	$CaMg(CO_3)_2/Ca(Fe^{2+},Mg,Mn)(CO_3)_2$	2.1	1.0				
Siderite	$Fe^{2+}CO_3$					0.5	
Andalusite	Al_2SiO_5		1.6		1.9		
Diopside	$CaMgSi_2O_6$		7.1				
Pyrite ?	FeS_2	0.4					
Total		100.0	100.0	100.0	100.0	100.0	100.0

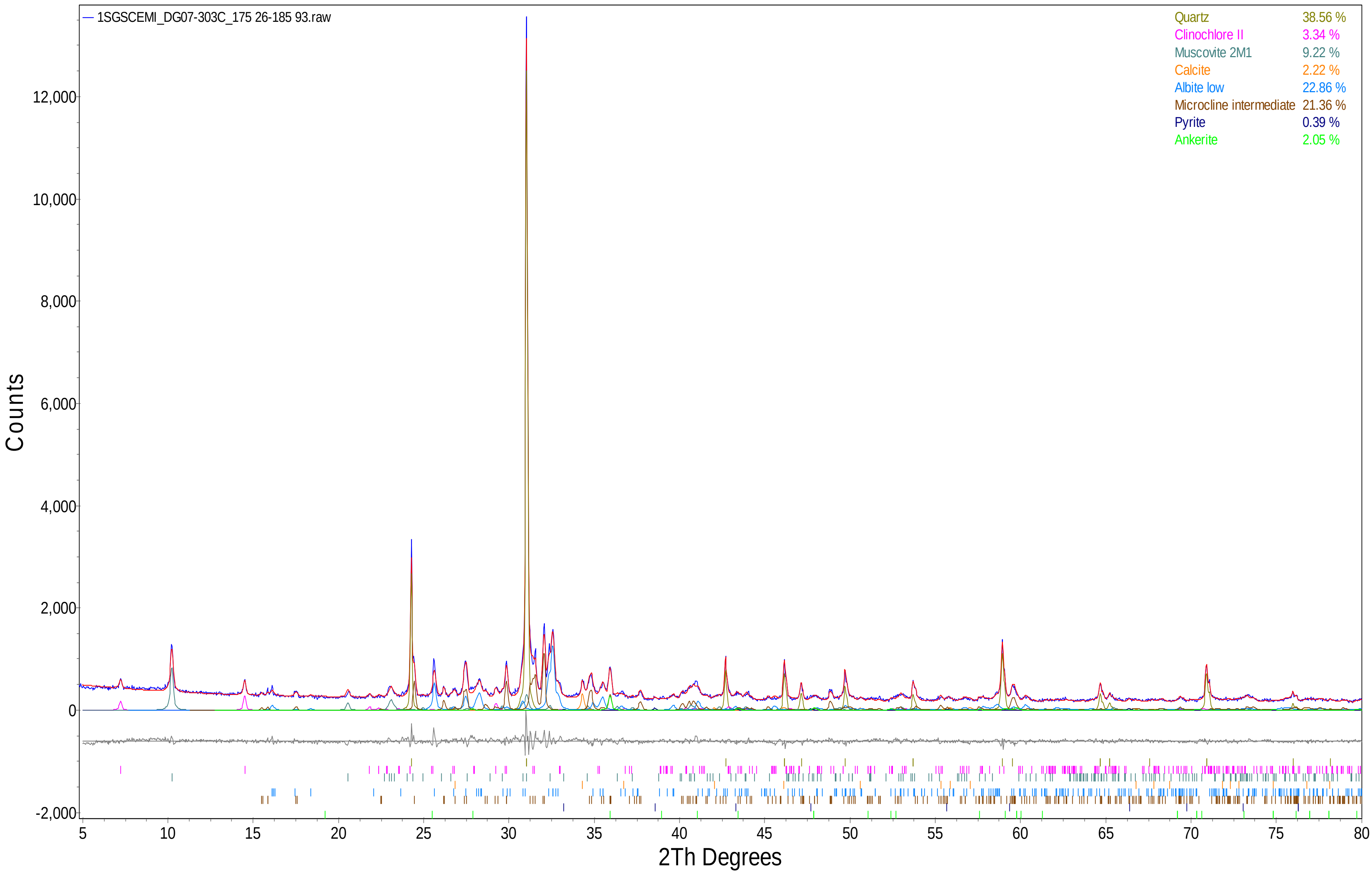

Figure 1. Rietveld refinement plot of sample **SGS CEMI "DG07-303C 175.26-185.93"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

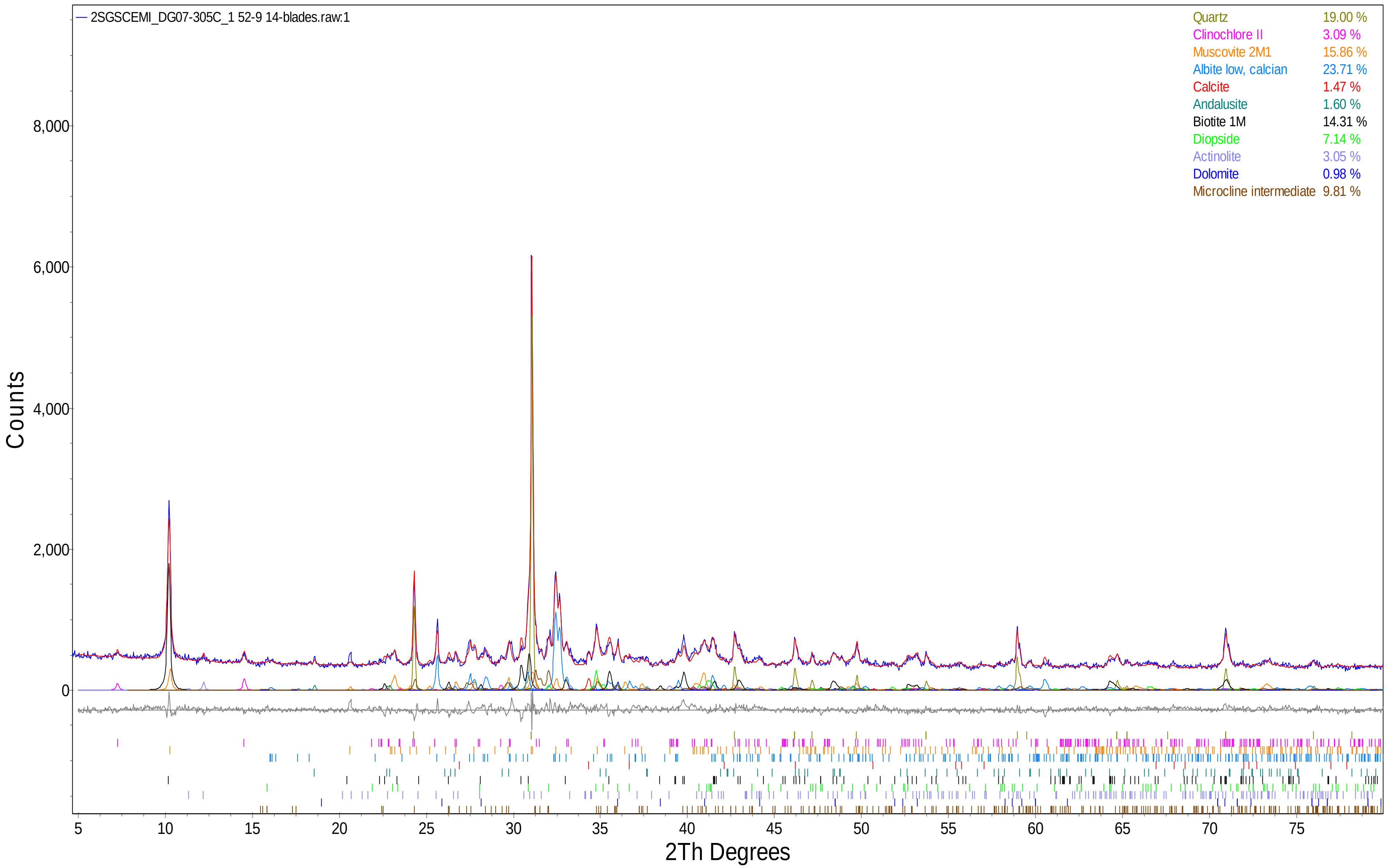

Figure 2. Rietveld refinement plot of sample **SGS CEMI "DG07-305C 1.52-9.14"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

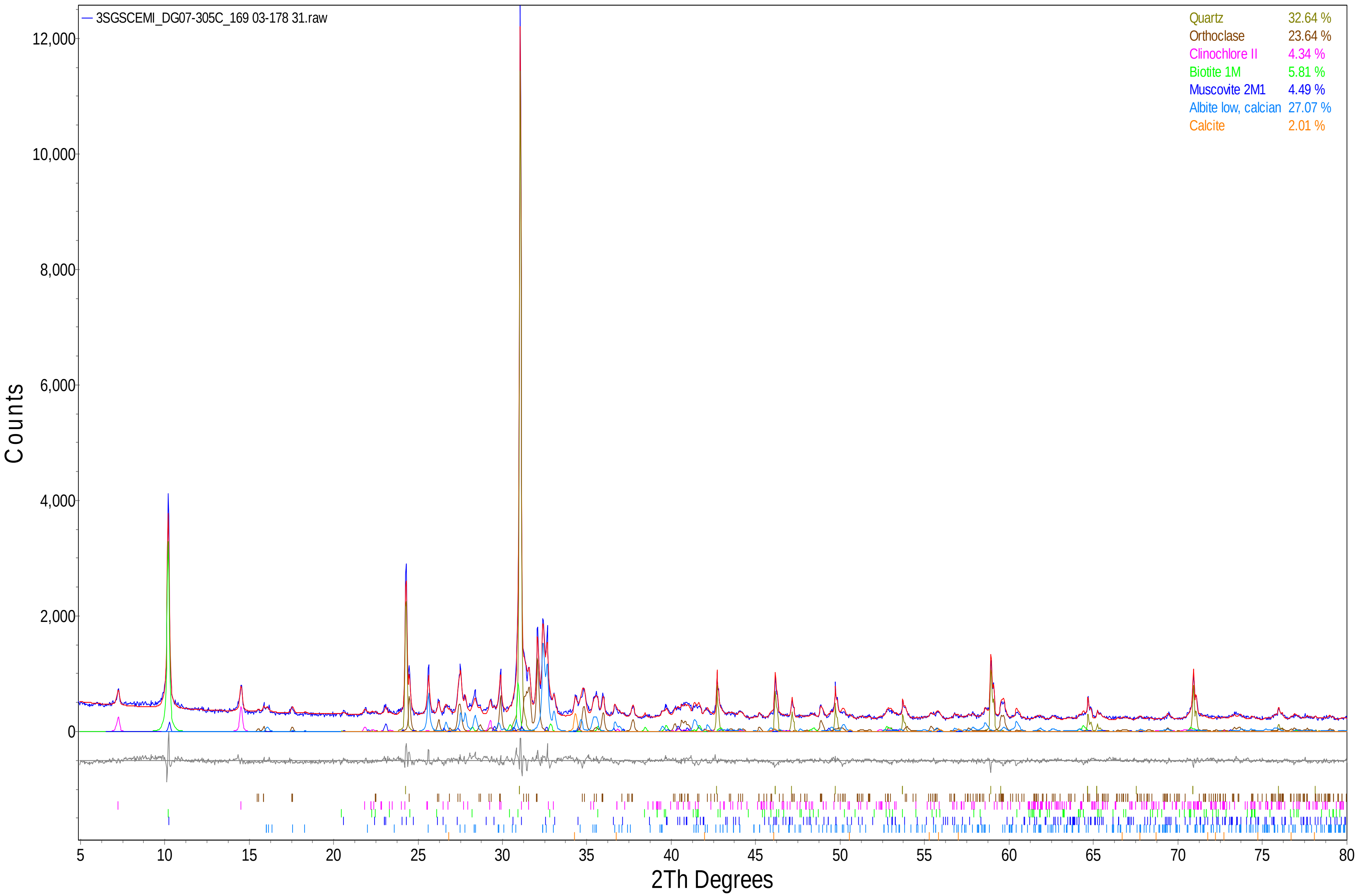

Figure 3. Rietveld refinement plot of sample **SGS CEMI "DG07-305C 169.03-178.31"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

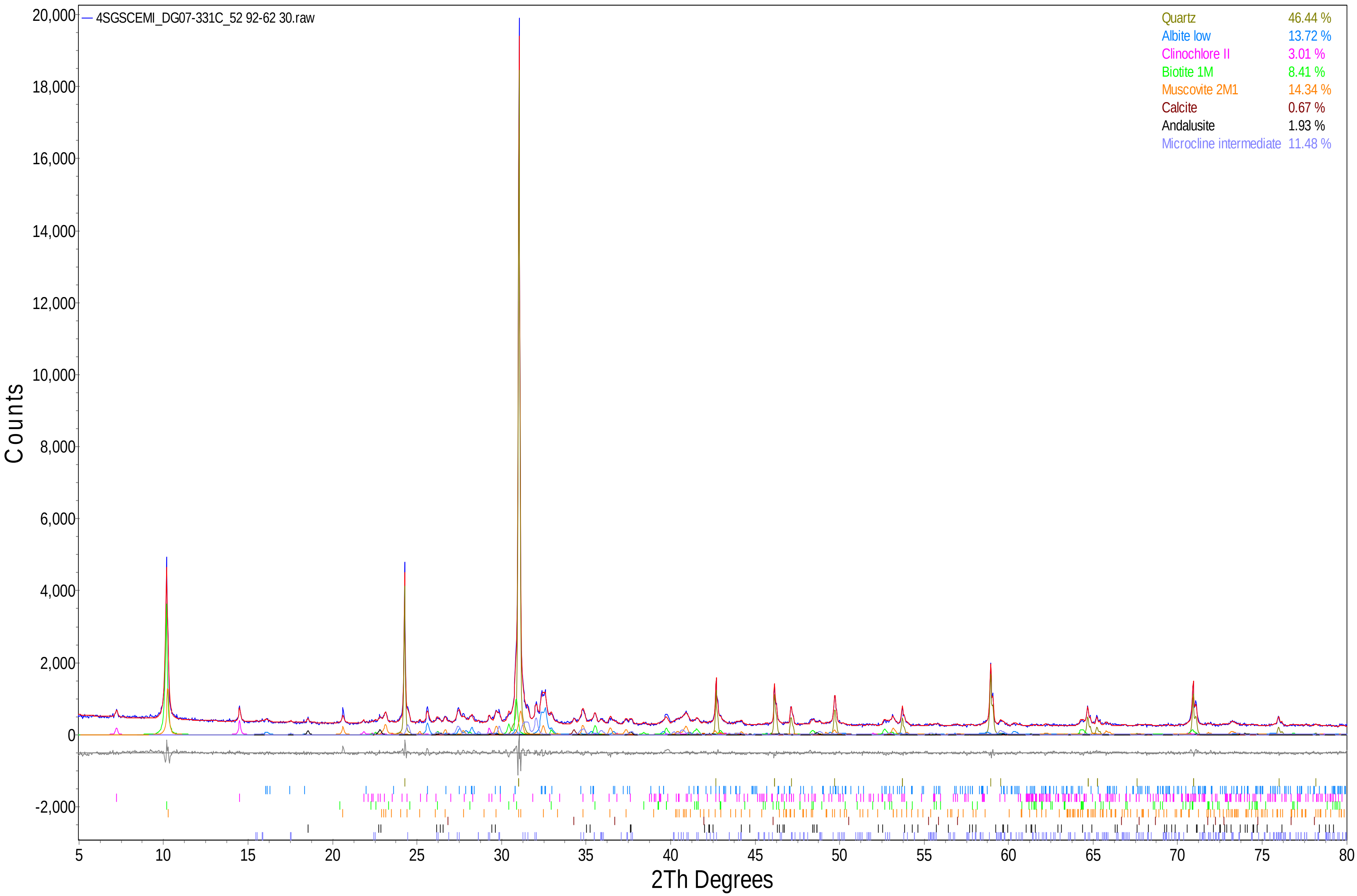

Figure 4. Rietveld refinement plot of sample **SGS CEMI "DG07-331C 52.92-62.30"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

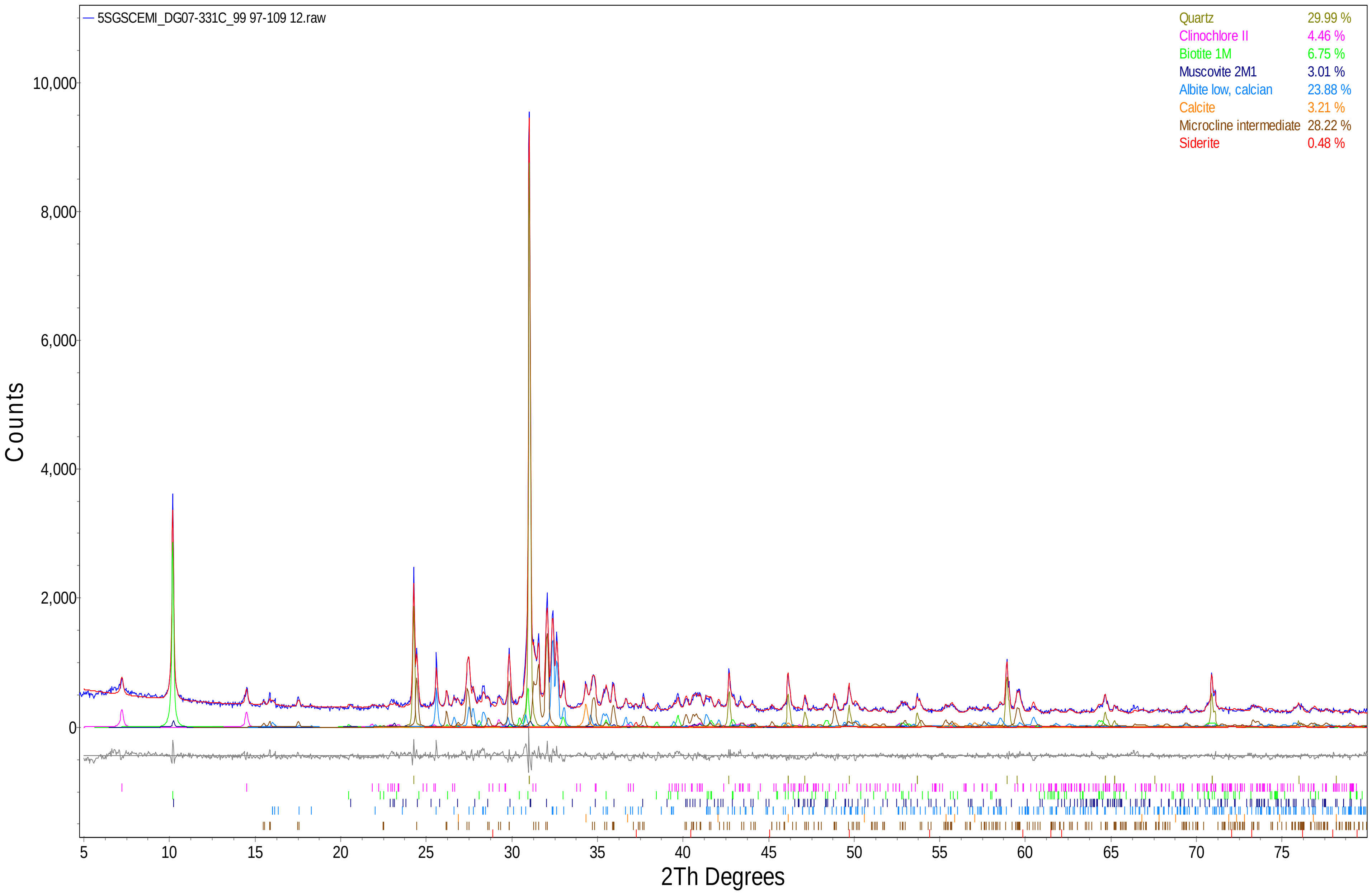

Figure 5. Rietveld refinement plot of sample **SGS CEMI "DG07-331C 99.97-109.12"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

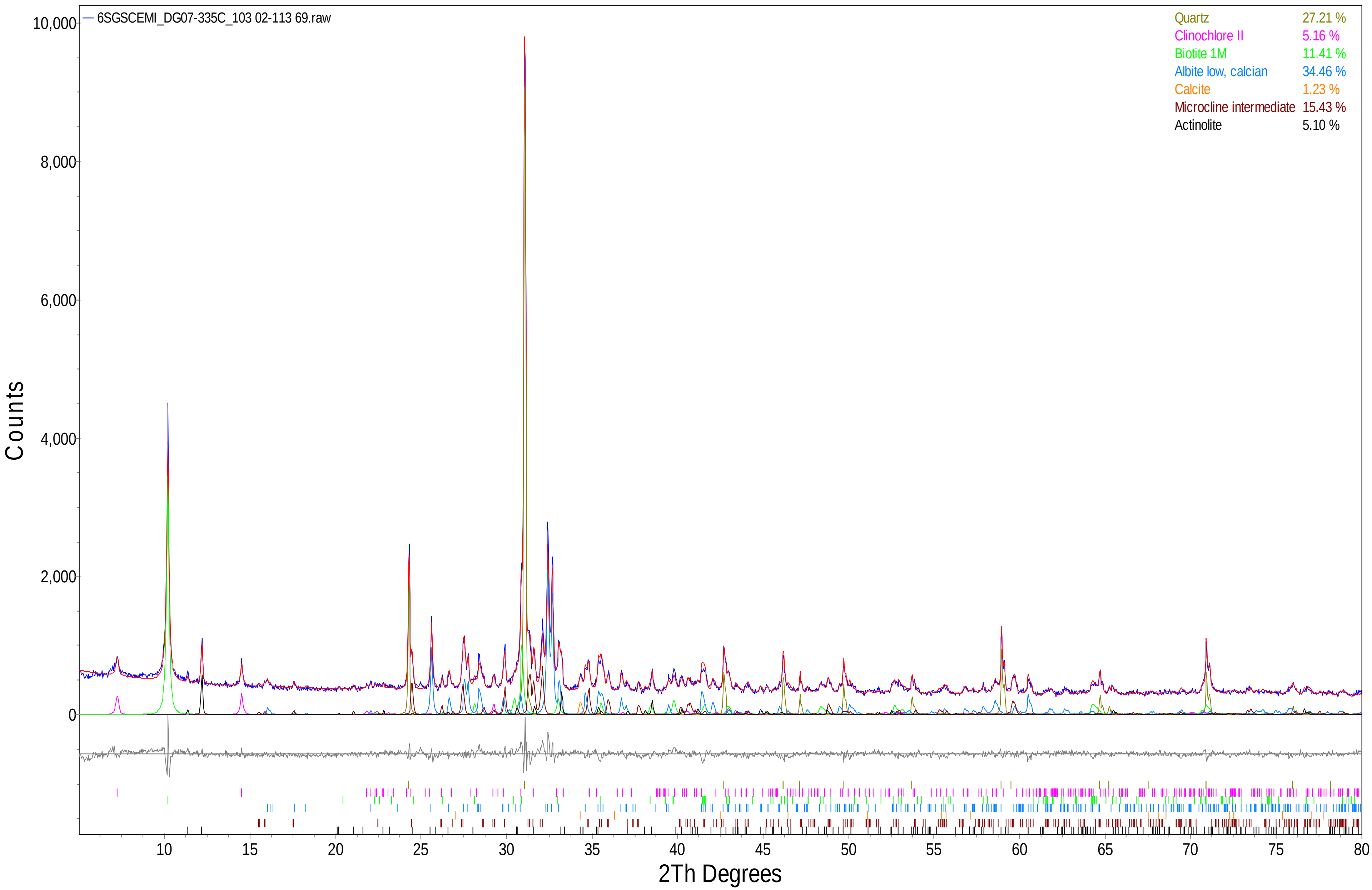

Figure 6. Rietveld refinement plot of sample **SGS CEMI "DG07-335C 103.02-113.69"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

QUANTITATIVE PHASE ANALYSIS OF FOUR POWDER SAMPLES USING THE RIETVELD METHOD AND X-RAY POWDER DIFFRACTION DATA.

(Project: 0789 StrataGold Corp – PO# 42045)

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January 22, 2010

EXPERIMENTAL METHOD

The four samples of **Project 0789 StrataGold Corp** were reduced to the optimum grain-size range for quantitative X-ray analysis (<10 μm) by grinding under ethanol in a vibratory McCrone Micronising Mill for 7 minutes. Step-scan X-ray powder-diffraction data were collected over a range 3-80°2θ with CoKa radiation on a Bruker D8 Focus Bragg-Brentano diffractometer equipped with an Fe monochromator foil, 0.6 mm (0.3°) divergence slit, incident- and diffracted-beam Soller slits and a LynxEye detector. The long fine-focus Co X-ray tube was operated at 35 kV and 40 mA, using a take-off angle of 6°.

RESULTS

The X-ray diffractograms were analyzed using the International Centre for Diffraction Database PDF-4 and Search-Match software by Siemens (Bruker). X-ray powder-diffraction data of the samples were refined with Rietveld program Topas 4.2 (Bruker AXS). The results of quantitative phase analysis by Rietveld refinements are given in Table 1. These amounts represent the relative amounts of crystalline phases normalized to 100%. The Rietveld refinement plots are shown in Figures 1 – 4.

Table 1. Results of quantitative phase analysis (wt.%)

Mineral	**Ideal Formula**	**DG05-308C 125.00-128.00**	**DG05-308C 12.19-18.00**	**DG06-311C 130.45-140.45**	**DG07-327C 24.69-33.83**
Quartz	SiO_2	41.3	32.4	35.7	34.6
Clinochlore	$(Mg,Fe^{2+})_5Al(Si_3Al)O_{10}(OH)_8$	4.4	3.2	3.0	
Muscovite	$KAl_2AlSi_3O_{10}(OH)_2$	24.0	16.5		5.9
Biotite	$K(Mg,Fe)_3(AlSi_3O_{10})(OH)_2$		11.1	5.6	2.5
Plagioclase	$NaAlSi_3O_8 – CaAl_2Si_2O_8$	13.3	13.9	28.0	19.7
K-Feldspar	$KAlSi_3O_8$	16.2	19.0	26.0	28.6
Kaolinite	$Al_2Si_2O_5(OH)_4$				5.6
Calcite	$CaCO_3$	0.7	0.5	1.7	3.3
Andalusite	Al_2SiO_5		3.5		
Sphalerite ?	(Zn,Fe)S			0.1	
Total		100.0	100.0		

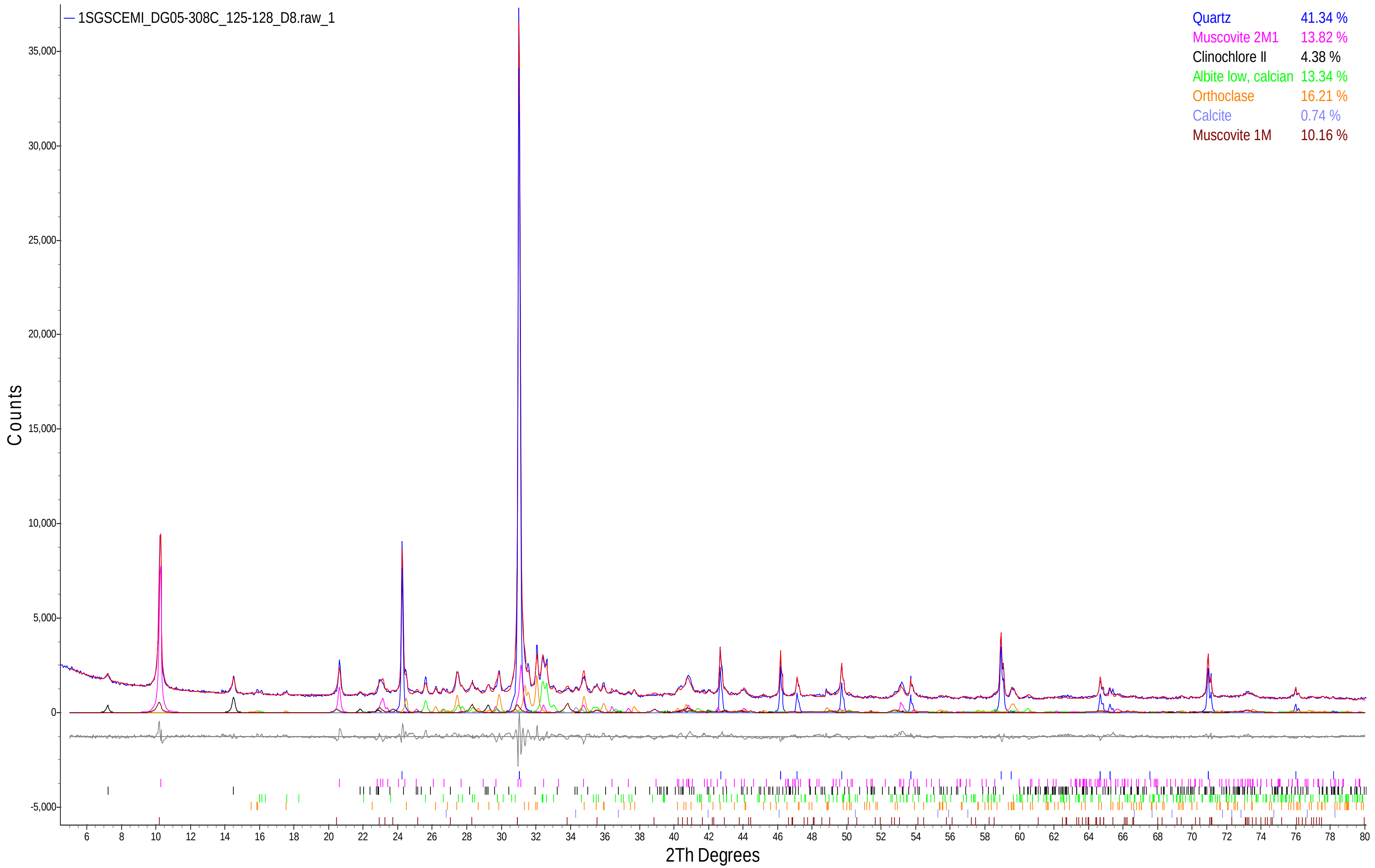

Figure 1. Rietveld refinement plot of sample **SGS CEMI "DG05-308C 125.00-128.00"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

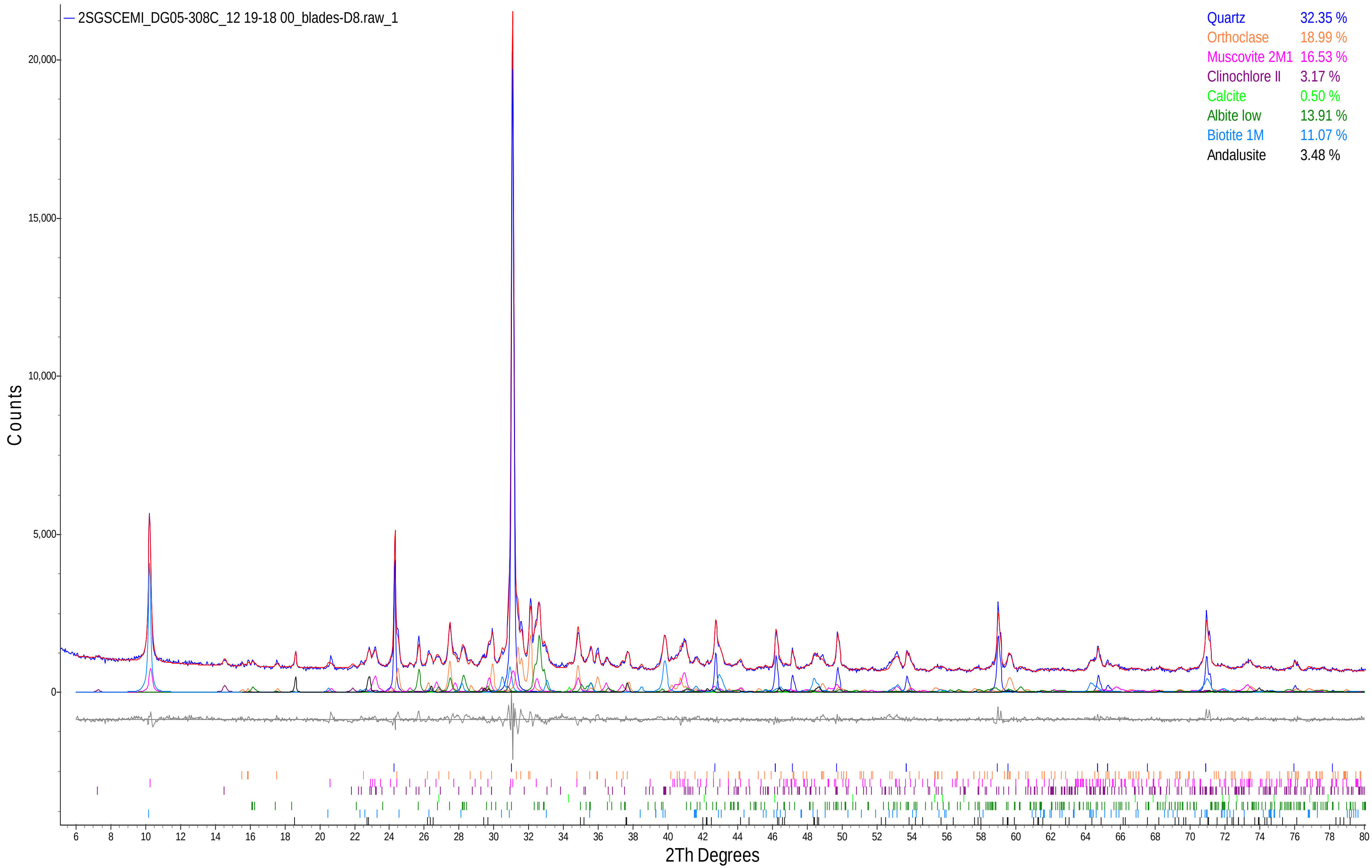

Figure 2. Rietveld refinement plot of sample **SGS CEMI "DG05-308-C 12.19-18.00"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

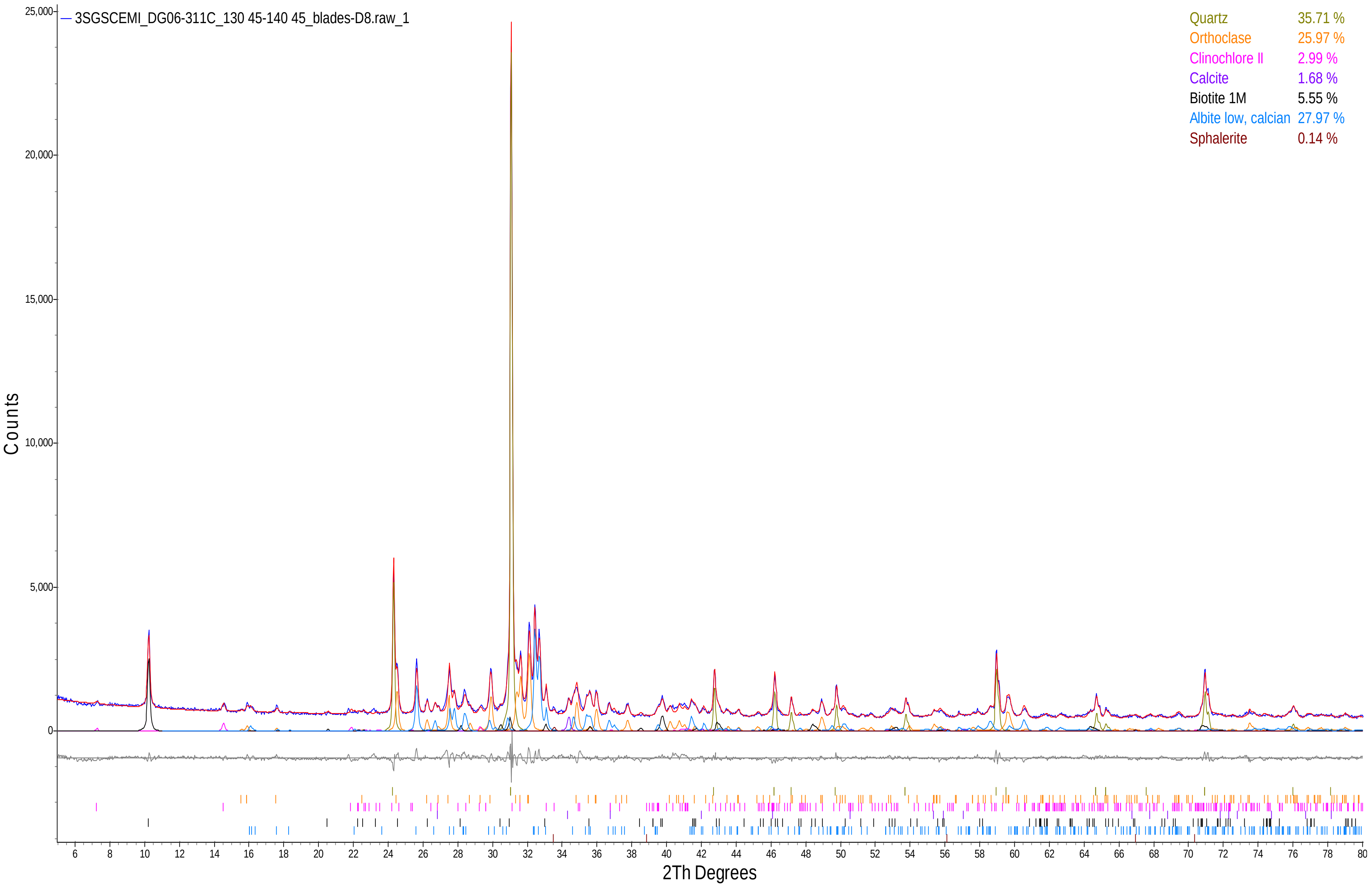

Figure 3. Rietveld refinement plot of sample **SGS CEMI "DG06-311-C 130.45-140.45"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

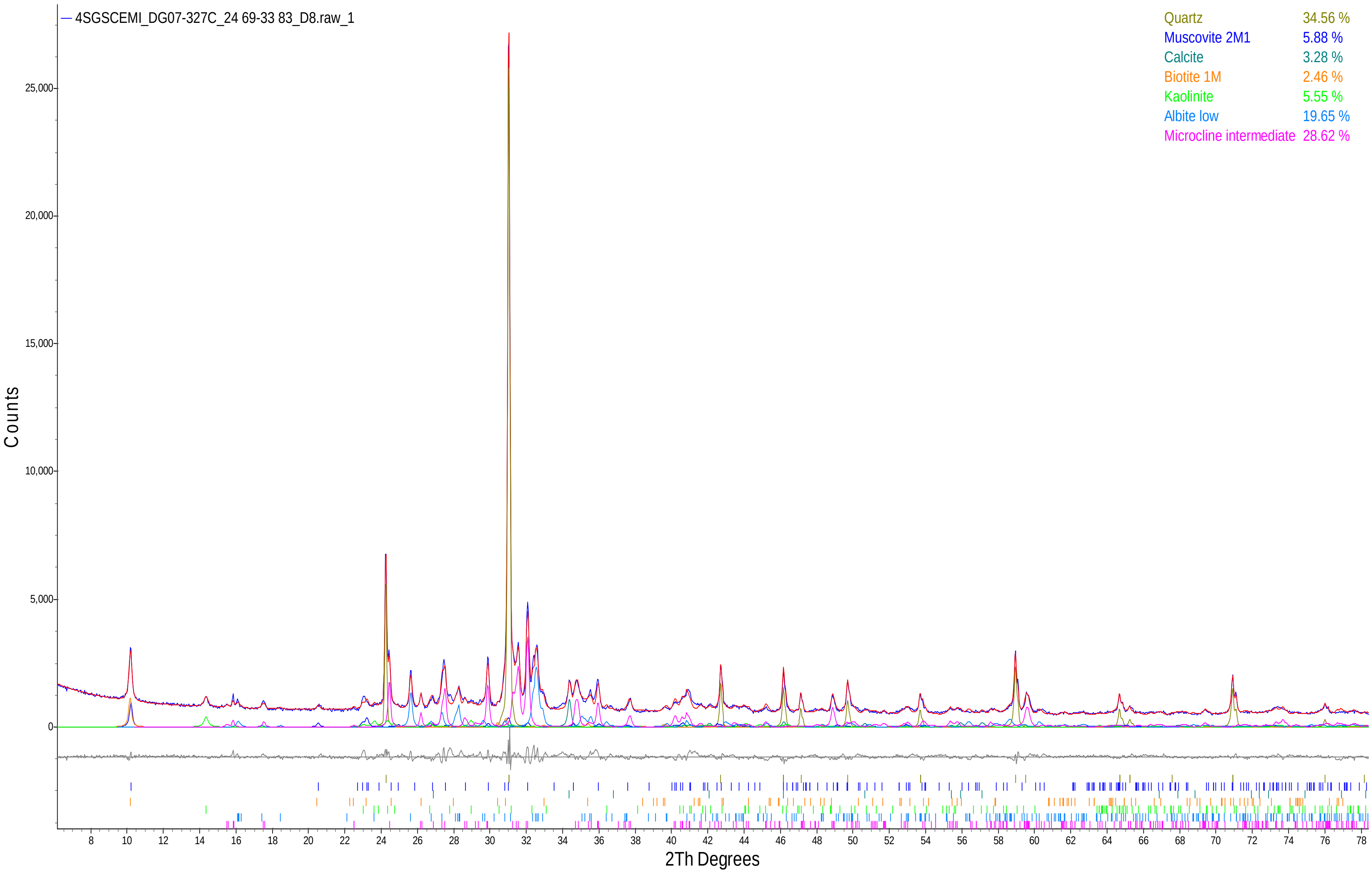

Figure 4. Rietveld refinement plot of sample **SGS CEMI "DG07-327-C 24.69-33.83"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

QUANTITATIVE PHASE ANALYSIS OF ONE POWDER SAMPLE USING THE RIETVELD METHOD AND X-RAY POWDER DIFFRACTION DATA.

(Project: 09102 Eagle Gold – Proj. 366C - PO# 42031)

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December 16, 2009

EXPERIMENTAL METHOD

The sample **“KCA No 42797 Whole”** of **Project 09102 Eagle Gold - Proj. 366C** was reduced to the optimum grain-size range for quantitative X-ray analysis (<10 μm) by grinding under ethanol in a vibratory McCrone Micronising Mill for 7 minutes. Step-scan X-ray powder-diffraction data were collected over a range 3-80°2θ with CoKa radiation on a Bruker D8 Focus Bragg-Brentano diffractometer equipped with an Fe monochromator foil, 0.6 mm (0.3°) divergence slit, incident- and diffracted-beam Soller slits and a LynxEye detector. The long fine-focus Co X-ray tube was operated at 35 kV and 40 mA, using a take-off angle of 6°.

RESULTS

The X-ray diffractogram was analyzed using the International Centre for Diffraction Database PDF-4 and Search-Match software by Siemens (Bruker). X-ray powder-diffraction data of the sample were refined with Rietveld program Topas 4-2 (Bruker AXS). The results of quantitative phase analysis by Rietveld refinement are given in Table 1. These amounts represent the relative amounts of crystalline phases normalized to 100%. The Rietveld refinement plot is shown in Figure 1.

Table 1. Results of quantitative phase analysis (wt.%)

Mineral	**Ideal Formula**	**KCA No 42979 Whole**
Quartz	SiO_2	33.2
Clinochlore	$(Mg,Fe^{2+})_5Al(Si_3Al)O_{10}(OH)_8$	3.9
Muscovite	$KAl_2AlSi_3O_{10}(OH)_2$	4.6
Biotite	$K(Mg,Fe)_3(AlSi_3O_{10})(OH)_2$	6.3
K-feldspar	$KAlSi_3O_8$	23.8
Plagioclase	$NaAlSi_3O_8$ – $CaAl_2Si_2O_8$	24.6
Calcite	$CaCO_3$	3.5
Pyrite ?	FeS_2	0.2
Total		100.0

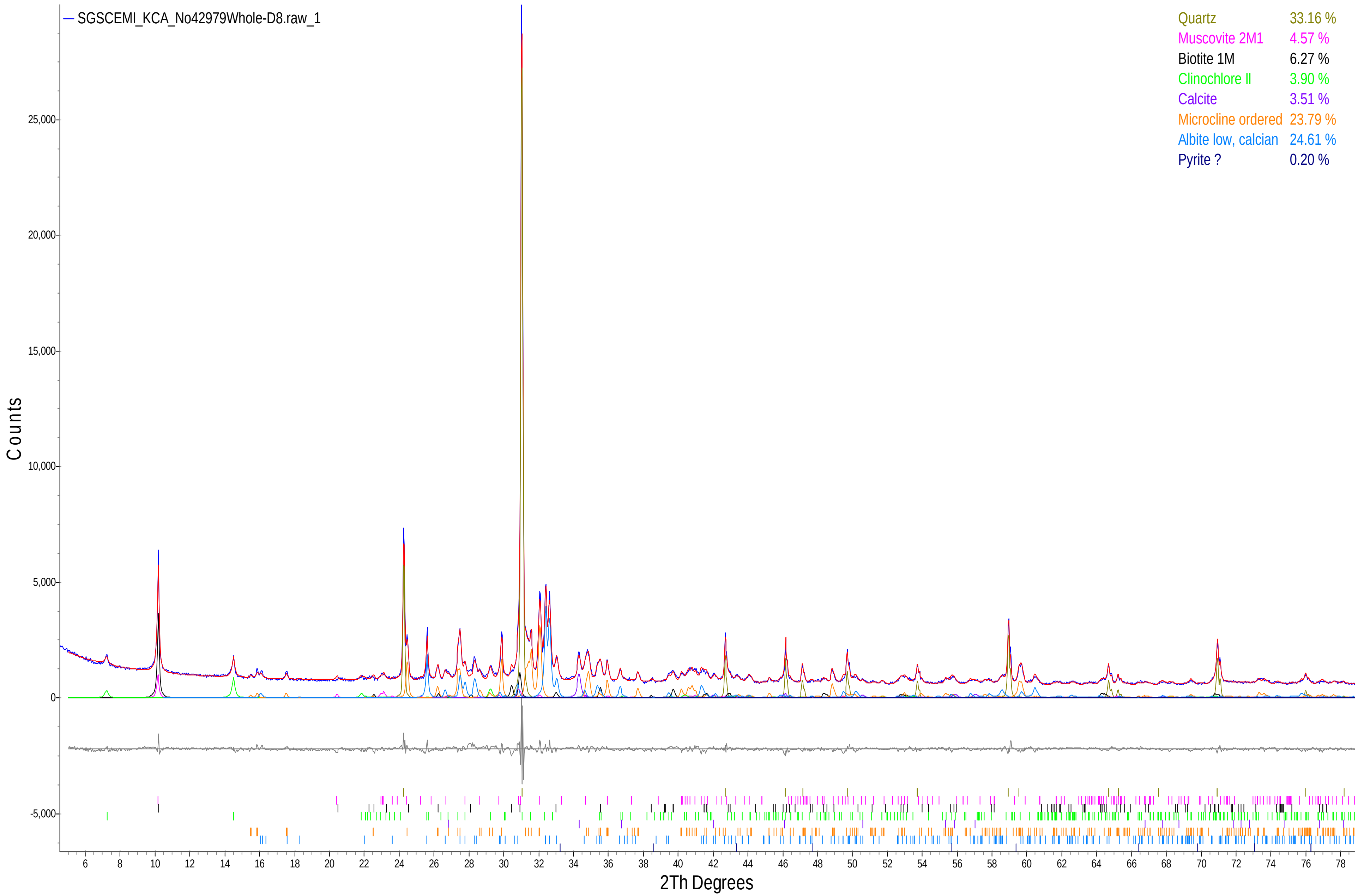

Figure 1. Rietveld refinement plot of sample **SGS CEMI "KCA No 42797 Whole"** (blue line - observed intensity at each step; red line - calculated pattern; solid grey line below – difference between observed and calculated intensities; vertical bars, positions of all Bragg reflections). Coloured lines are individual diffraction patterns of all phases.

Appendix F: Petrographic Reports

Mineralogy Report

CHARACTERIZATION OF ROCK CHIPS, DUBLIN GULCH PROPERTY, YUKON

July 17, 2009

SGS-CEMI Project #:
0789 Strata Gold Corp.

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Background

Six crushed rock samples from the Dublin Gulch property, Yukon are characterized in this report (SGS CEMI Project No. 0789 Strata Gold Corp). Optical reporting was requested by Shannon Shaw of Phase Geochemistry Inc. The samples were submitted for polished thin section production at Vancouver Petrographics Ltd. by Rik Vos of SGS CEMI Inc. on June 29, 2009. The samples, polished thin sections and offcut mounts were received by Kathryn Dunne, P.Geo. for optical analysis on July 10, 2009. The purpose of the optical study was to characterize the mineralogy with particular emphasis on sulphide minerals and any carbonate minerals present.

The optical observations are summarized below and petrographic descriptions of polished thin sections with representative photomicrographs follow the summary. All percentages in the descriptions are approximate based on visual estimation.

Please note the following grain size conventions are used in the report: very fine-grained (< 50 µm), fine-grained (> 50 µm and less than 1 mm), medium-grained (> 1mm and < 5 mm) and coarse-grained (> 5mm).

Summary

Sample List	Rock Types
DG07-303C 175.26-185.93	sericite-carbonate altered biotite-plagioclase porphyritic rock
	quartz±K-feldspar and carbonate vein fragments
DG07-305C 1.52-9.14	biotite-quartz±andalusite hornfels
	pyroxene skarn
	muscovite (sericite) altered biotite hornfels
	quartz±K-feldspar veins
DG07-305C 169.03-178.31	sericite-carbonate altered seriate inequigranular biotite granodiorite
	quartz±K-feldspar veins
DG07-331C 52.92-62.30	biotite-quartz±andalusite hornfels
	muscovite (sericite) altered biotite hornfels
	quartz±K-feldspar veins
DG07-331C 99.97-109.12	seriate inequigranular biotite granodiorite
DG07-335C 103.02-113.69	recrystallized quartz-actinolite-biotite-plagioclase porphyritic rock

The crushed rock samples include a variety of intrusive rock types (seriate inequigranular biotite granodiorite and biotite-plagioclase±actinolite±quartz porphyritic rock) or biotite-quartz±andalusite hornfels, a variety of quartz±K-feldspar veins and liberated mineral grains (including quartz, carbonate, biotite and sulphides).

Carbonate occurs in trace to major amounts (~7%) dominantly as colourless varieties with traces of brown carbonate noted in section (DG07-331C 99.97-109.12). Carbonate can occur as very fine-grained anhedral grains and patchy aggregates replacing feldspar or biotite, as fine-grained veinlets and infill to rock/vein fragments and as fine-grained liberated fragments.

Sulphides occur in minor amounts (~1-3%) dominantly as pyrrhotite ± pyrite with traces of some of the following chalcopyrite, arsenopyrite, marcasite, sphalerite and an unknown phase. Pyrrhotite occurs as fine-grained anhedral grains and aggregates within rock chips, as liberated grains and as replacement of biotite. Locally pyrrhotite encloses or is associated with pyrite. Rarely pyrrhotite occurs intergrown with chalcopyrite. Pyrrhotite grain boundaries are irregular and generally unaltered; however, in some samples, pyrrhotite is locally rimmed and partly replaced by red-brown Fe-oxide/oxyhydroxide aggregates. In some samples, pyrrhotite grains have weathered forming a bird's eye texture composed of pyrite and marcasite. Other pyrrhotite grains have altered to marcasite pseudomorphs. Pyrite as fine to very fine-grained, eu-anhedral grains and massive aggregates within rock chips and as liberated grains. Irregular patches of very fine-grained marcasite occur locally with pyrite aggregate. Pyrite grains are locally pitted. Some pyrite grain boundaries are irregular but alteration rims are typically not evident. Rarely, in some samples, pyrite is locally rimmed and partly replaced by red-brown Fe-oxide/oxyhydroxide aggregates. Traces of arsenopyrite occur in some samples as fine-grained liberated crystals and as anhedral grains and aggregates. Arsenopyrite rims are clean without alteration.

Unknown red-brown and orange-brown Fe-oxyhydroxide aggregates occurs in trace to minor amounts (~2%) in the samples in some of the following forms: as very fine-grained fracture-controlled aggregates, as replacement of carbonate or biotite, as replacement of sulphide rims, as cement or as fragment rims.

Tabular summary (SGS-CEMI Project **#:** 0789 Strata Gold Corp):

Sample #	**Sulphide**	**% ~**	**Carbonate occurrence**	**% ~**	**Fe-Oxides and Oxyhydroxides**	**% ~**	**Some Other > 1%**	**% ~**
DG07-303C 175.26-185.93	pyrrhotite pyrite arsenopyrite chalcopyrite marcasite sphalerite unknown	2 1 tr tr tr tr tr	colourless, fine to very fine-grained, anhedral grains and fine-grained liberated vein fragments	7	red-brown Fe-ox (locally replaces carbonate), orange-brown Fe-ox (fine-grained aggregates)	tr	muscovite (sericite) biotite chlorite	15 5 1
DG07-305C 1.52-9.14	pyrrhotite arsenopyrite chalcopyrite pyrite-marcasite	1 tr tr tr	fine-grained colourless aggregates in skarn and liberated fragments	tr	red and orange-brown Fe-ox locally replaces carbonate, fracture infill, cement and rims fragments	1	biotite muscovite (sericite)	15 5
DG07-305C 169.03-178.31	pyrrhotite pyrite arsenopyrite chalcopyrite	1 tr tr tr	very fine-grained, colourless aggregates, fine-grained veinlets, infill and liberated fragments	3	red Fe-ox	tr	biotite muscovite (sericite)	15 5
DG07-331C 52.92-62.30	pyrrhotite pyrite chalcopyrite marcasite	1 tr tr tr	colourless very fine-grained aggregates, fine-grained infill, and liberated grains	tr	red Fe-ox, locally replaces carbonate	tr	biotite muscovite (sericite) chlorite	15 10 1
DG07-331C 99.97-109.12	pyrrhotite pyrite arsenopyrite marcasite chalcopyrite	1 1 tr tr tr	colourless very fine-grained aggregates, and fine-grained veinlets, infill and liberated fragments; very fine-grained brown carbonate aggregate	5	red-brown Fe-ox	tr	biotite chlorite muscovite (sericite)	15 2 1
DG07-335C 103.02-113.69	pyrrhotite marcasite chalcopyrite	1 tr tr	colourless very fine-grained aggregates, fine-grained fracture infill and liberated fragments	tr	red-brown Fe-ox, fracture-controlled, locally replaces biotite, some fragment rims	2	biotite actinolite chlorite	15 3 1

tr = trace (< 1%); x = none observed; Fe-ox = Fe-oxide or oxyhydroxide


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July 17/09

SGS-CEMI Project #: 0789 Strata Gold Corp
Sample ID: DG07-303C 175.26-185.93 Offcut #: AN-1A

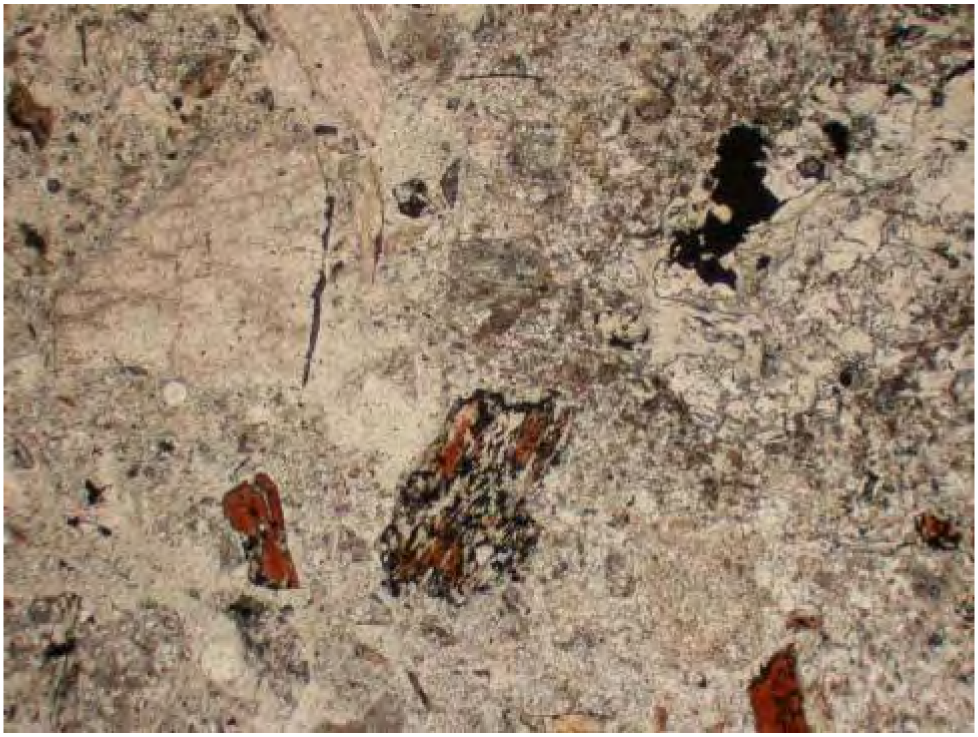
Chip and Offcut Mount Description:
Fine to coarse angular chips (less than 11 mm size) and very light grey powder. Chips comprise light gray porphyritic rock with fine-grained matrix and quartz vein. Minor fine-grained, disseminated brass-coloured sulphide minerals. Strong reaction of chips to cold dilute HCl. No reaction of chips to magnet. Groundmass of porphyritic rock has reacted to etching with HF and staining with sodium cobaltinitrite (yellow stain).

Polished Thin Section Description:
Fine to coarse chips representing pervasively sericite-carbonate altered biotite-plagioclase porphyritic rock as well as quartz±K-feldspar and carbonate vein fragments. The porphyritic rock groundmass is fine to very fine-grained (typically < 100 µm size grains) and comprises dominantly K-feldspar and quartz; K-feldspar is locally partly replaced by very fine-grained carbonate. The porphyritic rock phenocryst assemblage comprises fine-grained brown platy biotite (~5% of the section), fine to medium-grained sericite-carbonate altered plagioclase (~15%) and traces of fine-grained muscovite. Tabular feldspar phenocrysts are replaced by a felted aggregate of muscovite (sericite) and patchy carbonate aggregate. Biotite phenocrysts and liberated biotite plates are locally partly replaced by chlorite, patchy carbonate, rutile and pyrrhotite. Muscovite (sericite) occurs in abundant amounts, likely as much as 15%, within the porphyritic rock fragments. Chlorite occurs as platy aggregates with muscovite (sericite), locally carbonate, rutile and/or pyrrhotite aggregate. Chlorite comprises approximately 1% of the section.

Total carbonate comprises approximately 7% of the section. Carbonate is colourless and occurs in roughly equal proportions as 1) very fine-grained anhedral grains and patchy aggregates that occur with sericite as replacement of feldspar within porphyritic rock fragments and 2) fine-grained liberated vein fragments. Rarely, traces of red-brown Fe-oxide/oxyhydroxide occur partly replacing carbonate aggregate.

Sulphide occurs in minor amounts, approximately 3%, dominantly as pyrrhotite and pyrite with traces of arsenopyrite, chalcopyrite, marcasite, sphalerite and an unknown phase. Pyrrhotite, approximately 2%, occurs as fine-grained (< 0.4 mm) anhedral grains and aggregates within porphyritic rock chips, as liberated grains and as replacement of biotite. Locally pyrrhotite encloses euhedral pyrite grains. Rarely pyrrhotite occurs intergrown with chalcopyrite. Pyrrhotite grain boundaries are irregular but unaltered. Pyrite, approximately 1%, occurs disseminated as fine to very fine-grained (< 0.5 mm), eu-anhedral grains and massive aggregates within rock chips and as liberated grains. Irregular patches of very fine-grained marcasite occur locally with pyrite aggregate. Pyrite grains are locally pitted. Some pyrite grain boundaries are irregular but alteration rims are not evident. Traces of arsenopyrite occur as fine-grained (< 0.15 mm) liberated crystals with rhombic forms and as anhedral grains and aggregates. Arsenopyrite rims are clean without alteration. Traces of sphalerite occur as very fine- grains locally associated with pyrite. One grain of an unknown highly reflective, grey, strongly anisotropic phase occurs associated with chalcopyrite.

An unknown orange-brown Fe-oxyhydroxide occurs in trace amounts as very fine-grained aggregates in the section.



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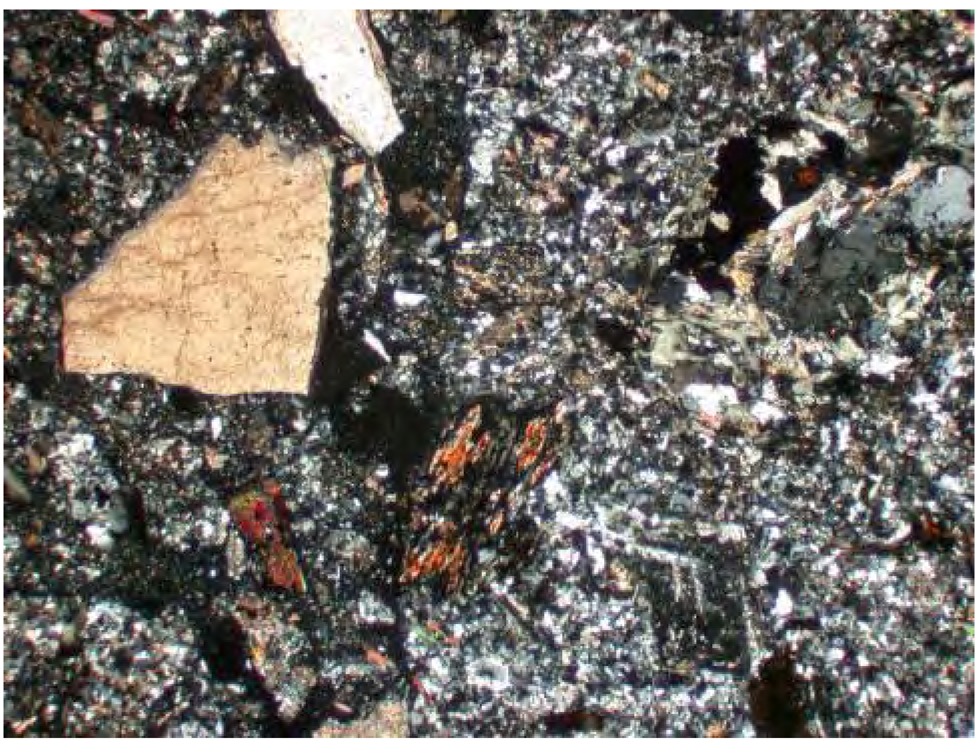
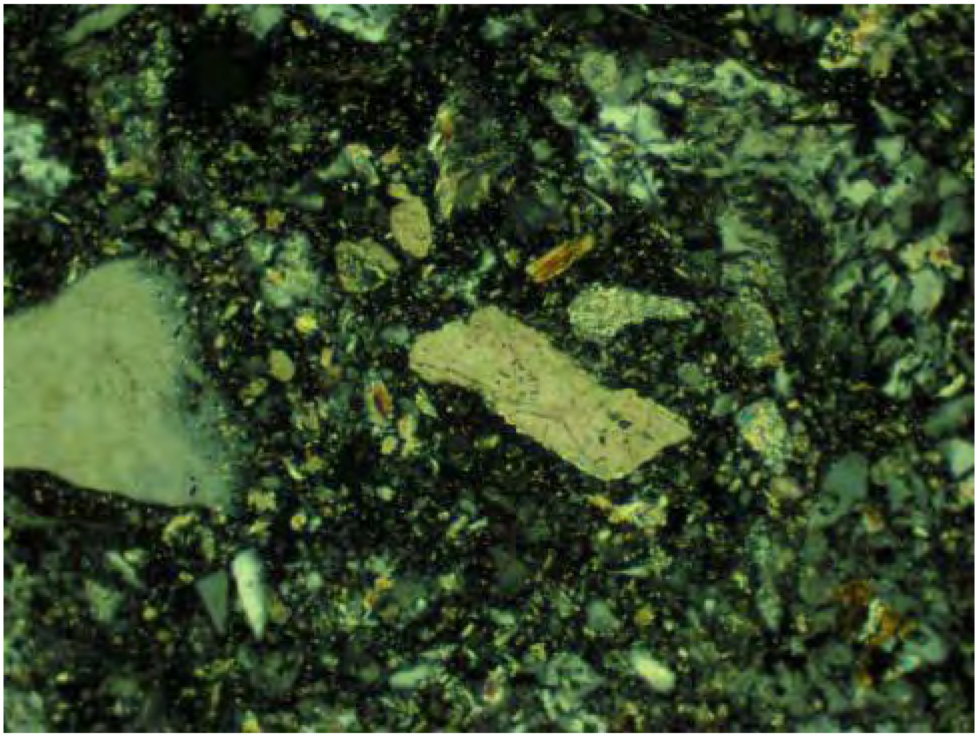


B

DG07-303C 175.26-185.93: Representative chips of muscovite (sericite) and carbonate-altered feldspar-biotite porphyritic rock (right) and quartz vein fragments (left). A) PPL, B) XPL, FOV =~ 4.5 mm.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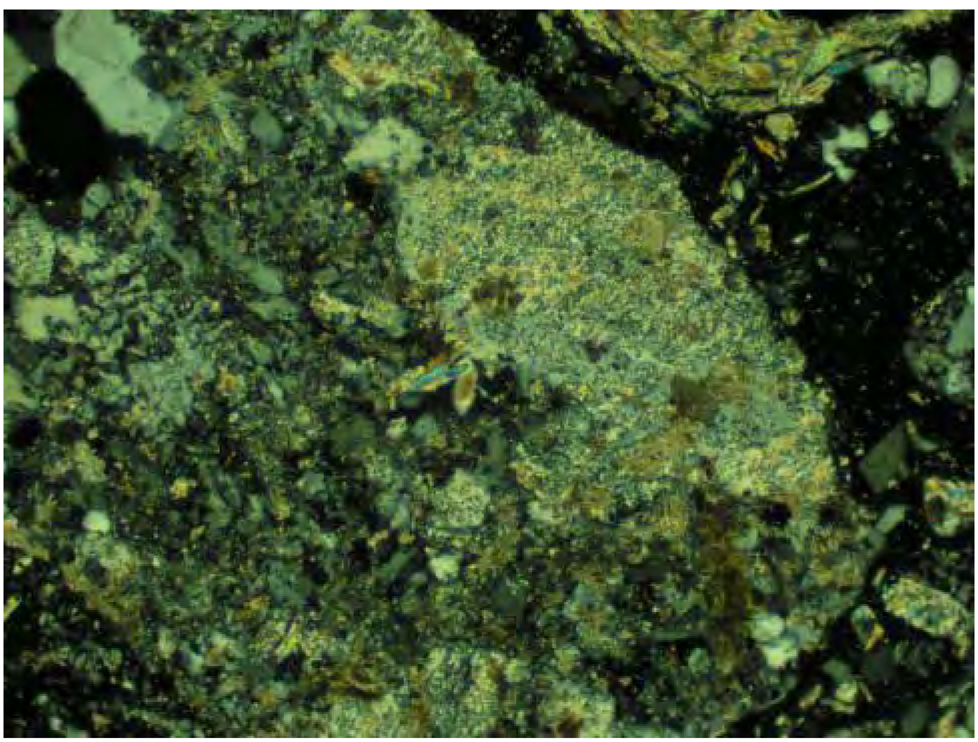
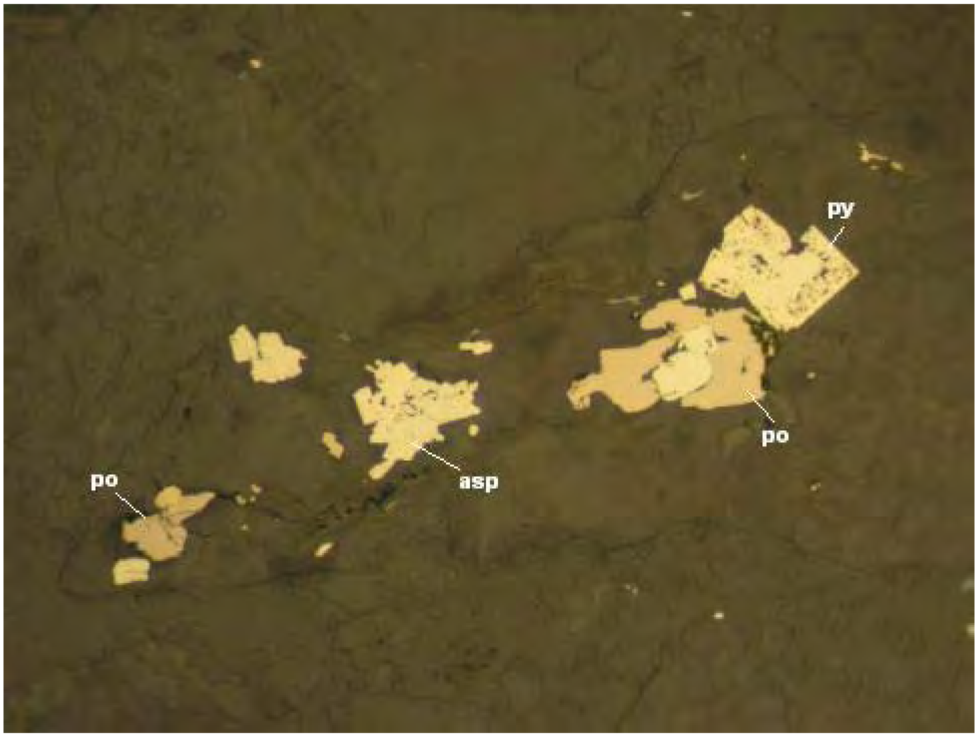

D

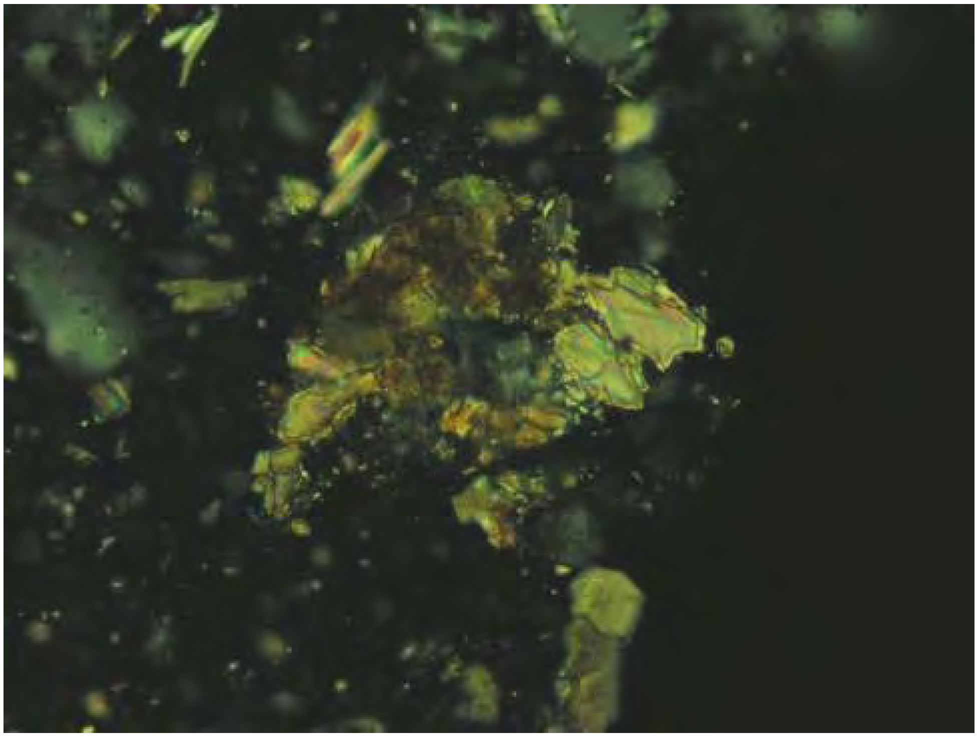
DG07-303C 175.26-185.93: C) Liberated carbonate from vein fragment (centre). XPL, FOV =~ 1.3 mm, D) Detailed view of selectively pervasive muscovite (sericite) and carbonate alteration of plagioclase phenocrysts and matrix of porphyritic rock. XPL, FOV =~ 1.3 mm



E

F

DG07-303C 175.26-185.93: E) Euhedral pitted pyrite (py) aggregates, pyrite enclosed by pyrrhotite (po), and pyrite-arsenopyrite (asp) aggregate. RL. FOV =~ 0.55 mm. F) Euhedral arsenopyrite aggregate with inclusion of pyrrhotite. RL. FOV =~ 1.3 mm. Note absence of alteration rims in both photographs.



G

DG07-303C 175.26-185.93: G) Carbonate aggregate partly replaced by red-brown Fe-oxide/oxyhydroxide aggregate. XPL. FOV =~ 0.7 mm.

SGS-CEMI Project #: 0789 Strata Gold Corp
Sample ID: DG07-305C 1.52-9.14 Offcut #: AN-2A

Chip and Offcut Mount Description:
Fine to coarse angular chips (less than 10 mm size) and light olive grey powder. Chips comprise aphanitic grayish-black banded rock. Traces of fine-grained, disseminated brass-coloured sulphide minerals. Typically no reaction to cold dilute HCl (slight reaction of one chip). No reaction of chips to magnet. Reaction of some rock fragments to etching with HF and staining with sodium cobaltinitrite (some yellow stain).

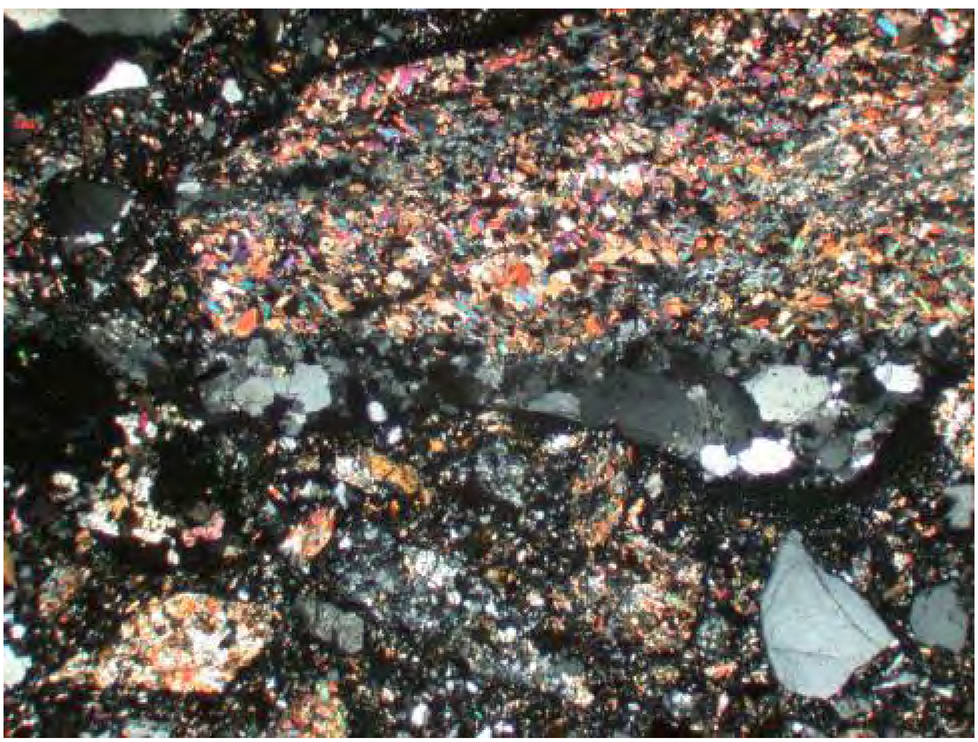
Polished Thin Section Description:
Fine to coarse chips of dominantly biotite-quartz±andalusite hornfels, lesser pyroxene skarn, rare muscovite (sericite) altered biotite hornfels and a variety of quartz±K-feldspar veins. Biotite-quartz±andalusite hornfels chips comprise dominantly fine to very fine-grained red-brown biotite, very fine-grained quartz, locally, fine-grained ragged andalusite and feldspar. Biotite comprises approximately 15% of the section; andalusite comprises approximately 1% of the section. Trace chlorite occurs very rarely as replacement of biotite. Muscovite (sericite) occurs in major amounts as replacement of biotite hornfels (approximately 5% of section). Actinolite occurs rarely in quartz vein fragments with K-feldspar. Pyroxene skarn chips comprise dominantly clinopyroxene with minor carbonate, garnet and quartz. Clinopyroxene comprises approximately 5% of the section. Quartz vein fragments typically comprise fine-grained anhedral quartz±K-feldspar aggregate, locally with K-feldspar vein margins. Some vein fragments consist of quartz-clinopyroxene-K-feldspar±titanite aggregate. Rare traces of fine-grained scheelite have been identified in this latter type of vein fragment. Pyrrhotite occurs disseminated in some vein fragments and orange-brown Fe-oxide/oxyhydroxide aggregate occurs locally as vein infill.

Carbonate occurs in trace amounts as fine-grained, colourless aggregates within pyroxene skarn or as liberated fragments. Liberated carbonate chips are rimmed and partly replaced by very fine-grained red-brown Fe-oxide/oxyhydroxide aggregates.

Sulphide occurs in minor amounts, approximately 1%, mainly as pyrrhotite and rarely arsenopyrite, chalcopyrite and pyrite-marcasite aggregate. Pyrrhotite, approximately 1%, occurs as fine-grained (typically < 0.2 mm) anhedral grains and aggregates (maximum grain size is 1mm) within biotite-quartz±andalusite hornfels, pyroxene skarn rock chips, quartz±K-feldspar veins, as liberated grains and as replacement of biotite. Rarely pyrrhotite occurs intergrown with fine-grained chalcopyrite (< 0.1 mm size grains). Pyrrhotite grain boundaries are irregular but generally unaltered. Rarely pyrrhotite and quartz aggregates are cemented by very fine-grained red-brown Fe-oxide/oxyhydroxide. Some pyrrhotite grains have weathered forming a bird's eye texture composed of pyrite and marcasite. Other pyrrhotite grains have altered to marcasite pseudomorphs. Traces of fine-grained anhedral arsenopyrite occur as liberated grains. One very fine-grained pyrite-marcasite aggregate is partly rimmed by red-brown Fe-oxide/oxyhydroxide

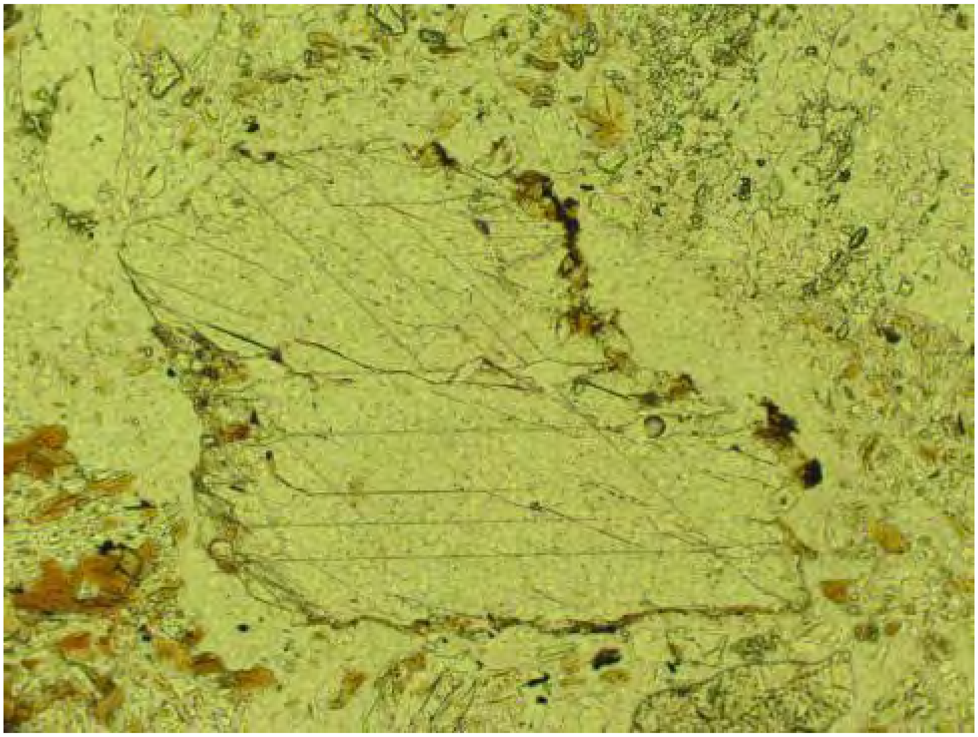
Red and orange-brown very fine-grained Fe-oxyhydroxide aggregates comprise approximately 1% of the section as replacement of carbonate, as fracture infill, as cement and rims and stain of rock chips.

A



B

DG07-305C 1.52-9.14: Representative chips of biotite-quartz±andalusite hornfels (top), pyroxene-garnet skarn (left), quartz-K-feldspar vein (centre) and fragments of liberated quartz (lower right). A) PPL, B) XPL, FOV =~ 4.5 mm.



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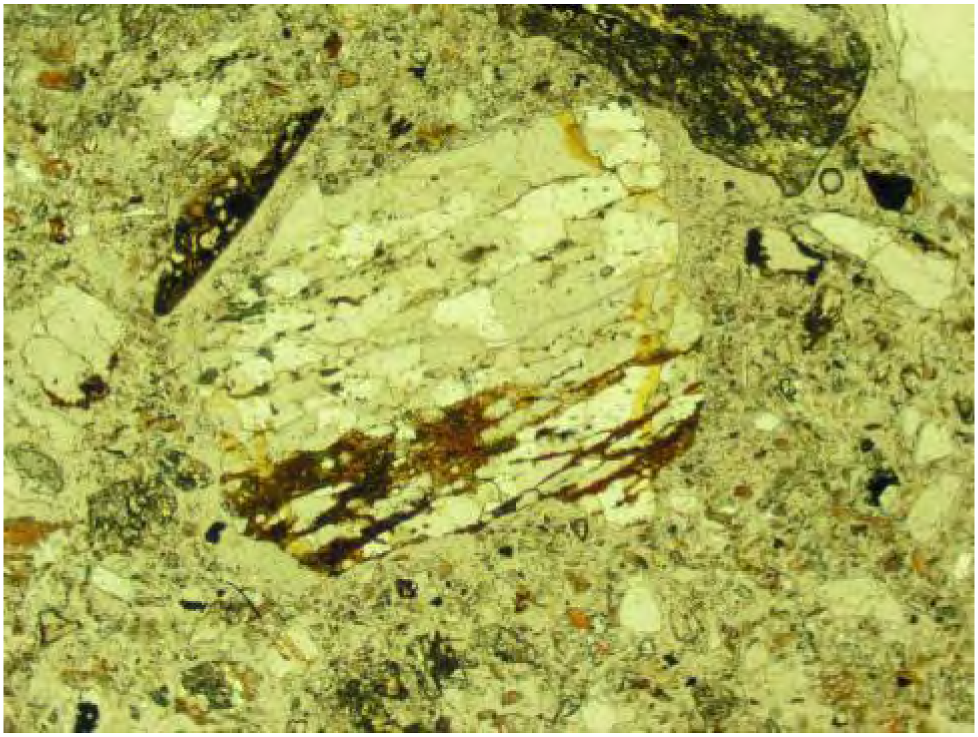
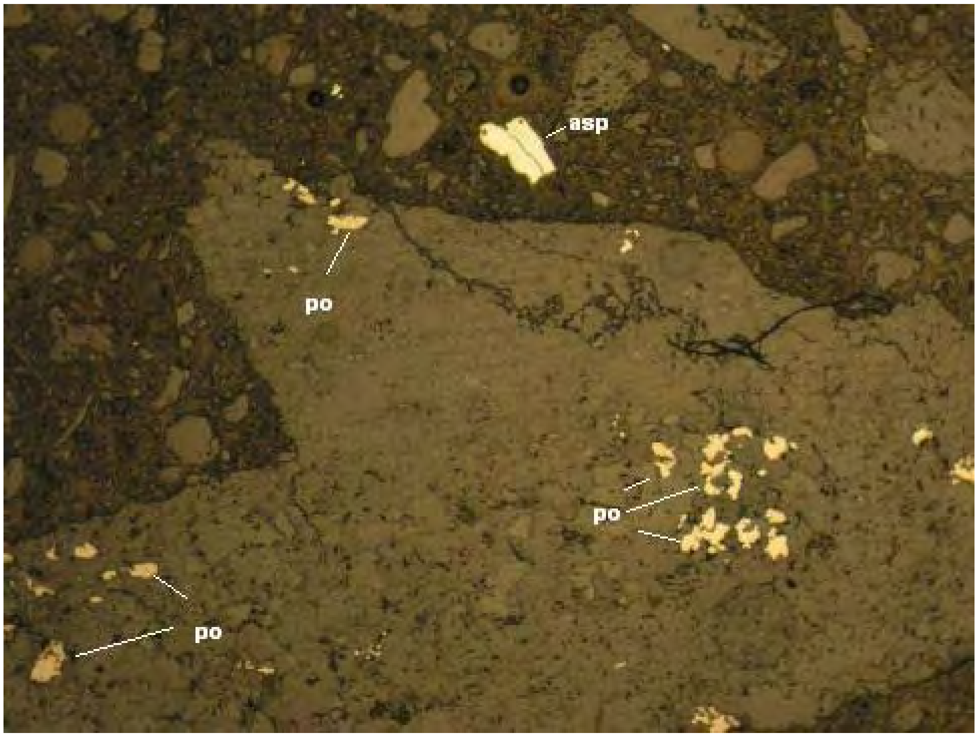


D

DG07-305C 1.52-9.14: C) Liberated carbonate fragment with rim of red-brown Fe-oxide/oxyhydroxide aggregate. PPL, FOV =~ 1.3 mm. D) Fracture-controlled red-brown Fe-oxide/oxyhydroxide aggregate within quartz vein fragment . PPL, FOV =~ 2.8 mm.



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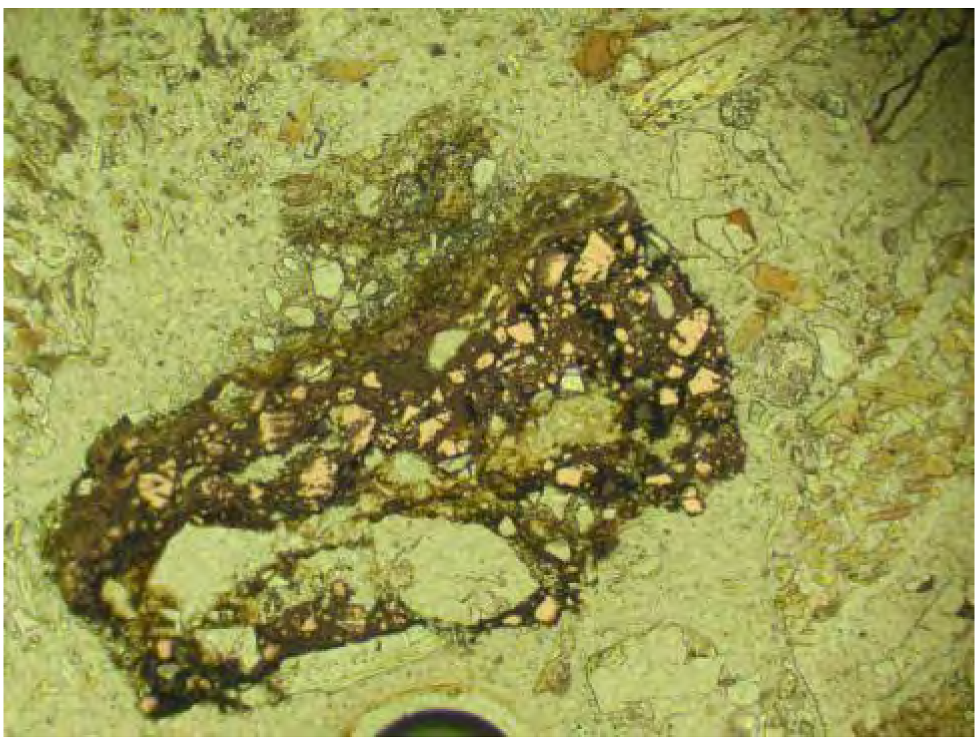
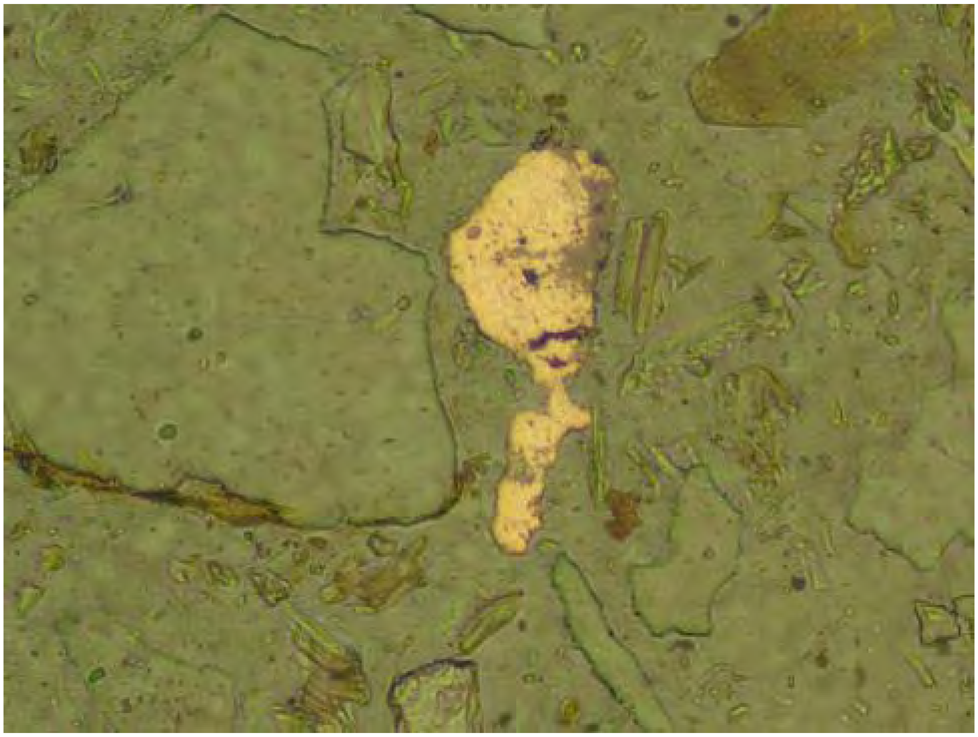
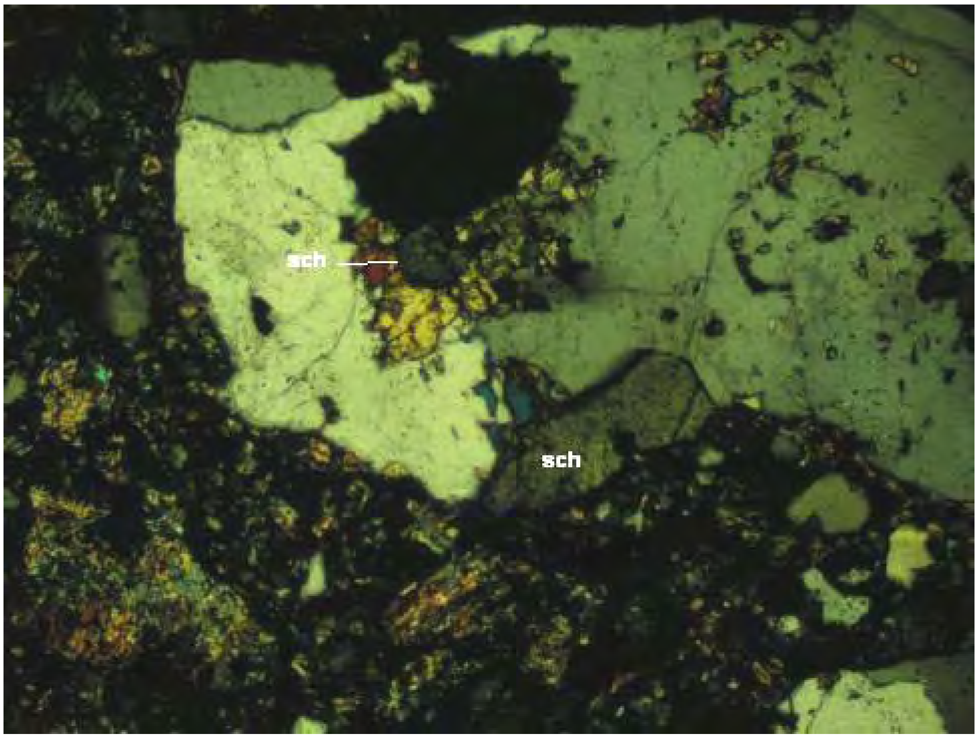


F

DG07-305C 1.52-9.14: E) Pyrrhotite (po) grains disseminated in quartz-feldspar-clinopyroxene rock fragment; liberated arsenopyrite (asp). RL, FOV =~ 1.3 mm. F) Pyrrhotite and quartz aggregates cemented by very fine-grained red-brown Fe-oxide/oxyhydroxide. PPL+RL, FOV =~ 0.55 mm.

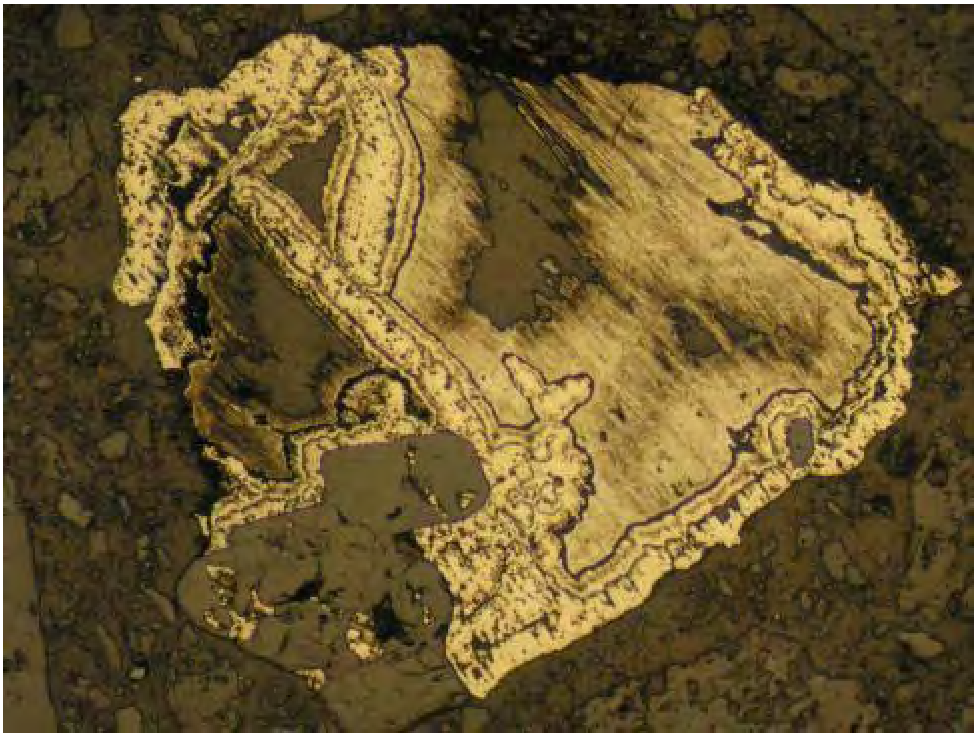


G



H

DG07-305C 1.52-9.14: G) Liberated pyrite-marcasite aggregate partly replaced by red-brown Fe-oxide/oxyhydroxide. PPL+RL, FOV =~ 0.7 mm. H) Scheelite grains within quartz-scheelite-clinopyroxene vein fragment. XPL, FOV =~ 2.0 mm.



I

DG07-305C 1.52-9.14: I) Pyroxene-pyrrhotite skarn fragment. Note pyrrhotite weathered to bird's eye texture (pyrite-marcasite) and core altered to marcasite pseudomorph. RL, FOV =~1.0 mm.

SGS-CEMI Project #: 0789 Strata Gold Corp
Sample ID: DG07-305C 169.03-178.31 Offcut #: AN-3A

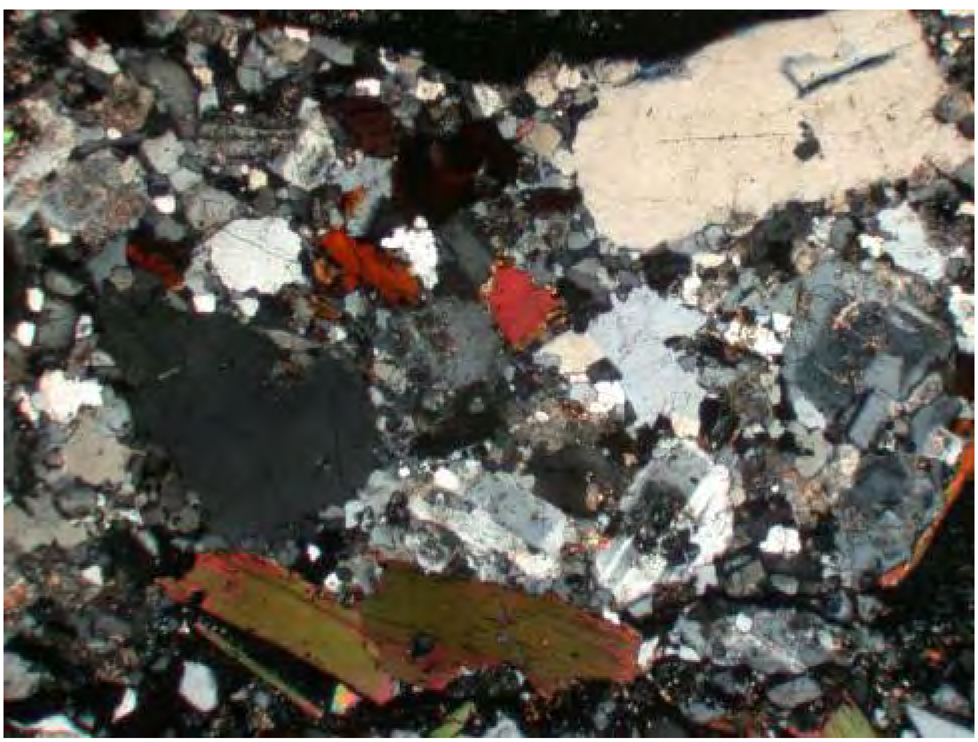
Chip and Offcut Mount Description:
Fine to coarse angular chips (less than 10 mm size) and very light grey powder. Chips comprise light gray fine to medium-grained intrusive rock with traces of quartz vein fragments. Minor fine-grained, disseminated brass-coloured sulphide minerals. Strong reaction of chips to cold dilute HCl. No reaction of chips to magnet. Reaction of intrusive rock fragments to etching with HF and staining with sodium cobaltinitrite (some yellow stain).

Polished Thin Section Description:
Fine to coarse chips representing pervasively sericite-carbonate altered seriate inequigranular biotite granodiorite, quartz-K-feldspar±muscovite fragments, quartz vein as well as liberated quartz and biotite grains. The seriate inequigranular rock is fine to medium-grained (maximum 2 mm size grains) and comprises dominantly fine to medium-grained plagioclase, fine to medium-grained quartz and fine-grained orthoclase with lesser tan-red brown platy biotite (~10%). Plagioclase is partly replaced by a felted aggregate of muscovite (sericite) and patchy carbonate aggregate. Muscovite (sericite) comprises approximately 5% of the section. Platy muscovite occurs in trace amounts. Biotite within granodiorite fragments and liberated biotite plates together comprise ~15% of the section. Biotite is rarely partly replaced by chlorite, patchy rutile or pyrrhotite. Traces of ilmenite occur within granodiorite rock fragments. Chlorite occurs in trace amounts with carbonate as veinlets and rarely as replacement of biotite.

Total carbonate comprises approximately 3% of the section. Carbonate is dominantly colourless and occurs as 1) very fine-grained anhedral grains and patchy aggregates that occur with sericite as replacement of plagioclase within porphyritic rock fragments, 2) fine-grained veinlets and infill to rock fragments and 3) fine-grained liberated fragments. Colourless carbonate infill within quartz-K-feldspar aggregate is partly replaced by very fine-grained titanite grains and locally by prismatic rutile aggregates.

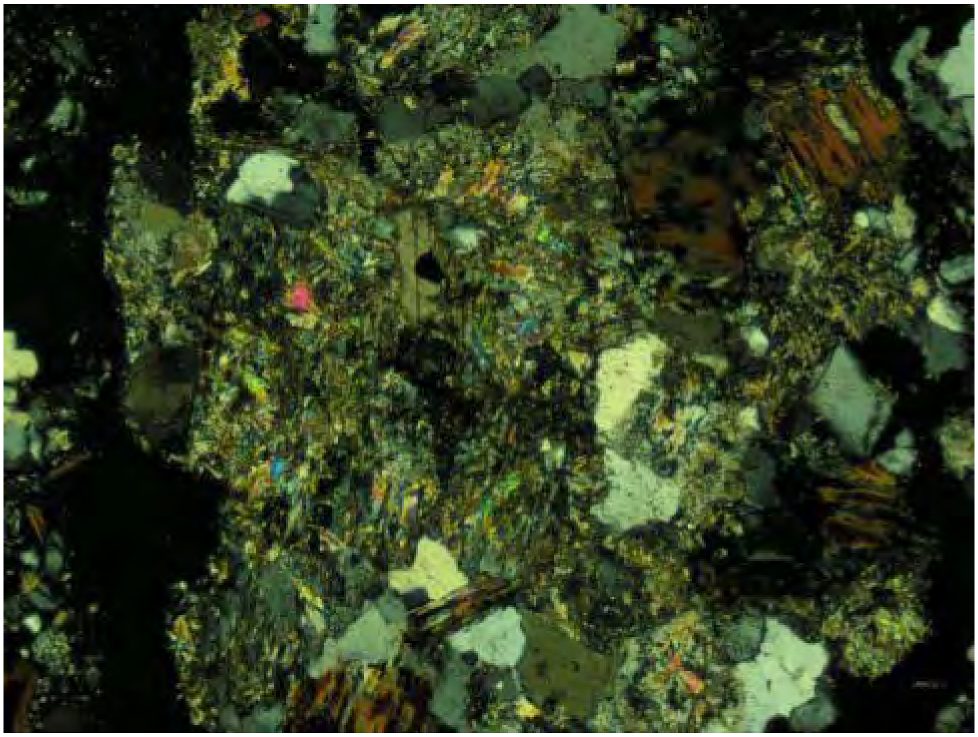
Sulphide occurs in minor amounts, approximately 1%, dominantly as pyrrhotite with traces of pyrite, arsenopyrite and chalcopyrite. Pyrrhotite, approximately 1%, occurs as fine-grained (< 0.2 mm) anhedral grains and aggregates within granodiorite rock chips, as liberated grains and as replacement of biotite. Locally pyrrhotite encloses euhedral pyrite grains. Rarely pyrrhotite occurs intergrown with chalcopyrite. Pyrrhotite grain boundaries are irregular but generally unaltered. Two grains of pyrrhotite were observed with rims partly replaced by traces of red Fe-oxide/oxyhydroxide. Trace pyrite occurs disseminated as fine to very fine-grained (< 0.1 mm), euhedral grains and aggregates within rock chips and as liberated grains. Pyrite grains are locally pitted. Pyrite grain boundaries are unaltered. Traces of arsenopyrite occur as fine to very fine-grained (< 0.7 mm) liberated grains. Arsenopyrite rims are clean without alteration.

A



B

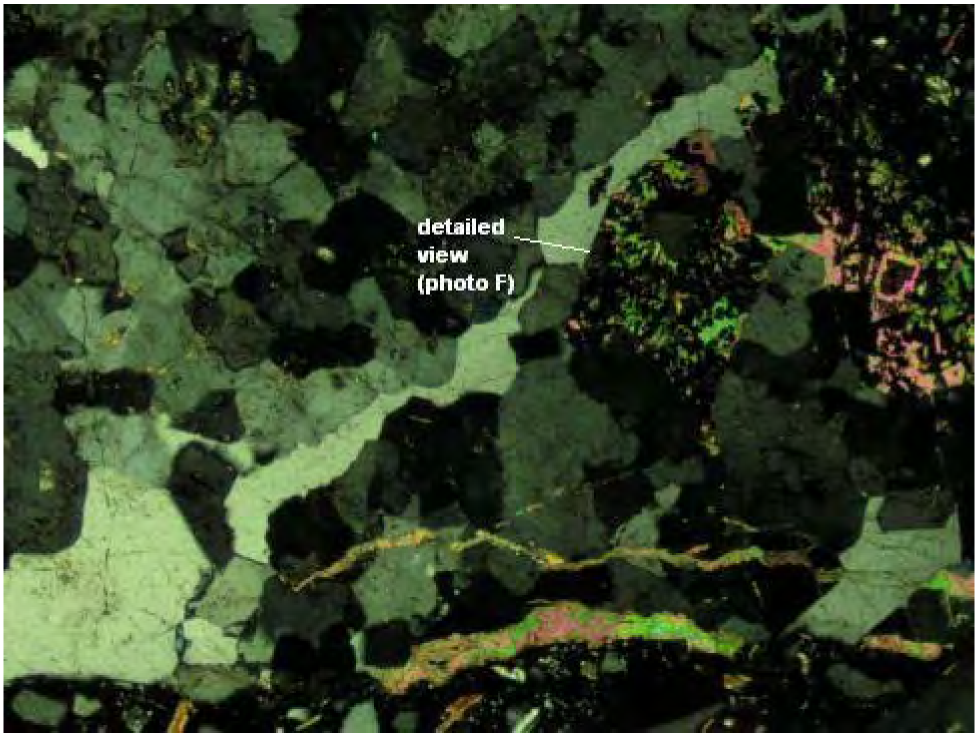
DG07-305C 169.03-178.31: Representative chip of seriate inequigranular biotite granodiorite. A) PPL, B) XPL, FOV =~ 4.5 mm.



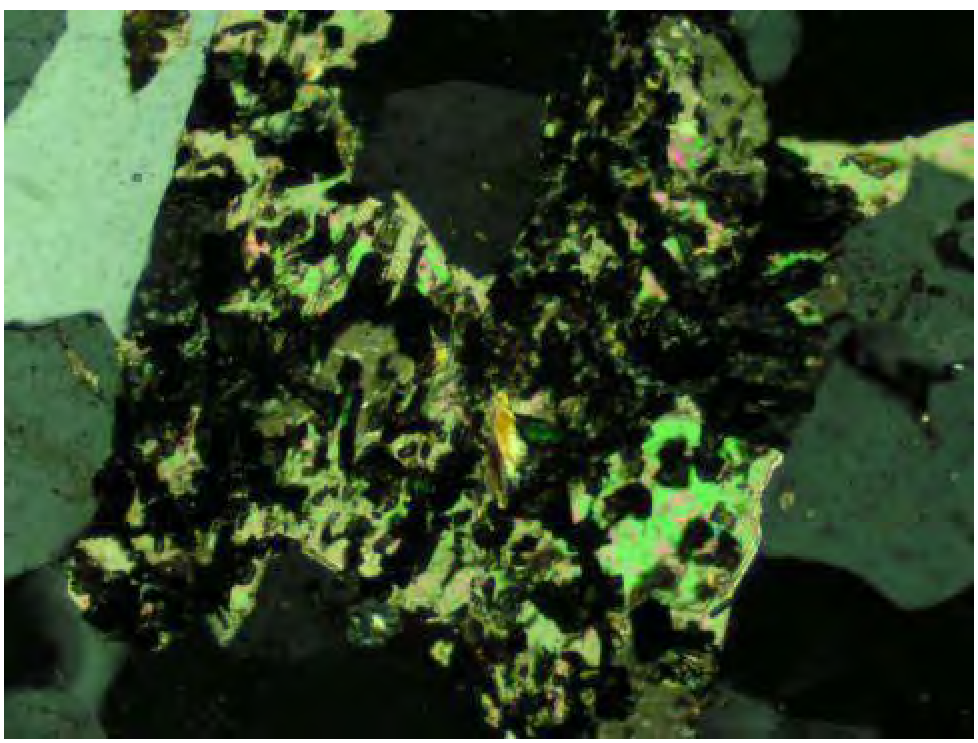
C

D

DG07-305C 169.03-178.31: C) Carbonate and muscovite (sericite) altered plagioclase within biotite granodiorite fragment. XPL, FOV =~ 2.8 mm. C) Liberated carbonate grain (centre). XPL, FOV =~ 2.8 mm.

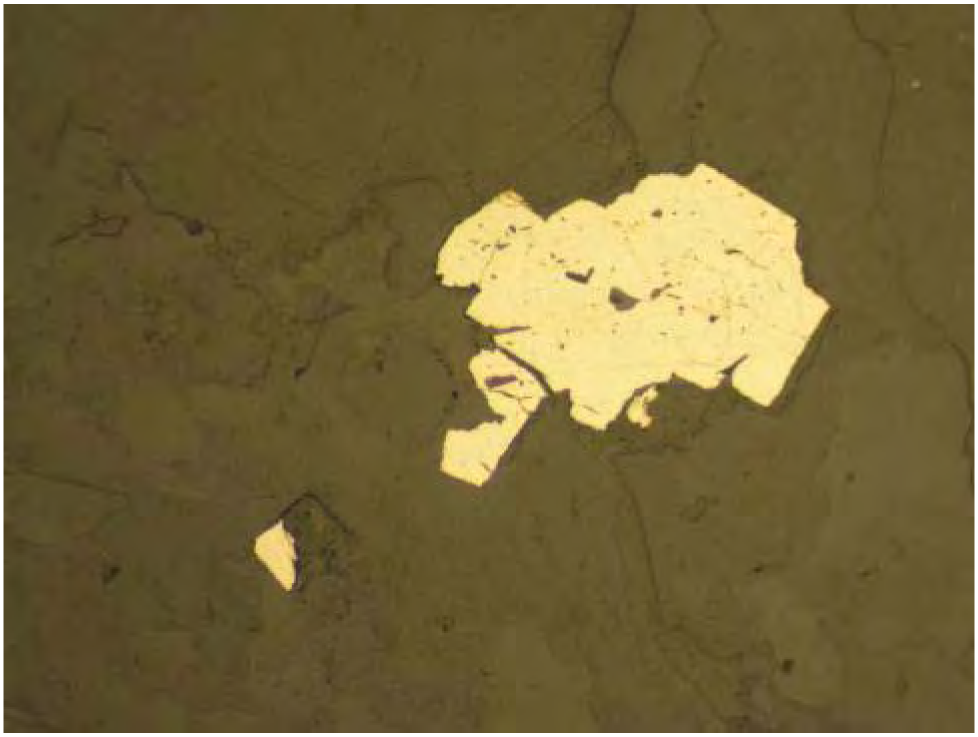


E

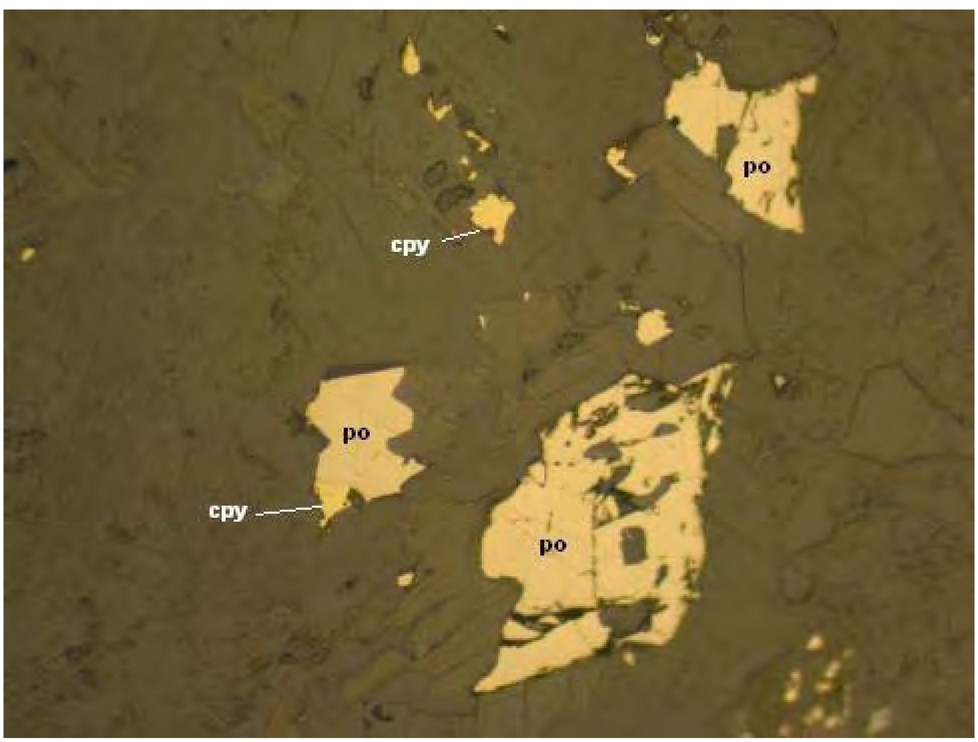


F

DG07-305C 169.03-178.31: E) Carbonate veinlets and carbonate infill within chips of quartz-K-feldspar aggregate. XPL, FOV =~ 2.8 mm, F) Colourless carbonate partly replaced by euhedral titanite grains and aggregates. XPL, FOV =~ 0.7 mm

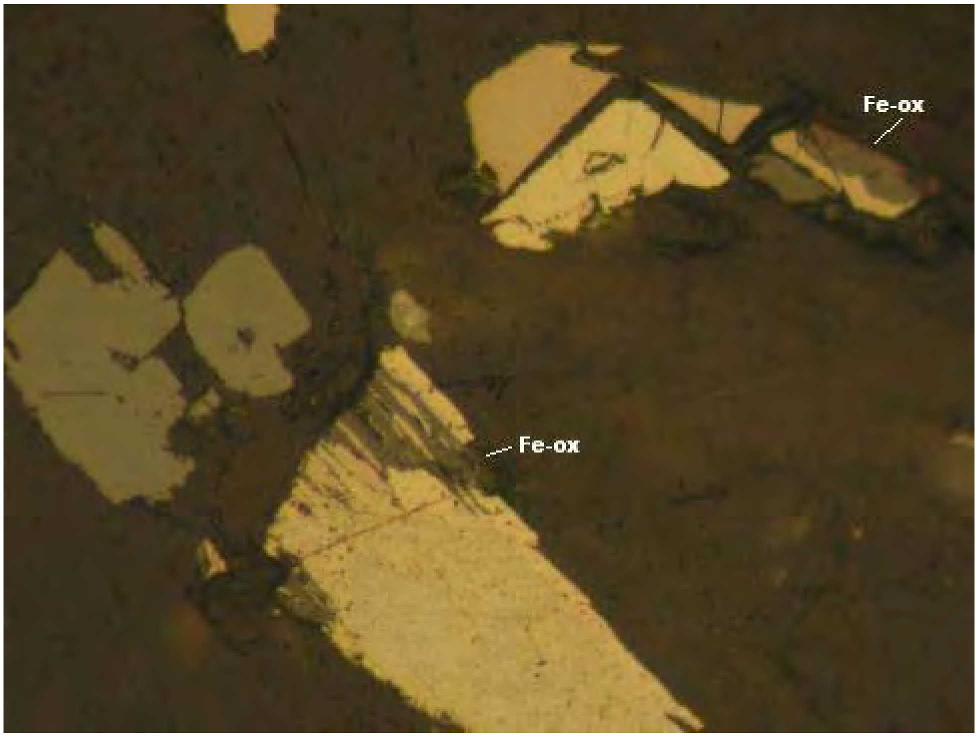


G

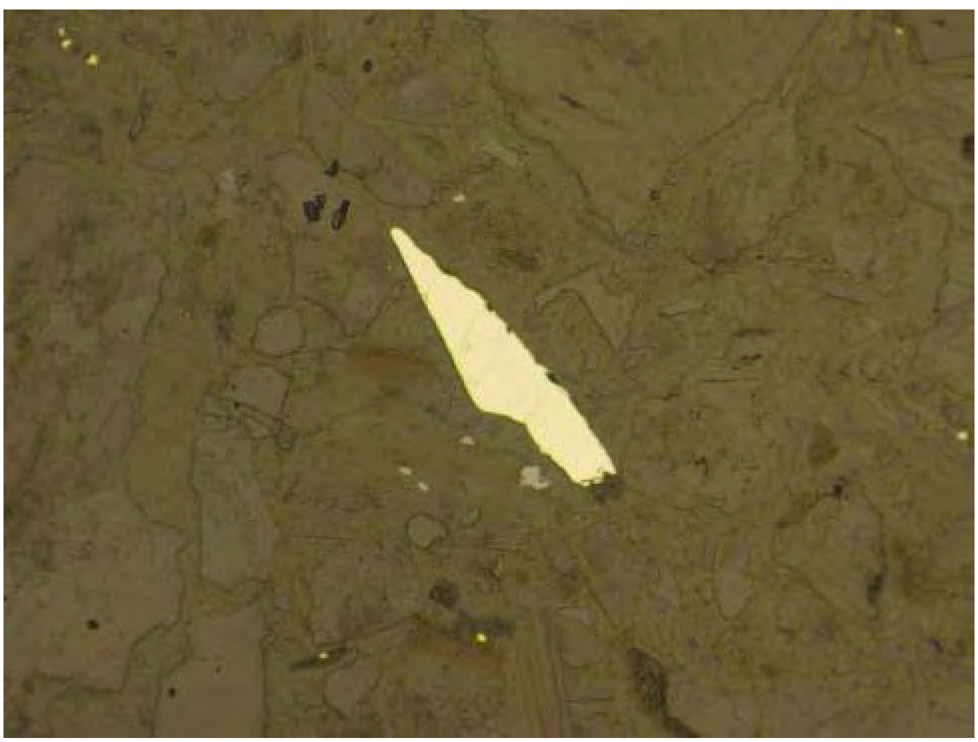


H

DG07-305C 169.03-178.31: G) Euhedral pitted pyrite aggregate (unaltered) occurs within fragment of quartz-K-feldspar-muscovite (sericite) aggregate. RL, FOV =~ 0.7 mm, H) Pyrrhotite (po) with irregular grain boundaries intergrown with chalcopyrite (cpy). RL, FOV =~ 0.7 mm



I



J

DG07-305C 169.03-178.31: I) Pyrrhotite encloses pyrite (top right) and is associated with pyrite (centre). Note pyrrhotite partly replaced by red Fe-oxide/oxyhydroxide aggregate (Fe-ox). RL, FOV =~ 0.15 mm, J) Liberated arsenopyrite fragment (centre). RL, FOV =~ 1.3 mm

SGS-CEMI Project #: 0789 Strata Gold Corp
Sample ID: DG07-331C 52.92-62.30 Offcut #: AN-4A

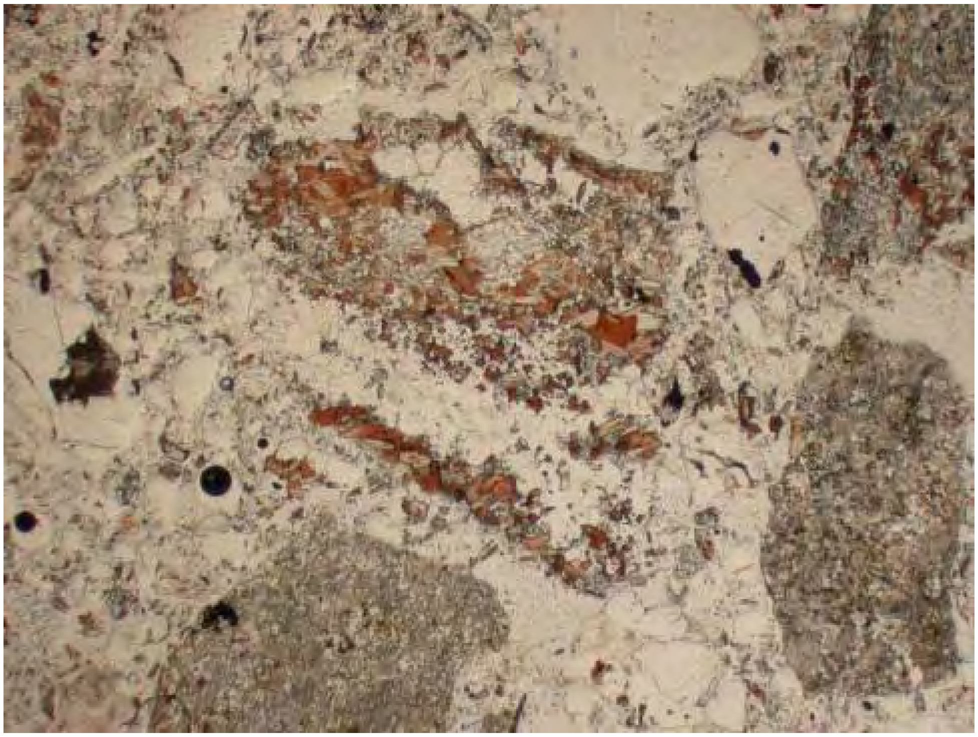
Chip and Offcut Mount Description:
Fine to coarse angular chips (less than 10 mm size) and pinkish-grey powder. Chips comprise aphanitic grayish-black banded rock and translucent quartz vein. Strong reaction of some fragments to cold dilute HCl. No reaction of chips to magnet. Reaction of some rock fragments to etching with HF and staining with sodium cobaltinitrite (some yellow stain).

Polished Thin Section Description:
Fine to coarse chips of dominantly biotite-quartz±andalusite hornfels, muscovite (sericite) altered biotite hornfels and a variety of quartz±K-feldspar veins. Biotite-quartz±andalusite hornfels chips comprise dominantly fine to very fine-grained red-brown biotite, very fine-grained quartz, locally, fine-grained ragged andalusite and feldspar. Biotite comprises approximately 15% of the section; andalusite comprises approximately 1% of the section. Minor chlorite, approximately 1%, and traces of rutile occurs as replacement of biotite. Muscovite (sericite) occurs in major amounts as replacement of biotite hornfels (approximately 10% of section). Quartz vein fragments typically comprise fine-grained anhedral quartz aggregate; K-feldspar is subordinate and occurs as linear arrays or individual crystals within the quartz aggregate. K-feldspar is partly replaced and locally fractured and infilled by carbonate. Traces of plagioclase occur within some of the quartz veins; plagioclase is virtually completely replaced by sericite and carbonate.

Carbonate occurs in trace amounts as very fine-grained aggregates replacing feldspar within quartz veins, as infill to quartz veins or as fine-grained liberated fragments. Some liberated carbonate chips are rimmed and partly replaced by very fine-grained red-brown Fe-oxide/oxyhydroxide aggregates.

Sulphide occurs in minor amounts, approximately 1%, mainly as pyrrhotite with traces of pyrite, chalcopyrite and marcasite. Pyrrhotite, approximately 1%, occurs as fine-grained (< 0.5 mm) anhedral grains and aggregates within biotite-quartz±andalusite hornfels, quartz±K-feldspar veins, as liberated grains and as replacement of biotite. Rarely pyrrhotite occurs intergrown with fine-grained chalcopyrite (< 0.15 mm size grains). Pyrrhotite grain boundaries are irregular and for the most part unaltered. A few pyrrhotite grains are rimmed and partly replaced by red-brown Fe-oxide/oxyhydroxide aggregate. Rarely, pyrrhotite grains have weathered forming a bird's eye texture composed of pyrite and marcasite. One pyrrhotite grain has altered to a marcasite pseudomorph. Trace pyrite occurs disseminated as fine to very fine-grained (< 0.15 mm), eu-anhedral grains and aggregates within rock chips and as liberated grains. Pyrite grains are locally pitted. Some pyrite grain boundaries are irregular. A few pyrite grains are rimmed and partly replaced by red-brown Fe-oxide/oxyhydroxide aggregates.

Red very fine-grained Fe-oxyhydroxide aggregates occur in trace amounts in the section as replacement of carbonate and locally pyrrhotite and pyrite.



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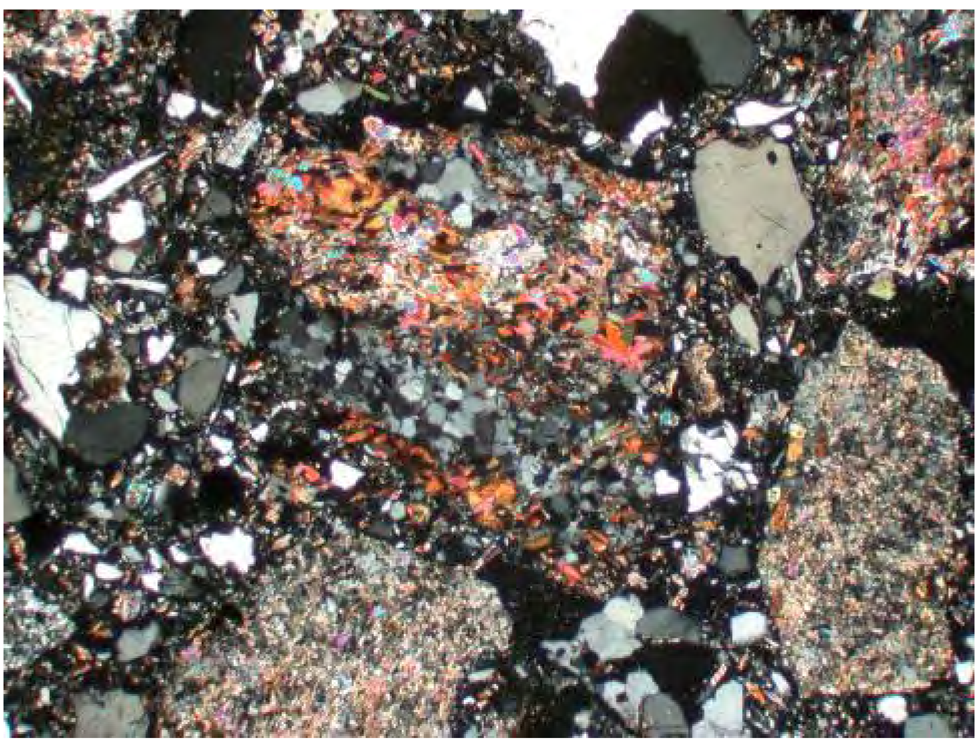
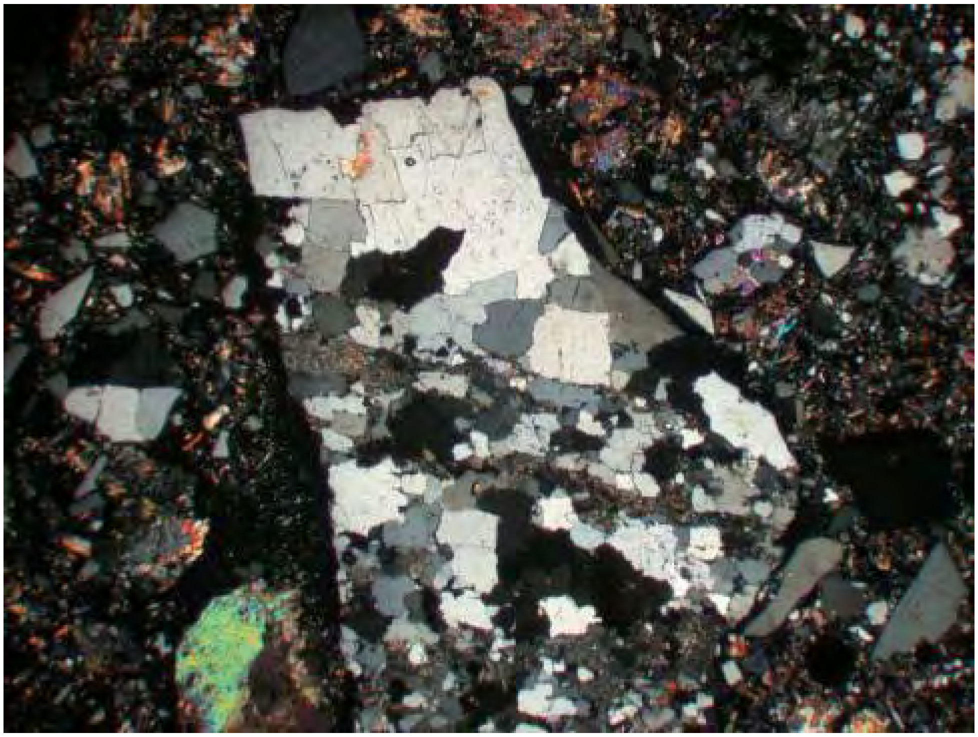
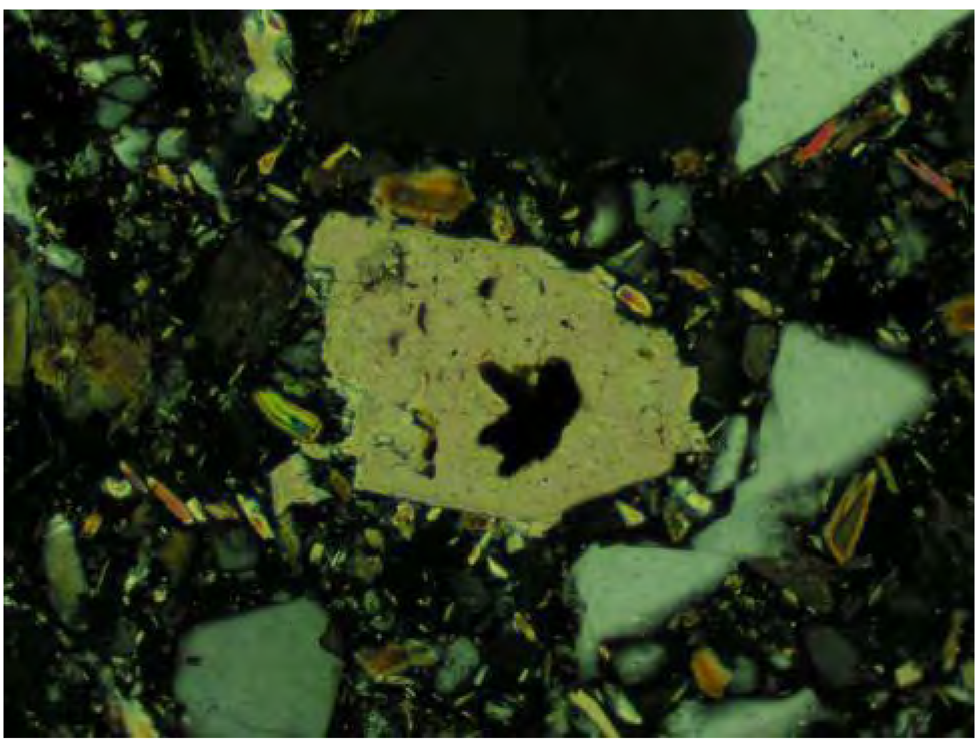


B

DG07-331C 52.92-62.30: Representative chips of biotite-quartz hornfels partly replaced by muscovite (sericite) alteration and quartz vein fragments. A) PPL, B) XPL, FOV =~ 4.5 mm.

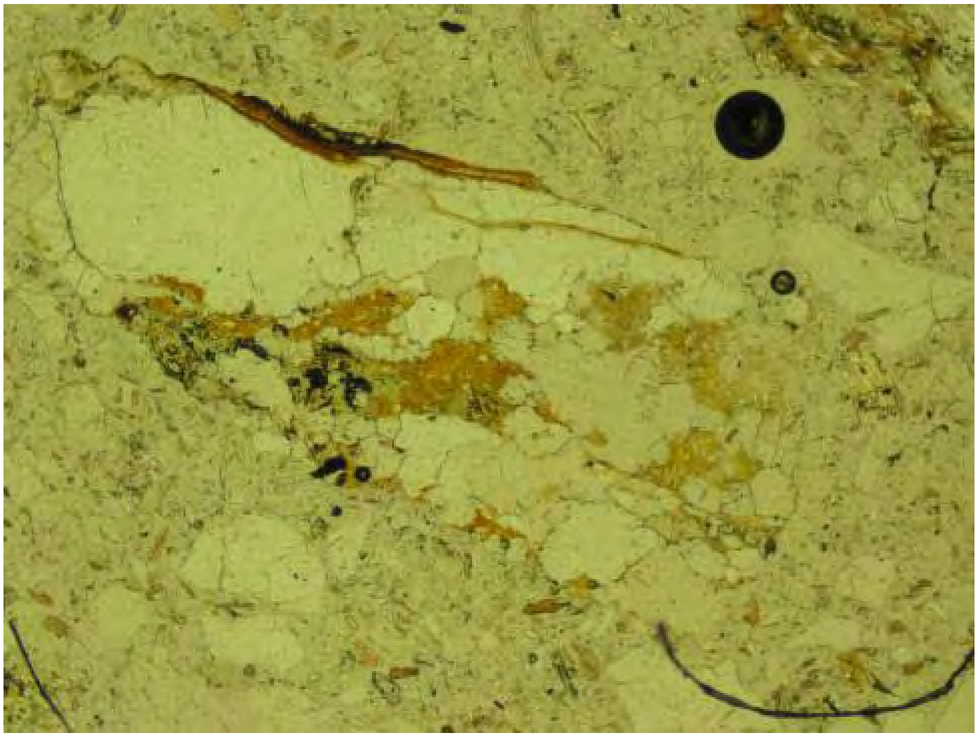


C

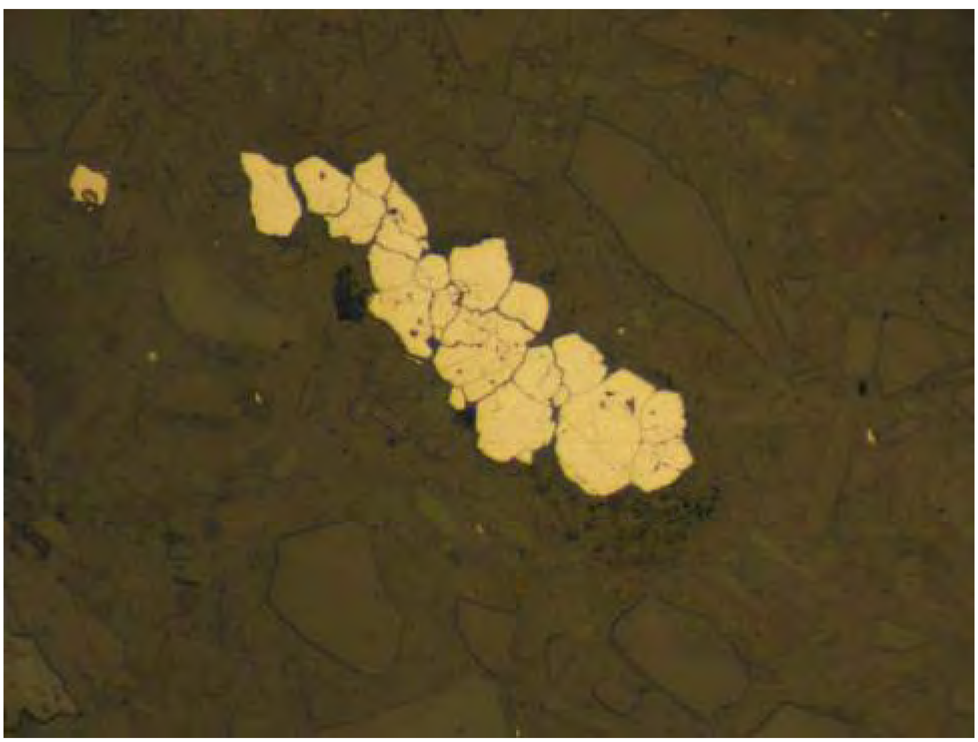


D

DG07-331C 52.92-62.30: C) Fragment of quartz vein with linear arrays of K-feldspar partly replaced by muscovite (sericite) and carbonate alteration. XPL, FOV =~ 4.5 mm. D) Liberated carbonate grain partly replaced by Fe-oxide/oxyhydroxide (centre). XPL, FOV = 0.7 mm.

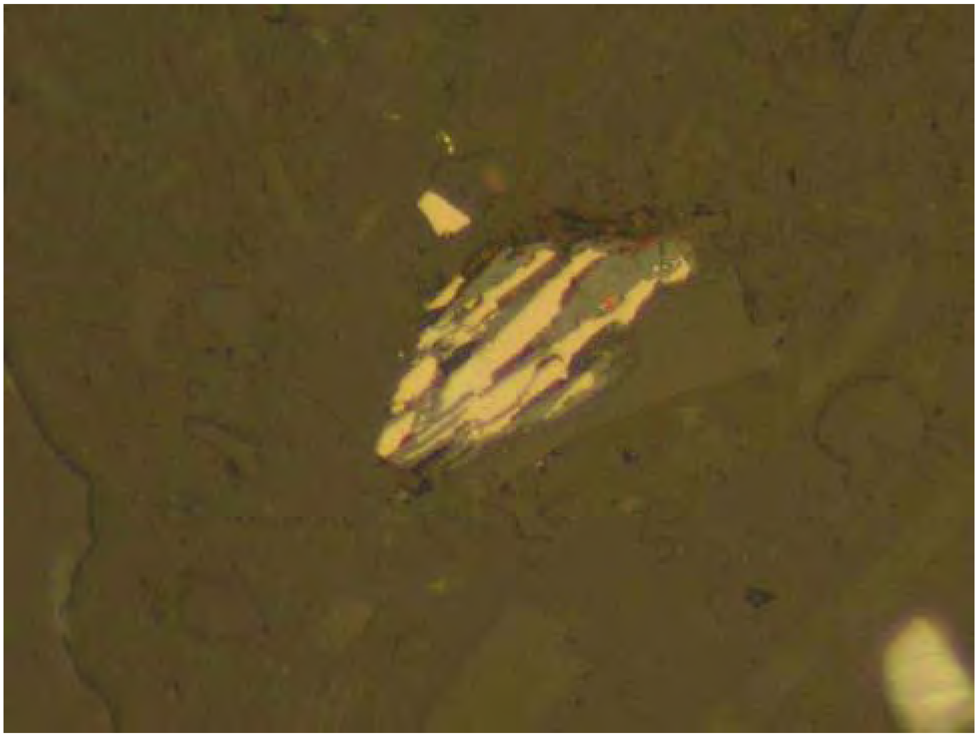


E

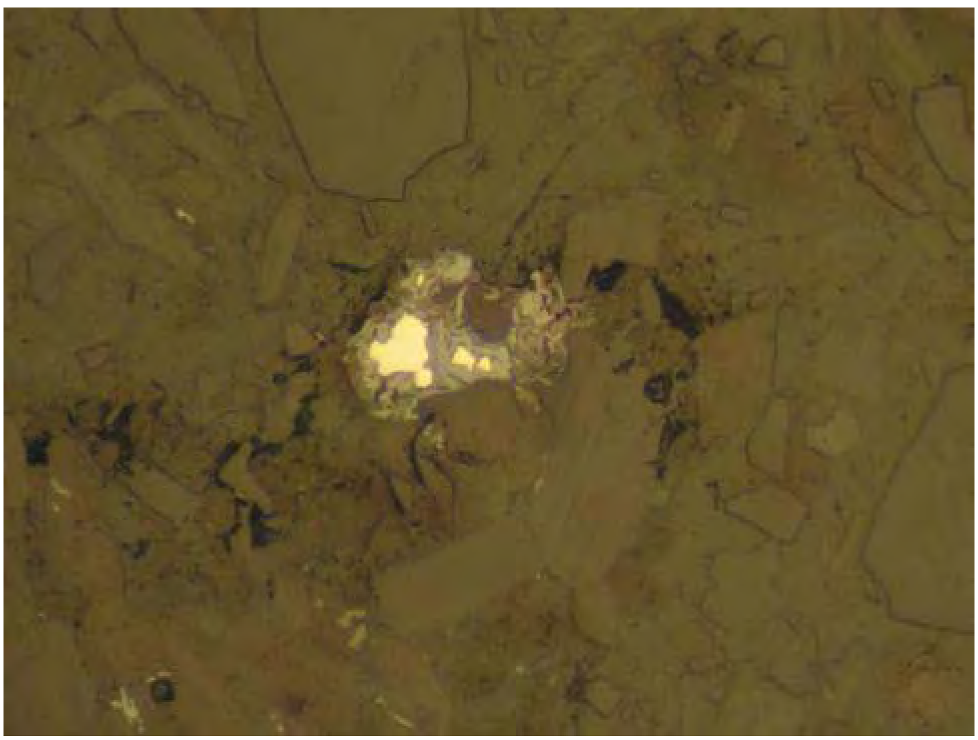


F

DG07-331C 52.92-62.30: E) Quartz vein fragment with chlorite alteration, Fe-oxide/oxyhydroxide replacement of sulphides, rimming of fragment and orange-brown stain. PPL, FOV = ~ 2.8 mm. F) Anhedral pyrite aggregate without grain boundary alteration. RL, FOV = ~ 0.35 mm.



G



H

DG07-331C 52.92-62.30: G) Pyrrhotite grain partly replaced by red-brown Fe-oxide/oxyhydroxide aggregate. RL, FOV = ~ 0.15 mm. H) Pyrite aggregate rimmed and partly replaced by red-brown Fe-oxide/oxyhydroxide aggregate. RL, FOV = ~ 0.3 mm.

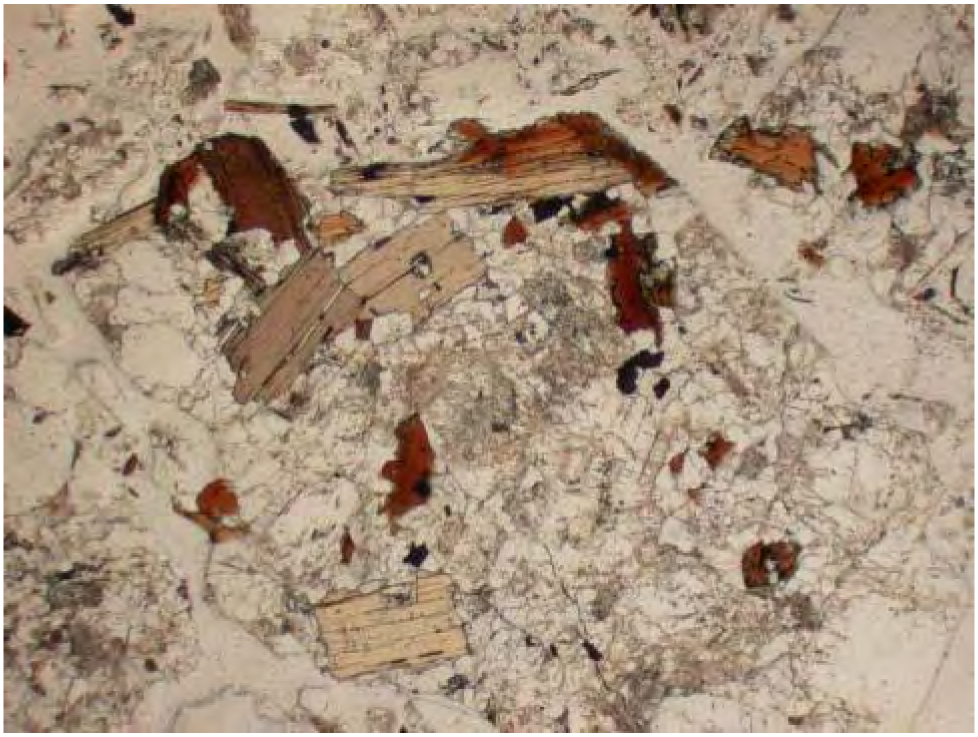
SGS-CEMI Project #: 0789 Strata Gold Corp
Sample ID: DG07-331C 99.97-109.12 Offcut #: AN-5A

Chip and Offcut Mount Description:
Fine to coarse angular chips (less than 15 mm size). Chips comprise light gray and very light gray fine to medium-grained intrusive rock. Minor fine-grained, disseminated brass-coloured sulphide minerals. Strong reaction of chips to cold dilute HCl. No reaction of chips to magnet. Reaction of intrusive rock fragments to etching with HF and staining with sodium cobaltinitrite (some yellow stain).

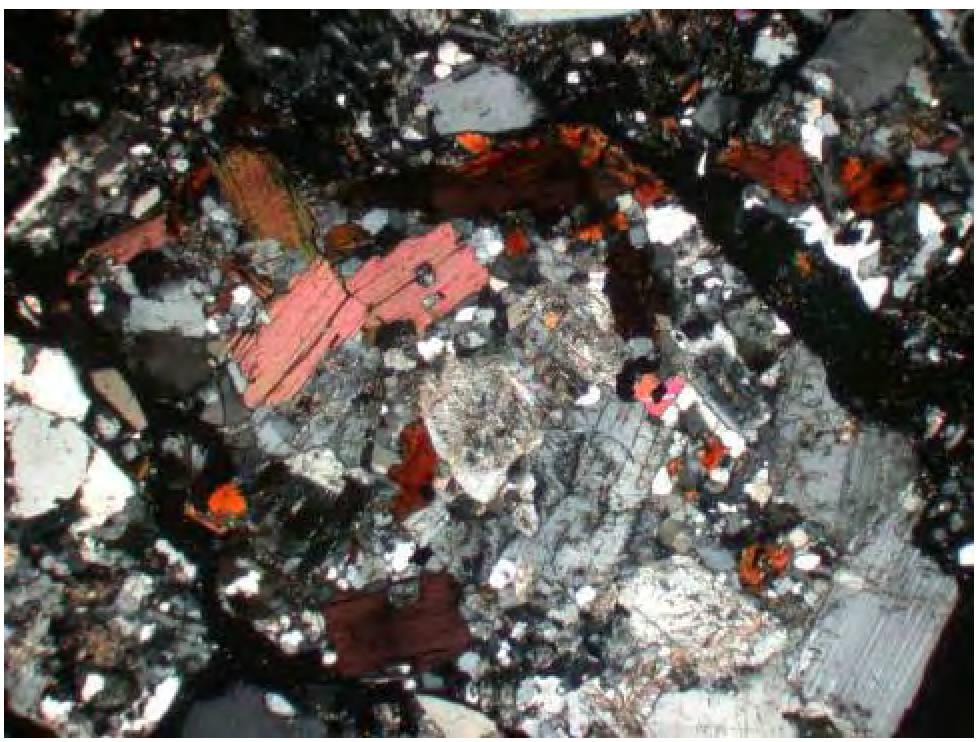
Polished Thin Section Description:
Fine to coarse chips representing selectively carbonate (sericite) altered seriate inequigranular biotite granodiorite as well as liberated quartz, carbonate and biotite grains. The seriate inequigranular rock is fine to medium-grained (maximum 1.5 mm size grains) and comprises dominantly fine to medium-grained plagioclase, fine to medium-grained quartz and fine-grained orthoclase with lesser tan-red brown platy biotite (~10%). Plagioclase is partly replaced by patchy carbonate and less commonly muscovite (sericite) aggregate. Muscovite (sericite) comprises approximately 1% of the section. Platy muscovite occurs in trace amounts. Biotite within granodiorite fragments and liberated biotite plates together comprise ~15% of the section. Biotite is rarely partly replaced by chlorite, patchy rutile or pyrrhotite. Traces of apatite occur within granodiorite rock fragments. Chlorite occurs in minor amounts, approximately 2% as replacement of biotite.

Total carbonate comprises approximately 5% of the section dominantly as colourless carbonate with traces of brown carbonate. Colourless carbonate occurs as 1) fine to very fine-grained anhedral patchy aggregates replacing rock fragments 2) fine-grained veinlets and infill to rock fragments and 3) very fine-grained aggregates that occur with sericite as replacement of plagioclase within porphyritic rock fragments and 4) fine-grained liberated fragments. Colourless carbonate aggregate is commonly partly replaced by very fine-grained brown carbonate aggregate or red-brown Fe-oxide/oxyhydroxide aggregate. Rarely carbonate is partly replaced by very fine-grained euhedral brown rutile grains.

Sulphide occurs in minor amounts, approximately 2%, dominantly as pyrrhotite and pyrite with traces of arsenopyrite, marcasite and chalcopyrite. Pyrrhotite, approximately 1%, occurs as fine to very fine-grained (< 0.1 mm) anhedral grains and aggregates within granodiorite rock chips, as liberated grains and as replacement of biotite. Locally pyrrhotite encloses euhedral pyrite grains or is associated with pyrite. Rarely pyrrhotite occurs intergrown with chalcopyrite. Pyrrhotite grain boundaries are irregular but generally unaltered. Very rarely grains of pyrrhotite were observed with rims partly replaced by traces of red Fe-oxide/oxyhydroxide. Minor pyrite, approximately 1%, occurs disseminated as fine to very fine-grained (< 0.4 mm), euhedral grains and aggregates within rock chips and as liberated grains. Pyrite grains are locally pitted and pyrite is locally associated with traces of very fine-grained marcasite aggregate; marcasite also occurs as lamellar-textured crystals. Pyrite grain boundaries are unaltered. Traces of arsenopyrite occur as fine to very fine-grained (< 0.4 mm) liberated grains. Arsenopyrite rims are generally clean without alteration. Aggregates of red-brown Fe-oxide/oxyhydroxide, possibly replacement of carbonate, occur adjacent to pyrite-marcasite-arsenopyrite aggregate in a few samples.



A



B

DG07-331C 99.97-109.12: Representative chips of seriate inequigranular biotite granodiorite. A) PPL, B) XPL, FOV =~ 4.5 mm.

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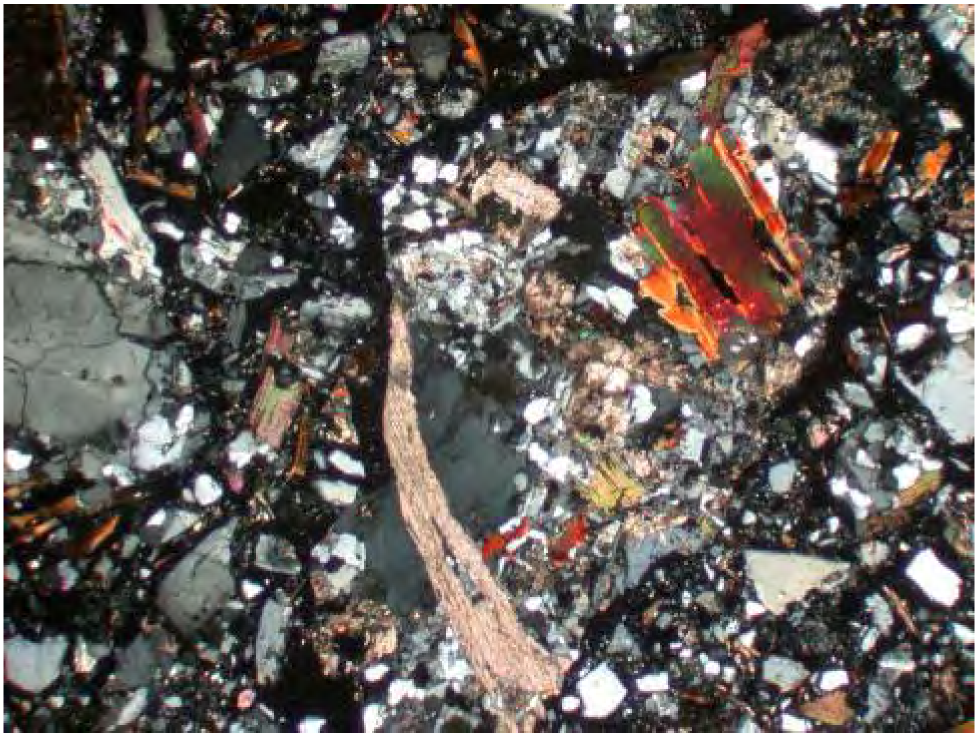
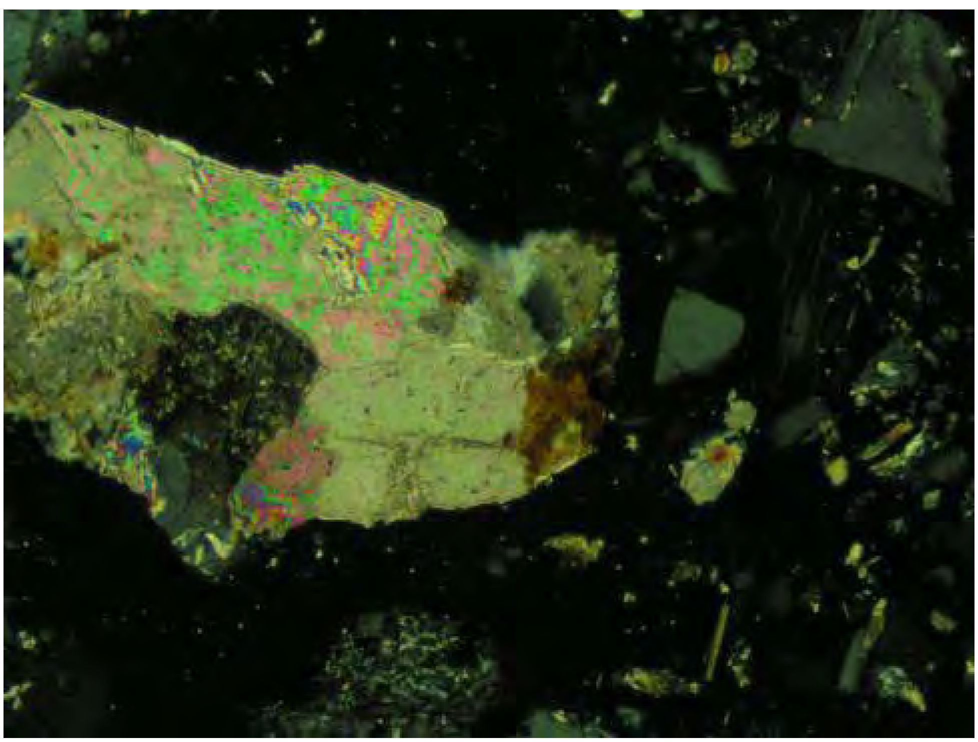
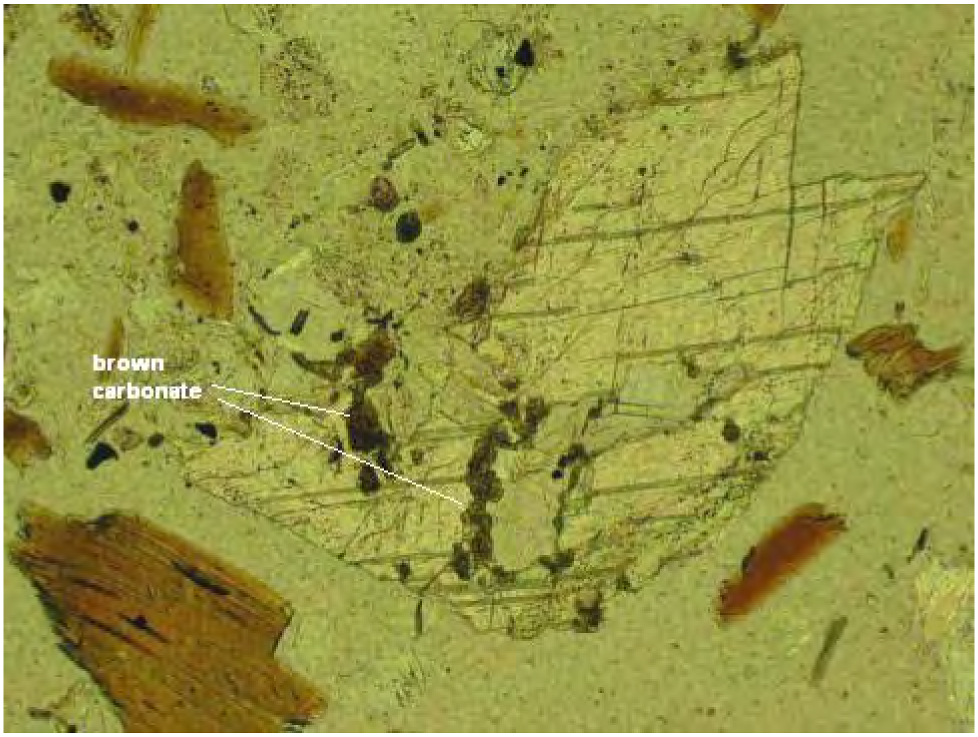


C

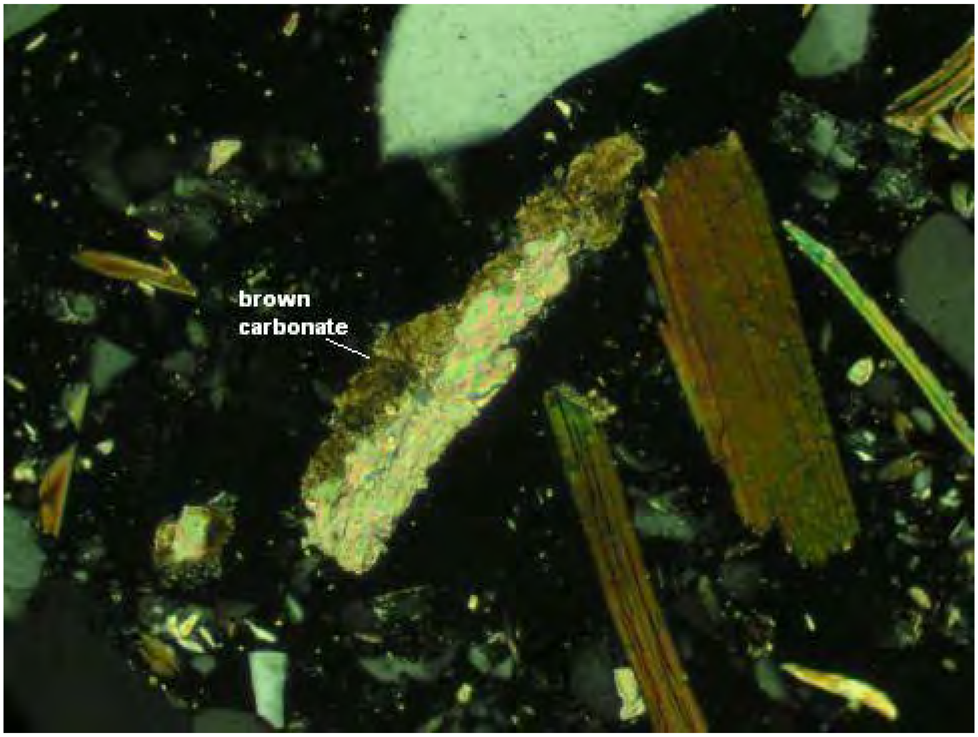


D

DG07-331C 99.97-109.12: C) Representative chips of granodiorite cut by carbonate veinlets and with carbonate replacement of plagioclase. XPL, FOV =~ 4.5 mm. D) Colourless carbonate fragment partly replaced by red-brown Fe-oxide/oxyhydroxide aggregate. XPL, FOV =~ 0.7 mm.

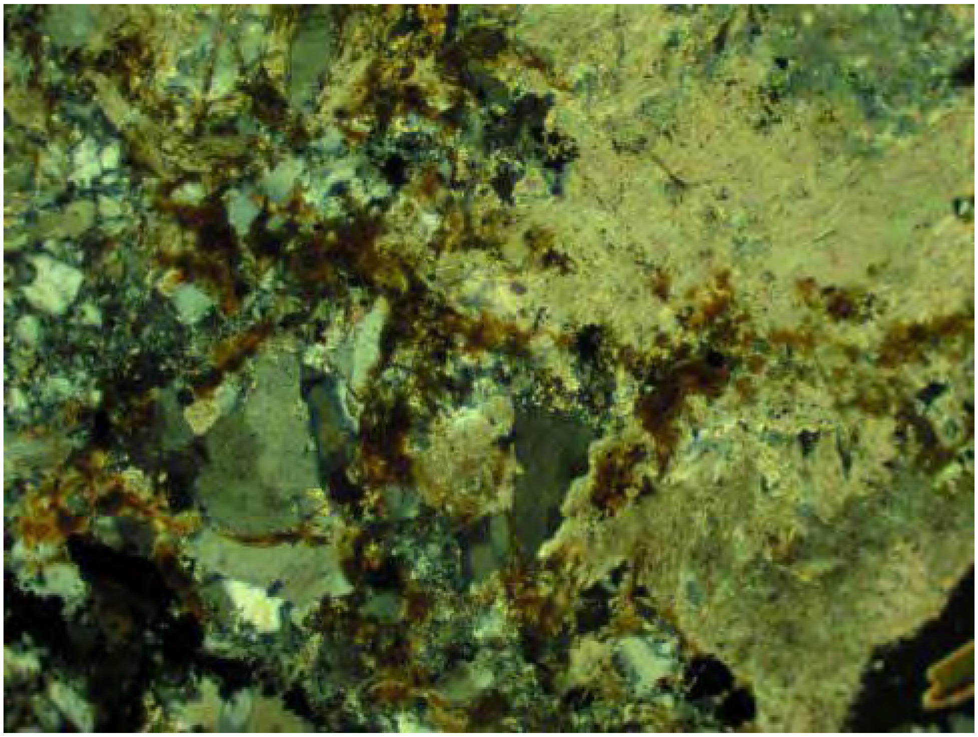


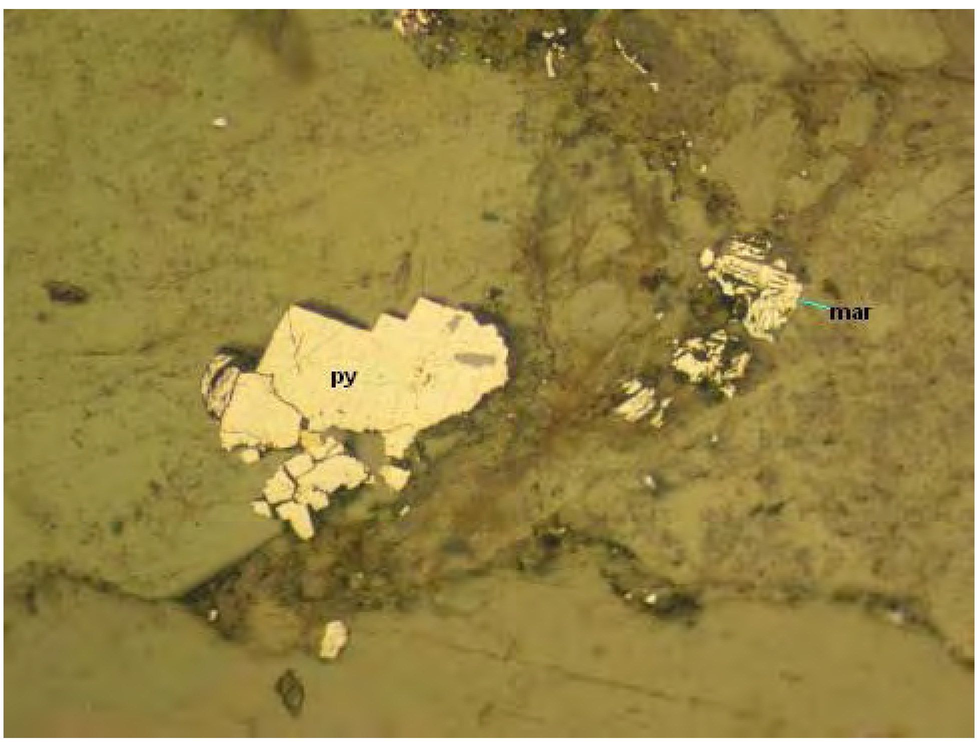
E



F

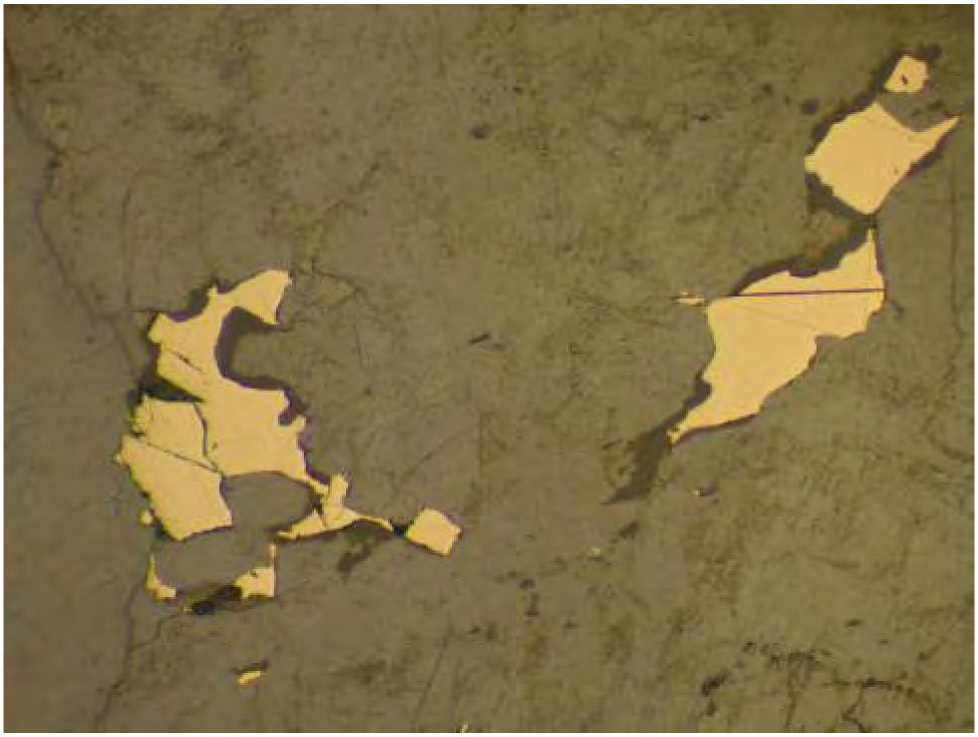
DG07-331C 99.97-109.12: E) Colourless carbonate partly replaced by brown carbonate aggregate. PPL, FOV =~ 1.3 mm. F) Colourless carbonate partly replaced by brown carbonate aggregate (centre). XPL, FOV =~ 0.7 mm.


G

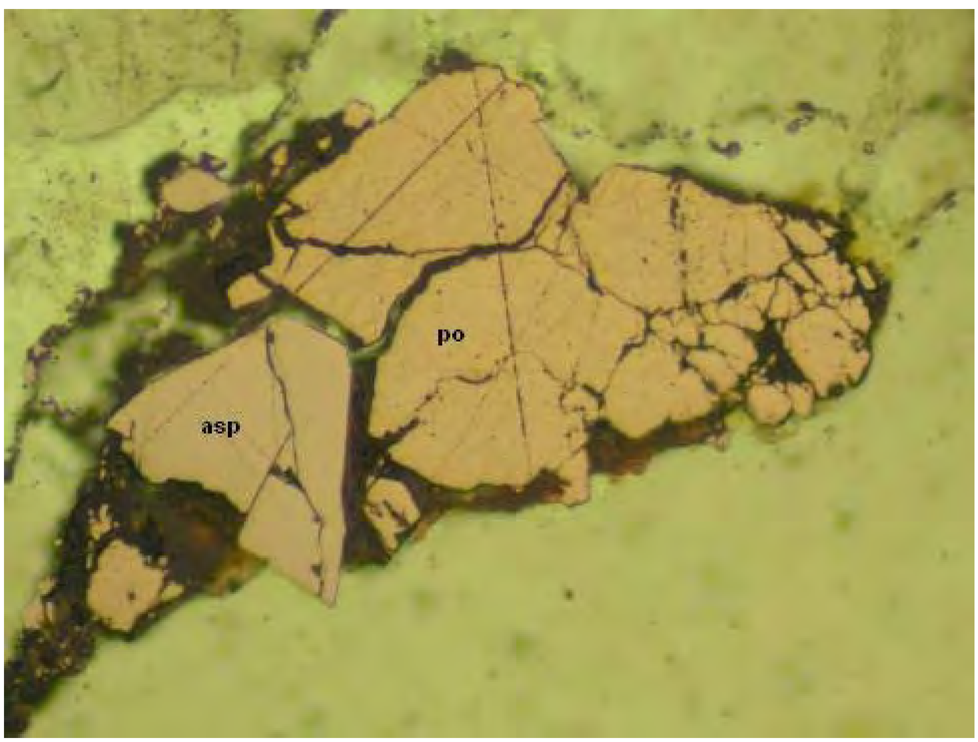


H

DG07-331C 99.97-109.12: G) Patchy colourless carbonate alteration of granodiorite partly replaced by red-brown Fe-oxide/oxyhydroxide aggregate. XPL, FOV =~ 1.3 mm. H) Pyrite and marcasite aggregates within same fragment as photo G. Note marcasite associated with patches of red-brown Fe-oxide/oxyhydroxide. RL +PPL, FOV =~ 0.7 mm.

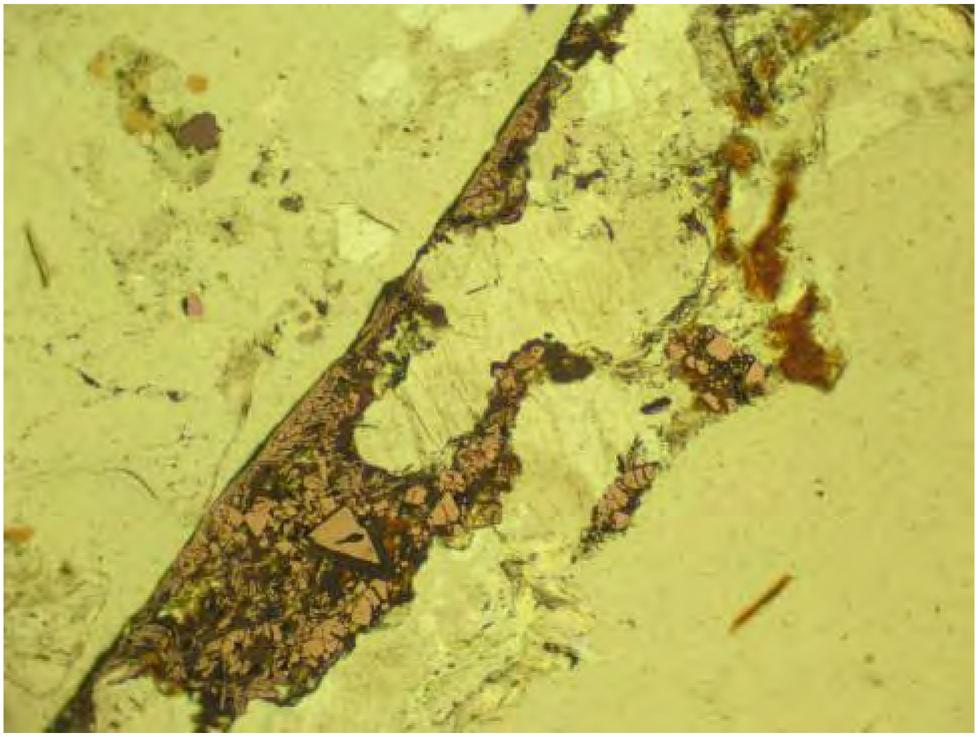


I



J

DG07-331C 99.97-109.12: G) Pyrrhotite aggregates without alteration rims. RL, FOV =~ 1.0 mm. H) Pyrrhotite and arsenopyrite aggregate with red-brown Fe-oxide/oxyhydroxide rims. RL +PPL, FOV =~ 0.3 mm.


K

DG07-331C 99.97-109.12: K) Marcasite and pyrite aggregate within carbonate-altered fragment. Note red-brown Fe-oxide/oxyhydroxide alteration adjacent to sulphides and within carbonate. RL +PPL, FOV =~ 0.7 mm.

SGS-CEMI Project #: 0789 Strata Gold Corp
Sample ID: DG07-335C 103.02-113.69 Offcut #: AN-6A

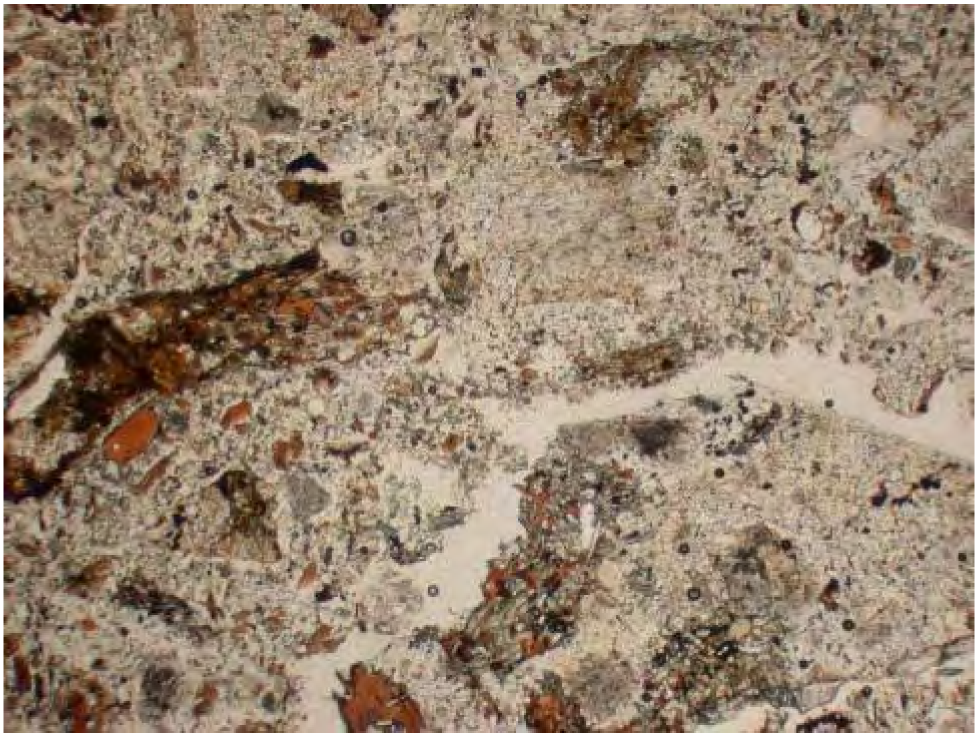
Chip and Offcut Mount Description:
Fine to coarse angular chips (less than 13 mm size) and light olive grey powder. Chips comprise dark gray porphyritic rock and orange-brown biotite hornfels. Strong reaction of chips to cold dilute HCl. No reaction of chips to magnet. Groundmass of porphyritic rock, particularly rims to plagioclase phenocrysts, have reacted to etching with HF and staining with sodium cobaltinitrite (yellow stain).

Polished Thin Section Description:
Fine to coarse chips representing a recrystallized quartz-actinolite-biotite-plagioclase porphyritic rock as well as liberated quartz, carbonate and biotite fragments. The porphyritic rock groundmass is fine to very fine-grained (typically < 100 µm size grains) and comprises recrystallized quartz or quartz with minor K-feldspar. Fine to very fine-grained recrystallized biotite occurs distributed in the matrix and as irregular patches. The porphyritic rock phenocryst assemblage comprises fine-grained brown platy biotite (~5%), fine to medium-grained zoned plagioclase (~15%), locally fine-grained actinolite (~3%) and traces of fine-grained resorbed quartz. Plagioclase phenocrysts are selectively replaced by traces of muscovite (sericite) and patchy carbonate aggregate. In some fragments biotite phenocrysts are recrystallized to very fine-grained brown biotite aggregate. Total biotite (biotite phenocrysts, liberated platy biotite and recrystallized biotite aggregate) comprises approximately 15% of the section. Biotite is partly replaced by chlorite, patchy carbonate, red-brown Fe-oxide/oxyhydroxide, rutile and pyrrhotite. Actinolite is partly replaced by red-brown Fe-oxide/oxyhydroxide, and pyrrhotite. Chlorite comprises approximately 1% of the section.

Carbonate occurs in trace amounts as very fine-grained aggregates replacing plagioclase phenocrysts, as fracture infill, as replacement of biotite phenocrysts or as fine-grained liberated fragments. Some liberated carbonate chips and carbonate replacement aggregates are partly replaced by very fine-grained red-brown Fe-oxide/oxyhydroxide aggregates.

Sulphide occurs in minor amounts, approximately 1%, mainly as pyrrhotite with traces of marcasite and chalcopyrite. Pyrrhotite, approximately 1%, occurs as fine-grained (< 0.2 mm) anhedral grains and aggregates within porphyritic rock fragments as liberated grains and as replacement of biotite. Rarely pyrrhotite occurs intergrown with fine-grained chalcopyrite (< 0.05 mm size grains). Pyrrhotite grain boundaries are irregular and for the most part unaltered. Rare pyrrhotite grains are rimmed and partly replaced by red-brown Fe-oxide/oxyhydroxide aggregate. Pyrrhotite grains are commonly altered to a marcasite pseudomorph. Very fine-grained marcasite rims are typically preserved.

An unknown red-brown Fe-oxyhydroxide occurs in minor amounts (~2%) as very fine-grained fracture-controlled aggregates, as replacement of biotite and rims some fragments in the section.



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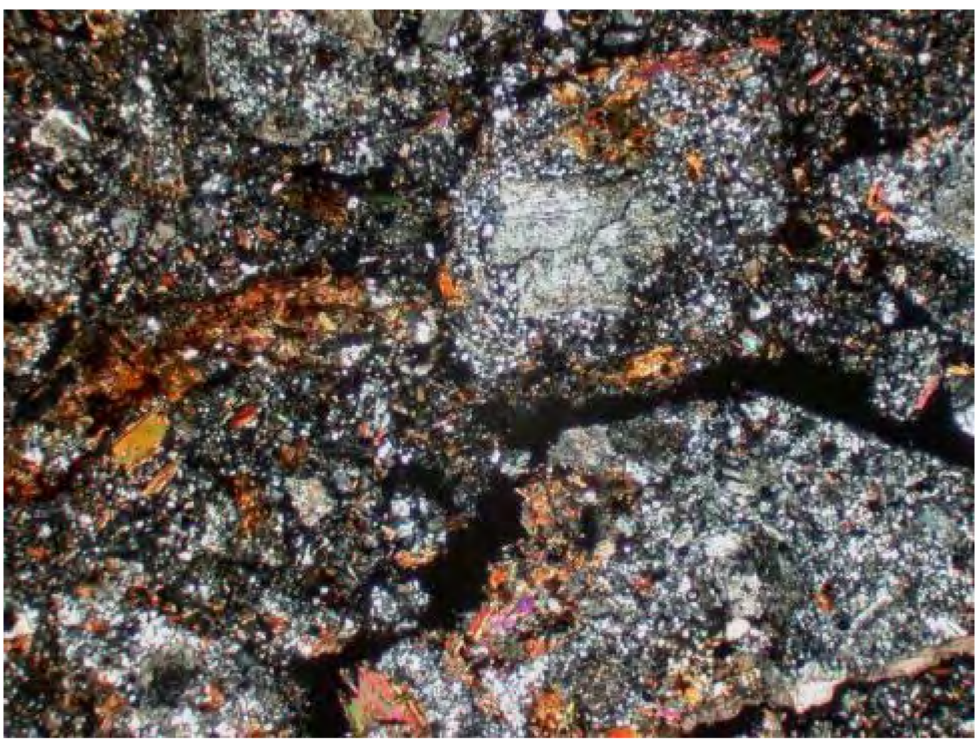
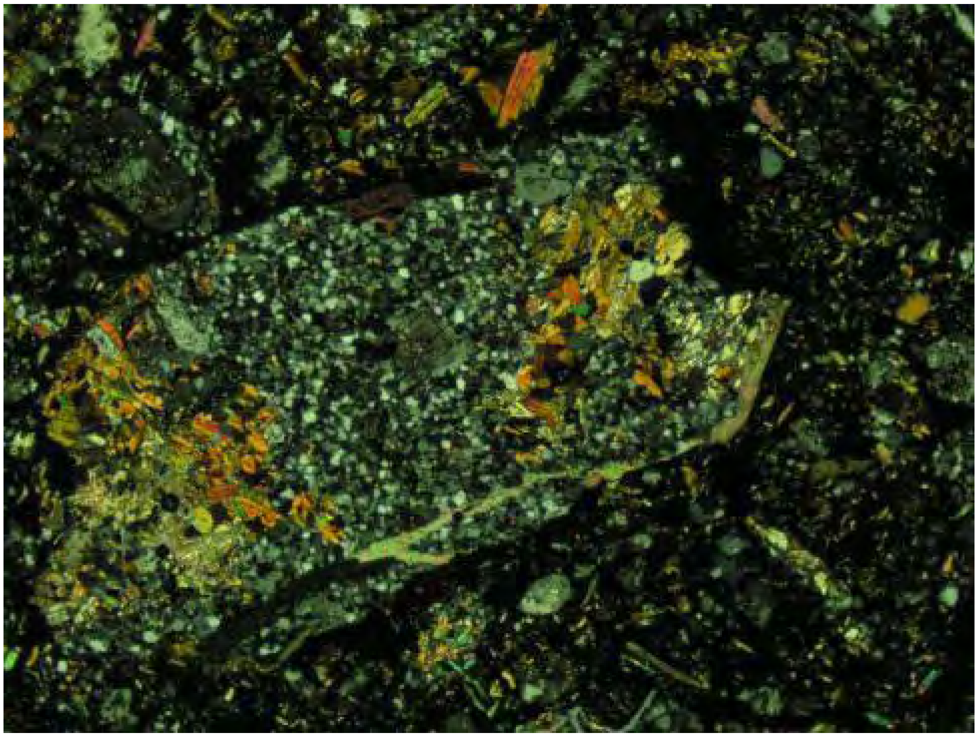


B

DG07-335C 103.02-113.69: Representative chips of recrystallized quartz-actinolite-biotite-plagioclase porphyritic rock as well as liberated quartz, carbonate and biotite fragments. A) PPL, B) XPL, FOV =~ 4.5 mm.



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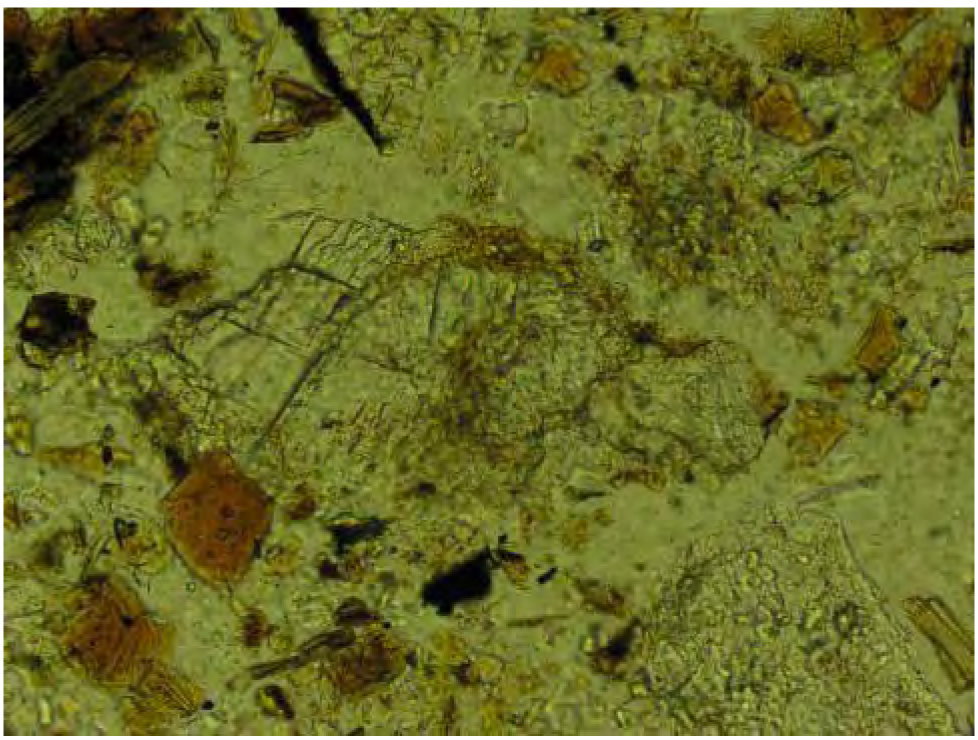
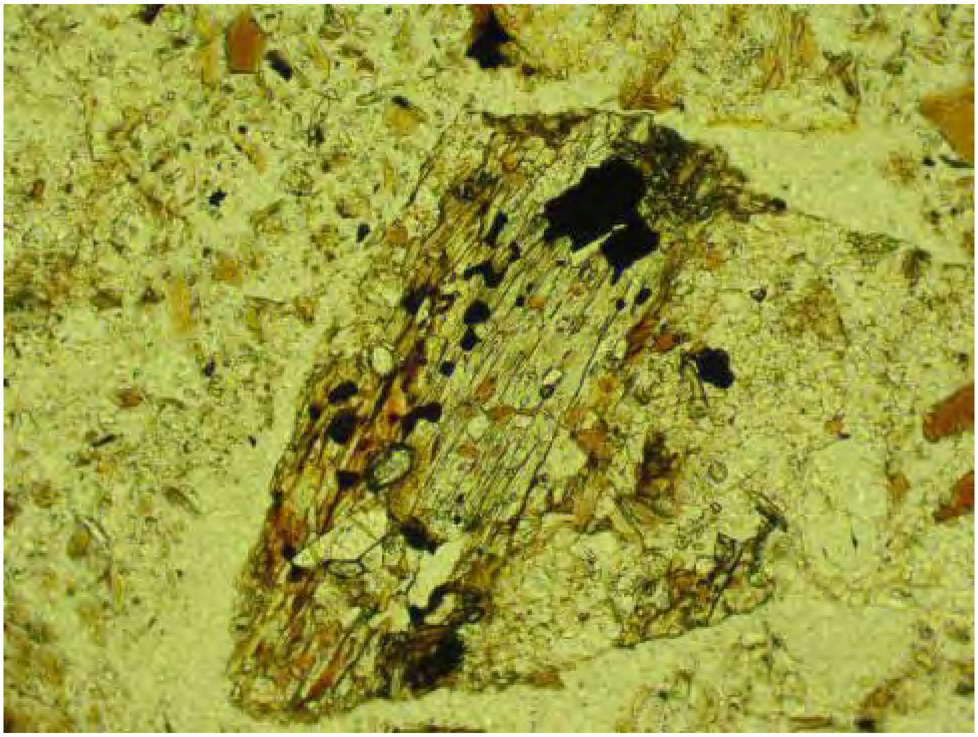
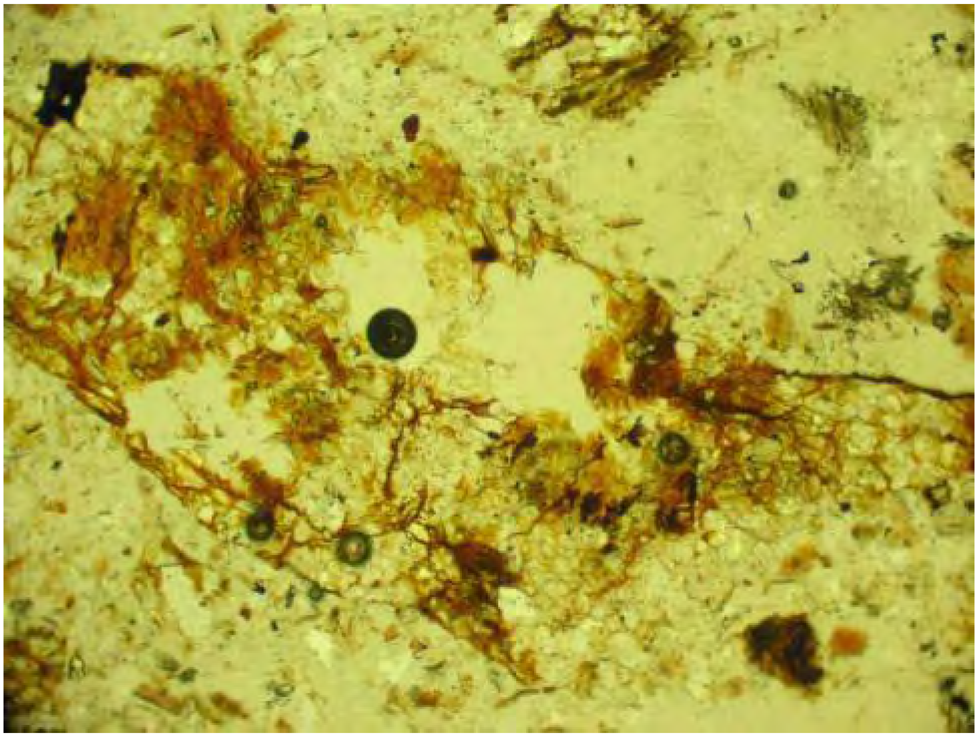


D

DG07-335C 103.02-113.69: C) Porphyritic rock fragment with patchy carbonate alteration (left) cut by carbonate-filled fractures (centre). XPL, FOV =~ 2.8 mm. D) Colourless carbonate aggregate with rims partly replaced by red-brown Fe-oxide/oxyhydroxide aggregate. PPL, FOV =~ 0.7 mm.

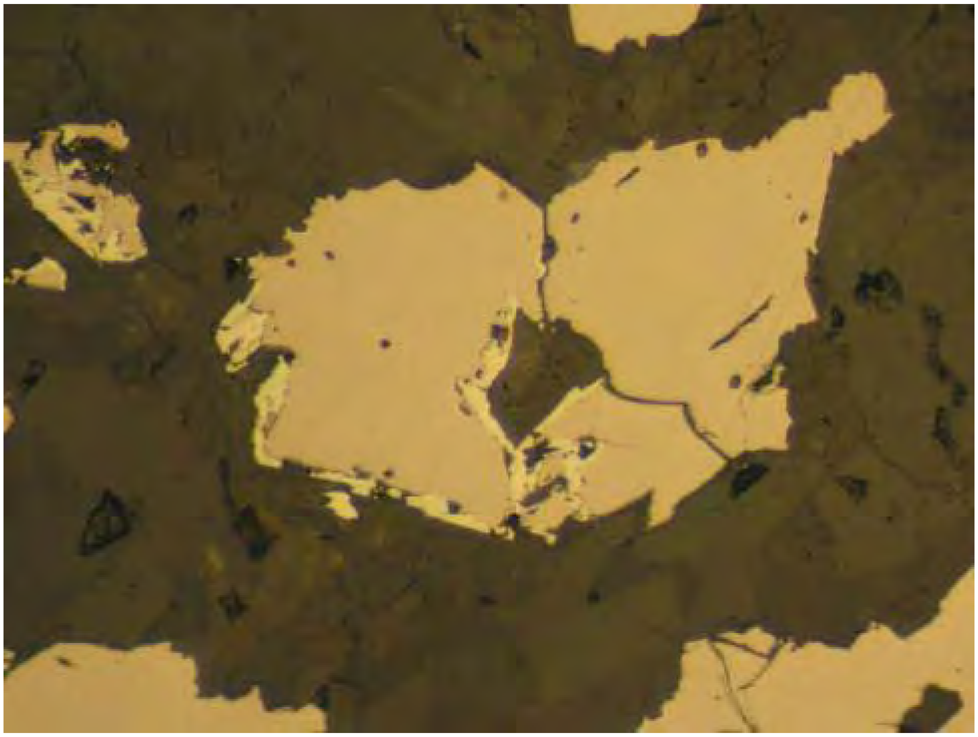


E

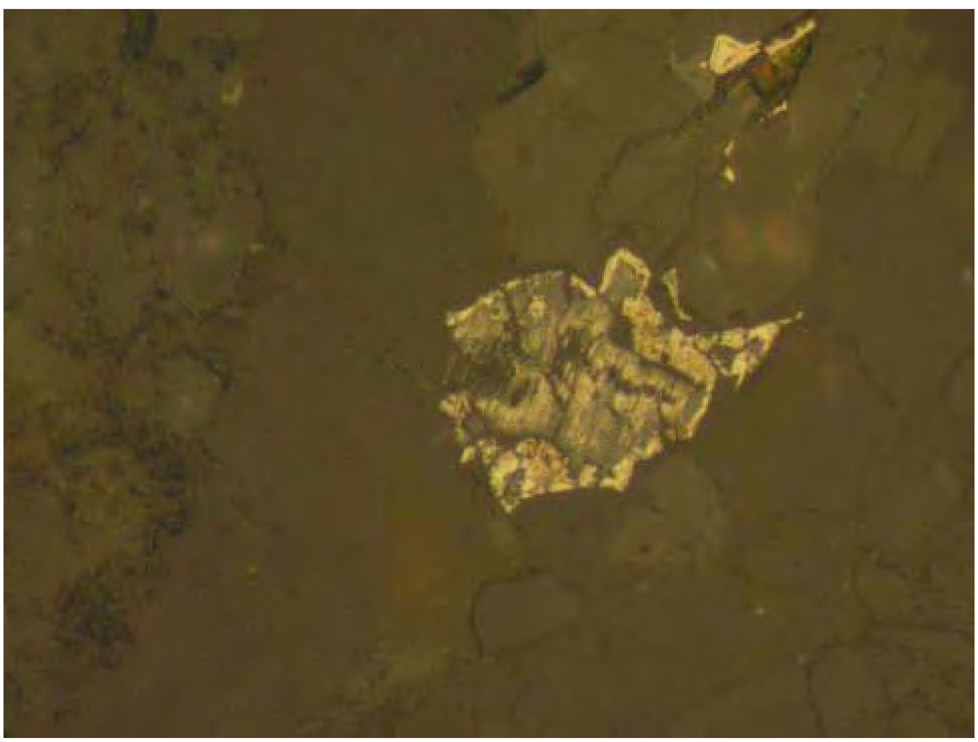


F

DG07-335C 103.02-113.69: E) Actinolite phenocryst partly replaced by opaques and Fe-oxide/oxyhydroxide (along cleavage traces). PPL, FOV =~ 1.3 mm. F) Fe-oxide/oxyhydroxide occurs as fracture infill and as rims to fragment. PPL, FOV =~ 1.3 mm.

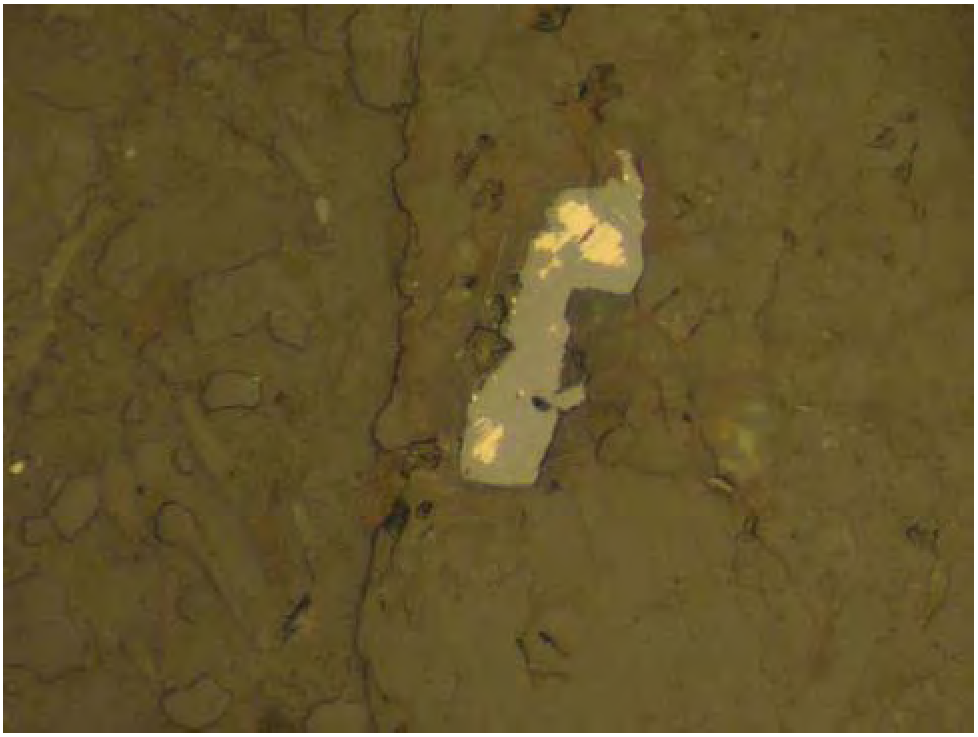


G



H

DG07-335C 103.02-113.69: G) Pyrrhotite (pinkish-brown) aggregates partly rimmed by marcasite (yellowish white). RL, FOV =~ 2.8 mm. H) Marcasite pseudomorph after pyrrhotite. RL, FOV =~ 0.15 mm.



DG07-335C 103.02-113.69: I) Pyrrhotite rimmed and mostly replaced by Fe-oxide/oxyhydroxide aggregate. RL, FOV =~ 0.35 mm.

Statement of qualifications: Kathryn P.E. Dunne

I, Kathryn P.E. Dunne, of the City of Salmon Arm, province of British Columbia, do hereby certify that:

1. I am an independent consulting geologist, with a business office at 4610 Lakeshore Road NE, Salmon Arm, B.C., Canada. My business mailing address is: Bag 9000, # 207, 190B Trans Can Hwy NE, Salmon Arm, BC, V1E 1S3.

2. I am a graduate in geology, with a BSc in geology from The University of British Columbia (1985).

3. I received my Masters degree in geology from The University of British Columbia, Vancouver, B.C. in 1988.

4. I am a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18674).

5. I am a fellow of the Geological Association of Canada and a member of the Society of Economic Geologists.

6. I have practiced my profession as a geologist for approximately 20 years: 4 years as geologist with the British Columbia Geological Survey Branch, 3 years as research coordinator at the Mineral Deposit Research Unit housed within the Department of Earth and Ocean Sciences at the University of British Columbia, and 13 years as an independent consultant.

7. The petrographic data of this report was collected by me in July 2009.

……………………..…………………

Kathryn P.E. Dunne, M.Sc., P.Geo.
Consulting Geologist
July 17, 2009

Petrography Report

CHARACTERIZATION OF ROCK CHIPS, DUBLIN GULCH PROPERTY, YUKON

May 14, 2010

SGS-CEMI Project #:
0789 StrataGold

Prepared for:
Rik Vos
SGS CEMI Inc.
6927 Antrim Avenue
Burnaby, BC
Canada V5J 4M5

Prepared by:
Kathryn Dunne, M.Sc. P.Geo.
Consulting Geologist
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190B Trans Can Hwy NE
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phone: 250-804-0729
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Background
Four crushed rock samples from the Dublin Gulch property, Yukon, Canada are characterized in this report (SGS CEMI Project No. 0789). Optical reporting was requested by Rik Vos of SGS CEMI Inc. The samples were submitted for polished thin section production at Vancouver Petrographics Ltd. by Rik Vos of SGS CEMI Inc. and then forwarded to Kathryn Dunne for optical work. The purpose of the optical study was to characterize the mineralogy with particular emphasis on sulphide minerals and any carbonate minerals present.

The optical observations are summarized below and petrographic descriptions of polished thin sections with representative photomicrographs follow the summary. All percentages in the descriptions are approximate based on visual estimation.

Please note the following grain size conventions are used in the report: very fine-grained (< 50 µm), fine-grained (> 50 µm and less than 1 mm), medium-grained (> 1mm and < 5 mm) and coarse-grained (> 5mm).

Please note that in this report the abbreviation Fe-ox is used for unknown amorphous, very fine-grained poorly crystalline and/or crystalline ferric hydroxides, oxyhydroxides and/or oxyhydroxy-sulphate minerals. These substances may contain other crystalline solids including sulfates, oxides, hydroxides and silicates. The composition of these materials is best identified using a scanning electron microscope (SEM).

Summary

Sample List
DG05-308C 12.19 -18.00
DG05-308C 125.00 -128.00
DG06-311C 130.45 -140.45
DG07-327C 24.69 -33.83

The crushed rock samples include intrusive rock types (seriate inequigranular biotite granitoid and biotite-plagioclase± quartz± K-feldspar porphyry), biotite-quartz±andalusite hornfels, a variety of veins including quartz±K-feldspar and quartz-carbonate and liberated mineral grains (including quartz, feldspar, carbonate, biotite and sulphides).

Alteration is dominated by minor to major muscovite (sericite) replacement of plagioclase and biotite. Carbonate occurs as patchy replacement of plagioclase ± biotite in all but one sample. Trace to minor amounts of chlorite occur partly replacing biotite in all but one sample. Minor clay occurs partly replacing plagioclase and biotite in one sample.

Carbonate occurs in trace to minor amounts (~3%) dominantly as colourless varieties with traces of brown carbonate noted in two sections. Carbonate can occur as very fine-grained anhedral grains and patchy aggregates replacing feldspar or biotite, as fine aggregate within vein fragments, as fracture infill and as fine-grained liberated fragments.

Sulphides occur in trace to minor amounts (~1%) dominantly as pyrrhotite, pyrite and marcasite with some of the following in some sections: chalcopyrite, arsenopyrite, rare bismuthinite and associated unknown phases. Pyrrhotite occurs as fine to very fine-grained anhedral grains and aggregates within rock chips and as liberated grains. Pyrrhotite is partly replaced by red-brown Fe-ox aggregate in some samples. Pyrite occurs as fine to very fine-grained, eu-anhedral grains and aggregates within rock chips and as liberated grains. Irregular patches of very fine-grained marcasite occur locally with pyrite aggregate. Pyrite is rimmed and partly replaced by red-brown Fe-ox aggregate all but one sample. Traces of arsenopyrite occur disseminated in rock chips and as liberated fine grains. Arsenopyrite rims are without alteration.

Unknown red-brown Fe-ox aggregates occurs in trace amounts in two samples and major amounts (~7%) in samples DG05-308C 125.00 -128.00 and DG07-327C 24.69 -33.83. The red-brown Fe-ox occurs in some of the following forms in the sections: as replacement of carbonate, as replacement of muscovite (sericite)-carbonate alteration of plagioclase, as replacement of biotite, as liberated aggregates, as replacement of pyrite and pyrrhotite, as very fine-grained fracture-controlled aggregates or as fragment rinds. In one section, traces of orange-brown Fe-ox occurs with red-brown Fe-ox as replacement of carbonate and stain on rock fragments.

<u>Tabular summary</u> (SGS-CEMI Project #**:** 0789 Strata Gold Corp):

Sample #	**Sulphide**	**% ~**	**Carbonate occurrence**	**% ~**	**Fe-Oxides and Oxyhydroxides**	**% ~**	**Some Other > 1%**	**% ~**
DG05-308C 12.19 -18.00	pyrite pyrrhotite marcasite	tr tr r.	fine-grained colourless liberated grain	r.	red-brown Fe-ox ilmenite	tr tr	quartz K-feldspar plagioclase biotite muscovite (sericite) andalusite chlorite	~30 ~30 ~10 15 10 3 1
DG05-308C 125.00 -128.00	pyrite arsenopyrite chalcopyrite pyrrhotite marcasite	tr tr r. r. r.	colourless, fine to very fine-grained, anhedral grains and patchy aggregates, vein fragments; brown, very fine-grained, aggregates	tr	red-brown Fe-ox	7	quartz K-feldspar plagioclase muscovite (sericite) biotite	~45 ~15 ~11 20 1
DG06-311C 130.45 -140.45	pyrrhotite pyrite arsenopyrite chalcopyrite marcasite bismuthinite unknown	1 tr tr tr tr r. r.	very fine-grained, colourless aggregates, fine-grained infill and liberated fragments; brown, very fine-grained	tr	red-brown Fe-ox ilmenite	tr tr	quartz K-feldspar plagioclase biotite muscovite (sericite) chlorite	~35 ~30 ~25 6 1 1
DG07-327C 24.69 -33.83	pyrite marcasite pyrrhotite	tr tr r.	colourless very fine-grained aggregates, fine-grained infill, and liberated grains	3	red-brown Fe-ox orange-brown Fe-ox	7 tr	quartz K-feldspar plagioclase muscovite (sericite) biotite clay	~40 ~30 ~10 5 3 1

tr = trace (< 1%); r. = rare; x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

SGS-CEMI Project #: 0789 StrataGold
Sample ID: DG05-308C 12.19 -18.00 Offcut #: CN-2

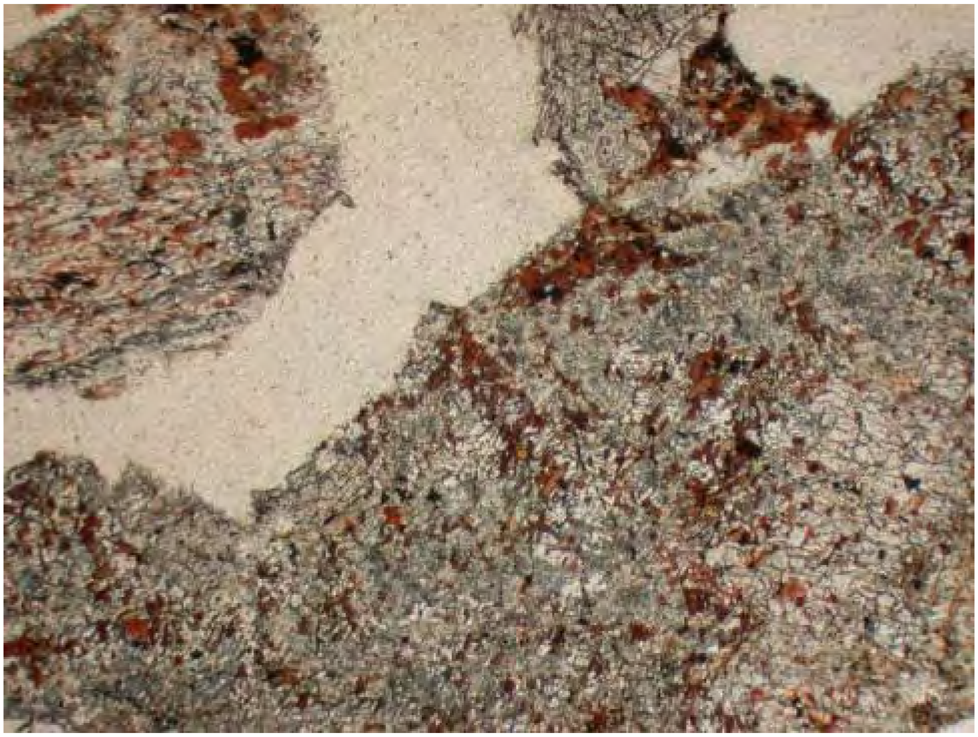
Fine to coarse angular chips (less than 15 mm size) and light olive grey powder. Chips comprise aphanitic brownish-black rock, banded quartz-biotite rock and translucent quartz vein. No reaction of fragments to cold dilute HCl. No reaction of chips to magnet. Reaction of some rock fragments to etching with HF and staining with sodium cobaltinitrite (yellow stain, approximately 30% K-feldspar).

Polished Thin Section Description:
Fine to coarse chips of dominantly muscovite (sericite) altered biotite-quartz±andalusite hornfels, biotite hornfels, banded quartz-feldspar-biotite rock, a variety of quartz±K-feldspar veins and numerous liberated biotite and quartz grains. Biotite-quartz±andalusite hornfels chips comprise dominantly fine to very fine-grained red-brown biotite, very fine-grained quartz, locally, fine-grained ragged andalusite and feldspar. Biotite comprises approximately 15% of the section; andalusite comprises approximately 3% of the section. Minor chlorite, approximately 1%, occurs as replacement of biotite. Muscovite (sericite) occurs in major amounts as replacement of biotite hornfels (approximately 10% of section). Traces of very fine-grained ilmenite occur disseminated in biotite hornfels and banded quartz-biotite rock. Quartz vein fragments typically comprise fine-grained anhedral quartz aggregate; K-feldspar is subordinate. Some K-feldspar occurs as liberated vein fragments. Quartz comprises approximately 30% of the section. Plagioclase is estimated at 10% of the section.

Carbonate occurs rarely. One liberated grain of fine-grained colourless carbonate was observed.

Sulphide occurs in trace amounts as pyrite, marcasite and pyrrhotite. Pyrrhotite occurs as fine-grained (< 0.1 mm) anhedral grains within biotite-quartz±andalusite hornfels and as liberated grains. Pyrrhotite grains are rimmed and partly replaced by red-brown Fe-ox aggregate. Rare marcasite occurs as pitted very fine-grained rounded grains within biotite hornfels chips. Pyrite occurs within biotite aggregate in hornfels chips. Pyrite grains are are rimmed and partly replaced by red-brown Fe-ox aggregates.

Red-brown very fine-grained Fe-oxyhydroxide aggregates occur in trace amounts in the section as replacement of pyrrhotite and pyrite.



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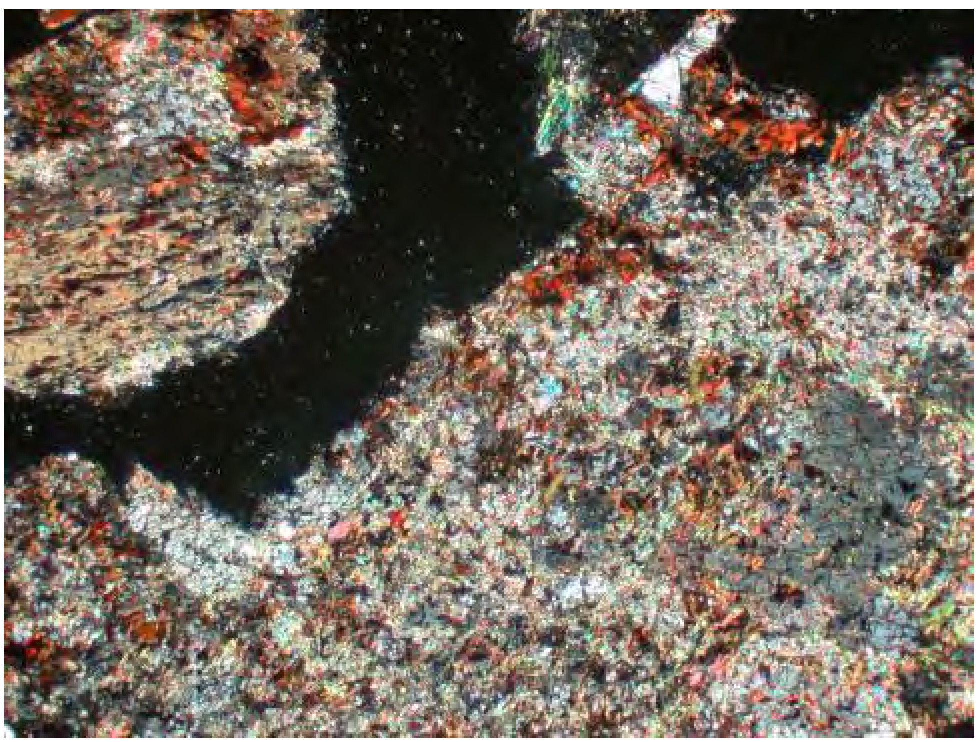
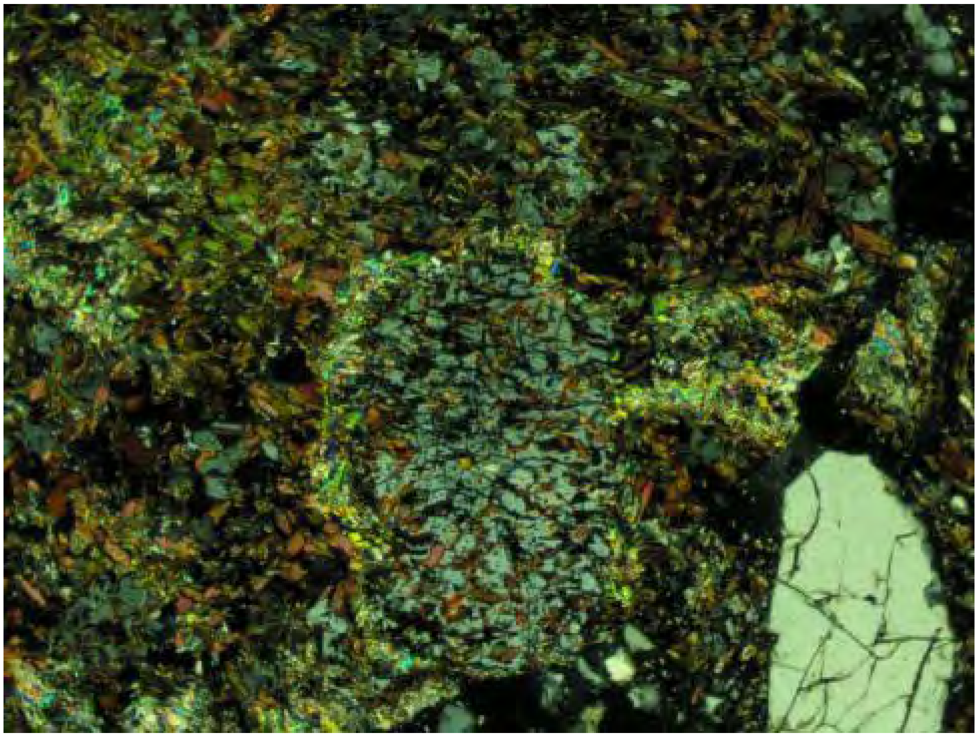


B

DG05-308C 12.19 -18.00: Representative chips of muscovite (sericite) altered biotite-quartz-andalusite hornfels. A) PPL, B) XPL, FOV =~ 4.5 mm.



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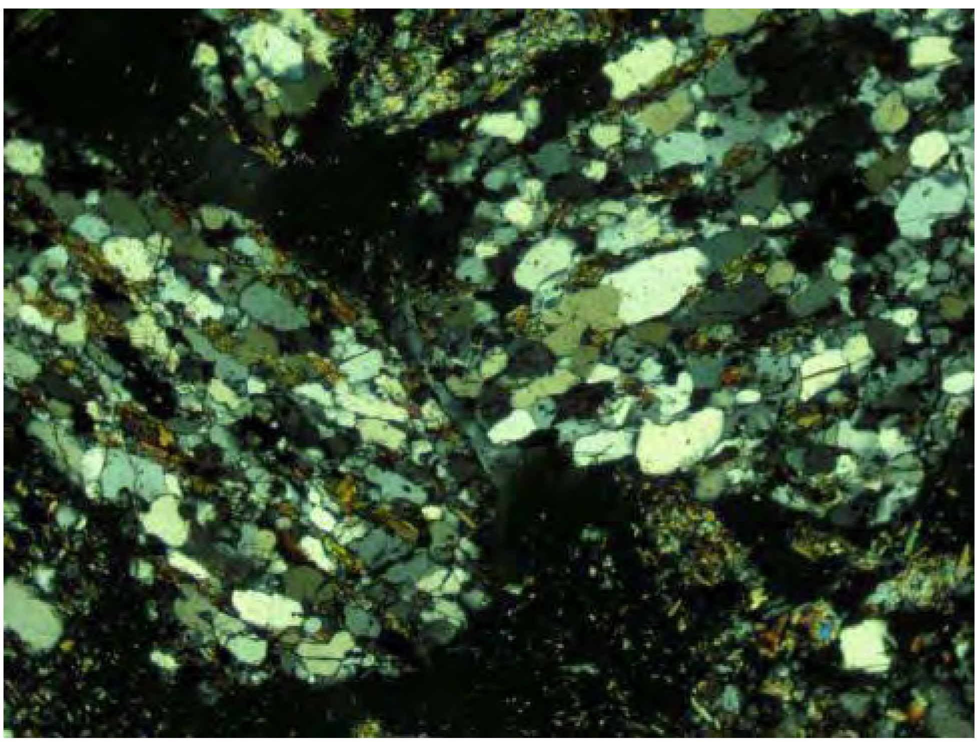
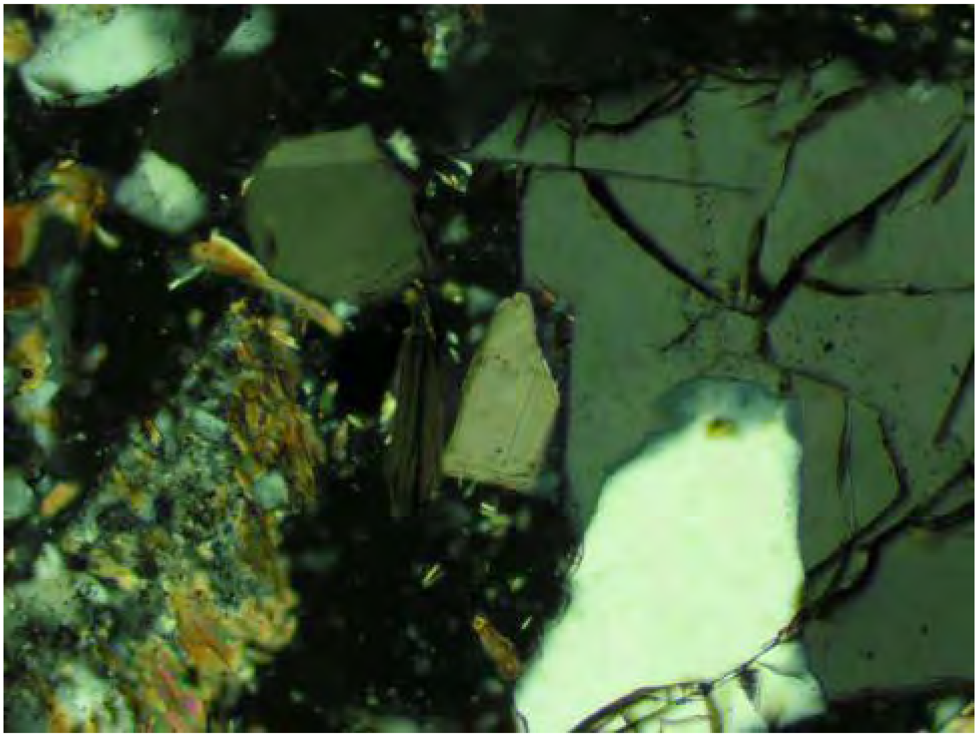


D

DG05-308C 12.19 -18.00: C) Detailed view of muscovite (sericite)-altered biotite-andalusite hornfels. XPL, FOV =~ 2.6 mm. D) Detailed view of banded quartz-biotite chips. XPL, FOV =~ 2.6 mm.



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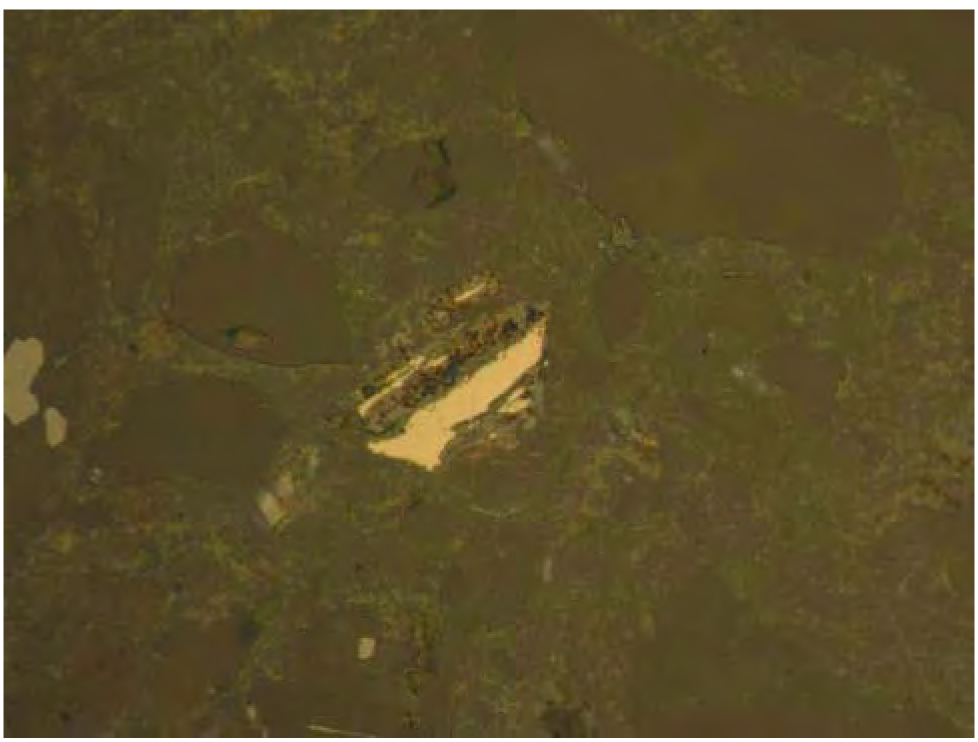
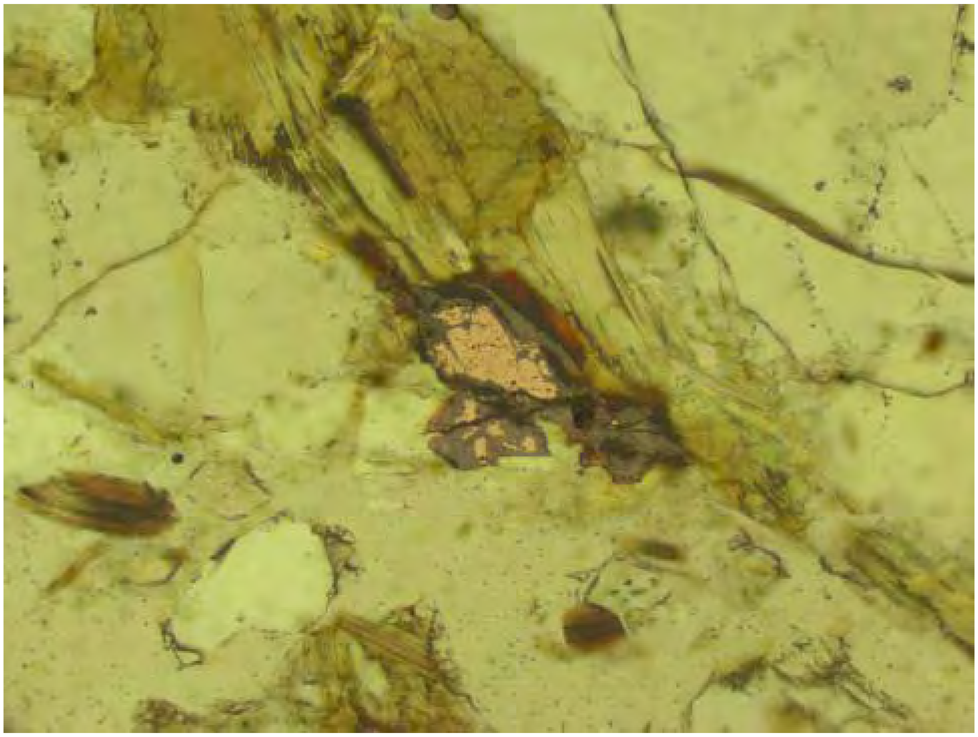


F

DG05-308C 12.19 -18.00: E) Rare liberated colourless carbonate grain (centre). XPL. FOV =~0.7 mm. F) Liberated pyrrhotite grain partly replaced by Fe-ox aggregate. RL. FOV =~ 0.3 mm.



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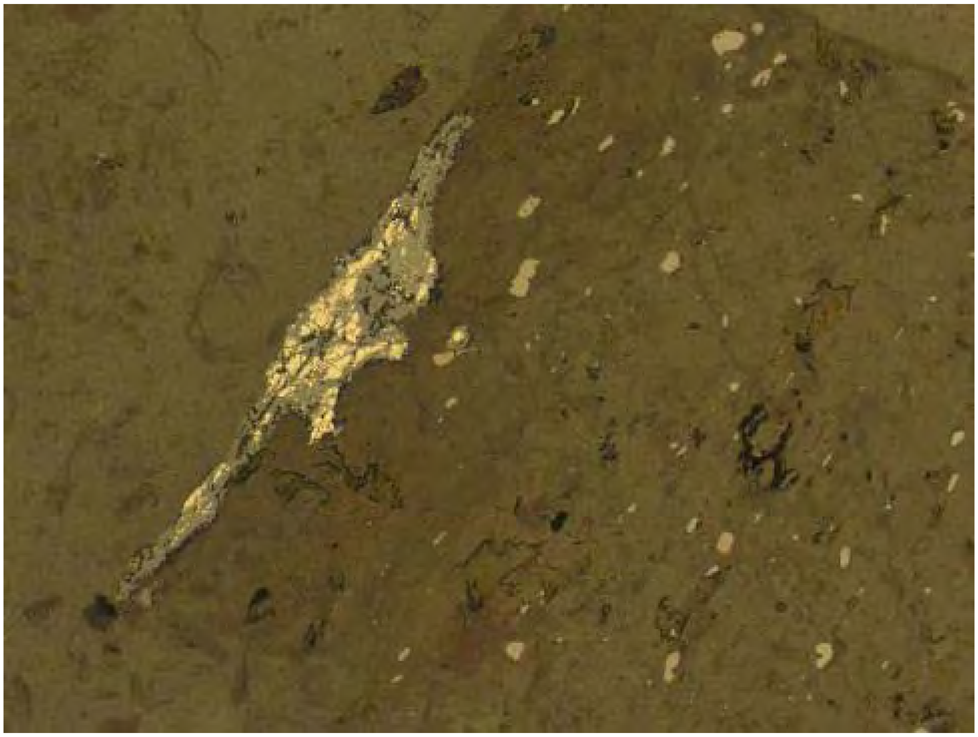


H

DG05-308C 12.19 -18.00: G) Pyrite aggregate within biotite. Pyrite rimmed and partly replaced by Fe-ox aggregate. PPL+RL. FOV =~ 1.3 mm. H) Pyrite aggregate within biotite hornfels. Pyrite partly replaced by Fe-ox. Note disseminated ilmenite grains. RL. FOV =~ 1.3 mm.

SGS-CEMI Project #: 0789 StrataGold
Sample ID: DG05-308C 125.00 -128.00 Offcut #: CN-1

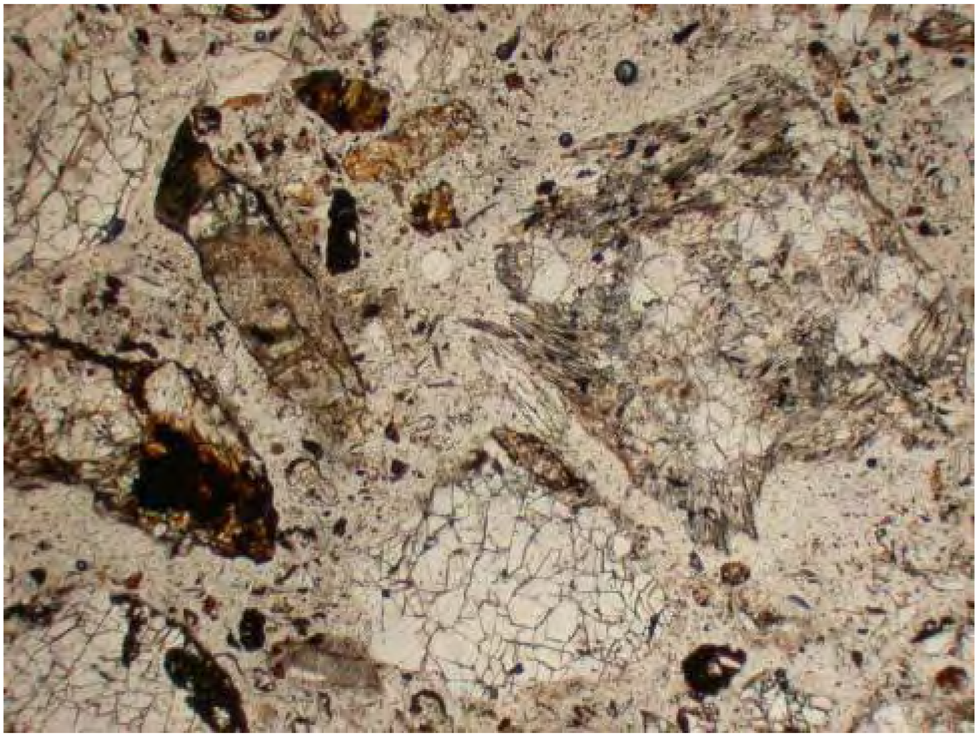
Chip and Offcut Mount Description:
Fine to coarse angular chips (less than 12 mm size) and dark yellowish-orange powder. Chips comprise fine to medium-grained orange-brown stained granitoid rock and traces of white quartz vein fragments with yellowish-orange stain. No reaction of chips to cold dilute HCl. No reaction of chips to magnet. Reaction of fragments to etching with HF and staining with sodium cobaltinitrite (yellow stain, approximately 15% K-feldspar).

Polished Thin Section Description:
Fine to coarse chips representing seriate inequigranular biotite granitoid, pervasively muscovite (sericite)-altered and oxidized granitoid, quartz ±K-feldspar ± (carbonate) vein fragments as well as liberated quartz and biotite grains, traces of sulphide and carbonate grains and abundant liberated very fine-grained muscovite (sericite) and Fe-ox aggregates. The seriate inequigranular rock is fine to medium-grained (maximum 2 mm size grains) and comprises plagioclase, quartz and orthoclase with lesser tan-red brown platy biotite. Plagioclase is mostly replaced by a felted aggregate of muscovite (sericite) and patchy red-brown Fe-ox aggregate. Relict plagioclase comprises about 10% of the section. Quartz comprises about 45% of the section. Muscovite (sericite) comprises approximately 20% of the section. Platy muscovite occurs in trace amounts. Commonly, patchy red-brown Fe-ox aggregate replaces and stains muscovite (sericite) aggregate. Biotite within granitoid fragments and liberated biotite plates together comprise ~1% of the section. Biotite is rarely partly replaced by traces of chlorite or Fe-ox aggregate. Traces of carbonate occur rarely within muscovite (sericite)-altered granitoid chips and within quartz-K-feldspar vein fragments. Commonly, chips have fine rinds of red-brown Fe-ox aggregate and fractured grains are infilled by Fe-ox aggregate.

Total carbonate occurs in trace amounts in the section. Carbonate is dominantly colourless and occurs as 1) fine to very fine-grained anhedral grains and patchy aggregates that occur with muscovite (sericite) as replacement of plagioclase within granitoid rock fragments, 2) fine-grained aggregates within quartz vein fragments and 3) fine-grained liberated fragments. Colourless carbonate is locally partly replaced by red-brown Fe-ox aggregates. Rare very fine-grained brown carbonate occurs as liberated aggregates and is typically mostly replaced by red-brown Fe-ox aggregate.

Sulphide occurs in trace amounts as pyrite, arsenopyrite and rare chalcopyrite, pyrrhotite and marcasite. Pyrite occurs disseminated as fine to very fine-grained (< 0.3 mm), subhedral grains and aggregates within rock chips, associated with muscovite (sericite) alteration and as liberated grains. Pyrite grains are rimmed and typically mostly replaced by red-brown Fe-ox aggregate. Traces of arsenopyrite occur as fine to very fine-grained (< 0.15 mm) liberated grains. Arsenopyrite grains are fractured, rims are irregular but without alteration. Rarely very fine-grained pyrrhotite and chalcopyrite occur as liberated grains and within biotite. Pyrrhotite is partly rimmed by Fe-ox aggregates. Marcasite occurs as very fine-grained aggregates replacing pyrrhotite within a granitoid chip.

Red-brown Fe-ox occurs in major amounts (approximately 7%) in the section. Fe-ox occurs as liberated fine grains and very fine-grained aggregates, as rims and replacement of pyrite and pyrrhotite, as replacement of carbonate aggregate and partly replacing muscovite (sericite)-carbonate alteration in weathered granitoid fragments.



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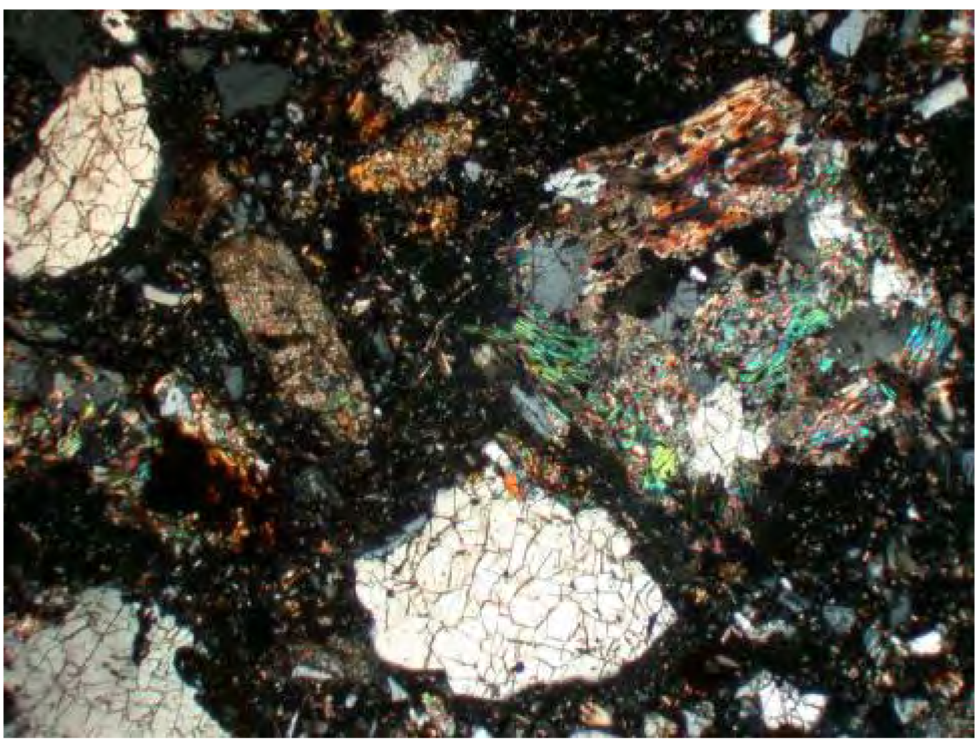
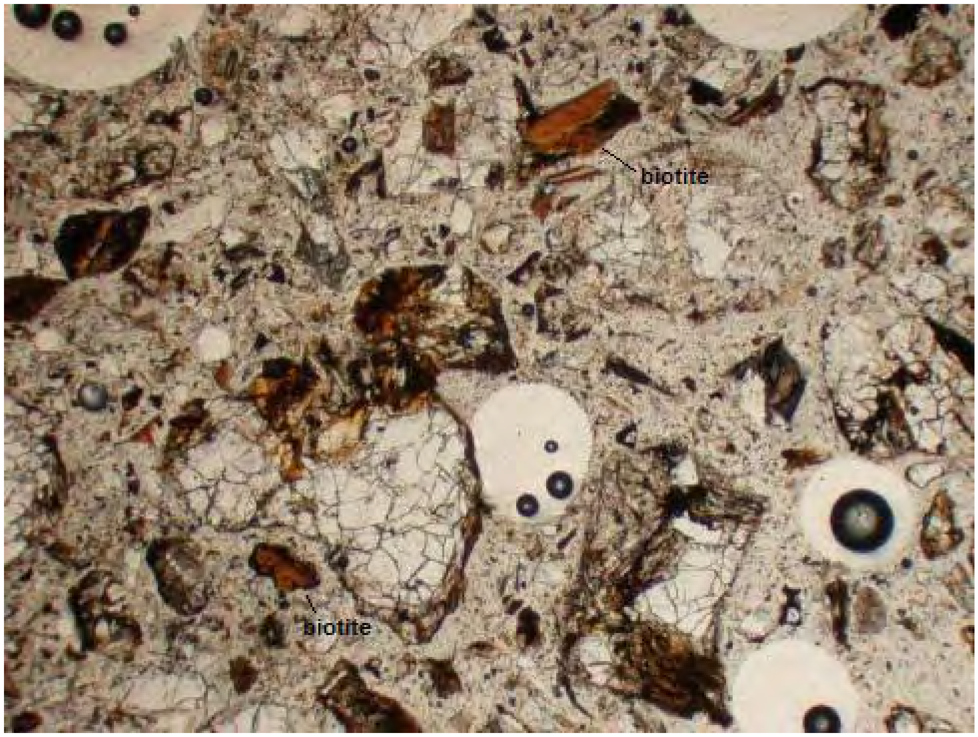


B

DG05-308C 125.00 -128.00: A&B) Representative chips of pervasively muscovite (sericite)-(carbonate)-altered and variably oxidized granitoid and liberated quartz fragments. Note rinds and staining by red-brown Fe-ox on granitoid fragments (left). A) PPL, B) XPL, FOV = ~ 4.5 mm.



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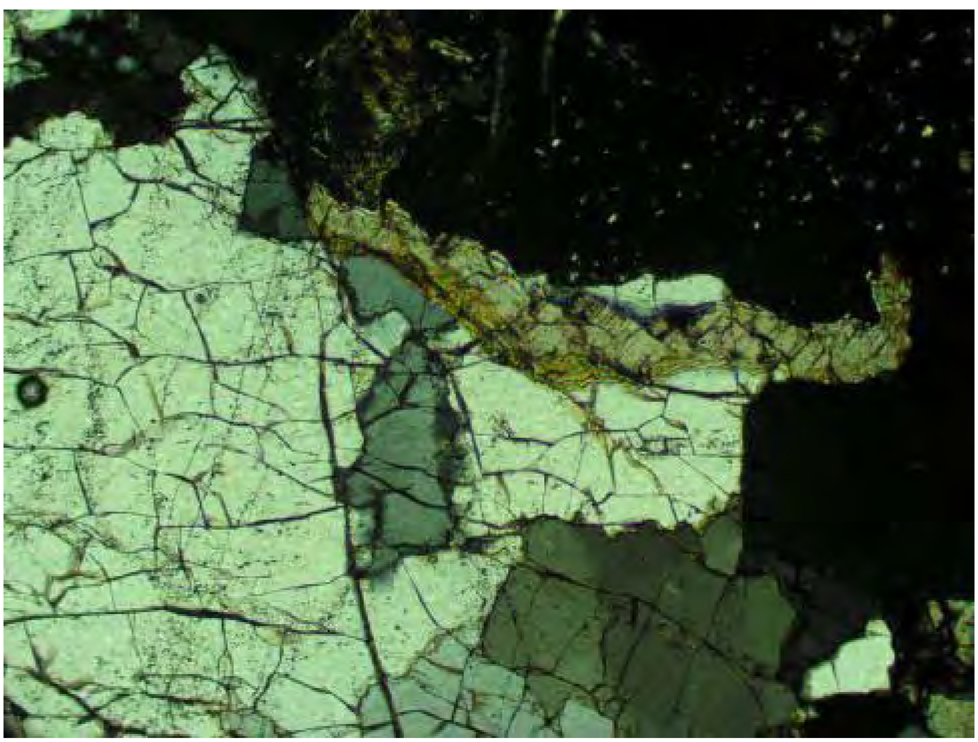
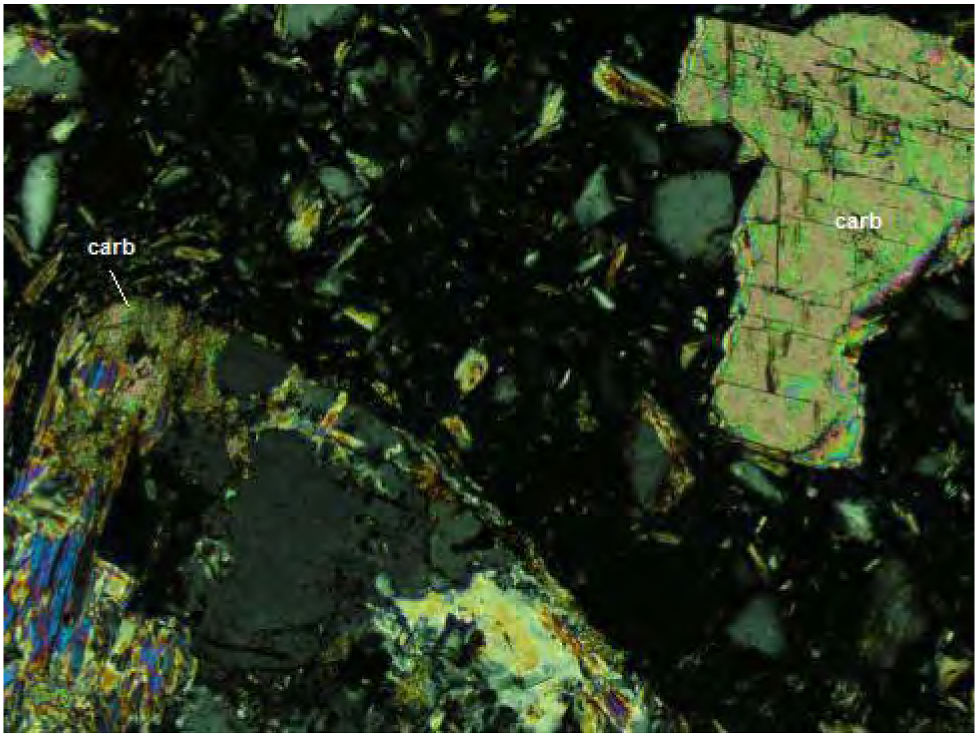
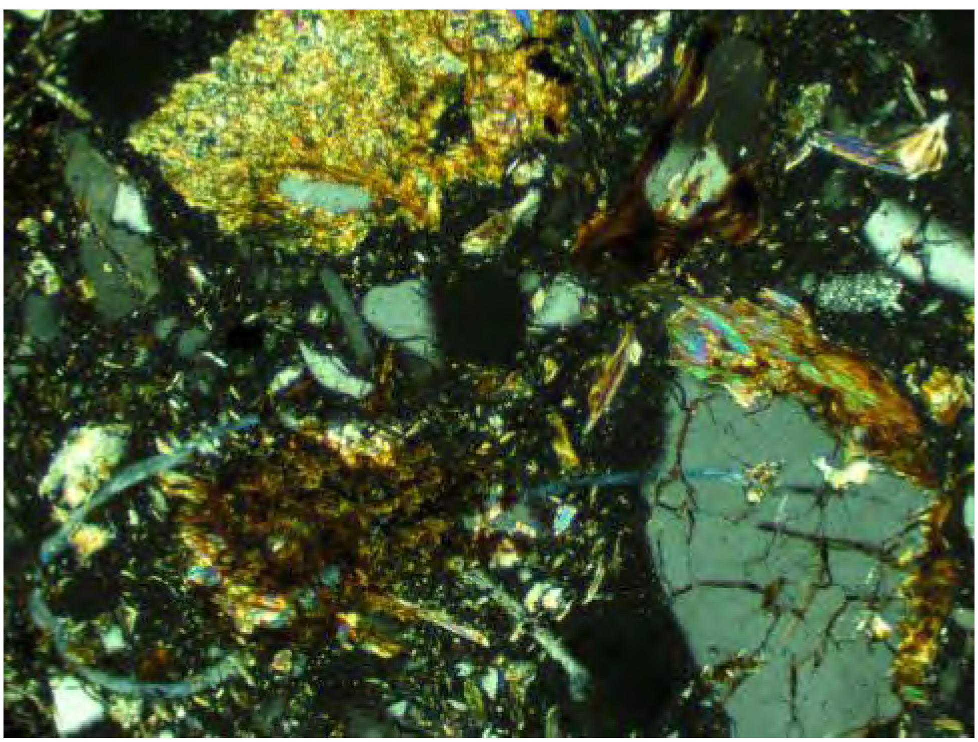


D

DG05-308C 125.00 -128.00: C) Fragments of altered granitoid with muscovite (sericite) aggregate partly replaced and stained by red-brown Fe-ox aggregate. Note liberated biotite plates. PPL, FOV =~ 4.5 mm, D) Fragment of quartz-carbonate vein. Note carbonate rimmed and partly replaced by red-brown Fe-ox aggregate. XPL, FOV =~ 1.3 mm

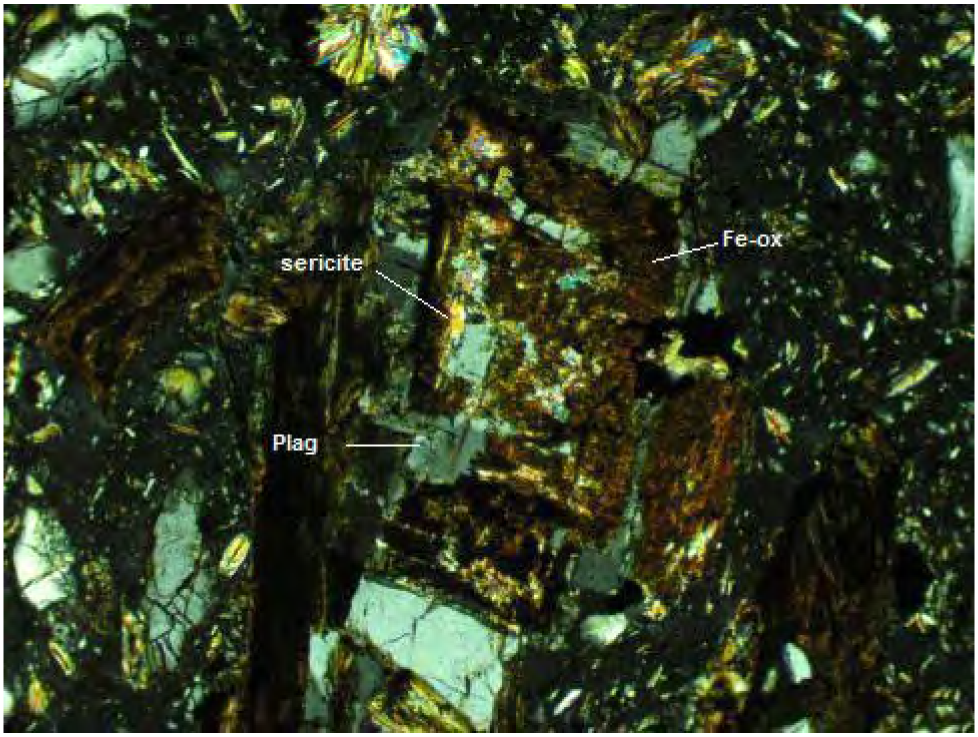


E



F

DG05-308C 125.00 -128.00: E) Liberated colourless carbonate grain (top right). Carbonate aggregate occurs with muscovite (sericite) as replacement of plagioclase in granitoid (left). XPL. FOV =~ 0.7 mm. F) Detailed view of muscovite (sericite)-aggregate within granitoid fragments partly replaced and stained by very fine-grained red-brown Fe-ox aggregate. XPL. FOV =~ 1.3 mm.



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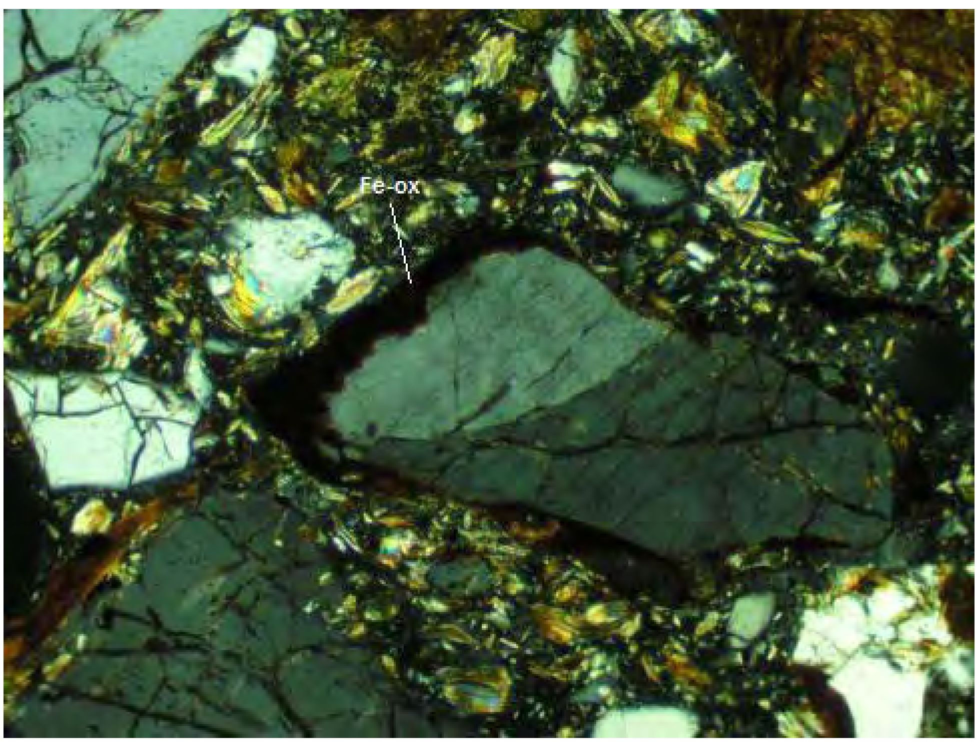
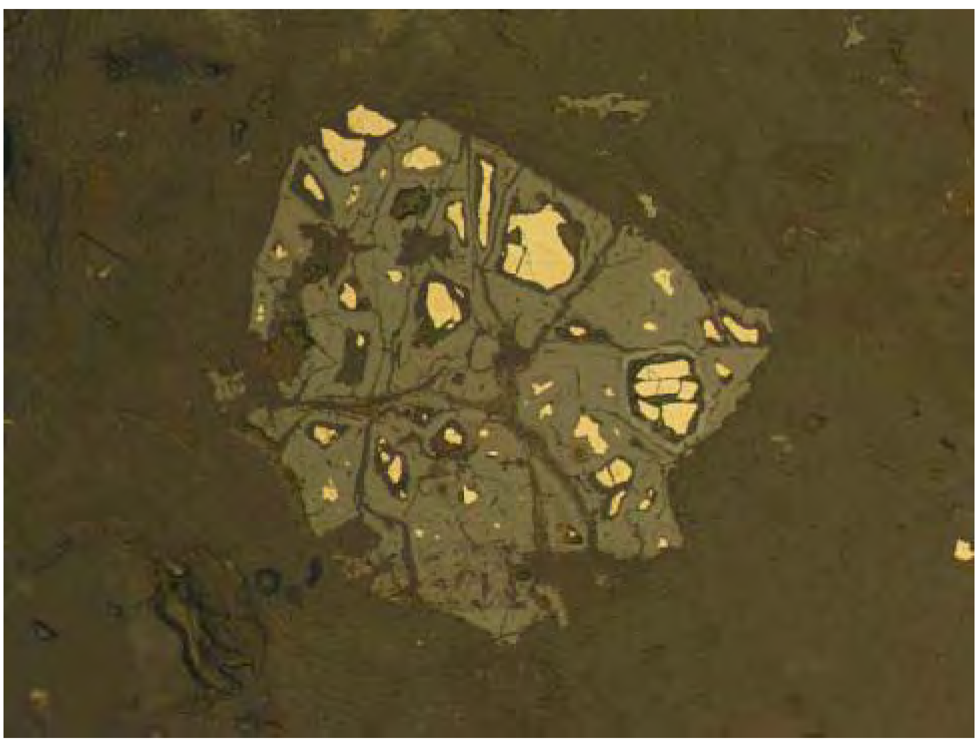


H

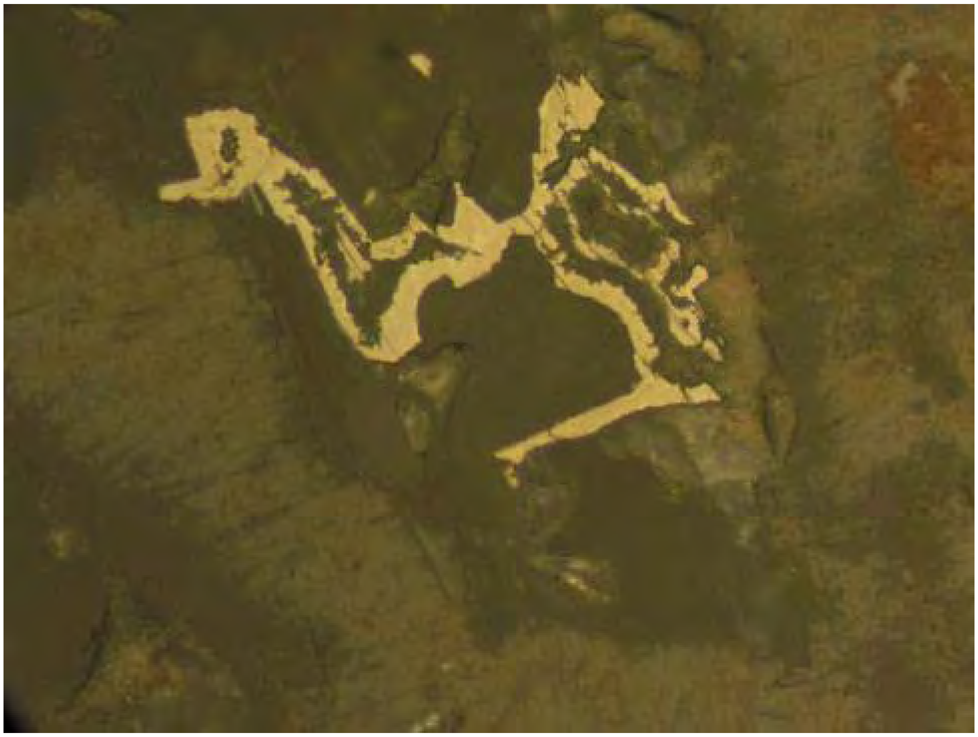
DG05-308C 125.00 -128.00: G) Red-brown Fe-ox aggregate occurs as replacement of muscovite (sericite)-altered plagioclase (centre). XPL. FOV =~ 1.3 mm. H) Quartz aggregate with rind of red-brown Fe-ox. XPL. FOV =~ 1.3 mm.

I



J

DG05-308C 125.00 -128.00: I) Disseminated pyrite grain within granitoid chip. Pyrite is rimmed and partly replaced by Fe-ox aggregate. RL, FOV =~ 0.3 mm. J) Liberated pyrite grain virtually completely replaced by Fe-ox aggregate. RL, FOV =~ 0.7 mm.



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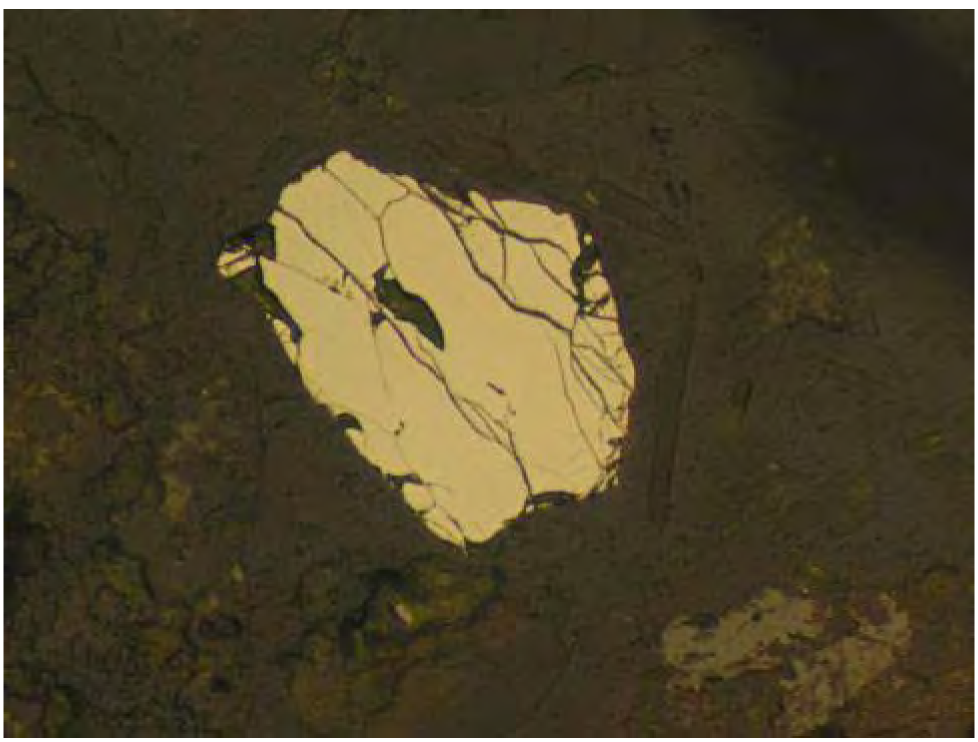


L

DG05-308C 125.00 -128.00: K) View of marcasite as replacement of pyrrhotite within granitoid fragment. RL. FOV =~ 0.3 mm. L) Detailed view of fractured liberated arsenopyrite grain. RL. FOV =~ 0.2 mm.

SGS-CEMI Project #: 0789 StrataGold
Sample ID: DG06-311C 130.45 -140.45 Offcut #: CN-3

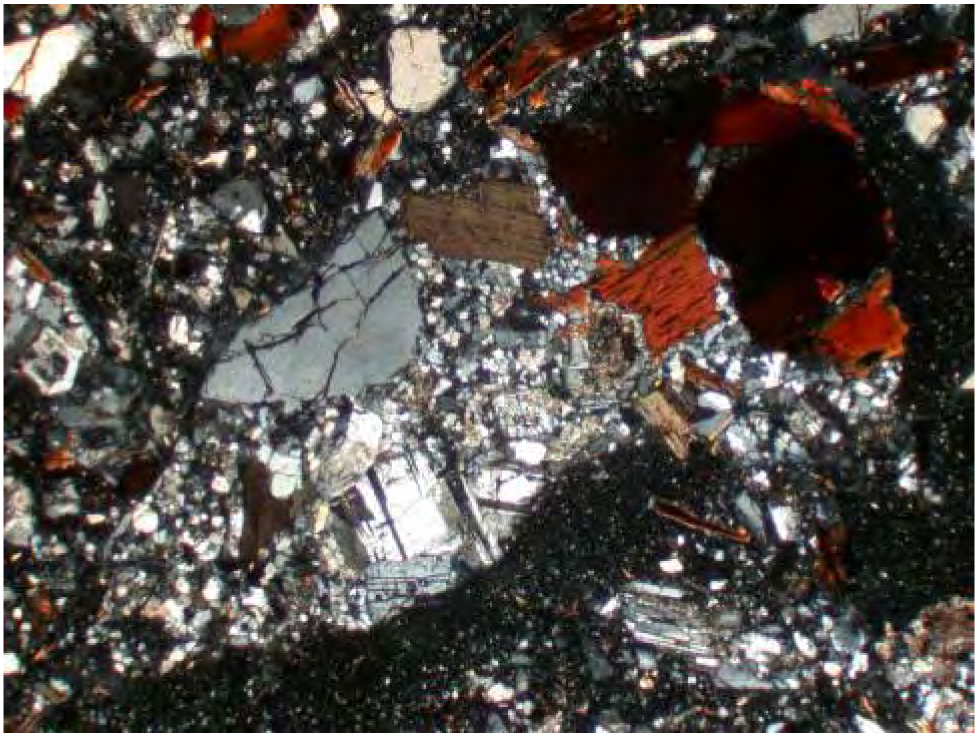
Chip and Offcut Mount Description:
Fine to coarse angular chips (less than 12 mm size) and very light grey powder. Chips comprise medium-light gray porphyry with fine-grained matrix and quartz vein. No reaction of chips to cold dilute HCl. No reaction of chips to magnet. Groundmass of porphyry has reacted to etching with HF and staining with sodium cobaltinitrite (yellow stain, approximately 30% K-feldspar). Several fine grains of scheelite observed using shortwave UV light.

Polished Thin Section Description:
Fine to coarse chips representing biotite-plagioclase±quartz±K-feldspar porphyry as well as quartz±K-feldspar and carbonate vein fragments and liberated grains of biotite, quartz and feldspars. The porphyry groundmass is fine to very fine-grained (typically < 100 µm size grains) and comprises dominantly K-feldspar, plagioclase and quartz. The porphyry phenocryst assemblage is fine to medium-grained and comprises brown platy biotite, plagioclase, locally K-feldspar and locally quartz. K-feldspar phenocrysts locally poikilitically enclose plagioclase and biotite grains. Plagioclase phenocrysts are generally only weakly altered by traces of muscovite (sericite); however, in a few fragments, plagioclase is extensively replaced by a felted aggregate of muscovite (sericite) and patchy carbonate. Plagioclase comprises approximately 25% of the section. Quartz comprises approximately 35% of the section. Biotite phenocrysts and liberated biotite plates are locally partly replaced by chlorite, patchy carbonate, ilmenite and pyrrhotite. Biotite comprises approximately 6% of the section. Muscovite (sericite) occurs in minor amounts, approximately 1%. Chlorite comprises approximately 1% of the section. Traces of prismatic fine-grained apatite and zircon (< 0.15 mm) occur disseminated. Traces of fine-grained (< 0.15 mm) scheelite occur disseminated in fragments and as liberated grains.

Total carbonate occurs in trace amounts in the section as colourless and brown aggregagates. Colourless carbonate occurs as 1) very fine-grained anhedral grains and patchy aggregates that occur with muscovite (sericite) as replacement of feldspar within porphyritic rock fragments, 2) fine-grained liberated grains and aggregates, and 3) as fracture infill. Brown carbonate occurs rarely as very fine-grained liberated aggregates. Rarely, traces of red-brown Fe-ox occur partly replacing colourless carbonate aggregate.

Sulphide occurs in minor amounts, approximately 1%, dominantly as pyrrhotite with traces of pyrite, arsenopyrite, chalcopyrite, marcasite and rare bismuthinite. Rare gold and unknown highly reflective very fine-grained phases occur associated with bismuthinite in one porphyritic rock chip. Pyrrhotite, approximately 1%, occurs as fine-grained (< 0.4 mm) anhedral grains and aggregates within porphyritic rock chips, as liberated grains and as replacement of biotite. Pyrrhotite occurs locally associated with chalcopyrite. Pyrrhotite grain boundaries are irregular but Fe-ox alteration rims are rare. Trace pyrite occurs as very fine-grained (< 0.025 mm) anhedral grains within rock chips. Pyrite grains are fractured with irregular rims but alteration rims are not evident. Irregular patches of very fine-grained marcasite occur locally with pyrite aggregate as replacement of pyrrhotite. Traces of arsenopyrite occur as fine-grained (< 0.1 mm) liberated grains and disseminated in porphyry chips. Arsenopyrite rims are clean without alteration. Trace chalcopyrite occurs disseminated in a couple of rock chips.

Traces of red-brown Fe-ox aggregate occur rarely as very fine-grained aggregates replacing carbonate and very rarely, pyrrhotite.



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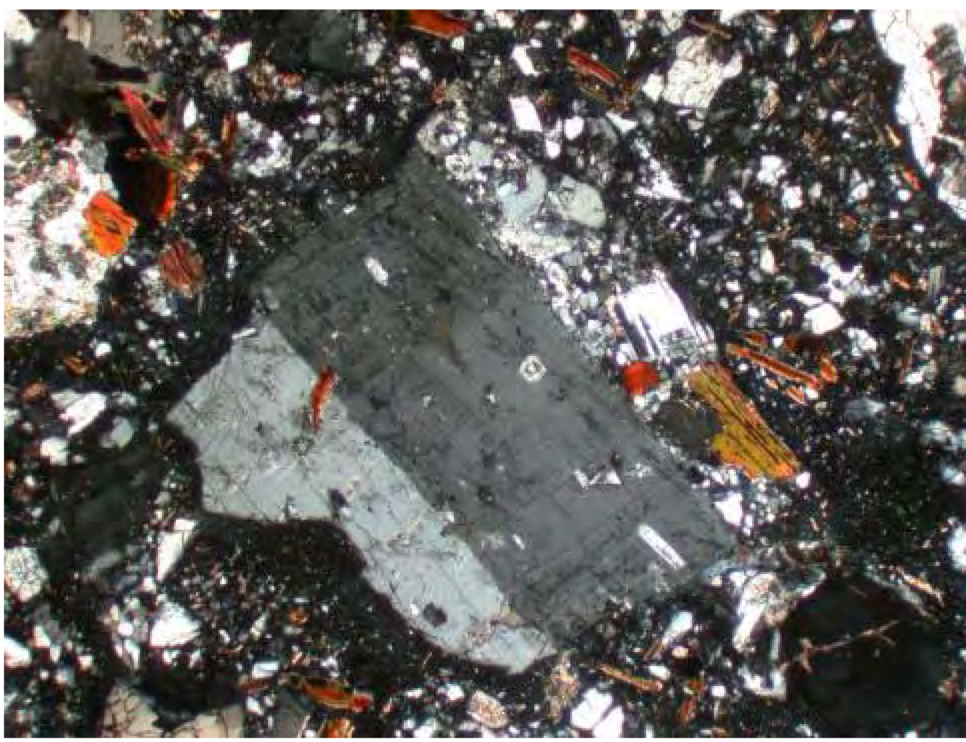
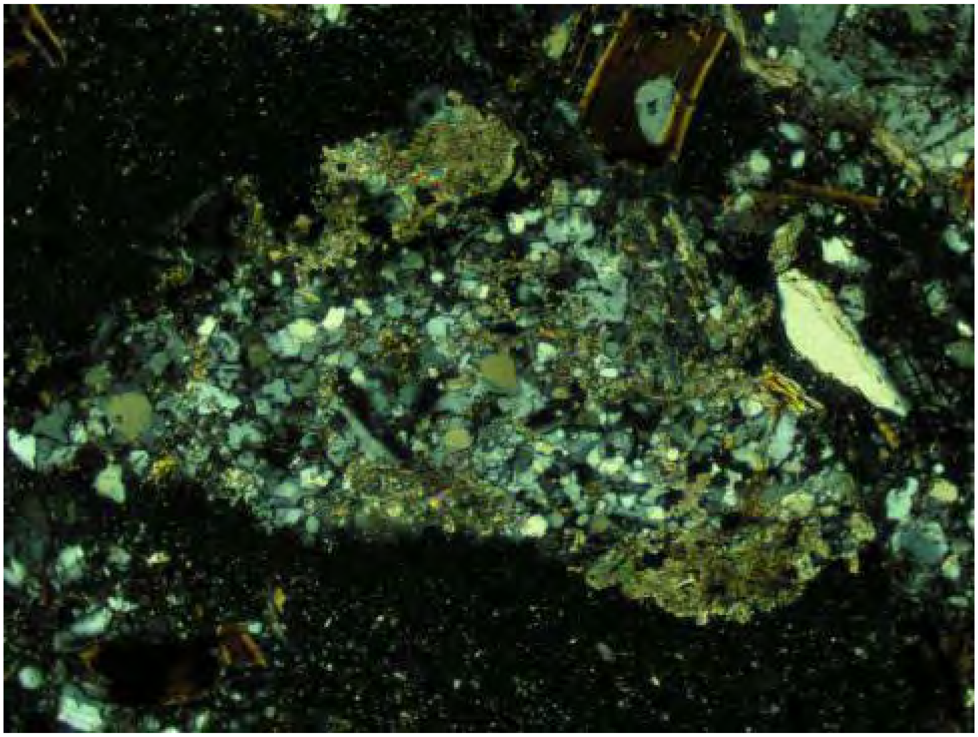


B

DG06-311C 130.45 -140.45: A) Representative chip of biotite-plagioclase-quartz porphyry. XPL, FOV =~ 4.5 mm. B) Representative chips of biotite-plagioclase porphyry with large K-feldspar phenocryst. XPL, FOV =~ 4.5 mm.



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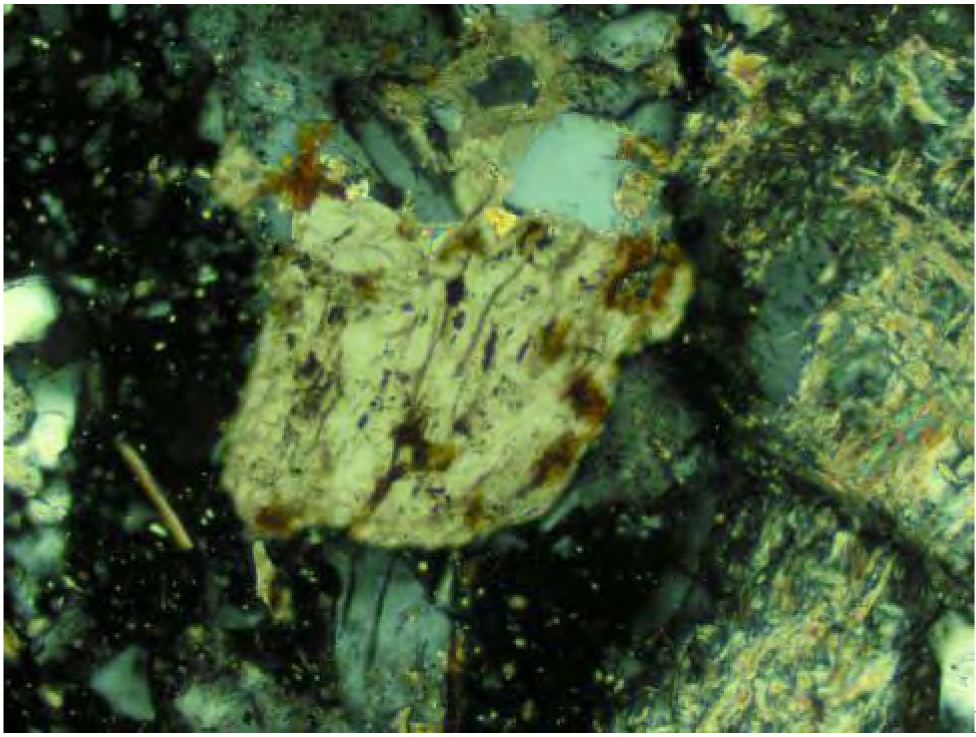
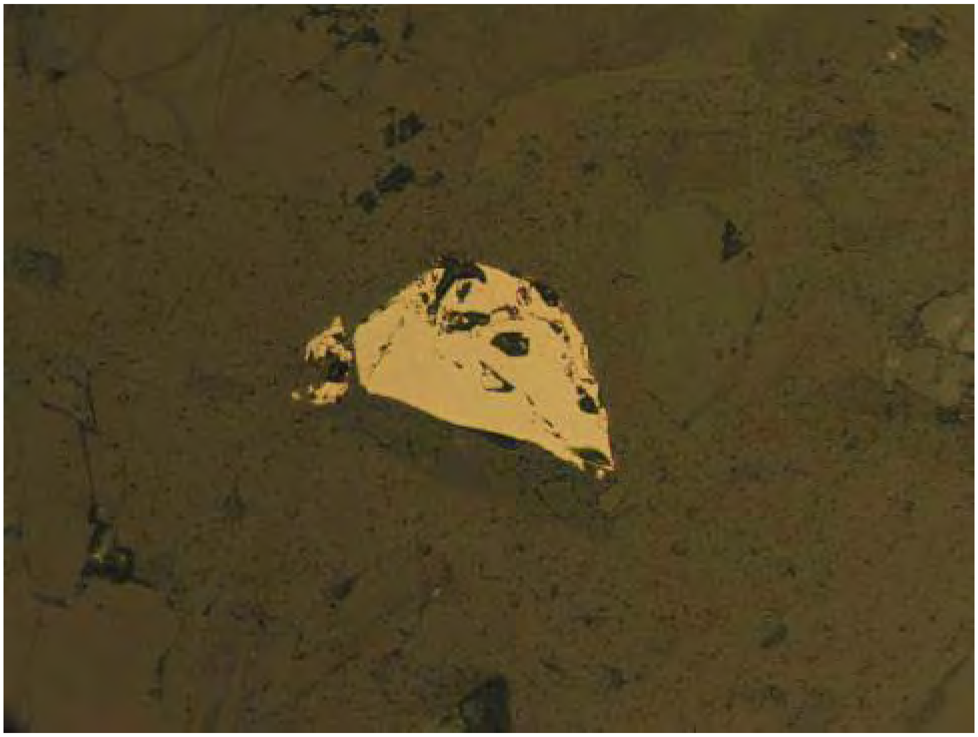


D

DG06-311C 130.45 -140.45: C) Patchy very fine-grained carbonate and muscovite (sericite) as replacement of plagioclase within porphyry. XPL, FOV =~ 2.6 mm, D) Fine-grained colourless carbonate partly replaced by patches of red-brown Fe-ox. Note muscovite (sericite) replacement of plagioclase (right). XPL, FOV =~ 0.7 mm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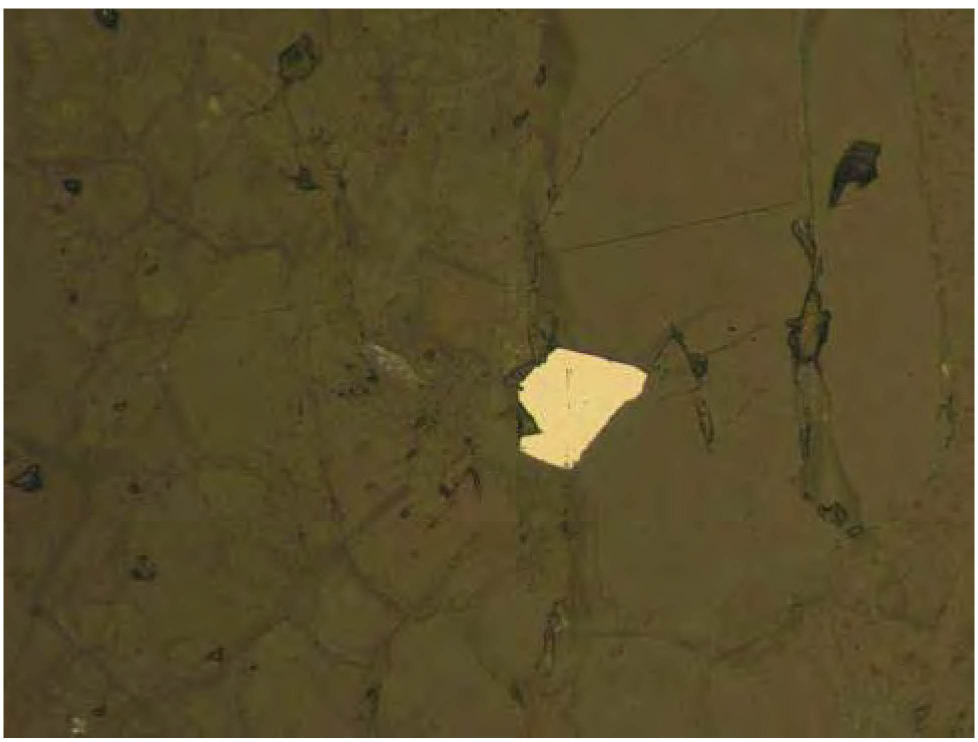
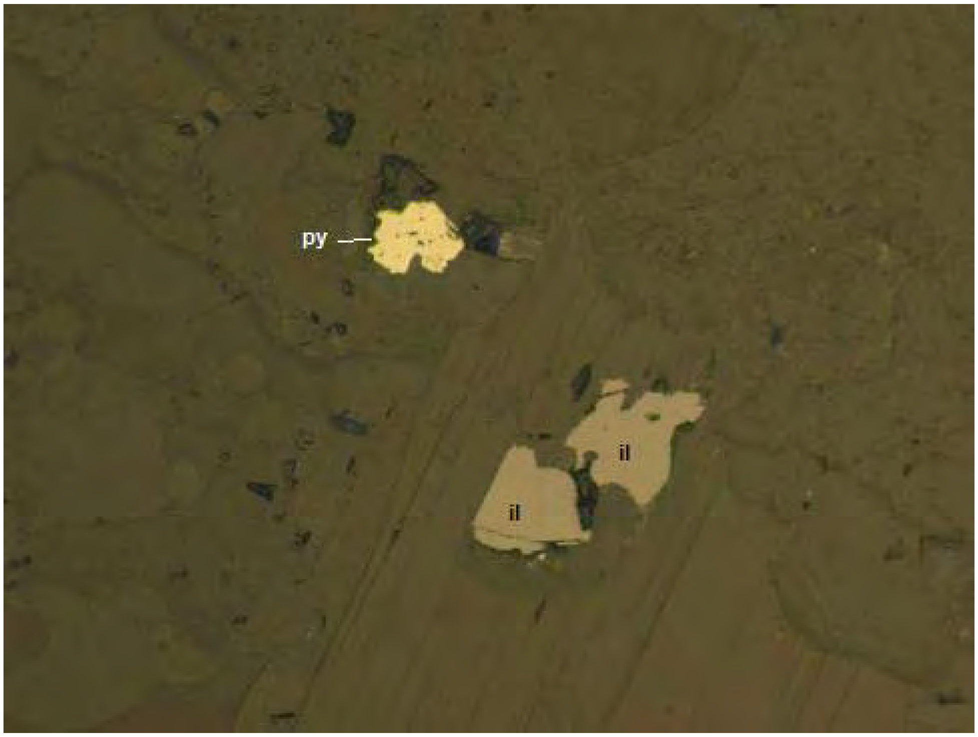

F

DG06-311C 130.45 -140.45: E) Liberated pyrrhotite grain without alteration rim. RL. FOV =~ 0.7 mm. F) Grain of arsenopyrite within porphyry chip. RL. FOV =~ 0.7 mm.



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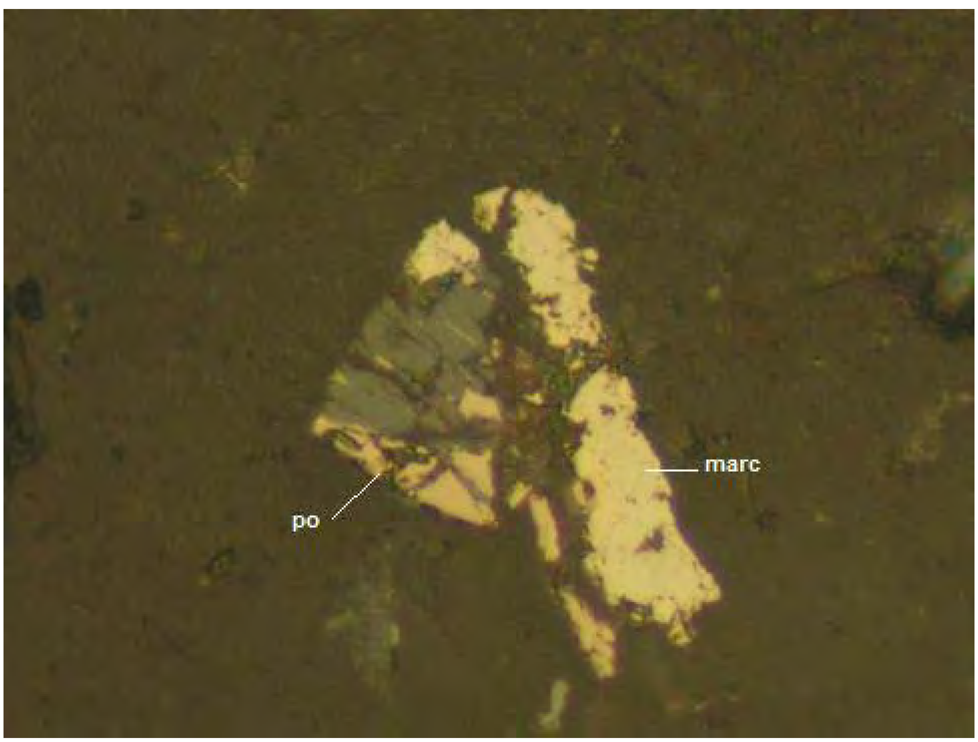


H

DG06-311C 130.45 -140.45: G) Pyrite (py) within porphyry rock chip. Note grains of ilmenite (il) within biotite. RL. FOV =~ 0.7 mm. H) Pyrrhotite and marcasite partly replaced by Fe-ox aggregate. RL. FOV =~ 0.1 mm.

SGS-CEMI Project #: 0789 StrataGold
Sample ID: DG07-327C 24.69 -33.83 Offcut #: CN-4

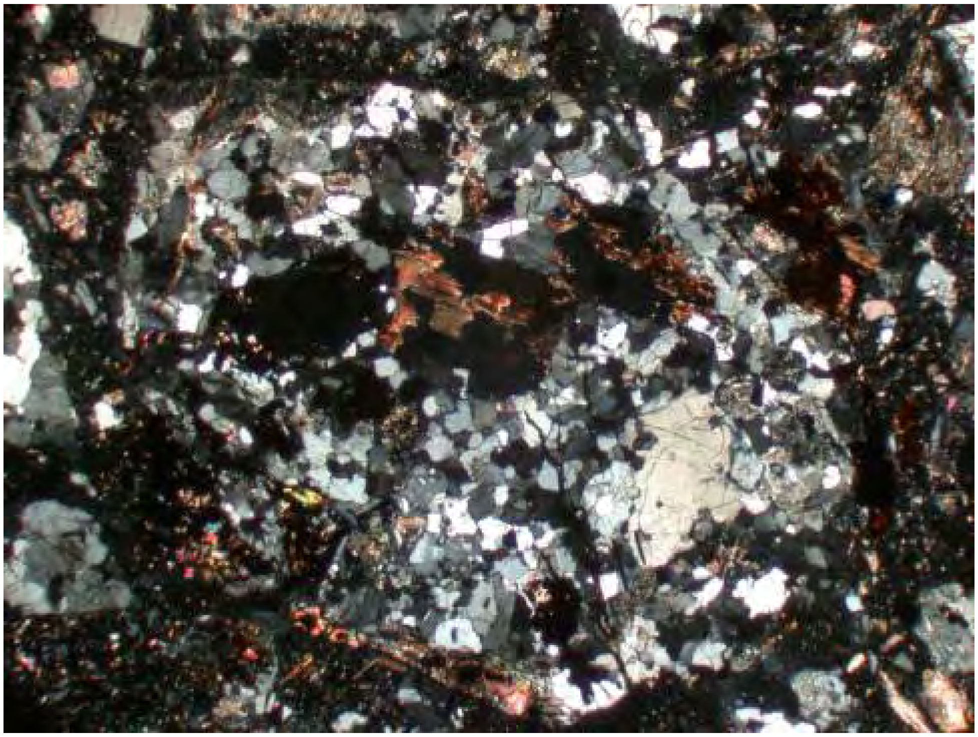
Chip and Offcut Mount Description:
Fine to coarse angular chips (less than 12 mm size) and grayish-orange powder. Chips comprise cream to orange-brown stained porphyry with fine-grained matrix and fine to medium-grained leucocratic rock cut by quartz veinlets. Rare slight reaction of chips to cold dilute HCl. No reaction of chips to magnet. Reaction of rock chips to etching with HF and staining with sodium cobaltinitrite (yellow stain, approximately 30% K-feldspar).

Polished Thin Section Description:
Fine to coarse chips representing variably oxidized, pervasively muscovite (sericite)-carbonate altered biotite-plagioclase± quartz± K-feldspar porphyry as well as fine to medium-grained K-feldspar±quartz fragments and quartz-carbonate vein fragments. The porphyry groundmass is fine to very fine-grained (typically < 150 µm size grains) and comprises dominantly K-feldspar, plagioclase and quartz. The porphyry phenocryst assemblage comprises fine-grained altered brown platy biotite (~3% of the section), fine to medium-grained altered plagioclase, locally medium-grained K-feldspar and locally medium-grained quartz. Tabular plagioclase phenocrysts are replaced by a felted aggregate of muscovite (sericite), patchy carbonate aggregate and locally clay. Plagioclase comprises approximately 10% of the section. Quartz comprises approximately 40% of the section. Biotite phenocrysts and liberated biotite plates are commonly partly replaced by muscovite (sericite), patchy carbonate, Fe-ox aggregate and locally clay. Muscovite (sericite) occurs in major amounts, approximately 5%, within the porphyritic rock fragments. Clay occurs in minor amounts, approximately 1%. A few porphyry fragments have fine rinds of red-brown Fe-ox aggregate and fractures infilled by Fe-ox aggregate.

Total carbonate comprises approximately 3% of the section. Carbonate is colourless and occurs as 1) very fine-grained anhedral grains and patchy aggregates that occur with muscovite (sericite) as replacement of plagioclase and biotite within porphyritic rock fragments, 2) fine grains in vein fragments with quartz and as liberated grains and aggregates and 3) fine-grained fracture infill. Commonly, red-brown Fe-ox occur partly replacing carbonate aggregate.

Sulphide occurs in trace amounts dominantly as pyrite, marcasite and rare pyrrhotite. Pyrite occurs as fine-grained (< 0.2 mm) eu-subhedral grains and aggregates within porphyritic rock chips and as liberated grains. Locally, pyrite aggregate occurs associated with very fine-grained marcasite. Pyrite and marcasite are rimmed and partly replaced by Fe-ox aggregates. One grain of very fine-grained liberated pyrrhotite was observed in the section.

Red-brown Fe-ox occurs in major amounts (approximately 7%) in the section. Fe-ox occurs as liberated fine-grained and very fine-aggregates, commonly as very fine-grained replacement of carbonate, biotite and plagioclase, locally as rinds on fragments and fracture infill and rarely as replacement of pyrrhotite. Traces of orange-brown Fe-ox occurs with red-brown Fe-ox as replacement of carbonate and stain on rock fragments.



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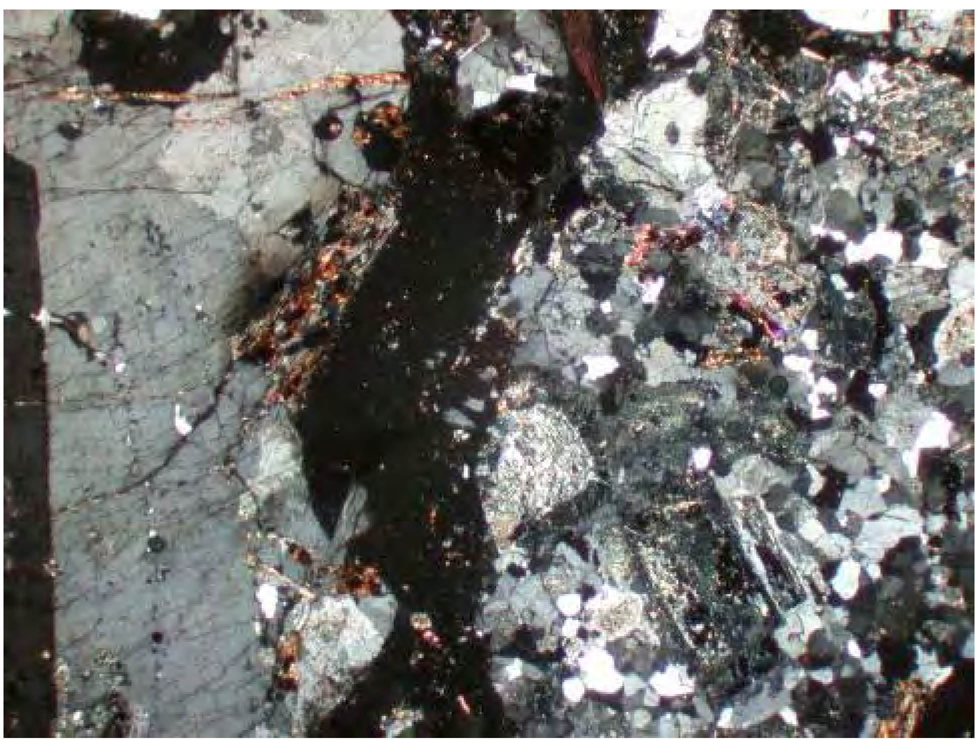
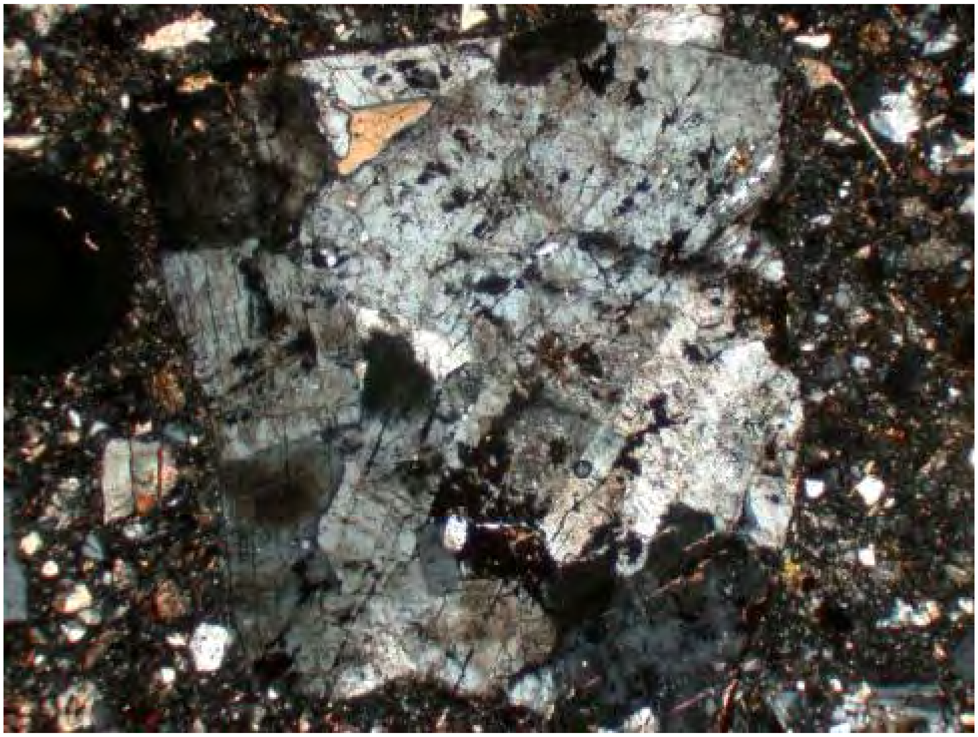
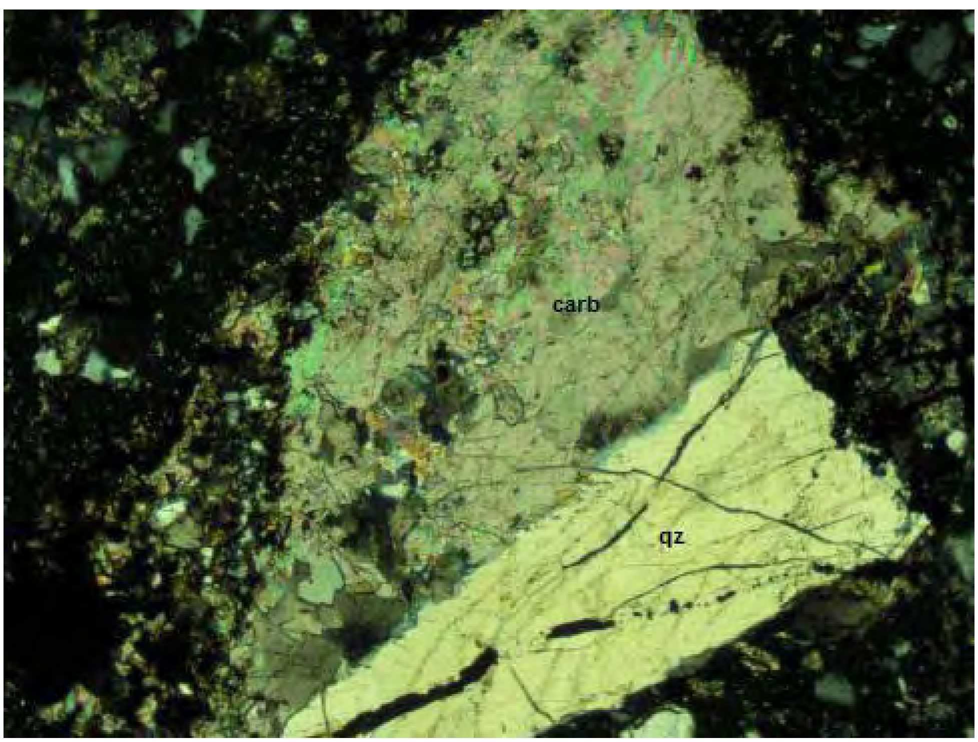


B

DG07-327C 24.69-33.83: A) Fragment of altered porphyry with biotite phenocrysts partly replaced by Fe-ox aggregate which is partly plucked from the section. XPL, FOV =~ 4.5 mm. B) Fragments of porphyry (right) with plagioclase phenocrysts partly replaced by muscovite (sericite) aggregate. Fragment of porphyry with K-feldspar phenocryst (left). XPL, FOV =~ 4.5 mm.

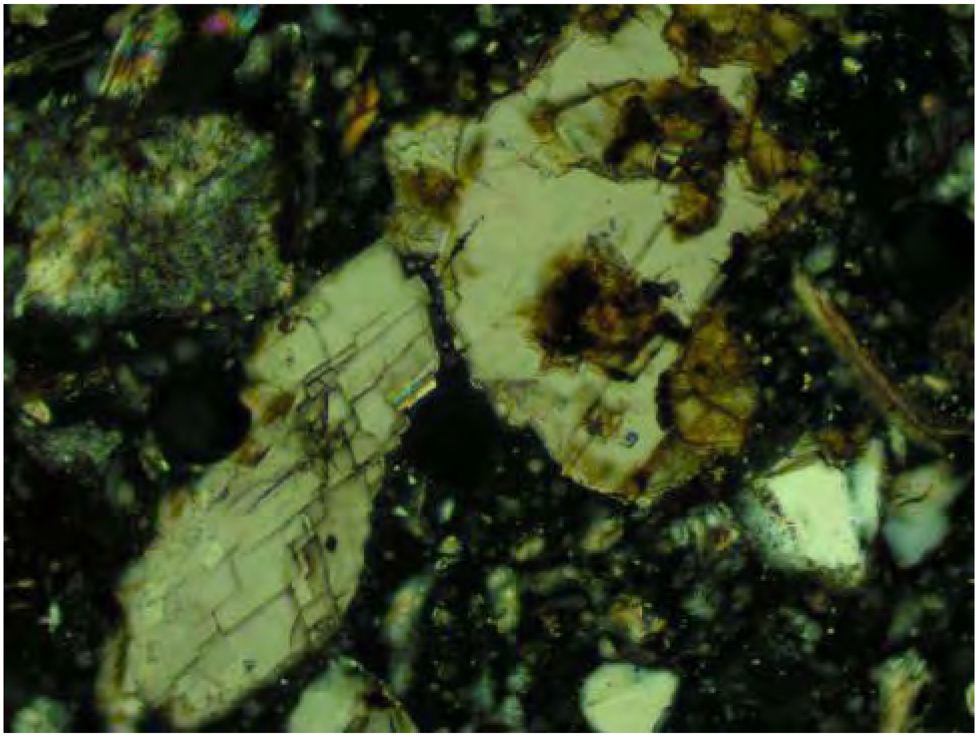


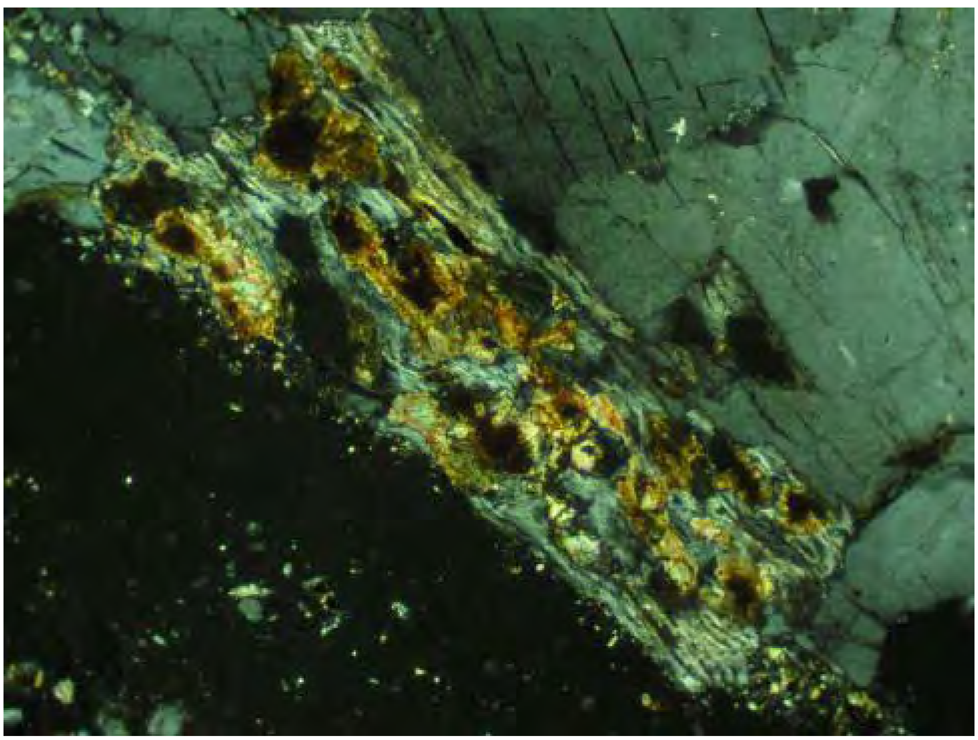
C



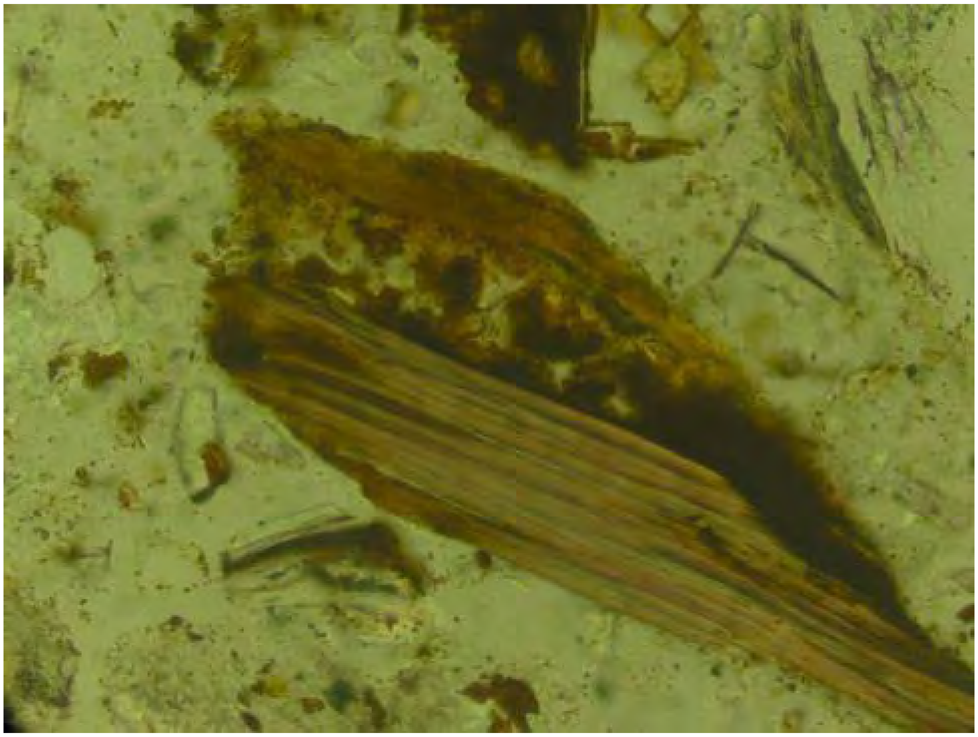
D

DG07-327C 24.69-33.83: C) K-feldspar-(quartz) fragment. XPL, FOV =~ 4.5 mm, D) Quartz-carbonate vein fragment. XPL, FOV =~ 2.6 mm

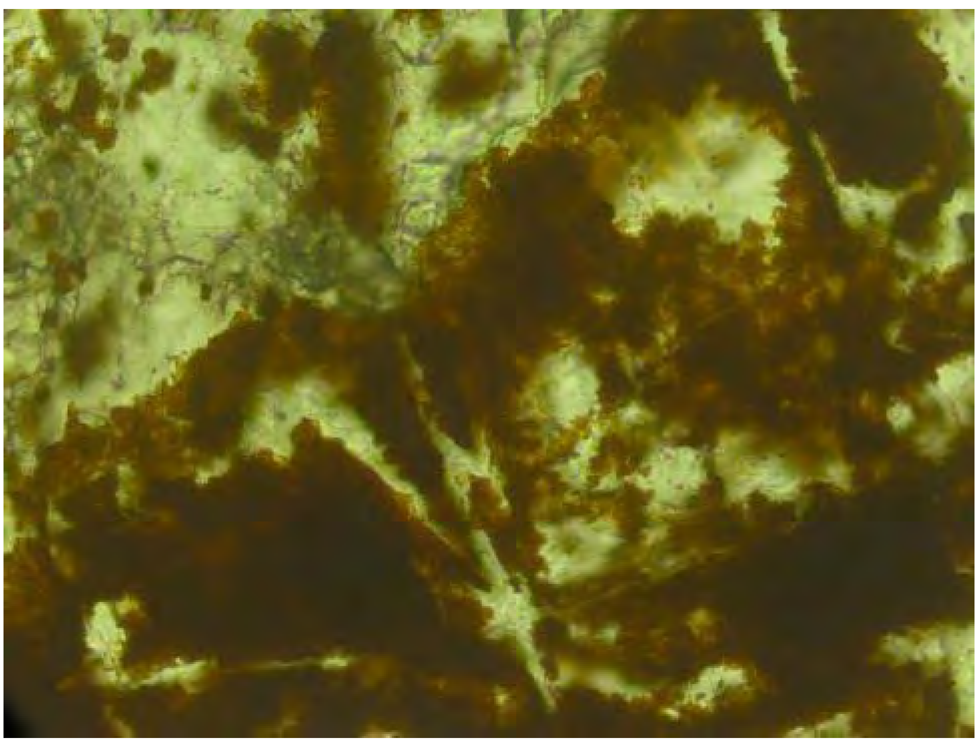

E


F

DG07-327C 24.69-33.83: E) Liberated colourless carbonate grains partly replaced by red-brown Fe-ox aggregate. XPL. FOV =~ 0.7 mm. F) Relict biotite phenocryst replaced by sericite aggregate and patchy carbonate aggregate partly replaced by Fe-ox. XPL. FOV =~ 1.3 mm.

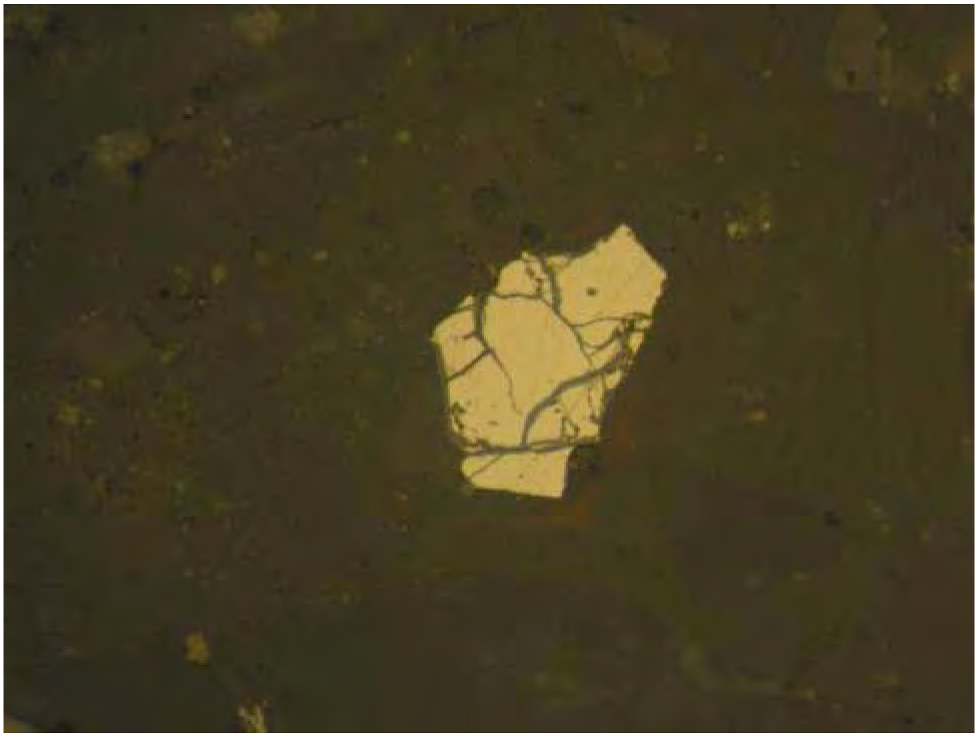


G

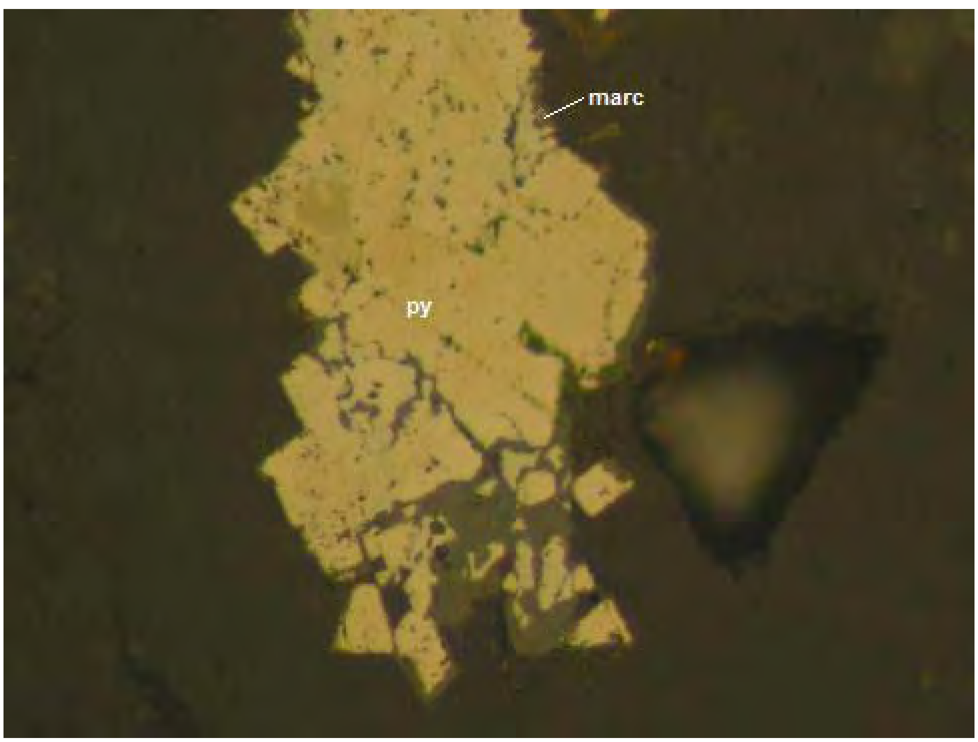


H

DG07-327C 24.69-33.83: G) Liberated biotite partly replaced along cleavage planes by Fe-ox aggregate. PPL. FOV =~ 0.3 mm. H) Detailed view of very fine-grained red-brown Fe-ox aggregate as replacement of carbonate. PPL. FOV =~ 0.3 mm.



I



J

DG07-327C 24.69-33.83: I) Pyrite grain rimmed and replaced along fractures by Fe-ox. RL. FOV =~ 0.3 mm. J) Pyrite-marcasite aggregate partly replaced by Fe-ox (light grey). RL. FOV =~ 0.2 mm.

Statement of qualifications: Kathryn P.E. Dunne

I, Kathryn P.E. Dunne, of the City of Salmon Arm, province of British Columbia, do hereby certify that:

1. I am an independent consulting geologist, with a business office at 4610 Lakeshore Road NE, Salmon Arm, B.C., Canada. My business mailing address is: Bag 9000, # 207, 190B Trans Can Hwy NE, Salmon Arm, BC, V1E 1S3.

2. I am a graduate in geology, with a BSc in geology from The University of British Columbia (1985).

3. I received my Masters degree in geology from The University of British Columbia, Vancouver, B.C. in 1988.

4. I am a registered member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (No. 18674).

5. I am a fellow of the Geological Association of Canada and a member of the Society of Economic Geologists.

6. I have practiced my profession as a geologist for approximately 20 years: 4 years as geologist with the British Columbia Geological Survey Branch, 3 years as research coordinator at the Mineral Deposit Research Unit housed within the Department of Earth and Ocean Sciences at the University of British Columbia, and 13 years as an independent consultant.

7. The petrographic data of this report was collected by me in May 2010.

……………………..…………………

Kathryn P.E. Dunne, M.Sc., P.Geo.
Consulting Geologist
May 14, 2010

Mineralogy Report

CHARACTERIZATION OF ROCK CHIPS, EAGLE GOLD PROJECT

Feb 17, 2010

SGS-CEMI Project #:
09102 Eagle Gold Proj 366C

Prepared for:
Rik Vos
SGS CEMI Inc.
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Background

One crushed rock sample from the Eagle Gold Project is characterized in this report (SGS CEMI Project No. 09102). Optical reporting was requested by Rik Vos of SGS CEMI Inc. The sample was submitted for polished thin section production at Vancouver Petrographics Ltd. on Dec. 10, 2009. The sample, polished thin section and offcut mount was then sent to Kathryn Dunne, P.Geo. for optical analysis. The purpose of the optical study was to characterize the mineralogy with particular emphasis on sulphide minerals and any carbonate minerals present.

The optical observations are summarized below and petrographic descriptions of polished thin sections with representative photomicrographs follow the summary. All percentages in the descriptions are approximate based on visual estimation.

Please note the following grain size conventions are used in the report: very fine-grained (< 50 µm), fine-grained (> 50 µm and less than 1 mm), medium-grained (> 1mm and < 5 mm) and coarse-grained (> 5mm).

Tabular summary

Sample #	Sulphide	% ~	Carbonate occurrence	% ~	Fe-Oxides and Oxyhydroxides	% ~	Some Other > 1%	% ~
42479	pyrrhotite pyrite arsenopyrite chalcopyrite molybdenite marcasite	1 tr tr tr tr tr	colourless, fine to very fine-grained, anhedral grains and fine to medium-grained liberated vein fragments	5	red-brown Fe-ox	tr	Plagioclase (altered) K-feldspar biotite muscovite (sericite) chlorite	40 20 10-15 2 1

tr = trace (< 1%); x = none observed; Fe-ox = Fe-oxide or oxyhydroxide

SGS-CEMI Project #: 09102
Sample ID: 42979 Offcut #: CX-1

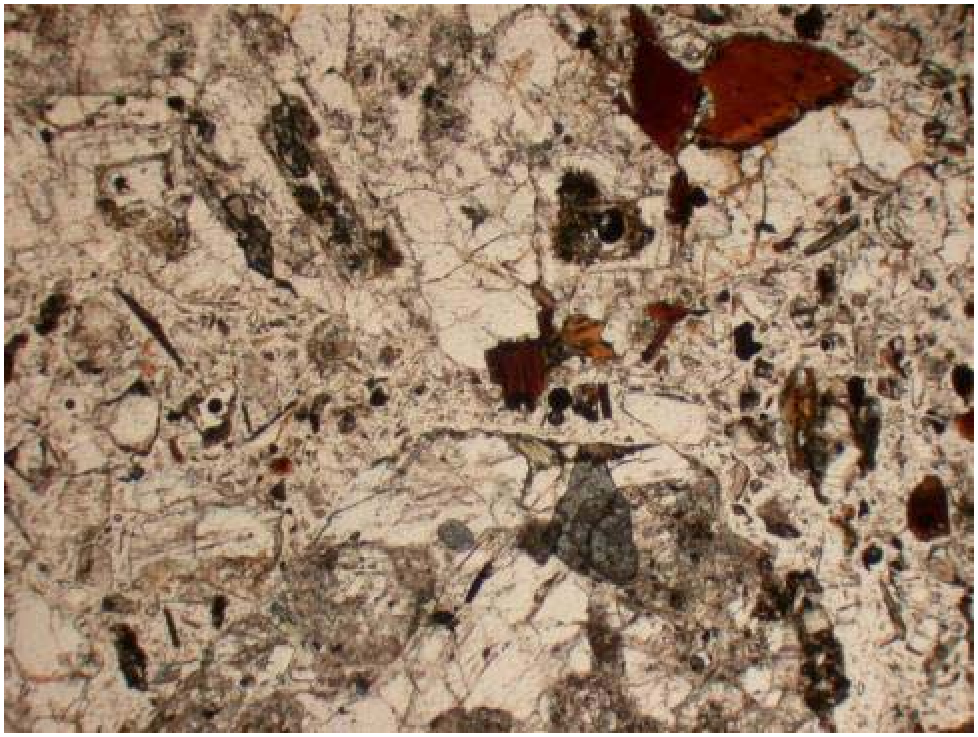
Chip and Offcut Mount Description:
Fine to medium angular chips (less than 5 mm size). Chips comprise light gray and very light gray fine to medium-grained biotite-bearing intrusive rock. Traces of fine-grained, disseminated brass-coloured sulphide minerals. Strong reaction of some chips to cold dilute HCl. No reaction of chips to magnet. No bluish-white fluorescence under shortwave UV light (no scheelite). Reaction of intrusive rock fragments to etching with HF and staining with sodium cobaltinitrite (approximately 20% K-feldspar).

Polished Thin Section Description:
Fine to coarse chips representing selectively sericite-carbonate altered seriate-inequigranular biotite granodiorite, minor leucocratic fine-grained porphyry as well as liberated quartz, feldspar, biotite and carbonate grains. One fragment of quartz ?vein aggregate cut by carbonate-filled fractures is observed. The seriate inequigranular rock is fine to medium-grained (maximum 3 mm size grains) and comprises dominantly altered plagioclase (~40%), quartz (~30%) and orthoclase (~20%) with lesser tan-red brown biotite (~10%) and locally traces of fine-grained hornblende and ilmenite. The leucocratic porphyry comprises phenocrysts of quartz in a fine-grained quartz-feldspar matrix with minor biotite. Plagioclase, in the section, is partly replaced by muscovite (sericite) and patchy carbonate aggregate. Muscovite (sericite) occurs in minor amounts in the section (~2%). Biotite within rock fragments and liberated biotite plates together comprises ~10-15% of the section. Biotite is partly replaced by minor chlorite, patchy rutile and locally carbonate. Hornblende is partly replaced by patchy carbonate. Traces of apatite occur within granodiorite rock fragments. Chlorite occurs in minor amounts (~1%) dominantly as replacement of biotite.

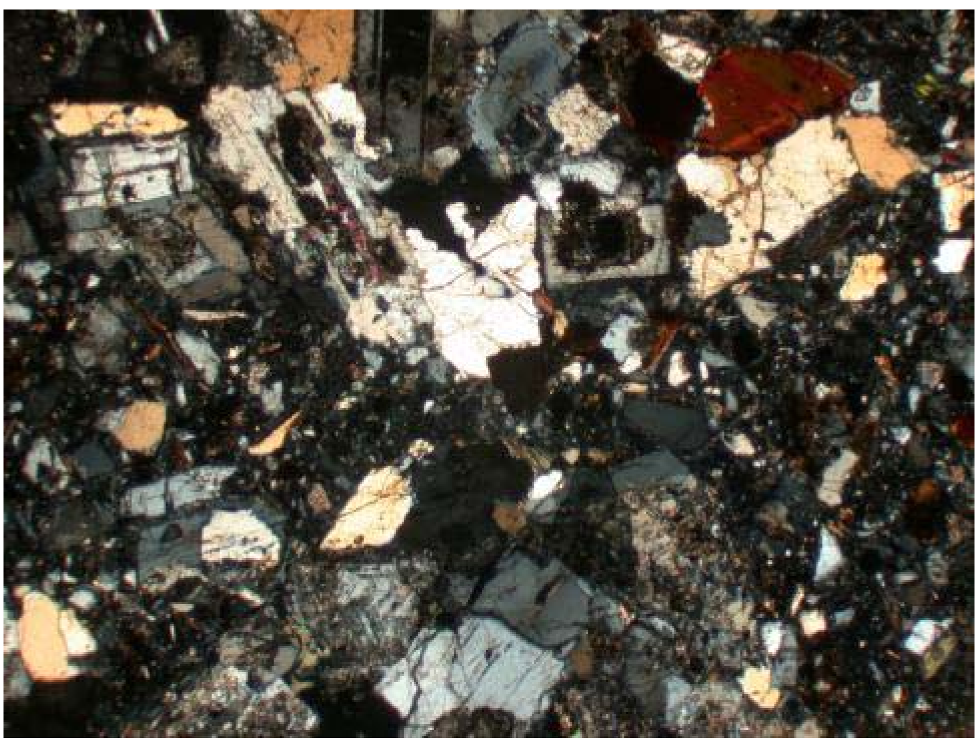
Total carbonate comprises approximately 5% of the section dominantly as colourless carbonate with rare traces of brown carbonate. Colourless carbonate occurs as 1) fine to very fine-grained anhedral patchy aggregates that occur locally with muscovite (sericite) as replacement of plagioclase in granodiorite fragments 2) fine-grained infill to discontinuous brittle fractures in granodiorite and possible quartz vein fragments and 3) fine to medium-grained liberated vein fragments. Colourless carbonate aggregate is rarely partly replaced by very fine-grained brown carbonate aggregate or red-brown Fe-oxide/oxyhydroxide aggregate. Rarely carbonate is partly replaced by very fine-grained euhedral brown rutile grains.

Sulphide occurs in minor amounts, approximately 1%, dominantly as pyrrhotite with traces of pyrite, arsenopyrite, molybdenite, chalcopyrite and rare marcasite. Pyrrhotite, approximately 1%, occurs as fine to very fine-grained (< 0.1 mm) anhedral grains and aggregates within granodiorite rock chips and as liberated grains. Pyrrhotite is locally rimmed and partly replaced along partings by red-brown Fe-ox aggregate. Some pyrrhotite grains have a rimmed appearance but no secondary coatings. Trace pyrite occurs disseminated as fine to very fine-grained (< 0.16 mm), anhedral grains and aggregates within rock chips and as liberated particles or aggregate. Pyrite grains are locally pitted and grain boundaries are typically unaltered. One aggregate of very fine-grained pyrite is strongly rimmed and replaced by red-brown Fe-oxide/oxyhydroxide aggregate. Traces of arsenopyrite occur as fine-grained (<0.45 mm) liberated grains and very fine-grained aggregates (< 0.015 mm). Rare traces of marcasite are observed partly replacing pyrrhotite enclosed within a liberated arsenopyrite grain. Arsenopyrite rims are typically without secondary alteration. Rare ?arsenopyrite grains are partly replaced by Fe-oxide/oxyhydroxide material. Traces of fine-grained molybdenite occur within a granodiorite fragment. Traces of very fine-grained chalcopyrite (< 0.05 mm) occur associated with pyrrhotite and disseminated within rock fragments.

Traces of red-brown Fe-oxide/oxyhydroxide occur locally partly replacing pyrrhotite and very rarely partly rimming and replacing pyrite, arsenopyrite and carbonate grains.

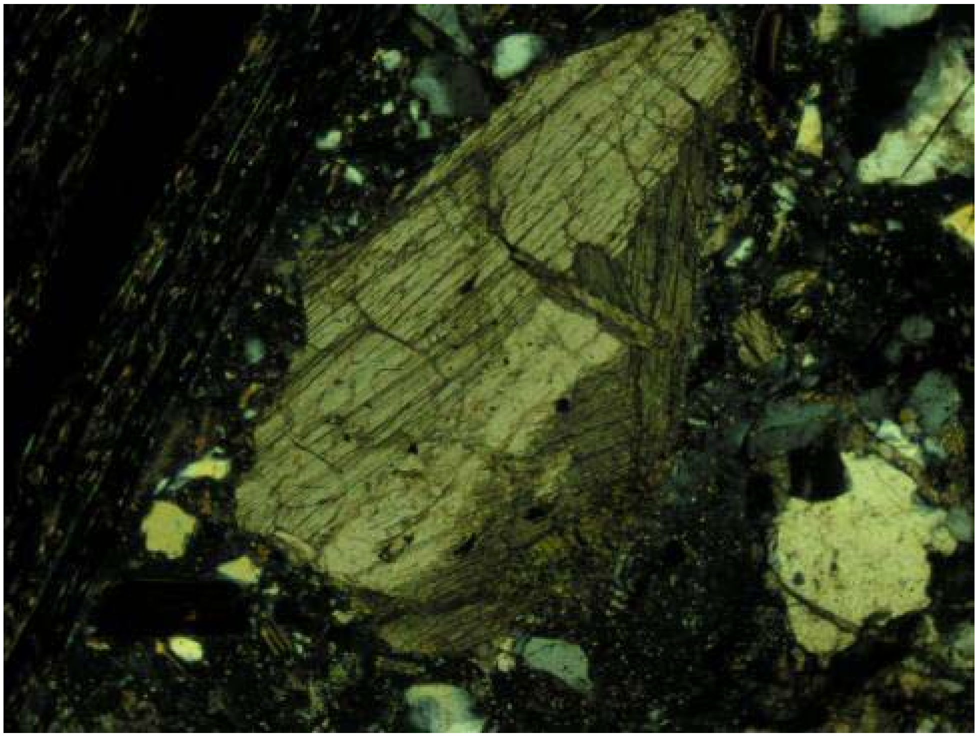


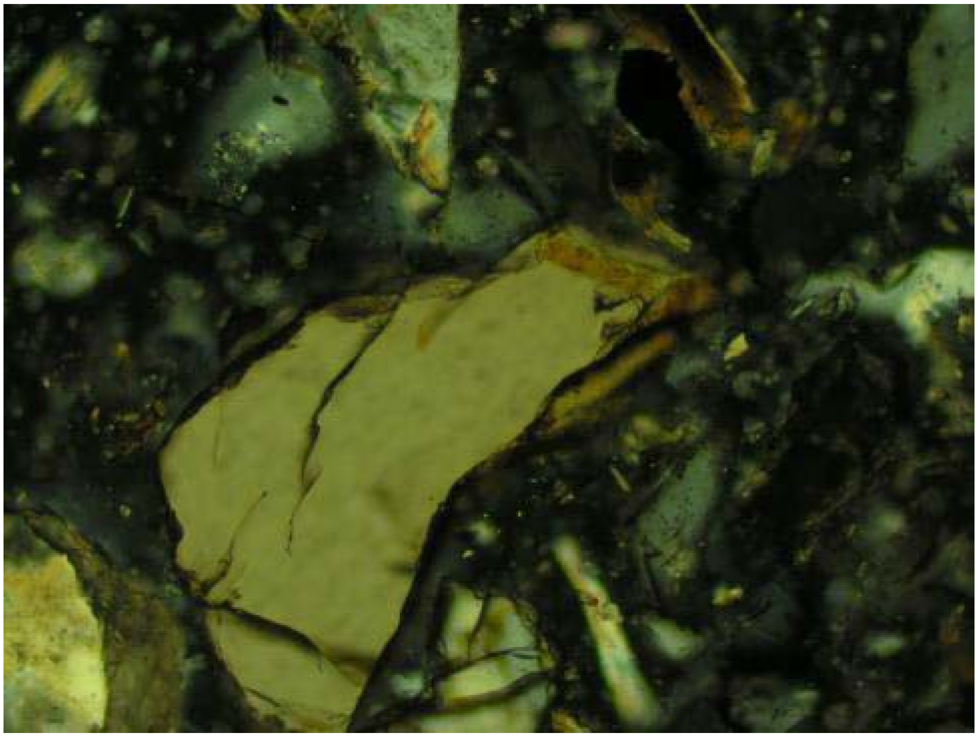
A



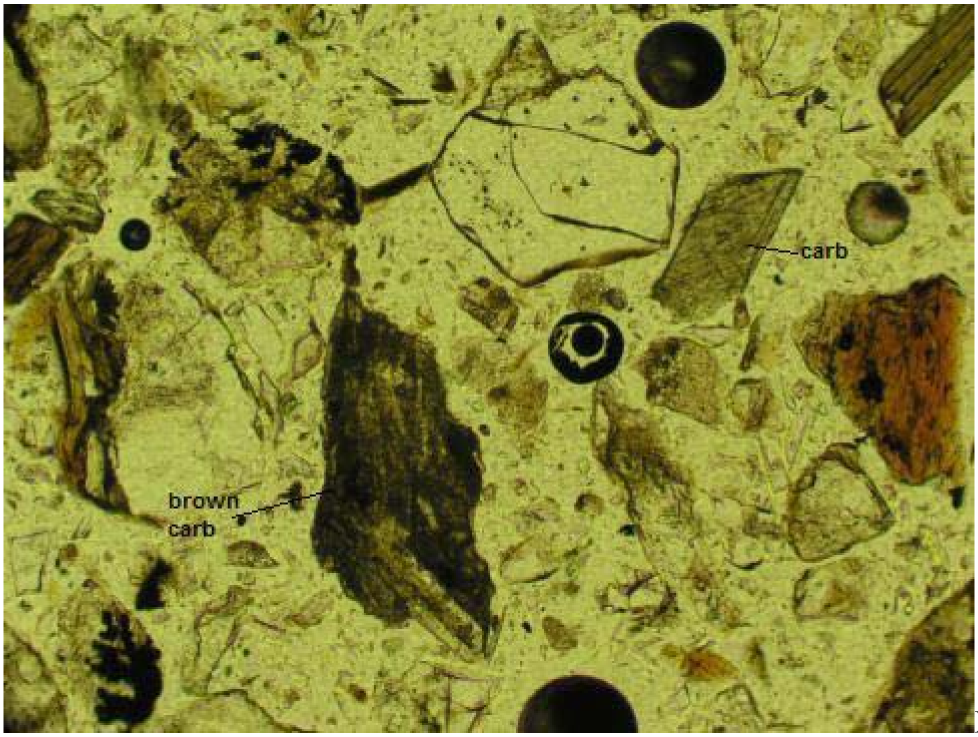
B

42479: Representative chips of seriate inequigranular biotite granodiorite. A) PPL, B) XPL, FOV =~ 4.5 mm.
.

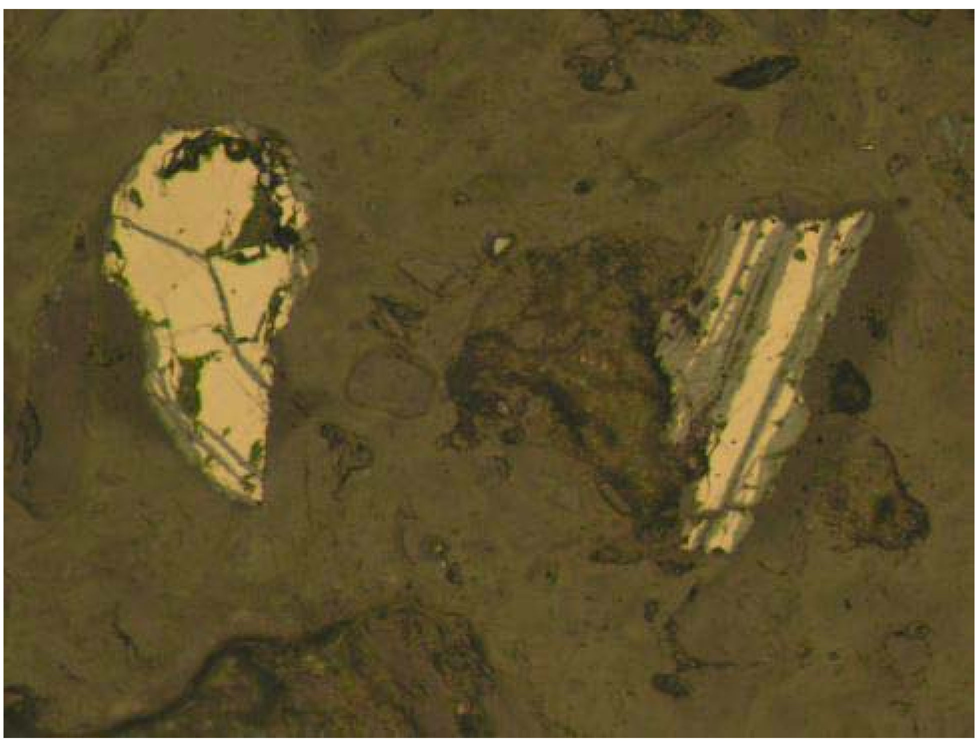

C


D

42479: C) Carbonate vein fragment. XPL, FOV =~ 2.6 mm. D) Colourless carbonate fragment partly rimmed by red-brown Fe-oxide/oxyhydroxide aggregate. XPL, FOV =~ 0.7 mm.

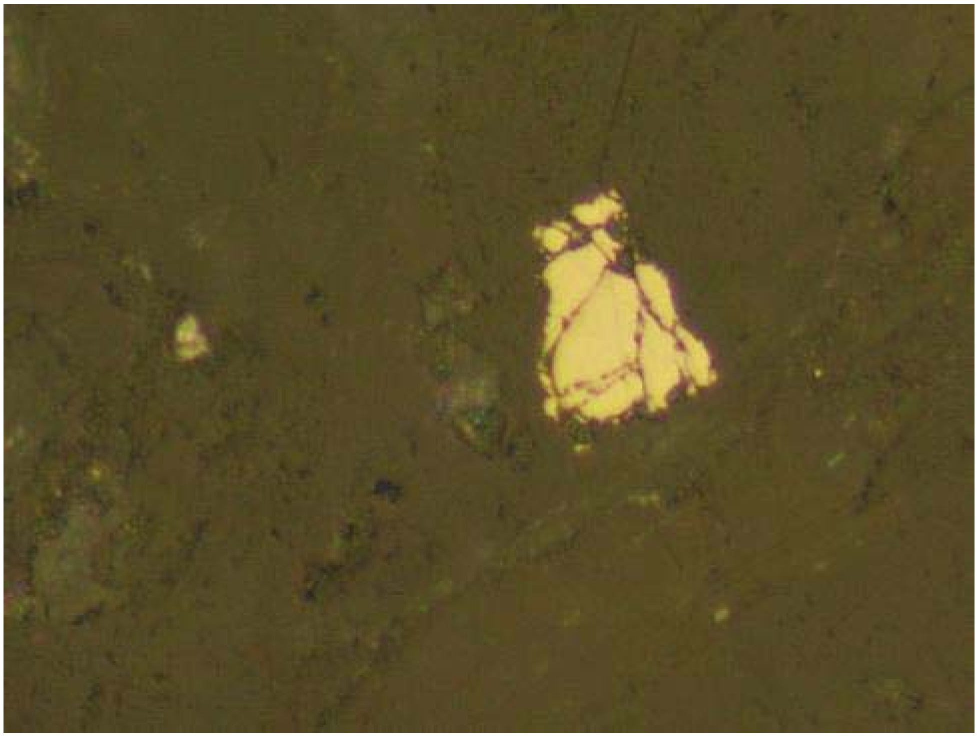


E

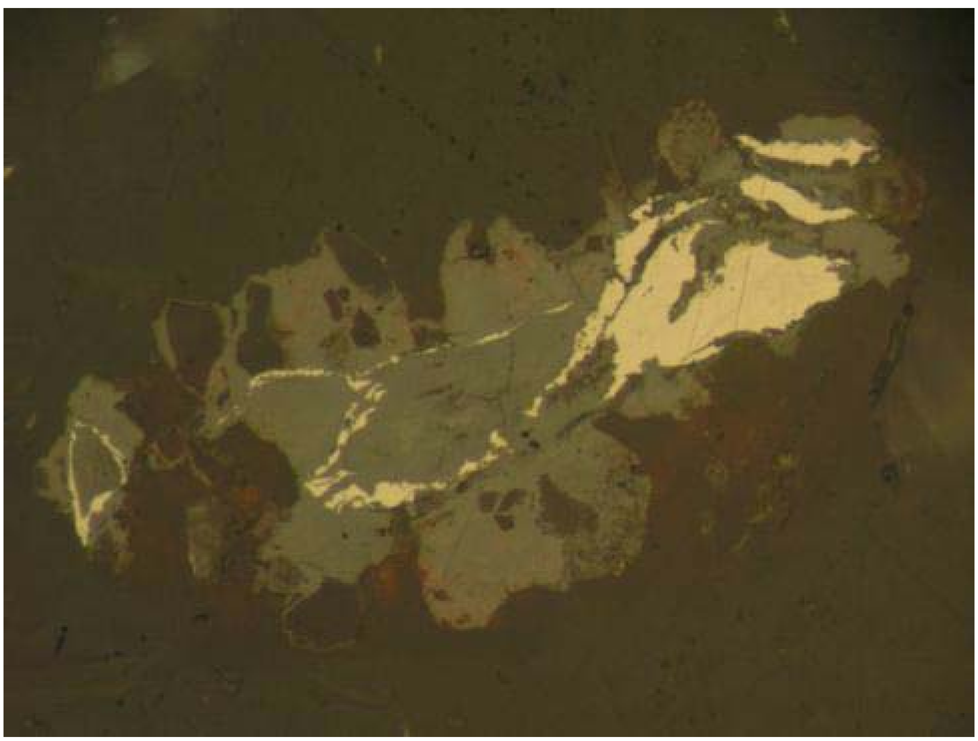


F

42479: E) Aggegate of brown carbonate (left) and grain of colourless carbonate (right). PPL, FOV =~ 1.3 mm. F) Grains of pyrrhotite rimmed and partly replaced along partings by Fe-ox. RL, FOV =~ 0.3 mm.

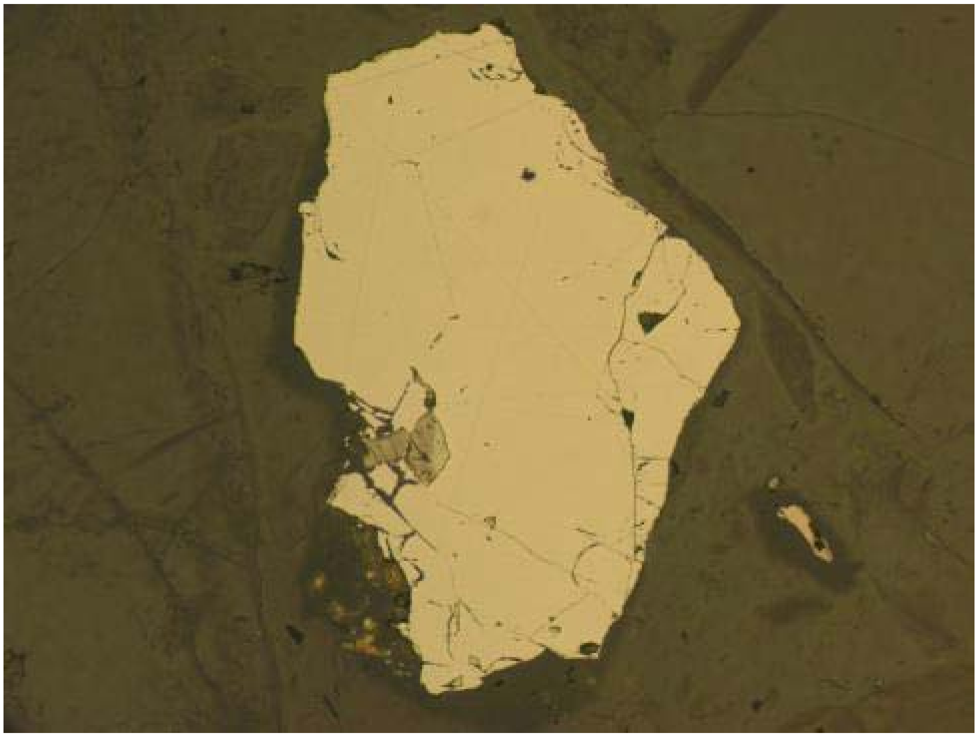


G



H

42479: G) Grain of fractured pyrite with irregular pitted grain boundaries. RL, FOV =~ 0.2 mm. H) Aggregate of ?arsenopyrite strongly replaced by red-brown Fe-oxide/oxyhydroxide. RL, FOV =~ 0.2 mm.



I

42479: I) Large grain of liberated arsenopyrite with irregular grain boundaries. Absence of secondary coating. Enclosed pyrrhotite aggregate partly replaced by marcasite. RL, FOV =~ 0.7 mm.

Statement of qualifications: Kathryn P.E. Dunne

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7. The petrographic data of this report was collected by me in February 2010.

……………………..…………………

Kathryn P.E. Dunne, M.Sc., P.Geo.
Consulting Geologist
February 17, 2010

Appendix G: Static Program Laboratory Results

Statistical Summary of Whole Rock Analysis by XRF

	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %
Metasediments (n=62)											
Mean	13.97	1.14	0.02	4.32	3.92	1.24	0.04	1.11	0.08	70.44	0.59
Median	15.00	0.94	0.02	4.34	4.17	1.35	0.04	1.13	0.08	68.25	0.64
Standard Deviation	5.43	0.92	0.01	1.73	1.34	0.68	0.02	0.44	0.04	10.29	0.22
Range	21.13	4.71	0.08	6.38	4.97	3.01	0.09	2.33	0.21	39.41	0.85
Minimum	4.73	0.11	0.01	1.31	1.27	0.20	0.01	0.01	0.01	49.54	0.21
Maximum	25.86	4.82	0.08	7.69	6.24	3.21	0.10	2.33	0.22	88.95	1.06
Count	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00	62.00
Confidence Level(95.0%)	1.38	0.23	0.00	0.44	0.34	0.17	0.00	0.11	0.01	2.61	0.05
Granodiorite A (Oxidized) (n=170)											
Mean	13.96	2.50	0.01	3.68	4.66	1.24	0.04	1.70	0.12	68.21	0.51
Median	14.36	2.75	0.01	3.60	4.87	1.25	0.04	1.92	0.13	67.28	0.51
Standard Deviation	2.53	1.03	0.01	0.92	0.84	0.46	0.02	0.57	0.03	5.34	0.11
Range	20.04	4.76	0.04	6.15	4.92	3.15	0.10	2.53	0.21	36.16	0.74
Minimum	4.73	0.11	0.01	1.31	1.32	0.20	0.01	0.01	0.01	52.79	0.20
Maximum	24.77	4.87	0.04	7.46	6.24	3.35	0.11	2.53	0.22	88.95	0.94
Count	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00	170.00
Confidence Level(95.0%)	0.38	0.16	0.00	0.14	0.13	0.07	0.00	0.09	0.00	0.81	0.02
Granodiorite B (unaltered) (n=25)											
Mean	13.89	3.08	0.02	3.66	4.78	1.39	0.03	1.92	0.12	66.67	0.50
Median	13.95	3.18	0.02	3.60	4.78	1.37	0.02	2.03	0.12	66.47	0.50
Standard Deviation	0.57	0.67	0.01	0.45	0.28	0.32	0.01	0.51	0.01	2.20	0.04
Range	2.28	3.61	0.06	1.57	1.21	1.37	0.05	2.36	0.06	10.58	0.16
Minimum	12.61	0.44	0.01	2.95	4.26	0.55	0.01	0.10	0.09	62.53	0.43
Maximum	14.89	4.05	0.06	4.52	5.47	1.92	0.05	2.46	0.15	73.11	0.59
Count	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Confidence Level(95.0%)	0.23	0.28	0.01	0.19	0.12	0.13	0.00	0.21	0.01	0.91	0.01
Granodiorite C (altered) (n=35)											
Mean	13.64	2.97	0.02	3.69	4.72	1.28	0.04	1.51	0.12	66.76	0.50
Median	13.74	2.97	0.02	3.61	4.74	1.29	0.03	1.75	0.12	66.75	0.52
Standard Deviation	0.76	0.74	0.01	0.56	0.40	0.24	0.05	0.71	0.01	2.53	0.06
Range	3.22	4.71	0.03	3.39	1.55	1.28	0.23	2.29	0.05	12.81	0.38
Minimum	12.34	0.33	0.01	2.12	3.92	0.56	0.01	0.02	0.09	61.91	0.27
Maximum	15.56	5.04	0.04	5.51	5.47	1.84	0.24	2.31	0.14	74.72	0.65
Count	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00
Confidence Level(95.0%)	0.26	0.25	0.00	0.19	0.14	0.08	0.02	0.25	0.00	0.87	0.02

Whole Rock Analysis by XRF (from Lawrence, 1997)

Sample_#	Rock Type Code	NEW Rock Code	Al2O3 % XRF	CaO % XRF	Cr2O3 % XRF	Fe2O3 % XRF	K2O % XRF	MgO % XRF	MnO % XRF	Na2O % XRF	P2O5 % XRF	SiO2 % XRF	TiO2 % XRF	L %	TOTAL %	Ba ppm	Rb ppm	Sr ppm	Nb ppm	Zr ppm	Y ppm
1001	5	Granodiorite A	14.93	3.25	0.03	4	4.54	1.62	0.03	2.23	0.13	65.81	0.59	1.78	98.94	1680	170	420	10	190	10
1031	5	Granodiorite A	14.23	3.04	0.04	3.93	4.7	1.68	0.04	1.56	0.13	64.96	0.54	4.59	99.44	1660	180	330	10	190	10
1044	5	Granodiorite A	14.43	3.04	0.03	4.12	5.11	1.36	0.05	0.55	0.14	64.29	0.56	5.79	99.47	1620	190	230	10	190	10
1172	5	Granodiorite A	14.88	2.85	0.01	3.83	4.8	1.5	0.02	2.19	0.13	66.5	0.58	1.79	99.08	1700	180	430	10	210	10
1213	5	Granodiorite A	13.37	2.05	0.02	2.93	5.59	1.31	0.01	1.7	0.12	69.9	0.5	1.53	99.03	1560	190	330	10	180	10
1491	5	Granodiorite A	12.1	4.74	0.01	2.93	4.94	1.04	0.02	1.57	0.1	66.52	0.42	4.73	99.12	1500	170	350	10	160	10
1644	5	Granodiorite A	13.98	2.49	0.02	3.27	5.32	1.35	0.02	2.09	0.13	67.7	0.51	2.26	99.14	1680	190	370	10	180	10
1662	5	Granodiorite A	14.52	2.42	0.03	3.5	5.02	1.11	0.08	2.19	0.12	67.62	0.53	2.05	99.19	1520	190	330	10	190	10
51511	5	Granodiorite A	14.33	4.43	0.01	4.86	4.55	2.18	0.04	1.95	0.15	62.23	0.63	3.75	99.11	1460	190	460	10	190	20
51584	5	Granodiorite A	12.93	3.24	0.01	3.57	4.96	1.33	0.03	1.78	0.12	67.31	0.53	2.76	98.57	1700	170	390	10	180	10
51979	5	Granodiorite A	14.46	3.39	0.03	3.46	5.37	1.62	0.04	1.63	0.14	64.07	0.54	4.38	99.13	1720	200	340	10	190	10
51990	5	Granodiorite A	14.58	2.01	0.03	3.24	5.26	1.34	0.03	1.86	0.12	66.33	0.5	3.89	99.19	1540	200	270	10	190	20
52249	5	Granodiorite A	13.78	3.02	0.02	3.51	4.67	1.54	0.03	1.95	0.13	66.82	0.5	3.28	99.25	1580	170	350	10	190	10
52251	5	Granodiorite A	13.98	2.19	0.03	3.46	4.99	0.79	0.02	1.95	0.13	67.17	0.5	3.8	99.01	1600	190	350	10	180	10
52265	5	Granodiorite A	14.2	3.05	0.02	3.44	5.07	1.27	0.02	2.27	0.13	66.33	0.51	2.65	98.96	1480	180	400	10	180	10
52491	5	Granodiorite A	15	1.89	0.02	3.69	5.04	1.63	0.01	2.41	0.16	66.87	0.61	1.86	99.19	1780	190	430	10	210	10
52492	5	Granodiorite A	14.96	2.37	0.02	3.07	5.46	1.28	0.02	2.14	0.13	67.79	0.51	1.58	99.33	1680	190	350	10	180	20
52496	5	Granodiorite A	15.14	2.96	0.01	3.57	4.85	1.5	0.01	2.4	0.15	66.75	0.57	1.13	99.04	1760	180	460	10	200	20
52499	5	Granodiorite A	15.29	2.86	0.03	3.54	4.84	1.53	0.03	2.27	0.15	67.21	0.56	1.39	99.7	1740	200	420	10	200	20
52608	5	Granodiorite A	14.34	2.59	0.02	3.34	4.91	1.34	0.01	2.1	0.13	67.87	0.52	1.51	98.68	1640	180	400	10	190	20
52623	5	Granodiorite A	12.8	3.9	0.01	3.54	5.35	1.43	0.02	1.53	0.11	65.93	0.54	4.01	99.17	1800	190	400	10	170	10
52642	5	Granodiorite A	14.32	2.89	0.03	3.71	5.2	1.49	0.01	2.28	0.14	65.73	0.56	2.16	98.52	1700	190	450	10	200	10
52946	5	Granodiorite A	14.43	2.42	*0.005*	3.61	5.32	0.97	0.03	1.52	0.14	66.58	0.56	3.59	99.17	1600	210	270	10	200	10
53229	5	Granodiorite A	13.9	1.66	0.01	3.09	5.26	1.15	0.01	1.83	0.12	69.76	0.5	1.8	99.09	1660	200	330	10	180	10
70792	5	Granodiorite A	14.64	3.17	0.01	3.92	4.64	1.41	0.03	2.19	0.14	66.69	0.57	1.86	99.27	1700	190	420	10	190	10
71036	5	Granodiorite A	14.2	1.75	0.02	3.41	4.8	1.3	0.02	1.83	0.13	69.37	0.53	1.98	99.34	1620	190	330	10	190	10
71058	5	Granodiorite A	13.87	2.76	0.04	3.63	4.96	1.34	0.02	2.16	0.12	67.88	0.53	1.22	98.53	1580	190	400	10	190	10
72867	5	Granodiorite A	14.5	1.66	0.02	2.9	5.04	1.03	0.02	2.25	0.1	69.64	0.43	1.41	99	1460	190	310	10	190	10
72893	5	Granodiorite A	16.96	3.85	0.03	5.56	4.16	2.79	0.08	1.75	0.16	60.44	0.8	2.47	99.05	1580	170	440	10	190	20
75461	5	Granodiorite A	14.4	2.46	0.02	3.79	5.18	1.42	0.02	2.17	0.14	67.67	0.55	1.36	99.18	1760	200	580	10	180	10
75616	5	Granodiorite A	14.64	2.93	0.01	4	4.83	1.42	0.02	2.19	0.12	67.05	0.56	0.97	98.74	1620	190	450	10	200	10
75765	5	Granodiorite A	13.88	2.73	0.01	3.43	5.14	1.18	0.02	1.97	0.12	67.92	0.52	1.75	98.67	1720	200	380	10	200	20
77006	5	Granodiorite A	14.65	0.75	0.02	3.37	5.12	0.98	0.01	1.33	0.13	68.37	0.52	3.94	99.19	1820	200	220	10	190	10
79452	5	Granodiorite A	15.21	2.67	0.01	3.33	5.14	1.6	0.02	2.34	0.15	66.63	0.58	1.38	99.06	1900	190	450	10	200	20
79453	5	Granodiorite A	15.27	2.96	0.02	3.24	4.78	1.54	0.01	2.35	0.16	66.99	0.58	1.1	99	1780	180	450	10	210	10
79456	5	Granodiorite A	14.04	1.94	0.03	3.09	4.87	1.34	0.01	2.01	0.14	69.72	0.56	1.53	99.28	1780	190	360	10	200	10
79457	5	Granodiorite A	14.48	2.24	0.02	3.12	4.85	1.2	0.02	2.38	0.14	67.58	0.54	2.96	99.53	1620	190	390	10	190	10
79458	5	Granodiorite A	14.62	2.97	0.01	3.01	5.49	0.88	0.03	1.99	0.14	65.76	0.54	3.58	99.02	1500	200	300	10	190	20
79459	5	Granodiorite A	14.77	1.44	0.01	3.2	5.2	1.21	0.02	2.31	0.14	68.18	0.55	2.02	99.05	1720	190	370	10	200	20
79461	5	Granodiorite A	16.04	3.52	0.02	4.06	4.29	1.94	0.03	2.53	0.18	64.53	0.7	1.51	99.35	1960	180	510	10	230	20
79464	5	Granodiorite A	15.07	1.53	0.01	2.83	5.08	1.05	0.02	1.68	0.14	68.79	0.54	2.29	99.03	1580	210	240	10	210	20
111804	5	Granodiorite A	14.12	2.73	*0.005*	4.02	5.49	1.24	0.04	1.83	0.15	66.3	0.52	3.39	99.835						
120912	5	Granodiorite A	14.69	1.41	*0.005*	3.18	4.74	1.23	0.03	0.78	0.15	68.77	0.51	3.97	99.465						
121149	5	Granodiorite A	11.57	3.89	*0.005*	3.31	4.91	0.83	0.07	0.81	0.1	67.28	0.42	5.23	98.425						
121241	5	Granodiorite A	12.69	2.82	*0.005*	3.18	4.27	1.02	0.03	1.58	0.12	70.85	0.41	2.79	99.76						
121939	5	Granodiorite A	14.86	3.95	*0.005*	4.29	4.44	2.17	0.05	2.21	0.13	65.07	0.52	2.14	99.835						
122785	5	Granodiorite A	11.79	4.17	*0.005*	3.2	4.85	0.85	0.04	1.64	0.08	67.1	0.27	5.7	99.695						
120647	5	Granodiorite A	21.66	0.66	*0.005*	7.46	5.05	2.05	0.08	1.66	0.08	56.22	0.94	3.03	98.895						
111624	5	Granodiorite A	13.12	3.27	*0.005*	4.07	4.21	1.21	0.07	0.3	0.13	66.59	0.46	5.97	99.405						
111085	5	Granodiorite A	14.96	3.18	*0.005*	3.76	4.72	1.34	0.04	2.07	0.15	66.12	0.53	2.18	99.055						
111205	5	Granodiorite A	14.98	3.02	*0.005*	3.74	4.89	1.41	0.04	2.19	0.14	66.95	0.51	1.93	99.805						
111219	5	Granodiorite A	14.62	3	*0.005*	4.13	4.9	1.33	0.05	1.63	0.14	66.37	0.53	2.86	99.565						

Sample_#	Rock Type Code	NEW Rock Code	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	L	TOTAL	Ba	Rb	Sr	Nb	Zr	Y
			XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	%	%	ppm	ppm	ppm	ppm	ppm	ppm
111794	5	Granodiorite A	14.62	3.03	*0.005*	3.83	4.98	1.34	0.04	2.11	0.14	65.59	0.52	2.85	99.055						
111970	5	Granodiorite A	13.74	4.87	*0.005*	6.38	4.64	3.35	0.11	1.91	0.16	59.68	0.64	3.7	99.185						
112127	5	Granodiorite A	14.99	3.26	*0.005*	3.79	4.83	1.39	0.03	2.34	0.15	66.99	0.55	0.93	99.255						
112170	5	Granodiorite A	14.79	3.13	*0.005*	3.69	4.84	1.35	0.04	2.16	0.15	65.11	0.54	3.11	98.915						
112235	5	Granodiorite A	14.26	3.95	*0.005*	3.33	5.02	1.34	0.04	1.97	0.14	65.87	0.51	2.7	99.135						
112447	5	Granodiorite A	14.77	3.1	*0.005*	3.13	4.86	1.25	0.03	2.37	0.13	68.15	0.5	1.19	99.485						
120498	5	Granodiorite A	14.73	2.62	*0.005*	3.65	4.89	1.21	0.04	2.18	0.13	68.17	0.5	1.48	99.605						
120778	5	Granodiorite A	14.78	1.54	*0.005*	3.43	5.22	1.2	0.05	0.88	0.15	68.16	0.53	3.54	99.485						
121786	5	Granodiorite A	14.2	3.16	*0.005*	3.72	4.85	1.22	0.04	2	0.12	67.75	0.46	2.62	100.145						
121949	5	Granodiorite A	15.08	3.26	*0.005*	3.41	4.32	1.4	0.04	2.34	0.12	68.21	0.51	1.29	99.985						
122253	5	Granodiorite A	15.06	3.47	*0.005*	3.89	4.68	1.51	0.04	2.28	0.14	65.18	0.55	3.2	100.005						
122771	5	Granodiorite A	12.35	3.48	*0.005*	2.98	4.73	0.95	0.04	1.65	0.12	68.43	0.36	4.48	99.575						
122929	5	Granodiorite A	13.77	3.44	*0.005*	4.11	4.77	1.97	0.05	1.94	0.14	65.71	0.49	3.24	99.635						
122959	5	Granodiorite A	13.85	2.65	*0.005*	3.22	4.93	1.18	0.04	1.76	0.13	68.92	0.48	3.05	100.215						
123317	5	Granodiorite A	14.15	3.1	*0.005*	3.81	4.8	1.32	0.03	2.02	0.14	66.22	0.5	3.07	99.165						
123697	5	Granodiorite A	14.28	2.47	*0.005*	3.45	4.87	1.29	0.03	2.18	0.13	68.55	0.49	1.61	99.355						
123777	5	Granodiorite A	14.17	2.26	*0.005*	3.33	5.11	1.25	0.03	2.11	0.13	69.16	0.51	1.86	99.925						
111493	5	Granodiorite A	15.14	2.94	*0.005*	3.69	5.29	1.43	0.04	2.3	0.15	66.63	0.51	1.69	99.815						
111485	5	Granodiorite A	14.71	3.51	*0.005*	3.29	4.88	1.11	0.03	2.04	0.15	65.34	0.49	3.22	98.775						
111511	5	Granodiorite A	14.35	2.9	*0.005*	3.65	5.4	1.31	0.04	1.83	0.14	66.99	0.5	2.79	99.905						
111005	5	Granodiorite A	14.96	2.8	*0.005*	3.75	4.95	0.9	0.05	1.6	0.15	66.61	0.53	3.39	99.695						
111617	5	Granodiorite A	14.33	3.2	*0.005*	3.3	5.02	1.17	0.03	1.51	0.13	65.86	0.46	4.1	99.115						
111809	5	Granodiorite A	14.53	2.54	*0.005*	3.92	4.87	1.32	0.04	2.23	0.14	66.94	0.51	2.42	99.465						
111955	5	Granodiorite A	14.03	2.96	*0.005*	3.99	4.87	0.87	0.05	1.4	0.14	66.17	0.53	3.83	98.845						
120280	5	Granodiorite A	14.03	1.92	0.01	3.06	5.04	0.75	0.04	1.92	0.11	69.2	0.42	2.84	99.34						
120384	5	Granodiorite A	14.65	2.87	*0.005*	3.44	5.08	0.87	0.04	1.7	0.14	66.54	0.51	3.99	99.835						
120421	5	Granodiorite A	15.08	2.39	*0.005*	3.89	5.22	1.4	0.04	2.02	0.15	67.42	0.55	1.56	99.725						
121474	5	Granodiorite A	14.36	3.26	*0.005*	3.79	4.87	1.39	0.04	1.95	0.13	67.58	0.5	1.95	99.825						
121495	5	Granodiorite A	13.29	3.27	*0.005*	3.41	4.16	1.05	0.05	1.51	0.14	68.95	0.41	3.28	99.525						
122978	5	Granodiorite A	10.34	2.16	*0.005*	6.39	3.25	0.89	0.05	0.27	0.11	70.5	0.37	4.8	99.135						
123906	5	Granodiorite A	14.36	2.47	*0.005*	3.71	5.15	1.26	0.04	1.96	0.13	67.71	0.49	2.04	99.325						
123964	5	Granodiorite A	13.97	2.7	*0.005*	4.11	4.32	1.2	0.04	2.12	0.13	68.83	0.51	1.47	99.405						
120481	5	Granodiorite A	13.99	2.57	*0.005*	3.33	5.05	1.2	0.04	1.94	0.11	69.81	0.47	1.62	100.135						
111367	5	Granodiorite A	14.45	3.11	*0.005*	3.65	4.97	1.39	0.04	2.01	0.14	67.15	0.53	1.5	98.945						
111270	5	Granodiorite A	16.93	1.57	*0.005*	5.4	4.95	1.77	0.06	1.21	0.09	62.01	0.68	4.87	99.545						
111310	5	Granodiorite A	4.73	0.28	*0.005*	1.31	1.32	0.2	0.01	0.75	0.01	88.95	0.21	0.66	98.435						
111554	5	Granodiorite A	7.93	0.2	*0.005*	1.64	2.88	0.42	0.01	0.7	0.03	84.01	0.36	1.38	99.565						
111577	5	Granodiorite A	9.99	1.37	*0.005*	2.3	2.8	0.57	0.04	0.32	0.22	76.88	0.43	3.32	98.245						
111662	5	Granodiorite A	24.77	0.66	*0.005*	6.01	6.24	1.8	0.03	1.75	0.09	52.79	0.92	4.02	99.085						
111702	5	Granodiorite A	11.41	1.12	*0.005*	3.57	4.04	1.16	0.04	1.25	0.05	75.09	0.48	1.54	99.755						
111833	5	Granodiorite A	16.76	0.97	*0.005*	2.67	5.09	0.48	0.03	0.78	0.06	67.79	0.72	4	99.355						
111996	5	Granodiorite A	16.08	2.18	*0.005*	4.3	5.26	0.63	0.04	1.37	0.12	62.89	0.65	4.59	98.115						
112462	5	Granodiorite A	7.54	0.67	*0.005*	2.73	2.08	0.62	0.04	1.27	0.03	83.44	0.33	0.96	99.715						
120109	5	Granodiorite A	8.4	0.48	0.01	2.69	2.44	0.59	0.03	1.27	0.08	82.7	0.38	0.85	99.92						
120119	5	Granodiorite A	18.91	0.44	0.01	2.95	5.82	0.52	0.04	0.55	0.2	65.63	0.7	3.86	99.63						
120224	5	Granodiorite A	15.35	0.28	0.01	4.95	4.63	1.4	0.06	1.05	0.06	68.41	0.63	2.28	99.11						
120314	5	Granodiorite A	9.51	0.3	0.01	2.68	3.4	0.66	0.04	0.79	0.05	79.27	0.42	1.22	98.35						
120680	5	Granodiorite A	14.28	3.06	*0.005*	4.05	4.67	1.56	0.04	1.94	0.12	67.28	0.52	2.1	99.625						
120878	5	Granodiorite A	5.61	0.11	*0.005*	1.49	1.61	0.2	0.04	*0.005*	0.01	88.75	0.23	1.4	99.46						
121036	5	Granodiorite A	6.64	1.22	*0.005*	2.07	1.99	0.4	0.03	1.04	0.04	83.98	0.3	0.91	98.625						
121174	5	Granodiorite A	15.82	0.5	*0.005*	4.06	4.42	1.03	0.04	1.13	0.13	68.08	0.64	2.88	98.735						
121207	5	Granodiorite A	5.57	0.18	*0.005*	2.05	1.77	0.21	0.03	0.11	0.04	87.62	0.23	1.69	99.505						
121527	5	Granodiorite A	16.7	1.78	*0.005*	5.56	4.01	1.61	0.06	1.56	0.09	65.1	0.68	2.15	99.305						
121827	5	Granodiorite A	11.46	0.42	*0.005*	4.31	3.08	0.96	0.06	0.76	0.12	76.61	0.46	1.89	100.135						

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			XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	%	%	ppm	ppm	ppm	ppm	ppm	ppm
121954	5	Granodiorite A	7.93	0.56	*0.005*	2.61	2.15	0.65	0.03	1.06	0.04	83.34	0.38	1.01	99.765						
122008	5	Granodiorite A	16.4	0.49	*0.005*	5.5	4.73	1.51	0.05	1.14	0.09	66.96	0.72	1.92	99.515						
122109	5	Granodiorite A	11.22	1.97	*0.005*	3.98	3.25	1.04	0.06	1.38	0.11	73.42	0.44	3.26	100.135						
123238	5	Granodiorite A	18.17	1.13	*0.005*	6.43	5.62	2.42	0.07	2.05	0.09	58.97	0.87	3.21	99.035						
120822	5	Granodiorite A	14.52	1.14	*0.005*	4.63	4.78	1.18	0.03	0.32	0.14	68.26	0.5	4.7	100.205						
122626	5	Granodiorite A	14.61	1.46	*0.005*	4.16	4.08	1.16	0.04	0.98	0.05	68.25	0.58	3.64	99.015						
112150	5	Granodiorite A	14.67	2.59	*0.005*	3.59	5.25	1.2	0.04	2	0.14	66.48	0.5	2.81	99.275						
121369	5	Granodiorite A	14.11	2.71	*0.005*	2.92	4.42	1.13	0.03	2.12	0.1	68.57	0.35	3.13	99.595						
120181	5	Granodiorite A	13.09	2.82	*0.005*	2.93	4.73	0.68	0.05	1.46	0.12	69.24	0.39	4.06	99.575						
120296	5	Granodiorite A	14.68	1.44	*0.005*	4.04	4.99	0.75	0.05	1.27	0.14	68.54	0.51	3.37	99.785						
122445	5	Granodiorite A	5.37	0.59	*0.005*	1.93	1.43	0.33	0.04	0.95	0.05	87.74	0.2	0.87	99.505						
111085	5	Granodiorite A	14.96	3.18	*0.005*	3.76	4.72	1.34	0.04	2.07	0.15	66.12	0.53	2.18	99.055						
111205	5	Granodiorite A	14.98	3.02	*0.005*	3.74	4.89	1.41	0.04	2.19	0.14	66.95	0.51	1.93	99.805						
111219	5	Granodiorite A	14.62	3	*0.005*	4.13	4.9	1.33	0.05	1.63	0.14	66.37	0.53	2.86	99.565						
111485	5	Granodiorite A	14.71	3.51	*0.005*	3.29	4.88	1.11	0.03	2.04	0.15	65.34	0.49	3.22	98.775						
111493	5	Granodiorite A	15.14	2.94	*0.005*	3.69	5.29	1.43	0.04	2.3	0.15	66.63	0.51	1.69	99.815						
111511	5	Granodiorite A	14.35	2.9	*0.005*	3.65	5.4	1.31	0.04	1.83	0.14	66.99	0.5	2.79	99.905						
111794	5	Granodiorite A	14.62	3.03	*0.005*	3.83	4.98	1.34	0.04	2.11	0.14	65.59	0.52	2.85	99.055						
111970	5	Granodiorite A	13.74	4.87	*0.005*	6.38	4.64	3.35	0.11	1.91	0.16	59.68	0.64	3.7	99.185						
112127	5	Granodiorite A	14.99	3.26	*0.005*	3.79	4.83	1.39	0.03	2.34	0.15	66.99	0.55	0.93	99.255						
112150	5	Granodiorite A	14.67	2.59	*0.005*	3.59	5.25	1.2	0.04	2	0.14	66.48	0.5	2.81	99.275						
112170	5	Granodiorite A	14.79	3.13	*0.005*	3.69	4.84	1.35	0.04	2.16	0.15	65.11	0.54	3.11	98.915						
112235	5	Granodiorite A	14.26	3.95	*0.005*	3.33	5.02	1.34	0.04	1.97	0.14	65.87	0.51	2.7	99.135						
112302	5	Granodiorite A	14.06	3.33	*0.005*	3.22	5.02	1.45	0.04	1.71	0.14	66.19	0.5	3.45	99.115						
112447	5	Granodiorite A	14.77	3.1	*0.005*	3.13	4.86	1.25	0.03	2.37	0.13	68.15	0.5	1.19	99.485						
120498	5	Granodiorite A	14.73	2.62	*0.005*	3.65	4.89	1.21	0.04	2.18	0.13	68.17	0.5	1.48	99.605						
120778	5	Granodiorite A	14.78	1.54	*0.005*	3.43	5.22	1.2	0.05	0.88	0.15	68.16	0.53	3.54	99.485						
121369	5	Granodiorite A	14.11	2.71	*0.005*	2.92	4.42	1.13	0.03	2.12	0.1	68.57	0.35	3.13	99.595						
121786	5	Granodiorite A	14.2	3.16	*0.005*	3.72	4.85	1.22	0.04	2	0.12	67.75	0.46	2.62	100.145						
121949	5	Granodiorite A	15.08	3.26	*0.005*	3.41	4.32	1.4	0.04	2.34	0.12	68.21	0.51	1.29	99.985						
122253	5	Granodiorite A	15.06	3.47	*0.005*	3.89	4.68	1.51	0.04	2.28	0.14	65.18	0.55	3.2	100.005						
122771	5	Granodiorite A	12.35	3.48	*0.005*	2.98	4.73	0.95	0.04	1.65	0.12	68.43	0.36	4.48	99.575						
122929	5	Granodiorite A	13.77	3.44	*0.005*	4.11	4.77	1.97	0.05	1.94	0.14	65.71	0.49	3.24	99.635						
122959	5	Granodiorite A	13.85	2.65	*0.005*	3.22	4.93	1.18	0.04	1.76	0.13	68.92	0.48	3.05	100.215						
123317	5	Granodiorite A	14.15	3.1	*0.005*	3.81	4.8	1.32	0.03	2.02	0.14	66.22	0.5	3.07	99.165						
123697	5	Granodiorite A	14.28	2.47	*0.005*	3.45	4.87	1.29	0.03	2.18	0.13	68.55	0.49	1.61	99.355						
123777	5	Granodiorite A	14.17	2.26	*0.005*	3.33	5.11	1.25	0.03	2.11	0.13	69.16	0.51	1.86	99.925						
111005	5	Granodiorite A	14.96	2.8	*0.005*	3.75	4.95	0.9	0.05	1.6	0.15	66.61	0.53	3.39	99.695						
111367	5	Granodiorite A	14.45	3.11	*0.005*	3.65	4.97	1.39	0.04	2.01	0.14	67.15	0.53	1.5	98.945						
111617	5	Granodiorite A	14.33	3.2	*0.005*	3.3	5.02	1.17	0.03	1.51	0.13	65.86	0.46	4.1	99.115						
111809	5	Granodiorite A	14.53	2.54	*0.005*	3.92	4.87	1.32	0.04	2.23	0.14	66.94	0.51	2.42	99.465						
111955	5	Granodiorite A	14.03	2.96	*0.005*	3.99	4.87	0.87	0.05	1.4	0.14	66.17	0.53	3.83	98.845						
120181	5	Granodiorite A	13.09	2.82	*0.005*	2.93	4.73	0.68	0.05	1.46	0.12	69.24	0.39	4.06	99.575						
120280	5	Granodiorite A	14.03	1.92	0.01	3.06	5.04	0.75	0.04	1.92	0.11	69.2	0.42	2.84	99.34						
120296	5	Granodiorite A	14.68	1.44	*0.005*	4.04	4.99	0.75	0.05	1.27	0.14	68.54	0.51	3.37	99.785						
120384	5	Granodiorite A	14.65	2.87	*0.005*	3.44	5.08	0.87	0.04	1.7	0.14	66.54	0.51	3.99	99.835						
120421	5	Granodiorite A	15.08	2.39	*0.005*	3.89	5.22	1.4	0.04	2.02	0.15	67.42	0.55	1.56	99.725						
120481	5	Granodiorite A	13.99	2.57	*0.005*	3.33	5.05	1.2	0.04	1.94	0.11	69.81	0.47	1.62	100.135						
121474	5	Granodiorite A	14.36	3.26	*0.005*	3.79	4.87	1.39	0.04	1.95	0.13	67.58	0.5	1.95	99.825						
121495	5	Granodiorite A	13.29	3.27	*0.005*	3.41	4.16	1.05	0.05	1.51	0.14	68.95	0.41	3.28	99.525						
122445	5	Granodiorite A	5.37	0.59	*0.005*	1.93	1.43	0.33	0.04	0.95	0.05	87.74	0.2	0.87	99.505						
122978	5	Granodiorite A	10.34	2.16	0.01	6.39	3.25	0.89	0.05	0.27	0.11	70.5	0.37	4.8	99.14						
123906	5	Granodiorite A	14.36	2.47	*0.005*	3.71	5.15	1.26	0.04	1.96	0.13	67.71	0.49	2.04	99.325						
123964	5	Granodiorite A	13.97	2.7	*0.005*	4.11	4.32	1.2	0.04	2.12	0.13	68.83	0.51	1.47	99.405						

Sample_#	Rock Type Code	NEW Rock Code	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	L	TOTAL	Ba	Rb	Sr	Nb	Zr	Y
			XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	%	%	ppm	ppm	ppm	ppm	ppm	ppm
111624	5	Granodiorite A	13.12	3.27	*0.005*	4.07	4.21	1.21	0.07	0.3	0.13	66.59	0.46	5.97	99.405						
111804	5	Granodiorite A	14.12	2.73	*0.005*	4.02	5.49	1.24	0.04	1.83	0.15	66.3	0.52	3.39	99.835						
120647	5	Granodiorite A	21.66	0.66	0.01	7.46	5.05	2.05	0.08	1.66	0.08	56.22	0.94	3.03	98.9						
120822	5	Granodiorite A	14.52	1.14	*0.005*	4.63	4.78	1.18	0.03	0.32	0.14	68.26	0.5	4.7	100.205						
120912	5	Granodiorite A	14.69	1.41	*0.005*	3.18	4.74	1.23	0.03	0.78	0.15	68.77	0.51	3.97	99.465						
121149	5	Granodiorite A	11.57	3.89	*0.005*	3.31	4.91	0.83	0.07	0.81	0.1	67.28	0.42	5.23	98.425						
121241	5	Granodiorite A	12.69	2.82	*0.005*	3.18	4.27	1.02	0.03	1.58	0.12	70.85	0.41	2.79	99.765						
121939	5	Granodiorite A	14.86	3.95	*0.005*	4.29	4.44	2.17	0.05	2.21	0.13	65.07	0.52	2.14	99.835						
122626	5	Granodiorite A	14.61	1.46	*0.005*	4.16	4.08	1.16	0.04	0.98	0.05	68.25	0.58	3.64	99.015						
122785	5	Granodiorite A	11.79	4.17	*0.005*	3.2	4.85	0.85	0.04	1.64	0.08	67.1	0.27	5.7	99.695						
1083	3	Granodiorite B	12.66	0.44	0.04	3.51	4.26	0.55	*0.005*	0.1	0.12	73.11	0.47	3.81	99.07	1080	160	150	10	180	20
1112	3	Granodiorite B	13.88	2.98	0.04	3.7	4.87	1.65	0.03	1.5	0.13	64.95	0.49	4.88	99.1	1640	190	440	10	180	10
1143	3	Granodiorite B	14.28	3.29	0.04	2.96	4.76	0.81	0.02	0.82	0.13	65.19	0.55	6.58	99.43	1420	170	370	10	190	10
1299	3	Granodiorite B	14.1	3.12	0.01	4.44	4.82	1.9	0.04	1.69	0.14	63.6	0.55	4.66	99.07	1480	180	490	10	170	20
1342	3	Granodiorite B	13.58	2.87	0.01	3.45	5.05	1.33	0.02	1.95	0.12	67.91	0.48	2.32	99.09	1580	190	410	10	170	10
1399	3	Granodiorite B	13.7	2.71	0.03	3.48	5.47	1.37	0.02	2.15	0.12	66.13	0.47	3.55	99.2	1640	190	400	10	180	10
1441	3	Granodiorite B	13.51	3.7	0.02	3.03	5.07	1.14	0.02	2.03	0.11	66.51	0.43	3.61	99.18	1520	180	430	10	170	10
1457	3	Granodiorite B	13.3	2.58	0.05	3.63	4.88	1.37	0.02	2.06	0.12	67.63	0.47	2.98	99.09	1560	170	400	10	180	10
1496	3	Granodiorite B	14.41	3.33	0.03	3.6	4.68	1.43	0.03	2.42	0.12	66.31	0.54	2.32	99.22	1600	170	430	10	190	10
1555	3	Granodiorite B	13.48	2.75	0.02	3.4	4.67	1.25	0.02	2.17	0.1	68.67	0.48	2.06	99.07	1460	170	360	10	180	10
1694	3	Granodiorite B	13.04	3.21	0.02	2.95	4.59	1.25	0.02	1.97	0.1	69.19	0.47	2.19	99	1400	170	360	10	170	10
51816	3	Granodiorite B	14.39	2.97	0.02	3.85	4.95	1.68	0.03	1.99	0.14	64.52	0.56	4.06	99.16	1760	170	480	10	200	10
51920	3	Granodiorite B	13.95	4.05	0.02	4.46	4.31	1.92	0.05	1.88	0.15	62.53	0.54	5.18	99.04	1380	160	390	10	150	10
51944	3	Granodiorite B	14.01	3.64	0.02	3.25	4.99	1.03	0.02	1.87	0.13	64.57	0.51	4.98	99.02	1460	180	360	10	190	10
52162	3	Granodiorite B	14.89	3.5	0.02	4.5	4.42	1.8	0.05	2.46	0.13	65.53	0.49	1.36	99.15	1380	170	440	10	160	10
70756	3	Granodiorite B	14.2	3.26	0.02	3.81	4.78	1.34	0.02	2.29	0.11	66.8	0.5	1.69	98.82	1600	190	440	10	180	10
70935	3	Granodiorite B	13.9	3.87	0.01	3.63	4.57	1.26	0.02	1.92	0.11	67.05	0.5	2.53	99.37	1600	180	390	10	180	10
72903	3	Granodiorite B	14.64	3.29	0.01	3.95	4.44	1.71	0.04	2.34	0.13	66.47	0.49	1.58	99.09	1460	170	440	10	160	10
75492	3	Granodiorite B	12.61	2.37	0.01	3.41	4.44	1.17	0.02	1.77	0.13	70.48	0.48	1.77	98.66	1480	180	410	10	170	10
75565	3	Granodiorite B	14.38	3.42	0.04	4.52	5.02	1.65	0.03	2.15	0.13	65.1	0.59	1.95	98.98	1760	190	460	10	200	10
75998	3	Granodiorite B	14.42	3.14	0.02	3.61	4.94	1.49	0.02	2.27	0.09	67.46	0.5	1.47	99.43	1280	200	370	10	190	20
76948	3	Granodiorite B	13.85	3.02	0.02	3.58	4.7	1.42	0.03	2.18	0.11	67.45	0.53	2.02	98.91	1620	180	410	10	190	20
77366	3	Granodiorite B	13.82	2.98	0.06	3.86	5.03	1.5	0.02	2.28	0.12	66.04	0.52	2.39	98.62	1720	200	440	10	190	10
77479	3	Granodiorite B	14.23	3.18	0.01	3.6	4.77	1.36	0.02	2.06	0.1	67.43	0.5	1.98	99.24	1600	190	400	10	180	10
112302	3	Granodiorite B	14.06	3.33	*0.005*	3.22	5.02	1.45	0.04	1.71	0.14	66.19	0.5	3.45	99.115						
1178	4	Granodiorite C	13.46	3.44	0.01	3.45	4.44	1.25	0.02	1.75	0.14	66.89	0.52	3.86	99.23	1520	180	330	10	190	10
1259	4	Granodiorite C	12.36	2.94	0.02	3.61	4.15	1.36	0.03	1.54	0.12	69.78	0.47	2.79	99.17	1340	210	410	10	190	10
1386	4	Granodiorite C	13.29	2.8	0.02	3.38	5.16	1.25	0.02	2.05	0.12	67.16	0.49	3.31	99.05	1700	180	390	10	170	10
1477	4	Granodiorite C	14.25	3.47	0.03	3.78	5.37	1.56	0.02	2.31	0.13	64.97	0.54	2.65	99.08	1740	190	450	10	190	10
1519	4	Granodiorite C	12.54	2.45	0.03	4.7	4.07	1.05	0.07	0.93	0.11	69.43	0.44	3.47	99.29	820	160	160	10	170	10
1647	4	Granodiorite C	12.34	2.02	0.02	3.15	4.54	1.09	0.02	1.75	0.1	72.21	0.44	1.62	99.3	1460	160	310	10	160	10
1675	4	Granodiorite C	12.42	2.41	0.02	3.42	4.88	0.96	0.02	1.38	0.11	69.41	0.43	3.68	99.14	1500	170	280	10	170	10
51865	4	Granodiorite C	14.31	3.73	0.03	3.8	5.47	1.37	0.04	1.32	0.14	62.81	0.56	5.51	99.09	1640	190	340	10	200	10
51902	4	Granodiorite C	14.01	3.57	0.04	3.79	4.86	1.53	0.03	1.5	0.13	63.37	0.54	5.14	98.51	1360	170	360	10	160	10
51965	4	Granodiorite C	13.96	2.82	0.04	3.84	4.58	1.56	0.02	2.01	0.13	65.97	0.57	3.63	99.13	1780	180	400	10	190	10
52008	4	Granodiorite C	14.13	3.56	0.03	3.96	4.51	1.84	0.04	2.17	0.14	65.09	0.53	3.17	99.17	1520	170	450	10	160	10
52316	4	Granodiorite C	13.74	2.8	0.02	3.27	5.36	1.3	0.02	2.07	0.11	67.02	0.48	2.95	99.14	1540	190	360	10	190	10
52721	4	Granodiorite C	14.1	3.44	0.01	3.59	4.74	1.26	0.04	1.81	0.12	66	0.54	2.85	98.5	1580	190	380	10	180	20
53208	4	Granodiorite C	13.81	3.11	0.01	3.63	4.63	1.32	0.03	2.08	0.12	66.76	0.52	3.02	99.04	1780	180	390	10	170	10
70981	4	Granodiorite C	14.46	2.88	0.01	3.79	4.82	1.35	0.02	2.18	0.1	67.49	0.52	1.54	99.16	1480	180	400	10	180	10
75673	4	Granodiorite C	14.25	3.23	0.01	3.75	4.63	1.13	0.03	2.21	0.13	65.51	0.53	3.62	99.03	1520	180	340	10	200	10
76908	4	Granodiorite C	14.77	3.14	0.03	4.46	4.79	1.43	0.04	2.26	0.13	65.47	0.54	2.03	99.09	1640	190	420	10	200	10
77034	4	Granodiorite C	14.11	3.53	0.02	3.74	4.58	1.18	0.05	0.42	0.13	61.91	0.57	8.32	98.56	1320	170	280	10	210	20
77253	4	Granodiorite C	12.79	0.33	0.01	2.12	4.62	0.56	0.02	0.06	0.09	74.72	0.27	3.55	99.14	1160	200	70	30	110	10

Sample_#	Rock Type Code	NEW Rock Code	Al2O3 % XRF	CaO % XRF	Cr2O3 % XRF	Fe2O3 % XRF	K2O % XRF	MgO % XRF	MnO % XRF	Na2O % XRF	P2O5 % XRF	SiO2 % XRF	TiO2 % XRF	L %	TOTAL %	Ba ppm	Rb ppm	Sr ppm	Nb ppm	Zr ppm	Y ppm
77317	4	Granodiorite C	14.67	3.2	0.02	4.31	4.68	1.45	0.03	2.2	0.12	66.16	0.53	1.59	98.96	1660	200	430	10	180	10
1055	6	Granodiorite C	13.62	3.48	0.04	4.32	4.32	1.3	0.18	0.02	0.13	64.76	0.52	6.37	99.06	700	170	120	10	180	10
1056	6	Granodiorite C	13.48	3.81	0.03	3.36	4.23	1.29	0.24	0.02	0.13	65.43	0.51	6.66	99.19	820	180	110	10	190	10
1063	6	Granodiorite C	13.14	1.95	0.04	5.51	4.3	1.14	0.06	0.13	0.13	66.73	0.5	5.15	98.78	780	170	130	10	190	10
1128	6	Granodiorite C	14.23	2.97	0.04	4.08	4.82	1.7	0.04	1.02	0.13	64.01	0.54	5.51	99.09	1580	180	410	10	190	10
1375	6	Granodiorite C	13.26	2.81	0.02	2.84	5.07	0.91	0.02	2.16	0.11	67.87	0.38	3.63	99.08	1480	170	420	10	180	10
1467	6	Granodiorite C	13.44	2.51	0.03	3.44	5.25	1.38	0.03	1.81	0.13	67.18	0.51	3.08	98.79	1560	190	350	10	180	10
51855	6	Granodiorite C	12.79	5.04	0.04	3.4	4.15	1.2	0.11	0.6	0.14	64.98	0.52	6.32	99.29	900	170	280	10	180	10
52288	6	Granodiorite C	14.37	3.25	0.02	3.56	5.09	1.39	0.03	1.99	0.14	64.7	0.52	4.07	99.13	1620	190	370	10	180	10
52972	6	Granodiorite C	13.1	2.67	0.01	3.42	4.86	1.17	0.03	1.83	0.11	69.54	0.48	1.92	99.14	1480	180	340	10	180	10
70842	6	Granodiorite C	12.47	2.49	0.01	3.71	5.11	1	0.03	1.32	0.11	68.59	0.47	3.69	99	1280	180	230	10	180	10
71019	6	Granodiorite C	13.14	2.38	0.02	3.56	5.02	1.18	0.02	1.44	0.11	68.76	0.5	3.19	99.32	1660	190	310	10	180	10
75735	6	Granodiorite C	13.91	2.65	0.01	3.54	5.1	1.57	0.02	2.06	0.12	66.85	0.5	2.96	99.29	1700	200	440	10	180	10
75860	6	Granodiorite C	13.85	3.06	0.04	3.59	5.02	1.46	0.02	1.45	0.13	65.22	0.53	5.04	99.41	1700	190	360	10	180	20
76983	6	Granodiorite C	13.44	3.17	0.02	3.29	4.14	1.2	0.01	2	0.12	67.2	0.48	4.13	99.2	1240	180	340	10	190	10
51752	1	Metasediment B	15.56	2.7	0.02	4.1	3.92	1.26	0.04	0.87	0.11	66.75	0.65	3.11	99.09	760	160	150	10	170	20
51754	1	Metasediment B	15.37	1.04	0.02	5.74	3.95	1.56	0.08	0.8	0.08	67.01	0.68	3.08	99.41	1040	170	90	10	200	20
52066	1	Metasediment B	20.89	1.72	0.04	7.26	5.87	3.21	0.05	1.49	0.1	55.4	0.82	2.37	99.22	1460	250	140	10	160	30
52084	1	Metasediment B	13.35	0.82	0.02	4.58	3.88	1.37	0.02	1.21	0.08	71.44	0.59	1.39	98.75	680	170	100	10	170	10
52106	1	Metasediment B	16.38	0.91	0.03	5.52	4.48	1.68	0.04	1.12	0.07	64.6	0.73	3.73	99.29	820	180	100	10	200	20
52139	1	Metasediment B	17	1.66	0.03	6.11	5.33	2.91	0.1	1.13	0.12	62.08	0.78	2.22	99.47	1060	240	150	10	200	30
52154	1	Metasediment B	15.35	0.96	0.03	5.56	4.2	1.51	0.05	0.95	0.05	67.6	0.7	2.03	98.99	760	170	90	10	200	20
52198	1	Metasediment B	5.51	0.96	0.01	2.12	1.33	0.41	0.01	1.06	0.02	86.65	0.27	1.31	99.66	260	50	40	<10	210	10
52218	1	Metasediment B	13.74	0.52	0.02	4.81	4.53	1.21	0.03	1.69	0.06	70.54	0.63	1.21	98.99	780	160	80	10	200	10
52493	1	Metasediment B	21.49	0.71	0.03	6.08	5.34	1.89	0.03	1.21	0.16	59	0.93	2.91	99.78	1020	220	120	10	210	20
52494	1	Metasediment B	25.28	0.35	0.03	7.29	5	2.13	0.07	0.81	0.08	54.54	1.06	3.3	99.94	1200	210	140	20	200	30
52495	1	Metasediment B	25.86	3.46	0.03	7.12	5.09	2.41	0.06	1.78	0.13	49.54	0.93	3.22	99.63	1040	220	300	10	140	30
52497	1	Metasediment B	11.65	0.41	0.02	3.88	3.37	1.12	0.03	1.13	0.04	75.63	0.54	1.54	99.36	720	130	80	10	250	20
52498	1	Metasediment B	14.58	1.61	0.03	4.52	4.45	1.35	0.04	1.16	0.09	68.74	0.64	1.87	99.08	940	190	120	10	220	20
52500	1	Metasediment B	5.67	0.3	0.02	1.93	1.8	0.55	0.02	0.92	0.03	86.7	0.25	0.82	99.01	320	80	40	<10	210	10
70869	1	Metasediment B	20.16	4.82	0.03	7.28	4.14	2.32	0.06	1.29	0.1	55.59	0.79	2.61	99.19	1680	190	290	10	170	20
70902	1	Metasediment B	23.33	1.66	0.03	7.69	5.31	2.1	0.06	2.33	0.12	52.69	0.87	2.93	99.12	900	220	240	10	130	30
70928	1	Metasediment B	15.67	0.93	0.02	4.3	5.41	1.2	0.02	1.45	0.07	66.85	0.71	2.17	98.8	1260	200	170	10	210	20
72877	1	Metasediment B	13.23	1.61	0.08	4.19	3.69	1.36	0.03	1.5	0.09	70.38	0.56	2.47	99.19	960	160	180	10	190	10
72885	1	Metasediment B	9.5	0.37	0.02	3.2	2.71	0.82	0.02	0.98	0.03	80.05	0.41	1.34	99.45	500	120	40	<10	180	10
72910	1	Metasediment B	9.09	1.69	0.01	2.46	2.66	0.83	0.01	0.98	0.09	78.56	0.34	2.34	99.06	920	120	180	10	150	10
75920	1	Metasediment B	12.28	0.76	0.03	4.92	3.43	1.35	0.06	1.43	0.07	72.95	0.61	1.38	99.27	640	150	120	10	220	20
75946	1	Metasediment B	12.93	2.83	0.02	4.36	3.03	1.56	0.03	0.67	0.1	70.54	0.55	2.35	98.97	780	160	150	10	130	20
77175	1	Metasediment B	15.94	1.32	0.02	5.55	4.64	1.36	0.05	0.33	0.1	64.64	0.72	4.64	99.31	1300	190	80	10	220	20
77223	1	Metasediment B	16.23	1.24	0.02	5.13	4.84	1.48	0.03	1.34	0.1	65.95	0.64	2.3	99.3	1080	190	130	10	160	20
77383	1	Metasediment B	17.7	0.94	0.04	7.22	4.03	1.92	0.08	1.24	0.1	61.96	0.83	3.33	99.39	880	180	120	10	230	20
77406	1	Metasediment B	5.43	1.59	0.01	1.76	1.27	0.3	0.02	0.71	0.04	85.77	0.24	2.14	99.28	300	50	40	<10	200	10
78402	1	Metasediment B	17.45	0.47	0.02	6.28	5.16	1.57	0.04	1.33	0.11	62.7	0.78	3.18	99.09	1280	210	90	10	200	20
78471	1	Metasediment B	14.73	1.66	0.02	5	4.66	1.37	0.03	1.41	0.1	65.71	0.84	3.52	99.05	900	180	140	10	220	20
79451	1	Metasediment B	15.74	0.32	0.03	5.61	4.76	1.43	0.05	1.06	0.08	67.26	0.65	2.55	99.54	960	200	100	10	190	20
79454	1	Metasediment B	15.27	0.76	0.03	4.66	4.31	1.52	0.06	1.25	0.07	68.56	0.67	1.97	99.13	760	180	120	10	210	20
79455	1	Metasediment B	22.19	0.33	0.04	5.51	5.72	1.68	0.02	1	0.11	59.31	0.95	2.99	99.85	1260	220	110	20	210	20
79460	1	Metasediment B	18.81	2.93	0.02	4.91	5.43	1.89	0.03	1.54	0.08	60.84	0.74	2.23	99.45	1100	220	260	10	190	20
79463	1	Metasediment B	20.92	0.71	0.03	5.87	5.57	1.72	0.05	1.33	0.12	59.28	0.77	3.26	99.63	1060	230	120	10	170	20
111270	1	Metasediment B	16.93	1.57	*0.005*	5.4	4.95	1.77	0.06	1.21	0.09	62.01	0.68	4.87	99.545						
111310	1	Metasediment B	4.73	0.28	*0.005*	1.31	1.32	0.2	0.01	0.75	0.01	88.95	0.21	0.66	98.435						
111554	1	Metasediment B	7.93	0.2	0.01	1.64	2.88	0.42	0.01	0.7	0.03	84.01	0.36	1.38	99.57						
111577	1	Metasediment B	9.99	1.37	*0.005*	2.3	2.8	0.57	0.04	0.32	0.22	76.88	0.43	3.32	98.245						
111662	1	Metasediment B	24.77	0.66	*0.005*	6.01	6.24	1.8	0.03	1.75	0.09	52.79	0.92	4.02	99.085						

Sample_#	Rock Type Code	NEW Rock Code	Al2O3 % XRF	CaO % XRF	Cr2O3 % XRF	Fe2O3 % XRF	K2O % XRF	MgO % XRF	MnO % XRF	Na2O % XRF	P2O5 % XRF	SiO2 % XRF	TiO2 % XRF	L %	TOTAL %	Ba ppm	Rb ppm	Sr ppm	Nb ppm	Zr ppm	Y ppm
111702	1	Metasediment B	11.41	1.12	*0.005*	3.57	4.04	1.16	0.04	1.25	0.05	75.09	0.48	1.54	99.755						
111833	1	Metasediment B	16.76	0.97	*0.005*	2.67	5.09	0.48	0.03	0.78	0.06	67.79	0.72	4	99.355						
111996	1	Metasediment B	16.08	2.18	*0.005*	4.3	5.26	0.63	0.04	1.37	0.12	62.89	0.65	4.59	98.115						
112462	1	Metasediment B	7.54	0.67	*0.005*	2.73	2.08	0.62	0.04	1.27	0.03	83.44	0.33	0.96	99.715						
120109	1	Metasediment B	8.4	0.48	0.01	2.69	2.44	0.59	0.03	1.27	0.08	82.7	0.38	0.85	99.92						
120119	1	Metasediment B	18.91	0.44	0.01	2.95	5.82	0.52	0.04	0.55	0.2	65.63	0.7	3.86	99.63						
120224	1	Metasediment B	15.35	0.28	0.01	4.95	4.63	1.4	0.06	1.05	0.06	68.41	0.63	2.28	99.11						
120314	1	Metasediment B	9.51	0.3	0.01	2.68	3.4	0.66	0.04	0.79	0.05	79.27	0.42	1.22	98.35						
120680	1	Metasediment B	14.28	3.06	*0.005*	4.05	4.67	1.56	0.04	1.94	0.12	67.28	0.52	2.1	99.625						
120878	1	Metasediment B	5.61	0.11	*0.005*	1.49	1.61	0.2	0.04	*0.005*	0.01	88.75	0.23	1.4	99.46						
121036	1	Metasediment B	6.64	1.22	*0.005*	2.07	1.99	0.4	0.03	1.04	0.04	83.98	0.3	0.91	98.625						
121174	1	Metasediment B	15.82	0.5	*0.005*	4.06	4.42	1.03	0.04	1.13	0.13	68.08	0.64	2.88	98.735						
121207	1	Metasediment B	5.57	0.18	*0.005*	2.05	1.77	0.21	0.03	0.11	0.04	87.62	0.23	1.69	99.505						
121527	1	Metasediment B	16.7	1.78	*0.005*	5.56	4.01	1.61	0.06	1.56	0.09	65.1	0.68	2.15	99.305						
121827	1	Metasediment B	11.46	0.42	*0.005*	4.31	3.08	0.96	0.06	0.76	0.12	76.61	0.46	1.89	100.135						
121954	1	Metasediment B	7.93	0.56	*0.005*	2.61	2.15	0.65	0.03	1.06	0.04	83.34	0.38	1.01	99.765						
122008	1	Metasediment B	16.4	0.49	*0.005*	5.5	4.73	1.51	0.05	1.14	0.09	66.96	0.72	1.92	99.515						
122109	1	Metasediment B	11.22	1.97	*0.005*	3.98	3.25	1.04	0.06	1.38	0.11	73.42	0.44	3.26	100.135						
123238	1	Metasediment B	18.17	1.13	*0.005*	6.43	5.62	2.42	0.07	2.05	0.09	58.97	0.87	3.21	99.035						
52207	2	Metasediment B	7.17	0.4	0.01	2.28	2.21	0.51	0.02	0.93	0.03	83.52	0.32	1.08	98.48	400	90	60	<10	200	10
77178	2	Metasediment B	12.62	2.09	0.02	4.01	4.25	1.07	0.03	1.13	0.05	70.82	0.48	2.55	99.12	900	180	160	10	190	10
78449	2	Metasediment B	8.63	1.01	0.02	2.32	2.93	0.37	0.01	0.31	0.03	80.74	0.41	2.28	99.06	480	120	30	10	140	10
79462	2	Metasediment B	5.62	0.15	0.01	1.54	2.08	0.44	0.01	0.47	0.03	86.28	0.24	1.66	98.53	500	80	20	<10	190	10

Summary of ICP *aqua regia* Metals Analysis

	Metasediments (n=77)			Granodiorite A (oxidized) (n=35)			Granodiorite B (unaltered) (n=51)			Granodiorite C (sericite altered)		
	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum	Mean	Minimum	Maximum
Ag (ppb)	18	0.1	373	1.2	0.1	42	6.2	0.1	120	0.5	0.1	5.4
Al (%)	1.9	0.5	4.5	1.6	0.5	4.2	1.4	0.7	2.4	1.2	0.4	2.7
As(ppm)	163	9	1930	187	24	740	302	17	1915	545	18	4100
Au (ppb)	98	1.7	1267	60	4.6	214	74	11	246	106	18	264
B (ppm)	73	10	360	329	10	660	241	10	520	179	10	480
Ba (ppm)	60	0.3	388	57	0.3	431	91	0.3	527	76	0.3	378
Bi (ppm)	5.1	0.1	56	19	0.1	180	17	0.3	112	17	0.3	100
Ca (%)	0.7	0.1	2.2	1.0	0.2	3.2	1.4	0.3	2.5	1.5	0.3	3.7
Cd (ppm)	0.6	0.01	20	0.3	0.02	4.0	0.2	0.1	1.0	1.3	0.1	27
Co (ppm)	12	3.0	22	9	4.0	18	8.4	5.0	14	8.6	5.0	22
Cr (ppm)	111	60	201	101	42	183	107	22	173	112	35	185
Cu (ppm)	36	6.0	167	30	8.0	115	29	10	68	43	11	167
Fe (%)	2.8	1.2	4.8	2.4	1.7	3.9	2.3	1.8	3.2	2.3	1.3	3.7
Ga (ppm)	4.2	0.5	20	2.2	0.5	10	2.8	0.5	10	3.2	0.5	20
Hg (ppb)	3.1	0.01	52	1.0	0.01	18	0.4	0.01	1.0	0.4	0.01	1.0
K (%)	0.8	0.1	1.8	0.6	0.2	1.4	0.6	0.2	0.9	0.5	0.2	1.4
La (ppm)	23	10	50	33	10	50	34	20	60	30	10	45
Mg (%)	0.7	0.1	1.6	0.8	0.3	1.5	0.8	0.2	1.1	0.7	0.1	1.2
Mn (ppm)	268	105	1148	218	105	580	213	60	385	276	79	1535
Mo (ppm)	3.2	0.4	13	3.8	0.5	9.0	6.5	1.6	32	5.8	2.0	15
Na (%)	0.04	0.01	0.2	0.1	0.01	0.3	0.1	0.01	0.1	0.04	0.01	0.1
Ni (ppm)	29	9.0	53	21	13	32	21	10	28	22	12	37
P (ppm)	149	0.01	690	462	0.1	710	362	0.1	650	357	0.04	680
Pb (ppm)	14	0.5	220	8.8	2.0	48	17	2.0	264	60	0.5	518
S (%)	0.1	0.03	0.5	0.1	0.03	0.4	0.1	0.03	0.3	0.2	0.03	0.6
Sb (ppm)	6.4	0.2	111	2.8	0.2	22	3.5	0.5	54	13	0.2	114
Sc (ppm)	4.5	1.0	9.0	5.2	3.0	8.0	4.6	3.0	7.0	4.0	1.0	7.0
Se (ppm)	0.6	0.1	3.1	0.7	0.3	1.6	0.8	0.3	2.0	1.4	0.3	3.2
Sr (ppm)	42	4	159	71	15	217	103	52	248	109	25	245
Te (ppm)	0.1	0.02	0.7	0.1	0.04	0.2	0.6	0.2	1.1	-	-	-
Th (ppm)	10	6.6	20	17	15	21	18	17	19	16	7.8	20
Ti (%)	0.1	0.002	0.2	0.1	0.029	0.3	0.1	0.0	0.2	0.1	0.005	0.2
Tl (ppm)	0.5	0.1	0.9	0.5	0.2	0.6	0.4	0.2	0.5	0.6	0.1	10
U (ppm)	1.2	0.5	5.8	1.3	0.5	5.9	2.0	0.5	7.1	2.0	0.5	9.9
V (ppm)	39	5	75	34	15	73	31	11.0	49	23	3.0	51.0
W (ppm)	29	0.1	1080	9.1	0.1	70	14	0.4	140	8.9	0.3	94
Zn (ppm)	112	12.0	2999	57	12	392	49	20	364	268	14.0	4920

CLIENT : **SRK Consulting**
PROJECT : **Eagle Gold Project, 366C**
PROJECT # : **09102**
TEST : **Low-Level Metals by Aqua Regia Digestion with ICP-MS Fini**
Date : **December 30, 2009**

Sample ID	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm
KCA No. 42979 Whole	2.01	38.04	14.99	42.7	357	21.6	9.6	181	2.1	202	4.6	551.2	16.3	109.4	0.17	4.9	15.65	30
KCA No. 42979 (-1/4")	2.35	42.66	19.59	57.4	98	20.7	9.4	190	2.1	181.4	4.5	184.7	16.2	111.2	0.22	5.06	17.72	30

CLIENT : **SRK Consulting**
PROJECT : **Eagle Gold Project, 366C**
PROJECT # : **09102**
TEST : **Low-Level Metals by Aqua Regia Digestion with ICP-MS Finish**
Date : **December 30, 2009**

Sample ID	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Sc ppm	Tl ppm	S %	Hg ppb	Se ppm	Te ppm	Ga ppm
KCA No. 42979 Whole	1.22	0.056	38	84.1	0.76	305.2	0.145	<20	1.35	0.062	0.52	10.6	4.7	0.29	0.16	12	0.9	0.88	6.6
KCA No. 42979 (-1/4")	1.2	0.056	39.8	89.3	0.75	329.5	0.151	<20	1.35	0.064	0.53	10.4	4.8	0.3	0.16	10	1	0.82	7

CLIENT : SRK Consulting
PROJECT : Strata Gold (Dublin Gulch)
PROJECT # : 0789
TEST : Metals by Aqua Regia Digestion with ICP Finish
Date : November 29, 2007

Sample ID	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm
DG05-308C 12.19-18.00	2	23.3	2.2	50	<0.1	32.8	12.2	204	3.24	70.4	1.3	3.2	10.9	14	<0.1	0.3	0.2	55
DG05-308C 27.00-34.00	4.5	157.2	3.3	52	<0.1	35.9	20.4	249	4.14	976.3	3.5	365.6	12.7	130	<0.1	0.8	45.3	68
DG05-308C 34.00-44.00	3.4	31.5	4.7	37	<0.1	24.3	13.8	154	2.42	465.4	2.7	73.7	17.1	78	<0.1	0.5	6.9	44
DG05-308C 50.11-60.11	3.2	46.8	7.3	30	<0.1	22.2	11.8	155	2.23	552.7	3.5	81.7	19.2	84	<0.1	1.4	59.3	31
DG05-308C 69.95-77.45	3.6	40.9	5.6	30	<0.1	21.1	9.9	172	2.18	176	3.8	53.5	20.2	74	<0.1	0.7	18.6	32
DG05-308C 92.96-100.00	4.6	93.3	7.8	31	<0.1	22	11.2	143	2.27	285.1	4.4	119.4	18.3	81	0.1	2.5	36.1	30
DG05-308C 112.00-122.00	4.7	82.7	29.7	117	0.4	22.3	13.3	242	2.58	2142	4.1	210.2	18.3	79	0.8	17.9	40.1	29
DG05-308C 125.00-128.00	12	166.7	226.6	512	1.3	20.7	11.1	284	3.09	601.7	6.1	138.1	17.2	89	2.8	70.1	21.9	15
DG05-308C 128.00-132.21	8.1	167.1	219.5	503	1.3	19.8	10.9	270	3.03	602.2	5.8	236.4	16.1	86	2.7	78.9	21.9	15
DG07-327C 2.50-12.50	3	50.5	5	40	1.9	24.1	10.1	258	2.18	48.9	1.7	1267	13.5	31	0.1	1.3	0.7	40
DG07-327C 12.50-22.50	3.2	26.6	8.4	27	<0.1	19.6	7.9	163	1.83	108	2.2	45.5	17.1	45	<0.1	2.6	1.4	22
DG07-327C 24.69-33.83	4.8	30.4	8.4	24	1.1	19.7	7.3	158	1.73	105.8	4.4	100.4	17.9	70	<0.1	4.4	1.1	15
DG07-327C 55.17-65.84	3.2	23.8	7.2	26	<0.1	19.9	7.6	190	1.85	96.6	4.1	19	17.9	113	<0.1	3.8	0.5	19
DG07-327C 82.60-92.60	2.9	19.6	7.5	31	<0.1	19.9	8.6	196	1.78	123.8	5.3	59.6	19.3	75	<0.1	3.2	0.3	19
DG07-327C 110.03-120.29	3.3	19.7	5.2	25	<0.1	21.1	8.5	193	1.95	80.7	6.1	23	18.2	93	<0.1	2.5	0.3	28
DG07-327C 132.89-143.56	2.7	22.3	3.9	24	<0.1	22.8	8.1	187	2.02	75.6	5.6	60.5	17.7	78	<0.1	0.4	1	31
DG07-331C 12.80-22.80	1.8	40.2	2.2	51	<0.1	38.9	16.2	255	3.15	25.2	0.8	72.5	7.5	26	<0.1	0.2	0.9	54
DG07-331C 52.92-62.30	2.6	22.3	2.1	29	<0.1	31.7	11.9	236	2.61	40.1	1.2	6	10	19	<0.1	0.4	0.3	40
DG07-331C 73.76-82.91	3	20.9	1.5	18	<0.1	38.4	12.1	210	1.89	39.8	0.6	50.5	7.2	42	<0.1	0.5	1.3	33
DG07-331C 92.05-102.72	2.4	13.3	8.6	30	<0.1	13.3	6.4	204	1.93	30.2	5.9	4.6	15.2	39	<0.1	0.4	0.1	28
DG07-331C 105.77-115.52	2.7	13.5	6.8	39	<0.1	9.9	6.2	298	2	17.1	5.6	10.5	18.7	66	<0.1	0.6	0.4	32
DG07-331C 150.30-159.11	3.3	19.2	8.8	31	<0.1	20.5	6.9	202	2.1	89.8	5	10.9	18.7	93	0.1	2.3	1.6	26
DG07-331C 181.97-191.11	2.1	32.8	2.2	47	<0.1	36.6	15	243	3.03	17.9	0.8	40.9	7.8	25	<0.1	0.2	0.7	51
DG07-335C 49.68-58.83	2	72.9	1.7	44	<0.1	38.4	18.1	228	3.82	116.7	1.3	4.6	7.9	33	<0.1	0.2	0.7	62
DG07-335C 103.02-113.69	2.5	19.5	4	34	<0.1	13.5	12.5	473	3.19	31.9	4.2	10.2	16.5	136	<0.1	0.2	2.2	70
DG07-335C 173.13-182.27	3.4	26.5	4.3	33	<0.1	13.1	12.2	523	3.25	24.2	5.9	48.2	16.6	145	<0.1	0.8	4.5	73
DG07-335C 197.51-207.41	3	12.7	6.1	47	<0.1	14.9	10	364	2.59	167.6	5.6	52.8	20.5	87	<0.1	0.5	6.4	49
DG07-335C 237.13-246.28	7.3	29.1	4.3	16	<0.1	24.6	8.9	165	2.28	37.3	6.7	18	19.9	99	<0.1	1.2	6.9	33
DG07-305C 1.52-9.14	1.8	65.1	4.4	55	<0.1	43.2	16.4	154	3.38	540.1	1.5	92.4	10.1	94	<0.1	0.4	4.9	52
DG07-305C 9.14-18.29	3.5	67.6	4.4	31	<0.1	36.2	11.6	140	2.57	584.1	2	233.4	12	100	<0.1	2.8	8.7	37
DG07-305C 68.00-77.72	2.7	31.5	13.3	72	<0.1	32.1	10.9	260	2.59	89.4	1.8	10	9.1	42	0.2	7	4.1	29
DG07-305C 82.30-92.30	5.6	17.2	9.3	34	<0.1	19.6	8.8	295	2.27	81.6	1.6	4.1	8.7	68	<0.1	4.8	0.3	15
DG07-305C 112.78-122.86	3.9	43	10.1	23	<0.1	20.9	9.3	159	2.01	633.7	7.1	48.3	18.8	109	<0.1	1.1	10.5	26
DG07-305C 169.03-178.31	4.6	46.3	7.3	57	<0.1	22.7	7.8	206	2.18	107.4	5.6	41.9	18.6	97	0.2	3.3	2.6	31
DG07-311C 15.20-21.10	3	16.5	2.7	36	<0.1	24.5	8.7	182	2.22	33	1.4	3.4	11	11	<0.1	0.3	0.1	31
DG07-311C 62.20-72.54	2.8	27	3.4	46	<0.1	35.5	15	359	3.34	85.4	1.3	6.6	9.3	39	<0.1	2.3	0.5	42
DG07-311C 93.35-97.95	3.1	20.3	20.3	45	<0.1	21.9	7.8	226	1.66	121.6	5.2	19.2	19	107	0.1	15.2	1.2	22
DG07-311C 99.97-109.12	3.1	61.4	38	66	0.6	22	21.8	196	2.42	2298	4.8	221.2	18.4	97	0.4	15.5	14.1	27
DG07-311C 130.45-140.45	4	28.8	5	70	<0.1	21.6	9.3	151	1.92	189.4	6.5	92.8	18.2	80	0.2	1.2	2.4	28
DG07-311C 163.70-173.70	4.9	48	15.7	26	<0.1	22.2	9.6	196	1.96	97.8	5.5	141.6	16.2	139	<0.1	10.6	26.8	15
DG07-311C 179.22-189.06	3.9	54.7	4.5	19	<0.1	22.4	9.3	161	2.16	109.5	5.3	42.6	17.8	102	<0.1	0.6	2.9	29
DG07-311C 220.37-230.25	3.3	55.7	27.5	32	<0.1	19.2	7.8	198	1.84	100	5.1	152.4	16.6	133	0.1	13.2	3.4	18
DG07-303C 195.07-204.22	9.3	48.3	17.9	37	0.2	19	7.8	179	1.75	96.5	4.7	143.9	13.5	128	<0.1	8.2	5.7	10
DG07-303C 175.26-185.93	4.2	75.6	39.9	34	0.2	12.1	8.8	125	1.57	1498	9.9	264.2	10.8	116	0.2	12.4	27.2	19
DG07-303C 108.20-118-20	3.2	80.6	4.8	14	<0.1	14.8	8	79	1.68	4007	9.1	153.5	13.9	47	<0.1	2.4	13.5	32
DG07-303C 64.01-74.01	3.5	41.3	4.1	35	<0.1	22.4	8.3	180	2.44	297	2.5	31	14.8	55	<0.1	0.7	8.2	34
DG07-303C 24.08-34.08	2.9	35.4	55.2	275	0.4	16.1	8.1	270	1.82	454.2	2.2	85.7	12.8	44	1.7	24.3	21.6	13
DG07-303C 18.29-24.08	4.6	115.3	16	109	0.2	20.3	11.6	226	2.22	535	3.6	96.4	15.6	53	0.4	8.9	9.7	26
DG07-303C 11.00-18.29	2.9	39.7	5.2	130	<0.1	20.2	8.3	152	2.16	359.7	2.6	44.4	15.7	39	0.6	5.4	6.7	26
Duplicate																		
DG07-327C 82.60-92.60	2.8	18.3	7.4	31	<0.1	19.4	8.4	183	1.78	115.5	4.7	27.6	17.6	73	<0.1	3.3	0.3	18

CLIENT	**: SRK Consulting**
PROJECT	**: Strata Gold (Dublin Gulch)**
PROJECT #	**: 0789**
TEST	**: Metals by Aqua Regia Digestion with ICP Finish**
Date	**: November 29, 2007**

Sample ID	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Hg ppm	Sc ppm	Tl ppm	S %	Ga ppm	Se ppm
DG05-308C 12.19-18.00	0.23	0.012	23	145	0.85	99	0.202	<20	2.32	0.028	1.35	0.3	<0.01	5.3	0.7	<0.05	8	0.6
DG05-308C 27.00-34.00	2.18	0.039	31	140	0.89	147	0.166	<20	3.51	0.152	0.88	>100.0	0.03	7	0.6	<0.05	12	2.8
DG05-308C 34.00-44.00	0.82	0.072	40	150	1	527	0.248	<20	1.81	0.095	0.85	6.6	<0.01	5.8	0.5	<0.05	8	0.9
DG05-308C 50.11-60.11	1.44	0.057	43	145	0.73	356	0.145	<20	1.36	0.033	0.56	1.9	<0.01	4.2	0.4	<0.05	7	1.2
DG05-308C 69.95-77.45	1.19	0.057	42	148	0.75	388	0.173	<20	1.4	0.057	0.62	0.6	<0.01	4.5	0.5	<0.05	7	1.3
DG05-308C 92.96-100.00	0.72	0.053	39	146	0.71	324	0.147	<20	1.36	0.053	0.53	0.4	<0.01	4.1	0.4	<0.05	6	1.2
DG05-308C 112.00-122.00	1.1	0.059	42	140	0.79	315	0.124	<20	1.41	0.039	0.53	0.5	0.02	4.4	0.4	0.19	6	3
DG05-308C 125.00-128.00	0.44	0.057	29	121	0.4	130	0.033	<20	0.97	0.025	0.33	0.9	0.04	3.2	0.2	0.13	5	3.2
DG05-308C 128.00-132.21	0.43	0.057	27	118	0.41	130	0.033	<20	0.97	0.024	0.33	0.8	0.05	3	0.2	0.13	5	3.1
DG07-327C 2.50-12.50	0.39	0.052	26	132	0.67	325	0.148	<20	1.25	0.061	0.42	10.5	0.01	2.9	0.3	<0.05	5	<0.5
DG07-327C 12.50-22.50	1.1	0.056	39	95	0.3	201	0.061	<20	0.6	0.034	0.32	13.8	<0.01	3.6	0.2	<0.05	3	<0.5
DG07-327C 24.69-33.83	1.47	0.056	35	123	0.3	126	0.029	<20	0.45	0.026	0.23	42	<0.01	3.8	0.2	<0.05	2	0.8
DG07-327C 55.17-65.84	1.54	0.058	35	130	0.56	163	0.056	<20	0.71	0.038	0.33	15.8	<0.01	4.2	0.2	0.11	4	0.6
DG07-327C 82.60-92.60	1.33	0.058	37	127	0.51	171	0.063	<20	0.93	0.035	0.35	1.5	<0.01	3.9	0.2	0.08	4	<0.5
DG07-327C 110.03-120.29	1.19	0.057	36	124	0.72	264	0.133	<20	1.18	0.064	0.48	5.3	<0.01	4	0.3	0.13	6	0.8
DG07-327C 132.89-143.56	0.98	0.06	37	138	0.78	315	0.177	<20	1.28	0.077	0.64	12.9	<0.01	4.3	0.4	0.15	6	0.7
DG07-331C 12.80-22.80	0.55	0.045	17	151	1.26	145	0.205	<20	2.85	0.079	1.38	0.2	<0.01	6.8	0.8	0.08	9	<0.5
DG07-331C 52.92-62.30	0.56	0.039	16	146	0.72	80	0.132	<20	1.7	0.034	0.87	0.3	<0.01	4	0.6	0.16	6	<0.5
DG07-331C 73.76-82.91	1.02	0.024	10	201	0.59	66	0.09	<20	1.45	0.034	0.52	14.8	<0.01	3.4	0.3	0.11	5	<0.5
DG07-331C 92.05-102.72	0.93	0.051	27	129	0.71	187	0.107	<20	1.3	0.03	0.56	<0.1	0.02	3.4	0.4	<0.05	7	<0.5
DG07-331C 105.77-115.52	1.16	0.05	36	131	0.82	294	0.149	<20	1.43	0.053	0.64	1.7	0.02	4.4	0.4	0.06	7	<0.5
DG07-331C 150.30-159.11	1.4	0.057	38	126	0.67	237	0.092	<20	1.18	0.042	0.39	0.4	<0.01	3.7	0.2	0.1	6	<0.5
DG07-331C 181.97-191.11	0.52	0.043	18	152	1.22	143	0.191	<20	2.7	0.077	1.36	0.3	<0.01	6.2	0.8	0.06	9	<0.5
DG07-335C 49.68-58.83	0.63	0.052	14	139	0.94	123	0.221	<20	2.62	0.055	1.32	0.8	<0.01	5.6	0.9	0.45	9	0.8
DG07-335C 103.02-113.69	1.29	0.083	39	119	1.31	205	0.23	<20	2.56	0.205	0.93	0.6	<0.01	5.7	0.5	0.29	9	0.6
DG07-335C 173.13-182.27	1.58	0.08	38	134	1.47	386	0.242	<20	2.79	0.192	1.1	0.5	<0.01	7.5	0.5	0.36	9	1
DG07-335C 197.51-207.41	1.08	0.068	44	150	1.08	424	0.25	<20	1.75	0.11	0.92	0.9	<0.01	5.1	0.6	0.07	8	<0.5
DG07-335C 237.13-246.28	1.19	0.063	45	137	0.83	378	0.165	<20	1.4	0.058	0.61	1.7	<0.01	5.1	0.4	0.11	7	0.7
DG07-305C 1.52-9.14	1.75	0.035	21	121	0.86	219	0.19	<20	3.58	0.113	1.08	>100.0	<0.01	5.1	0.6	0.32	11	1.2
DG07-305C 9.14-18.29	1.85	0.053	33	134	0.53	109	0.091	<20	3.02	0.107	0.63	>100.0	<0.01	4.4	0.6	<0.05	9	0.8
DG07-305C 68.00-77.72	0.69	0.039	16	138	0.55	53	0.072	<20	1.13	0.012	0.61	1.3	<0.01	3.2	0.4	0.3	4	<0.5
DG07-305C 82.30-92.30	0.82	0.125	17	162	0.42	34	0.016	<20	0.64	0.011	0.27	1.6	<0.01	2.6	0.2	0.1	2	<0.5
DG07-305C 112.78-122.86	1.39	0.051	35	153	0.65	245	0.095	<20	1.09	0.038	0.41	12.8	<0.01	3.7	0.3	0.29	6	2
DG07-305C 169.03-178.31	1.15	0.055	40	155	0.75	324	0.145	<20	1.27	0.065	0.58	15.1	<0.01	4.8	0.4	0.25	6	1.4
DG07-311C 15.20-21.10	0.3	0.014	22	166	0.51	56	0.122	<20	1.35	0.023	0.8	4.3	<0.01	3.4	0.5	<0.05	5	<0.5
DG07-311C 62.20-72.54	0.87	0.019	18	152	0.74	92	0.146	<20	1.66	0.024	0.89	10.4	<0.01	4.9	0.5	0.16	6	<0.5
DG07-311C 93.35-97.95	1.7	0.051	37	125	0.5	221	0.082	<20	0.94	0.025	0.39	1	0.02	3.6	0.3	0.15	5	<0.5
DG07-311C 99.97-109.12	1.29	0.058	39	125	0.68	370	0.158	27	1.18	0.066	0.62	4.2	<0.01	4.3	0.9	0.55	5	2.2
DG07-311C 130.45-140.45	0.97	0.05	34	144	0.64	361	0.171	<20	1.33	0.099	0.63	>100.0	<0.01	4.4	0.4	0.17	6	0.7
DG07-311C 163.70-173.70	1.96	0.055	34	146	0.45	110	0.025	<20	0.75	0.029	0.23	10.5	<0.01	3.4	0.1	0.28	4	1.3
DG07-311C 179.22-189.06	1.41	0.055	41	142	0.74	249	0.115	<20	1.24	0.06	0.44	94	<0.01	4.2	0.3	0.28	6	1.5
DG07-311C 220.37-230.25	1.92	0.049	33	127	0.55	151	0.039	24	0.92	0.035	0.28	16.7	<0.01	3.1	0.2	0.28	4	1.2
DG07-303C 195.07-204.22	1.72	0.063	29	127	0.5	113	0.017	<20	0.65	0.02	0.25	7.4	0.02	3	0.1	0.3	3	1.3
DG07-303C 175.26-185.93	1.35	0.048	21	126	0.51	133	0.017	<20	0.61	0.03	0.25	2.6	0.01	2.2	0.1	0.44	4	2
DG07-303C 108.20-118-20	0.64	0.048	25	121	0.65	234	0.065	<20	0.95	0.048	0.34	5.6	<0.01	3.2	0.2	0.25	6	2.8
DG07-303C 64.01-74.01	0.75	0.064	37	135	0.82	431	0.183	<20	1.58	0.11	0.78	13.7	<0.01	4.7	0.4	<0.05	7	0.8
DG07-303C 24.08-34.08	1.15	0.056	30	121	0.36	165	0.039	<20	0.93	0.03	0.31	2.4	0.03	3	0.2	<0.05	4	0.9
DG07-303C 18.29-24.08	0.85	0.063	37	135	0.64	341	0.147	<20	1.33	0.092	0.57	7.7	<0.01	3.9	0.4	0.13	6	1.6
DG07-303C 11.00-18.29	0.61	0.058	37	123	0.7	365	0.145	<20	1.41	0.076	0.55	4	<0.01	3.8	0.3	<0.05	7	0.9
Duplicate																		
DG07-327C 82.60-92.60	1.27	0.057	34	124	0.49	174	0.062	<20	0.9	0.036	0.34	1.6	<0.01	3.8	0.2	0.09	4	<0.5

CLIENT : SRK Consulting
PROJECT : Eagle Gold Project, 366C
PROJECT # : 09102
TEST : Low-Level Metals by Aqua Regia Digestion with ICP-MS Fin
Date : January 21, 2010

Sample ID	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm
KT-01	0.88	37.37	3.24	59.5	14	41	18.5	439	3.59	29.8	1.5	1.7	7.8	26.9	0.02	0.41	0.24	49
KT-02	1.29	32.4	17.12	51.8	46	35.1	15.2	396	3.11	47.4	1.8	8.6	8.7	35.9	0.04	0.76	0.28	43
KT-03	2.42	23.23	13.08	23	92	20.7	7.2	168	1.9	70.9	6	246.2	18.4	77.4	0.05	2.36	10.16	26
KT-04	1.57	20.5	31.85	56.7	120	22	8.1	287	1.99	99	6.1	118.8	18.3	80.5	0.25	4.53	2.66	24
KT-05	0.54	17.88	5.26	28.2	14	28.9	10.1	157	2.19	63.7	3.6	23	18.1	44.4	0.02	0.27	0.61	37
KT-06	1.37	25.49	8.16	34	42	20	10.8	191	2.02	398.4	5.9	213.5	18.6	129.8	0.03	3.55	3.39	18
ST-01	1.88	20.08	42.93	418.1	181	23.3	9.3	296	2.12	89	1.6	14.6	10.3	12.2	2.45	43.28	0.56	27
ST-02	0.71	15.47	10.62	249.5	106	14.9	7.4	187	1.39	382.8	1.1	97.8	8.3	26.3	0.72	43.03	3.8	10
ST-03	1.28	27.48	150.21	1209.3	171	53.1	21.8	733	3.8	432	3.1	34.2	13.7	45.7	5.77	111.16	0.67	23
ST-04	1.49	42.56	159.24	2999.3	373	26.8	11.7	1148	2.45	143.8	2.3	62.9	10.1	73.4	20.27	94.14	0.76	5
ST-05	0.97	9.71	7.35	113.2	28	20.3	8.4	254	1.78	93.3	1.3	344.5	10.3	31.8	0.19	18.09	18.46	17
ST-06	2.57	6.31	4.58	23	14	12.7	6.7	127	1.15	305.6	1.2	65.3	9.7	41.5	0.04	4.19	1.95	10
ST-07	2.29	30.6	5.49	54.8	19	28.3	16.1	245	3.75	99.2	2.3	21.4	10.8	50.1	0.05	7.45	1.86	68
ST-08	1.29	18.29	2.57	30.9	10	19.1	7.7	216	1.86	20.7	1.2	42.2	7.4	27.1	0.02	0.81	0.52	25
ST-09	0.38	11.24	1.45	14.6	11	14	5.4	115	1.15	11.8	1.1	6.8	7.7	23.3	0.03	0.49	0.33	20
ST-10	0.67	25.1	1.89	39.4	21	32.7	12.8	227	2.46	8.7	1.4	12.6	8.1	62.8	0.01	0.41	0.72	46
ST-11	1.28	60.11	2.82	54.6	65	37.1	19.6	422	3.4	13.5	2.2	127	6.6	115.8	0.03	0.22	2.93	56
ST-12	1.34	41.45	3.06	44.6	44	35.7	16	462	3.21	22.7	1.2	65.2	7	124.9	0.03	0.18	0.81	49
ST-13	0.74	36.4	3.77	48.4	17	37.7	18.1	272	3.57	37.2	1.6	27.8	7.7	45.5	0.02	0.5	0.42	51
ST-14	2.94	6	4.12	14.4	21	18.3	7.5	105	1.38	33.5	3.4	38.2	13.4	42.7	0.05	0.44	0.45	26
ST-15	1.26	15.76	6	34.7	21	23.3	12.2	254	2.18	65.2	1.6	10.1	9.6	27.3	0.03	0.52	0.17	26
ST-16	4.31	49.46	3.49	34.1	35	29.8	13.7	325	2.48	45.1	1	239.2	7.7	126	0.04	0.28	2.51	33
ST-17	0.9	20.35	5.2	36.3	13	20.7	9.3	256	2.43	42.3	2.4	20.9	9.8	33	0.03	0.61	2.66	24
ST-18	0.75	33.11	3.98	38.7	26	37.5	15.4	268	3.1	35.7	1.6	10.9	9.4	60.1	0.02	0.97	0.34	45
ST-19	0.7	18.47	4.16	22.8	36	23.9	9.8	162	2.02	16.2	1.5	14.2	10.9	52.5	0.02	0.66	0.25	31
ST-20	3.34	25.94	6.39	35.6	22	29.9	11.2	266	2.49	27.2	2.7	6.5	14	158.9	0.03	1.11	0.59	35
Duplicate																		
KT-02	1.33	31.15	17.8	51.5	47	35.2	14.4	394	3.14	41.8	1.3	8.2	8.8	36.6	0.03	0.75	0.27	43

CLIENT : SRK Consulting
PROJECT : Eagle Gold Project, 366C
PROJECT # : 09102
TEST : Low-Level Metals by Aqua Regia Digestion with ICP-MS Finish
Date : January 21, 2010

Sample ID	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
KT-01	0.4	0.045	19.3	93.2	1.04	107.4	0.203	<20	2.35	0.028	1.37	0.4	6	0.9	0.13	<5	0.3	0.04	8.4
KT-02	0.54	0.027	17.2	92.3	0.86	104.5	0.148	<20	1.94	0.031	0.99	0.3	4.6	0.63	0.18	<5	0.3	0.04	6.8
KT-03	1.2	0.059	37.8	67.1	0.68	267.1	0.131	<20	1.2	0.066	0.44	16.4	4.1	0.24	0.14	<5	0.7	1.11	6
KT-04	1.43	0.06	34.9	66.6	0.67	217	0.123	<20	1.09	0.054	0.38	23.1	3.9	0.18	0.11	<5	0.5	0.16	5.5
KT-05	0.82	0.058	38.5	83.6	0.84	385.2	0.183	<20	1.49	0.061	0.69	3.4	5.2	0.4	0.04	7	0.3	0.04	7.2
KT-06	1.48	0.058	37	52.1	0.61	247.1	0.081	<20	0.95	0.052	0.4	8.8	4.2	0.24	0.19	18	0.8	0.16	4.2
ST-01	0.39	0.02	21.5	83.7	0.42	70.9	0.107	<20	1.13	0.012	0.66	0.9	3.6	0.38	0.07	52	0.2	<0.02	4.1
ST-02	0.36	0.012	18.4	84	0.21	48	0.017	<20	0.59	0.01	0.22	3	2.1	0.15	0.04	11	0.5	0.19	2.1
ST-03	0.57	0.042	32.4	59.8	0.51	117.9	0.058	<20	1.37	0.012	0.7	6.6	4	0.44	0.18	29	0.3	0.04	4.4
ST-04	1.02	0.027	20.7	62.7	0.31	70.7	0.002	<20	0.49	0.006	0.32	0.7	2	0.2	0.3	52	0.3	0.03	1.2
ST-05	0.31	0.013	22.2	99.4	0.36	60.9	0.045	<20	0.91	0.017	0.44	1.6	2.8	0.25	0.04	8	0.2	0.68	3.4
ST-06	0.59	0.02	20.2	103.4	0.28	57.2	0.033	<20	0.57	0.027	0.28	44	2	0.15	0.05	<5	0.4	0.12	2.3
ST-07	0.86	0.128	20.3	64.8	0.9	162.6	0.167	<20	2.11	0.028	1.1	0.9	6.6	0.61	0.21	10	0.4	0.05	7.4
ST-08	0.31	0.02	15.5	86.1	0.47	48	0.085	<20	1.15	0.015	0.55	0.2	2.8	0.35	0.07	<5	0.2	0.04	4.5
ST-09	0.28	0.017	14.2	92.7	0.28	28.5	0.029	<20	0.71	0.02	0.22	0.1	1.9	0.12	0.04	<5	0.1	0.02	2.9
ST-10	0.61	0.024	19.7	89.8	0.64	126.1	0.146	<20	2.11	0.05	0.75	0.3	5.5	0.41	0.13	<5	0.3	0.07	7.4
ST-11	1.43	0.04	15.2	94	1.33	208.6	0.213	<20	3.67	0.109	1.15	0.3	7.8	0.63	0.35	<5	1	0.2	11.3
ST-12	1.7	0.034	18.3	84.4	1.23	140.7	0.175	<20	3.11	0.107	1.01	0.2	5.4	0.6	0.19	<5	0.5	0.08	10
ST-13	0.59	0.04	23.3	90.8	1.1	117.2	0.191	<20	2.44	0.043	1.2	0.4	6.7	0.67	0.1	<5	0.4	0.06	8.6
ST-14	0.57	0.033	29.6	84.3	0.6	178.2	0.119	<20	1	0.045	0.44	0.2	3.6	0.23	<0.02	<5	0.1	<0.02	5.1
ST-15	0.4	0.018	18.8	88.1	0.57	62.2	0.104	<20	1.28	0.023	0.6	0.2	3.2	0.35	0.06	6	0.2	0.03	5.1
ST-16	2.17	0.039	18.1	70.1	0.96	80.8	0.119	<20	2.47	0.097	0.67	0.4	4.3	0.4	0.24	<5	0.6	0.15	7.7
ST-17	0.6	0.021	19.3	86.2	0.62	88.1	0.103	<20	1.27	0.023	0.6	0.4	3.2	0.39	0.14	<5	0.2	0.29	5.2
ST-18	0.78	0.015	22.2	88.5	0.76	88.7	0.148	<20	1.89	0.018	0.89	0.3	5.2	0.53	0.09	<5	0.4	0.04	7.4
ST-19	0.58	0.014	22.4	87.8	0.48	45.2	0.066	<20	1.24	0.019	0.43	0.2	3.4	0.26	0.06	<5	0.3	0.03	5.1
ST-20	1.71	0.041	36.5	75	0.68	127.2	0.084	<20	1.69	0.027	0.47	0.1	4.7	0.34	0.06	<5	0.3	0.04	8.8
Duplicate																			
KT-02	0.55	0.026	17.7	94.7	0.87	108.3	0.15	<20	1.96	0.032	0.99	0.3	4.7	0.63	0.18	<5	0.4	0.04	6.8

Summary of Acid Base Acounting (ABA) Results By Lithology

	Paste pH	TIC %	CaCO3 NP kg CaCO3/t	S(T) %	S(SO4) %	S(S-2) %	AP kg CaCO3/t	NP kg CaCO3/t	Net NP kg CaCO3/t	NP/AP
Metasediment										
Mean	8.20	0.16	14.03	0.10	0.01	0.09	2.82	14.97	11.69	16
Median	8.30	0.14	12.08	0.06	0.01	0.05	1.56	13.60	9.00	6
Standard Deviation	0.47	0.14	11.25	0.11	0.01	0.10	3.12	9.02	8.63	31
Range	2.45	0.66	54.60	0.49	0.07	0.45	14.00	41.70	43.59	160
Minimum	6.60	0.01	0.40	0.00	0.01	0.01	0.06	2.00	-5.86	0.0
Maximum	9.05	0.66	55.00	0.49	0.07	0.45	14.06	43.70	37.73	160
Count	81	39	38	78	78	77	77	81	77	77
Confidence Level (95.0%)	0.10	0.04	3.70	0.02	0.00	0.02	0.71	1.99	1.96	7
Granodiorite A (Oxidized)										
Mean	8.31	0.21	17.04	0.12	0.01	0.11	3.67	30.17	26.39	39
Median	8.30	0.17	14.17	0.05	0.01	0.04	1.25	27.00	24.13	15
Standard Deviation	0.31	0.14	12.51	0.30	0.01	0.29	9.08	20.79	20.40	72
Range	2.40	0.44	36.67	2.80	0.06	2.78	86.50	84.00	116.00	504
Minimum	6.80	0.07	5.83	0.00	0.01	-0.01	0.06	1.00	-37.56	0.2
Maximum	9.20	0.51	42.50	2.80	0.06	2.77	86.56	85.00	78.44	504
Count	206	10	9	206	206	205	205	206	205	205
Confidence Level (95.0%)	0.04	0.10	9.61	0.04	0.00	0.04	1.25	2.86	2.81	10
Granodiorite B (Unaltered)										
Mean	8.56	0.28	22.92	0.17	0.01	0.16	5.04	34.33	29.00	20
Median	8.60	0.30	25.00	0.16	0.01	0.16	4.84	32.60	29.00	9
Standard Deviation	0.28	0.11	9.27	0.15	0.01	0.15	4.69	15.66	17.62	37
Range	1.54	0.37	30.83	0.80	0.04	0.83	25.72	69.90	90.56	188
Minimum	7.80	0.05	4.17	0.01	0.01	0.01	0.22	7.10	-17.00	0.3
Maximum	9.34	0.42	35.00	0.81	0.04	0.83	25.94	77.00	73.56	189
Count	58	10	10	58	58	58	58	58	58	58
Confidence Level (95.0%)	0.07	0.08	6.63	0.04	0.00	0.04	1.23	4.12	4.63	10
Granodiorite C (Altered)										
Mean	8.40	0.33	26.41	0.27	0.01	0.27	8.36	40.70	32.36	18
Median	8.40	0.30	24.17	0.21	0.01	0.20	6.25	39.00	33.00	7
Standard Deviation	0.32	0.22	18.23	0.34	0.02	0.34	10.69	19.36	20.11	39
Range	2.14	0.65	53.77	1.81	0.10	1.73	53.91	89.00	92.00	224
Minimum	7.20	0.01	0.40	0.01	0.01	0.01	0.15	3.00	-11.00	0.2
Maximum	9.34	0.65	54.17	1.81	0.10	1.73	54.06	92.00	81.00	224
Count	83	19	18	83	83	83	83	83	82	82
Confidence Level (95.0%)	0.07	0.11	9.07	0.07	0.00	0.07	2.33	4.23	4.42	9

CLIENT : **SRK Consulting**
PROJECT : **Eagle Gold Project, 366C**
PROJECT # : **09102**
TEST : **Modified Acid-Base Accounting**
Date : **December 14, 2009**

Sample ID	Paste pH	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
KCA No. 42979 Whole	7.96	0.31	25.8	0.18	0.02	0.16	5.0	29.7	24.7	Moderate
KCA No. 42979 (-1/4")	7.92	0.3	25.0	0.18	0.02	0.16	5.0	28.9	23.9	Moderate
Duplicates										
KCA No. 42979 Whole	7.91	0.31		0.17	0.02			29.8		Moderate

Note:

AP = Acid potential in tonnes CaCO3 equivalent per 1000 tonnes of material. AP is determined from the calculated sulphide sulphur content S(T) - S(SO4).

NP = Neutralization potential in tonnes CaCO3 equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonate minerals and is expressed in kg CaCO3/tonne.
Sulphate sulphur determined by 25% Hydrochloric Acid with Gravimetric Finish.

CLIENT : **SRK Consulting**
PROJECT : **Strata Gold (Dublin Gulch)**
PROJECT # : **0789**
TEST : **Modified Acid-Base Accounting**
Date : **November 5, 2007**

Sample ID	Paste pH	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
DG05-308C 12.19-18.00	8.81	<0.01	<0.8	0.06	<0.01	0.06	1.9	5.1	3.2	None
DG05-308C 27.00-34.00	8.30	0.29	24.2	0.02	<0.01	0.02	0.6	30.3	29.7	Slight
DG05-308C 34.00-44.00	8.86	0.05	4.2	0.04	<0.01	0.04	1.3	13.3	12.1	Slight
DG05-308C 50.11-60.11	8.32	0.32	26.7	0.02	<0.01	0.02	0.6	32.2	31.6	Slight
DG05-308C 69.95-77.45	8.52	0.23	19.2	0.01	<0.01	0.01	0.3	26.2	25.9	Slight
DG05-308C 92.96-100.00	8.67	0.09	7.5	<0.01	<0.01	<0.01	<0.3	15.0	15.0	Slight
DG05-308C 112.00-122.00	8.35	0.2	16.7	0.21	<0.01	0.21	6.6	23.7	17.1	Slight
DG05-308C 125.00-128.00	8.06	0.04	3.3	0.13	0.1	0.03	0.9	9.8	8.9	Slight
DG05-308C 128.00-132.21	8.33	0.22	18.3	0.14	0.01	0.13	4.1	23.0	18.9	Slight
DG07-327C 2.50-12.50	8.47	<0.01	<0.8	0.03	<0.01	0.03	0.9	6.5	5.6	None
DG07-327C 12.50-22.50	8.52	0.22	18.3	0.03	<0.01	0.03	0.9	25.2	24.3	Slight
DG07-327C 24.69-33.83	8.53	0.39	32.5	0.04	0.01	0.03	0.9	41.4	40.5	Slight
DG07-327C 55.17-65.84	8.26	0.51	42.5	0.1	<0.01	0.1	3.1	46.5	43.4	Slight
DG07-327C 82.60-92.60	8.16	0.33	27.5	0.08	0.04	0.04	1.3	35.9	34.7	Slight
DG07-327C 110.03-120.29	8.54	0.28	23.3	0.14	0.1	0.04	1.3	31.5	30.3	Slight
DG07-327C 132.89-143.56	8.73	0.15	12.5	0.16	0.04	0.12	3.8	22.5	18.8	Slight
DG07-331C 12.80-22.80	8.03	<0.01	<0.8	0.07	0.04	0.03	0.9	6.8	5.9	None
DG07-331C 52.92-62.30	8.39	0.08	6.7	0.18	<0.01	0.18	5.6	13.6	8.0	Slight
DG07-331C 73.76-82.91	8.45	0.2	16.7	0.12	<0.01	0.12	3.8	34.1	30.4	Slight
DG07-331C 92.05-102.72	8.64	0.21	17.5	0.05	<0.01	0.05	1.6	33.7	32.1	Slight
DG07-331C 105.77-115.52	8.69	0.26	21.7	0.09	<0.01	0.09	2.8	26.5	23.7	Slight
DG07-331C 150.30-159.11	9.05	0.35	29.2	0.09	<0.01	0.09	2.8	34.6	31.8	Slight
DG07-331C 181.97-191.11	8.47	<0.01	<0.8	0.06	<0.01	0.06	1.9	7.6	5.7	None
DG07-335C 49.68-58.83	7.86	<0.01	<0.8	0.47	0.02	0.45	14.1	8.2	-5.9	None
DG07-335C 103.02-113.69	8.47	0.07	5.8	0.28	0.01	0.27	8.4	21.1	12.7	Slight
DG07-335C 173.13-182.27	8.10	0.17	14.2	0.31	0.02	0.29	9.1	38.3	29.2	Slight
DG07-335C 197.51-207.41	8.99	0.17	14.2	0.07	<0.01	0.07	2.2	21.0	18.8	Slight
DG07-335C 237.13-246.28	8.89	0.23	19.2	0.12	<0.01	0.12	3.8	26.4	22.7	Slight
DG07-305C 1.52-9.14	8.18	0.04	3.3	0.31	<0.01	0.31	9.7	29.1	19.4	Slight
DG07-305C 9.14-18.29	8.24	0.06	5.0	0.04	<0.01	0.04	1.3	17.0	15.8	Slight
DG07-305C 68.00-77.72	8.40	0.19	15.8	0.31	<0.01	0.31	9.7	18.0	8.3	Slight
DG07-305C 82.30-92.30	8.50	0.22	18.3	0.08	<0.01	0.08	2.5	21.3	18.8	None
DG07-305C 112.78-122.86	8.70	0.36	30.0	0.3	<0.01	0.3	9.4	7.1	-2.3	Slight
DG07-305C 169.03-178.31	9.01	0.25	20.8	0.24	<0.01	0.24	7.5	13.6	6.1	Slight
DG07-311C 15.20-21.10	8.78	0.04	3.3	0.03	<0.01	0.03	0.9	7.1	6.2	Slight
DG07-311C 62.20-72.54	8.84	0.23	19.2	0.17	<0.01	0.17	5.3	22.8	17.5	Slight
DG07-311C 93.35-97.95	8.64	0.59	49.2	0.14	<0.01	0.14	4.4	29.9	25.5	Slight
DG07-311C 99.97-109.12	8.92	0.3	25.0	0.59	<0.01	0.59	18.4	42.6	24.2	Slight
DG07-311C 130.45-140.45	9.34	0.13	10.8	0.17	<0.01	0.17	5.3	19.2	13.9	Slight
DG07-311C 163.70-173.70	8.83	0.58	48.3	0.32	<0.01	0.32	10.0	26.4	16.4	Slight
DG07-311C 179.22-189.06	9.34	0.35	29.2	0.28	<0.01	0.28	8.8	34.2	25.5	Slight
DG07-311C 220.37-230.25	9.07	0.62	51.7	0.28	<0.01	0.28	8.8	54.3	45.6	Slight
DG07-303C 195.07-204.22	8.47	0.61	50.8	0.32	<0.01	0.32	10.0	52.3	42.3	Slight
DG07-303C 175.26-185.93	8.70	0.45	37.5	0.42	<0.01	0.42	13.1	39.1	26.0	Slight
DG07-303C 108.20-118-20	7.96	0.09	7.5	0.26	0.02	0.26	8.1	13.8	5.7	Slight
DG07-303C 64.01-74.01	8.93	0.07	5.8	0.03	<0.01	0.03	0.9	13.4	12.5	Slight
DG07-303C 24.08-34.08	8.26	0.3	25.0	<0.01	<0.01	<0.01	<0.3	27.3	27.3	Slight
DG07-303C 18.29-24.08	8.26	0.1	8.3	0.15	0.02	0.13	4.1	16.0	11.9	Slight
DG07-303C 11.00-18.29	8.42	0.04	3.3	0.02	<0.01	0.02	0.6	11.5	10.9	Slight
Duplicates										
DG05-308C 12.19-18.00		<0.01		0.05	<0.01					
DG05-308C 69.95-77.45	8.53							25.9		Slight
DG05-308C 128.00-132.21	8.51							22.7		Slight
DG07-331C 52.92-62.30	8.47							13.0		Slight
DG07-331C 92.05-102.72		0.21		0.05	<0.01					
DG07-305C 1.52-9.14	8.02							16.7		Slight
DG07-311C 163.70-173.7		0.58		0.31	<0.01					
DG07-303C 64.01-74.01	8.41							12.3		Slight
DG07-303C 24.08-34.08	8.34							29.9		Slight

Note:

AP = Acid potential in tonnes CaCO3 equivalent per 1000 tonnes of material. AP is determined from the calculated sulphide sulphur content S(T) - S(SO4).

NP = Neutralization potential in tonnes CaCO3 equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonates and is expressed in kg CaCO3/tonne.
Sulphate sulphur determined by 25% Hydrochloric Acid with Gravimetric Finish.

Appepndix G.10
Static Program Laboratory Results

CLIENT : SRK Consulting
PROJECT : Eagle Gold Project, 366C
PROJECT # : 09102
TEST : Modified Acid-Base Accounting
Date : January 13, 2010

Sample ID	Paste pH	TIC %	CaCO3 NP	S(T) %	S(SO4) %	S(S-2) %	AP	NP	Net NP	Fizz Test
KT-01	8.59	0.09	7.5	0.16	0.07	0.09	2.8	11.2	8.4	Slight
KT-02	9.05	0.13	10.8	0.22	<0.01	0.22	6.9	15.1	8.2	Slight
KT-03	8.66	0.28	23.3	0.18	0.01	0.17	5.3	27.4	22.1	Slight
KT-04	8.89	0.42	35.0	0.13	<0.01	0.13	4.1	37.2	33.1	Moderate
KT-05	8.46	0.15	12.5	0.06	<0.01	0.06	1.9	17.2	15.3	Slight
KT-06	8.68	0.65	54.2	0.22	<0.01	0.22	6.9	42.5	35.6	Moderate
ST-01	8.22	0.12	10.0	0.08	<0.01	0.08	2.5	11.8	9.3	Slight
ST-02	8.33	0.15	12.5	0.05	<0.01	0.05	1.6	11.3	9.7	Slight
ST-03	8.05	0.34	28.3	0.18	0.01	0.17	5.3	18.8	13.5	Slight
ST-04	8.37	0.66	55.0	0.31	0.02	0.29	9.1	37.3	28.2	Moderate
ST-05	8.31	0.17	14.2	0.05	<0.01	0.05	1.6	10.5	8.9	Slight
ST-06	8.93	0.28	23.3	0.06	<0.01	0.06	1.9	18.6	16.7	Slight
ST-07	8.36	0.24	20.0	0.24	0.01	0.23	7.2	21.7	14.5	Slight
ST-08	8.33	0.07	5.8	0.09	<0.01	0.09	2.8	9.4	6.6	Slight
ST-09	8.46	0.07	5.8	0.06	<0.01	0.06	1.9	7.8	5.9	Slight
ST-10	8.40	0.06	5.0	0.15	<0.01	0.15	4.7	10.0	5.3	Slight
ST-11	7.71	0.14	11.7	0.4	0.03	0.37	11.6	20.0	8.4	Slight
ST-12	8.18	0.27	22.5	0.22	0.03	0.19	5.9	29.8	23.9	Slight
ST-13	8.79	0.12	10.0	0.11	0.01	0.1	3.1	14.4	11.3	Slight
ST-14	8.91	0.12	10.0	0.03	<0.01	0.03	0.9	13.6	12.7	Slight
ST-15	8.71	0.1	8.3	0.08	<0.01	0.08	2.5	12.3	9.8	Slight
ST-16	8.65	0.41	34.2	0.29	0.02	0.27	8.4	43.7	35.3	Moderate
ST-17	8.83	0.16	13.3	0.15	<0.01	0.15	4.7	17.0	12.3	Slight
ST-18	8.47	0.21	17.5	0.11	0.01	0.1	3.1	19.9	16.8	Slight
ST-19	8.45	0.15	12.5	0.08	<0.01	0.08	2.5	14.7	12.2	Slight
ST-20	8.39	0.43	35.8	0.07	0.01	0.06	1.9	39.6	37.7	Moderate
Duplicates										
KT-01		0.09		0.16	0.05					
ST-01	8.32	0.12		0.09	<0.01			11.4		Slight
ST-10		0.06		0.14	<0.01					
ST-20	8.40	0.43		0.08	0.02			39.0		Moderate

Note:

AP = Acid potential in tonnes CaCO3 equivalent per 1000 tonnes of material. AP is determined from the calculated sulphide sulphur content S(T) - S(SO4).

NP = Neutralization potential in tonnes CaCO3 equivalent per 1000 tonnes of material.

NET NP = NP - AP

Carbonate NP is calculated from TIC originating from carbonate minerals and is expressed in kg CaCO3/tonne.
Sulphate sulphur determined by 25% Hydrochloric Acid with Gravimetric Finish.

CLIENT : **SRK Consulting**
PROJECT : **Eagle Gold Project, 366C**
PROJECT # : **09102**
Test : **24 Hour Nanopure Water Leach Extraction Test at 3:1 Liquid to Solid Ratio**
Date : **December 15, 2009**

Leachate Analysis

Sample ID			**KCA No. 42979 Whole**	**KCA No. 42979 (-1/4")**	**Blank**
Parameter	**Method**	**Units**			
Volume Nanopure Water		mL	750	750	750
Sample Weight		g	250	250	250
pH	meter		7.72	7.97	6.62
Redox	meter	mV	321	309	296
Conductivity	meter	uS/cm	444	483	<1
Acidity (to pH 4.5)	titration	mg CaCO3/L	#N/A	#N/A	#N/A
Total Acidity (to pH 8.3)	titration	mg CaCO3/L	2.9	2.9	1.8
Alkalinity	titration	mg CaCO3/L	60.1	62.7	1.2
Sulphate	Turbidity	mg/L	157	187	<1
Ion Balance					
Major Anions	Calc	meq/L	4.47	5.15	#N/A
Major Cations	Calc	meq/L	5.45	5.89	#N/A
Difference	Calc	meq/L	-0.97	-0.74	#N/A
Balance (%)	Calc	%	-9.8%	-6.7%	#N/A
Dissolved Metals					
Hardness CaCO3		mg/L	249	270	<0.5
Aluminum Al	ICP-MS	mg/L	0.0212	0.0196	0.0009
Antimony Sb	ICP-MS	mg/L	0.0412	0.044	<0.00002
Arsenic As	ICP-MS	mg/L	0.00916	0.00964	<0.00002
Barium Ba	ICP-MS	mg/L	0.037	0.0397	0.00006
Beryllium Be	ICP-MS	mg/L	<0.00001	<0.00001	<0.00001
Bismuth Bi	ICP-MS	mg/L	0.000006	0.000007	<0.000005
Boron B	ICP-MS	mg/L	<0.05	<0.05	<0.05
Cadmium Cd	ICP-MS	mg/L	0.000015	0.000021	<0.000005
Calcium Ca	ICP-MS	mg/L	92.3	99.8	<0.05
Chromium Cr	ICP-MS	mg/L	<0.0001	<0.0001	<0.0001
Cobalt Co	ICP-MS	mg/L	0.00333	0.000573	<0.000005
Copper Cu	ICP-MS	mg/L	0.00172	0.00172	0.00025
Iron Fe	ICP-MS	mg/L	0.005	0.003	<0.001
Lead Pb	ICP-MS	mg/L	0.000053	0.000133	0.000008
Lithium Li	ICP-MS	mg/L	0.0103	0.0114	<0.0005
Magnesium Mg	ICP-MS	mg/L	4.6	5.07	<0.05
Manganese Mn	ICP-MS	mg/L	0.0302	0.0322	0.00006
Mercury Hg	ICP-MS	ug/L	<0.01	<0.01	0.01
Molybdenum Mo	ICP-MS	mg/L	0.00682	0.00705	<0.00005
Nickel Ni	ICP-MS	mg/L	0.00118	0.00147	0.00014
Phosphorus P	ICP-MS	mg/L	0.007	0.004	<0.002
Potassium K	ICP-MS	mg/L	5.28	5.69	<0.05
Selenium Se	ICP-MS	mg/L	0.00785	0.00835	<0.00004
Silicon Si	ICP-MS	mg/L	1.85	2.07	<0.1
Silver Ag	ICP-MS	mg/L	0.000008	0.000011	<0.000005
Sodium Na	ICP-MS	mg/L	6.38	6.82	<0.05
Strontium Sr	ICP-MS	mg/L	2.12	2.34	0.00006
Sulphur (S)	ICP-MS	mg/L	61	71	<3
Thallium Tl	ICP-MS	mg/L	0.000028	0.000031	<0.000002
Tin Sn	ICP-MS	mg/L	0.00006	0.00007	0.00007
Titanium Ti	ICP-MS	mg/L	<0.0005	<0.0005	<0.0005
Uranium U	ICP-MS	mg/L	0.0254	0.0276	0.000002
Vanadium V	ICP-MS	mg/L	<0.0002	<0.0002	<0.0002
Zinc Zn	ICP-MS	mg/L	0.0007	0.0011	0.0007
Zirconium Zr	ICP-MS	mg/L	<0.0001	<0.0001	<0.0001

CLIENT : **SRK Consulting**
PROJECT : **Strata Gold (Dublin Gulch)**
CEMI Project # : **0789**
Test : **Size Fraction Analysis**
Date : **January 11, 2010**

DG05-308C 12.19-18.00

Sieve Designation	Aperture (mm)	Weight Retained (g)	(%)	Cumulative (%)
+1/4"	6.300	26.50	26.6%	26.6%
-1/4" + 6	3.360	32.90	33.0%	59.6%
-6 + 10	1.700	12.60	12.6%	72.2%
-10 + 35	0.425	16.30	16.3%	88.6%
-35 + 100	0.150	4.20	4.2%	92.8%
-100 + 270	0.053	3.40	3.4%	96.2%
-270	-0.053	3.80	3.8%	100.0%
TOTAL		99.70	100.0%	

DG06-311C 130.35-140.45

Sieve Designation	Aperture (mm)	Weight Retained (g)	(%)	Cumulative (%)
+1/4"	6.300	19.50	19.6%	19.6%
-1/4" + 6	3.360	29.50	29.6%	49.2%
-6 + 10	1.700	10.60	10.7%	59.9%
-10 + 35	0.425	19.90	20.0%	79.9%
-35 + 100	0.150	7.40	7.4%	87.3%
-100 + 270	0.053	6.00	6.0%	93.4%
-270	-0.053	6.60	6.6%	100.0%
TOTAL		99.50	100.0%	

DG07-327C 24.69-33.83

Sieve Designation	Aperture (mm)	Weight Retained (g)	(%)	Cumulative (%)
+1/4"	6.300	14.10	14.2%	14.2%
-1/4" + 6	3.360	27.30	27.5%	41.6%
-6 + 10	1.700	12.50	12.6%	54.2%
-10 + 35	0.425	24.50	24.6%	78.9%
-35 + 100	0.150	9.00	9.1%	87.9%
-100 + 270	0.053	6.20	6.2%	94.2%
-270	-0.053	5.80	5.8%	100.0%
TOTAL		99.40	100.0%	

DG05-308C 125.00-128.00

Sieve Designation	Aperture (mm)	Weight Retained (g)	(%)	Cumulative (%)
+1/4"	6.300	11.90	12.0%	12.0%
-1/4" + 6	3.360	23.80	23.9%	35.9%
-6 + 10	1.700	14.30	14.4%	50.3%
-10 + 35	0.425	27.40	27.6%	77.9%
-35 + 100	0.150	9.30	9.4%	87.2%
-100 + 270	0.053	6.40	6.4%	93.7%
-270	-0.053	6.30	6.3%	100.0%
TOTAL		99.40	100.0%	

CLIENT : **SRK Consulting**
PROJECT : **Eagle Gold Project, 366C**
CEMI Project # : **09102**
Test : **Size Fraction Analysis**
Date : **December 11, 2009**

KCA No. 42979

Sieve Designation	Aperture (mm)	Weight Retained (g)	(%)	Cumulative (%)
+1/4"	6.300	30.80	6.2%	6.2%
-1/4" + 6	3.360	67.10	13.4%	19.6%
-6 + 10	1.700	72.30	14.5%	34.1%
-10 + 35	0.425	167.20	33.5%	67.6%
-35 + 100	0.150	72.90	14.6%	82.2%
-100 + 270	0.053	49.30	9.9%	92.1%
-270	-0.053	39.30	7.9%	100.0%
TOTAL		498.90	100.0%	

CLIENT : **SRK Consulting**
PROJECT : **Eagle Gold Project, 366C**
CEMI Project # : **09102**
Test : **Size Fraction Analysis**
Date : **December 18, 2009**

KCA No. 42979 (HC #7)

Sieve Designation	Aperture (mm)	Weight Retained (g)	(%)	Cumulative (%)
+1/4"	6.300	2.0	2.0%	2.0%
-6 + 10	1.700	22.9	23.3%	25.3%
-10 + 35	0.425	36.6	37.2%	62.5%
-35 + 100	0.150	17.0	17.3%	79.8%
-100 + 270	0.053	11.7	11.9%	91.7%
-270	-0.053	8.2	8.3%	100.0%
TOTAL		98.40	100.0%	

Appendix H: Kinetic Program Laboratory Results

DGK 1
Sample =
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Days	Volume (L)	pH	Conductivity (uS/cm)	Alkalinity (mg/L)	Sulphate (mg/L)	Al (mg/L)	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Li (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	P (mg/L)	K (mg/L)	Se (mg/L)	Si (mg/L)	Ag (mg/L)	Na (mg/L)	Sr (mg/L)	Th (mg/L)	Sn (mg/L)	Ti (mg/L)	V (mg/L)	Zn (mg/L)
24-Sep-96	0	0	0.318	7.89	181	38.1	44.7	0.2	0.0095	0.0047	0.02	0.005	0.1	0.1	0.0043	21.3	0.01	0.01	0.01	0.03	0.001	0.02	2.59	0.045	0.00005	0.03	0.02	0.3	6	0.2	1.29	0.01	7	0.393	0.1	0.03	0.01	0.03	0.005
1-Oct-96	1	7	0.466	7.67	584	46.1	237	0.2	0.185	0.0262	0.05	0.005	0.1	0.1	0.0013	71	0.01	0.01	0.01	0.03	0.001	0.03	11.8	0.148	0.00005	0.03	0.02	0.3	8	0.2	3.04	0.01	23	2.8	0.1	0.3	0.01	0.03	0.022
8-Oct-96	2	14	0.462	7.77	160	31.5	34.9	0.2	0.0146	0.0109	0.01	0.005	0.1	0.1	0.0002	17.1	0.01	0.01	0.01	0.03	0.001	0.01	2.39	0.047	0.00005	0.03	0.02	0.3	5	0.2	1.79	0.01	3	0.315	0.1	0.2	0.01	0.03	0.005
15-Oct-96	3	21	0.457	7.8	116	28.1	23.5	0.2	0.0118	0.006	0.01	0.005	0.1	0.1	0.0002	13.8	0.01	0.01	0.01	0.03	0.001	0.01	1.88	0.036	0.00005	0.03	0.02	0.3	4	0.2	1.64	0.01	2	0.264	0.1	0.3	0.01	0.03	0.005
22-Oct-96	4	28	0.458	7.73	87.5	24.6	17.6	0.2	0.0094	0.0113	0.01	0.005	0.1	0.1	0.0002	11.4	0.01	0.01	0.01	0.03	0.001	0.01	1.5	0.026	0.00005	0.03	0.02	0.3	3	0.2	1.51	0.01	2	0.218	0.1	0.3	0.01	0.03	0.007
29-Oct-96	5	35	0.437	7.28	79	20.7	13.4	0.2	0.0079	0.0109	0.01	0.005	0.1	0.1	0.0002	9.27	0.01	0.01	0.01	0.03	0.001	0.01	1.17	0.021	0.00005	0.03	0.02	0.3	3	0.2	1.07	0.01	2	0.174	0.1	0.3	0.01	0.03	0.005
5-Nov-96	6	42	0.456	7.53	81	22.9	12.9	0.2	0.008	0.0095	0.01	0.005	0.1	0.1	0.0002	9.81	0.01	0.01	0.01	0.03	0.001	0.01	1.31	0.02	0.00005	0.03	0.02	0.3	3	0.2	1.19	0.01	2	0.17	0.1	0.3	0.01	0.03	0.01
12-Nov-96	7	49	0.458	6.7	75	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	8	56	0.439	7.31	61	16.6	9.8	0.2	0.0075	0.0072	0.01	0.005	0.1	0.1	0.0034	7.41	0.01	0.01	0.01	0.03	0.001	0.01	0.93	0.013	0.00005	0.03	0.02	0.3	3	0.2	0.91	0.01	2	0.139	0.1	0.3	0.01	0.03	0.005
26-Nov-96	9	63	0.411	7.2	58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	10	70	0.427	7.25	75	15.8	17.6	0.2	0.0074	0.006	0.01	0.005	0.1	0.1	0.0002	9.23	0.01	0.01	0.01	0.03	0.001	0.01	1.07	0.015	0.00005	0.03	0.02	0.3	2	0.2	0.85	0.01	2	0.163	0.1	0.3	0.01	0.03	0.006
10-Dec-96	11	77	0.409	6.7	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	12	84	0.466	7	82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	13	91	0.425	7.5	48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	14	98	0.428	7.1	47	12.9	7.7	0.2	0.0049	0.0061	0.01	0.005	0.1	0.1	0.0002	5.9	0.01	0.01	0.01	0.03	0.001	0.01	0.71	0.006	0.00005	0.03	0.02	0.3	2	0.2	0.63	0.01	2	0.104	0.1	0.3	0.01	0.03	0.005
7-Jan-97	15	105	0.418	6.9	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	16	112	0.415	6.9	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	17	119	0.447	6.7	58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	18	126	0.433	7.49	51.1	13.5	9.4	0.2	0.0052	0.03	0.01	0.005	0.1	0.1	0.0002	6.96	0.01	0.01	0.01	0.03	0.001	0.01	0.8	0.009	0.00005	0.03	0.02	0.3	2	0.2	0.76	0.01	2	0.121	0.1	0.3	0.01	0.03	0.007
4-Feb-97	19	133	0.444	6.9	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	20	140	0.446	7	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	21	147	0.441	7	55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	22	154	0.473	7.6	55.4	14.4	10	0.2	0.0081	0.0064	0.01	0.005	0.1	0.1	0.0002	7.43	0.01	0.01	0.01	0.03	0.001	0.01	0.76	0.007	0.00005	0.03	0.02	0.3	2	0.2	0.75	0.01	2	0.119	0.1	0.3	0.01	0.03	0.005
4-Mar-97	23	161	0.447	6.7	40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	24	168	0.432	6.8	37	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	25	175	0.448	6.8	38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	26	182	0.444	6.7	38	11.3	6.9	0.2	0.0068	0.005	0.01	--	0.1	--	0.0002	5.3	0.01	0.01	0.01	0.03	0.001	--	0.6	0.005	0.00005	0.03	0.02	0.3	2	0.2	0.62	0.01	2	0.09	0.1	0.3	--	--	0.005

DGK 1
Sample =
Sample Wt. (kg)

Loadings

Date		Alkalinity mg/kg/wk	Sulphate mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	Th mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk
24-Sep-96		12.164458	14.271687	0.0638554	0.0030331	0.0015006	0.0063855	0.0015964	0.0319277	0.0319277	0.0013729	6.8006024	0.0031928	0.0031928	0.0031928	0.0095783	0.0003193	0.0063855	0.8269277	0.0143675	1.596E-05	0.0095783	0.0063855	0.0957831	1.9156627	0.0638554	0.4118675	0.0031928	2.2349398	0.1254759	0.0319277	0.0095783	0.0031928	0.0095783	0.0015964
1-Oct-96		21.568876	110.88554	0.0935743	0.0865562	0.0122582	0.0233936	0.0023394	0.0467871	0.0467871	0.0006082	33.218876	0.0046787	0.0046787	0.0046787	0.0140361	0.0004679	0.0140361	5.5208835	0.069245	2.339E-05	0.0140361	0.0093574	0.1403614	3.7429719	0.0935743	1.4223293	0.0046787	10.761044	1.3100402	0.0467871	0.1403614	0.0046787	0.0140361	0.0102932
8-Oct-96		14.611446	16.188554	0.0927711	0.0067723	0.005056	0.0046386	0.0023193	0.0463855	0.0463855	9.277E-05	7.9319277	0.0046386	0.0046386	0.0046386	0.0139157	0.0004639	0.0046386	1.1086145	0.0218012	2.319E-05	0.0139157	0.0092771	0.1391566	2.3192771	0.0927711	0.8303012	0.0046386	1.3915663	0.1461145	0.0463855	0.0927711	0.0046386	0.0139157	0.0023193
15-Oct-96		12.893273	10.782631	0.0917671	0.0054143	0.002753	0.0045884	0.0022942	0.0458835	0.0458835	9.177E-05	6.3319277	0.0045884	0.0045884	0.0045884	0.0137651	0.0004588	0.0045884	0.8626104	0.0165181	2.294E-05	0.0137651	0.0091767	0.1376506	1.8353414	0.0917671	0.75249	0.0045884	0.9176707	0.1211325	0.0458835	0.1376506	0.0045884	0.0137651	0.0022942
22-Oct-96		11.312048	8.0931727	0.0919679	0.0043225	0.0051962	0.0045984	0.0022992	0.0459839	0.0459839	9.197E-05	5.2421687	0.0045984	0.0045984	0.0045984	0.0137952	0.0004598	0.0045984	0.689759	0.0119558	2.299E-05	0.0137952	0.0091968	0.1379518	1.3795181	0.0919679	0.6943574	0.0045984	0.9196787	0.100245	0.0459839	0.1379518	0.0045984	0.0137952	0.0032189
29-Oct-96		9.0822289	5.8793173	0.087751	0.0034662	0.0047824	0.0043876	0.0021938	0.0438755	0.0438755	8.775E-05	4.067259	0.0043876	0.0043876	0.0043876	0.0131627	0.0004388	0.0043876	0.5133434	0.0092139	2.194E-05	0.0131627	0.0087751	0.1316265	1.3162651	0.087751	0.4694679	0.0043876	0.87751	0.0763434	0.0438755	0.1316265	0.0043876	0.0131627	0.0021938
5-Nov-96		10.484337	5.9060241	0.0915663	0.0036627	0.0043494	0.0045783	0.0022892	0.0457831	0.0457831	9.157E-05	4.4913253	0.0045783	0.0045783	0.0045783	0.0137349	0.0004578	0.0045783	0.599759	0.0091566	2.289E-05	0.0137349	0.0091566	0.1373494	1.373494	0.0915663	0.5448193	0.0045783	0.9156627	0.0778313	0.0457831	0.1373494	0.0045783	0.0137349	0.0045783
12-Nov-96		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96		7.3166667	4.3194779	0.0881526	0.0033057	0.0031735	0.0044076	0.0022038	0.0440763	0.0440763	0.0014986	3.2660542	0.0044076	0.0044076	0.0044076	0.0132229	0.0004408	0.0044076	0.4099096	0.0057299	2.204E-05	0.0132229	0.0088153	0.1322289	1.3222892	0.0881526	0.4010944	0.0044076	0.8815261	0.0612661	0.0440763	0.1322289	0.0044076	0.0132229	0.0022038
26-Nov-96		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96		6.7736948	7.5453815	0.085743	0.0031725	0.0025723	0.0042871	0.0021436	0.0428715	0.0428715	8.574E-05	3.9570382	0.0042871	0.0042871	0.0042871	0.0128614	0.0004287	0.0042871	0.4587249	0.0064307	2.144E-05	0.0128614	0.0085743	0.1286145	0.8574297	0.085743	0.3644076	0.0042871	0.8574297	0.0698805	0.0428715	0.1286145	0.0042871	0.0128614	0.0025723
10-Dec-96		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96		5.5433735	3.3088353	0.0859438	0.0021056	0.0026213	0.0042972	0.0021486	0.0429719	0.0429719	8.594E-05	2.5353414	0.0042972	0.0042972	0.0042972	0.0128916	0.0004297	0.0042972	0.3051004	0.0025783	2.149E-05	0.0128916	0.0085944	0.1289157	0.8594378	0.0859438	0.2707229	0.0042972	0.8594378	0.0446908	0.0429719	0.1289157	0.0042972	0.0128916	0.0021486
7-Jan-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97		5.8689759	4.0865462	0.0869478	0.0022606	0.0130422	0.0043474	0.0021737	0.0434739	0.0434739	8.695E-05	3.0257831	0.0043474	0.0043474	0.0043474	0.0130422	0.0004347	0.0043474	0.3477912	0.0039127	2.174E-05	0.0130422	0.0086948	0.1304217	0.8694779	0.0869478	0.3304016	0.0043474	0.8694779	0.0526034	0.0434739	0.1304217	0.0043474	0.0130422	0.0030432
4-Feb-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97		6.8385542	4.748996	0.0949799	0.0038467	0.0030394	0.004749	0.0023745	0.04749	0.04749	9.498E-05	3.528504	0.004749	0.004749	0.004749	0.014247	0.0004749	0.004749	0.3609237	0.0033243	2.374E-05	0.014247	0.009498	0.1424699	0.9497992	0.0949799	0.3561747	0.004749	0.9497992	0.0565131	0.04749	0.1424699	0.004749	0.014247	0.0023745
4-Mar-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97		5.0373494	3.0759036	0.0891566	0.0030313	0.0022289	0.0044578	--	0.0445783	--	8.916E-05	2.3626506	0.0044578	0.0044578	0.0044578	0.0133735	0.0004458	--	0.2674699	0.0022289	2.229E-05	0.0133735	0.0089157	0.1337349	0.8915663	0.0891566	0.2763855	0.0044578	0.8915663	0.0401205	0.0445783	0.1337349	--	--	0.0022289

DGK 2
Sample =
Sample Wt. (kg) 1.00

Date	Cycle	Days	Volume (L)	pH	Conductivity (uS/cm)	Alkalinity (mg/L)	Sulphate (mg/L)	Al (mg/L)	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Li (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	P (mg/L)	K (mg/L)	Se (mg/L)	Si (mg/L)	Ag (mg/L)	Na (mg/L)	Sr (mg/L)	Th (mg/L)	Sn (mg/L)	Ti (mg/L)	V (mg/L)	Zn (mg/L)
						Concentrations																																	
24-Sep-96	0	0	0.348	7.72	362	34.9	118	0.2	0.0754	0.007	0.03	0.005	0.1	0.1	0.0009	41	0.01	0.01	0.01	0.03	0.001	0.02	6.12	0.046	0.00005	0.03	0.02	0.3	6	0.2	1.13	0.01	17	1.62	0.1	0.03	0.01	0.03	0.005
1-Oct-96	1	7	0.462	7.62	262	39.4	74.8	0.2	0.0133	0.0167	0.02	0.005	0.1	0.1	0.0004	30.6	0.01	0.01	0.01	0.03	0.001	0.02	4.51	0.093	0.00005	0.03	0.02	0.3	7	0.2	2.37	0.01	8	0.602	0.1	0.3	0.01	0.03	0.013
8-Oct-96	2	14	0.466	8.01	230	47.5	62.6	0.2	0.199	0.027	0.02	0.005	0.1	0.1	0.0002	25.2	0.01	0.01	0.01	0.03	0.001	0.02	4.07	0.049	0.00005	0.03	0.02	0.3	5	0.2	2.4	0.01	6	1.23	0.1	0.2	0.01	0.03	0.006
15-Oct-96	3	21	0.489	8	165	42.4	37.5	0.2	0.207	0.0188	0.02	0.005	0.1	0.1	0.0002	18.7	0.01	0.01	0.01	0.03	0.001	0.01	2.96	0.037	0.00005	0.03	0.02	0.3	5	0.2	2.17	0.01	3	1.08	0.1	0.3	0.01	0.03	0.006
22-Oct-96	4	28	0.455	8.12	117	36.2	22.1	0.2	0.134	0.0268	0.01	0.005	0.1	0.1	0.0002	15.2	0.01	0.01	0.01	0.03	0.001	0.01	2.23	0.026	0.00005	0.03	0.02	0.3	3	0.2	2.07	0.01	2	0.866	0.1	0.3	0.01	0.03	0.005
29-Oct-96	5	35	0.445	7.57	105	32.7	14	0.2	0.149	0.0256	0.01	0.005	0.1	0.1	0.0002	11.7	0.01	0.01	0.01	0.03	0.001	0.01	1.86	0.021	0.00005	0.03	0.02	0.3	3	0.2	1.68	0.01	2	0.697	0.1	0.3	0.01	0.03	0.005
5-Nov-96	6	42	0.462	7.8	108	36.3	13.8	0.2	0.117	0.0229	0.01	0.005	0.1	0.1	0.0002	12.5	0.01	0.01	0.01	0.03	0.001	0.01	2.02	0.019	0.00005	0.03	0.02	0.3	3	0.2	1.71	0.01	2	0.762	0.1	0.3	0.01	0.03	0.008
12-Nov-96	7	49	0.445	7.7	89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	8	56	0.459	7.56	97	32.1	12.6	0.2	0.134	0.0248	0.01	0.005	0.1	0.1	0.0002	12.4	0.01	0.01	0.01	0.03	0.001	0.01	1.96	0.017	0.00005	0.03	0.02	0.3	3	0.2	1.86	0.01	2	0.768	0.1	0.3	0.01	0.03	0.006
26-Nov-96	9	63	0.424	7.9	74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	10	70	0.444	7.84	79	27.9	9.6	0.2	0.114	0.0178	0.01	0.005	0.1	0.1	0.0002	9.31	0.01	0.01	0.01	0.03	0.001	0.01	1.49	0.013	0.00005	0.03	0.02	0.3	2	0.2	1.27	0.01	2	0.578	0.1	0.3	0.01	0.03	0.005
10-Dec-96	11	77	0.478	7.5	82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	12	84	0.477	7.7	74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	13	91	0.433	7.2	60	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	14	98	0.478	7.5	74	28.2	7.4	0.2	0.0968	0.015	0.01	0.005	0.1	0.1	0.0002	9.7	0.01	0.01	0.01	0.03	0.001	0.01	1.47	0.012	0.00005	0.03	0.02	0.3	2	0.2	1.17	0.01	2	0.586	0.1	0.3	0.01	0.03	0.005
7-Jan-97	15	105	0.446	7.6	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	16	112	0.482	7.8	58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	17	119	0.51	7.3	78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	18	126	0.5	7.82	80.9	30.5	8.8	0.2	0.123	0.0155	0.01	0.005	0.1	0.1	0.0002	10.9	0.01	0.01	0.01	0.03	0.001	0.01	1.54	0.012	0.00005	0.03	0.02	0.3	2	0.2	1.36	0.01	2	0.642	0.1	0.3	0.01	0.03	0.005
4-Feb-97	19	133	0.462	7.5	69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	20	140	0.426	7.7	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	21	147	0.434	7.6	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	22	154	0.391	7.6	56.7	19.9	5.8	0.2	0.0425	0.0127	0.01	0.005	0.1	0.1	0.0002	7.13	0.01	0.01	0.01	0.03	0.001	0.01	1.03	0.008	0.00005	0.03	0.02	0.3	2	0.2	0.91	0.01	2	0.402	0.1	0.3	0.01	0.03	0.005
4-Mar-97	23	161	0.473	7.3	69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	24	168	0.393	7.6	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	25	175	0.417	7.3	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	26	182	0.452	7.3	57	21.1	8.4	0.2	0.0584	0.01	0.01	--	0.1	--	0.0002	8	0.01	0.01	0.01	0.03	0.001	--	1.2	0.01	0.00005	0.03	0.02	0.3	2	0.2	0.95	0.01	2	0.46	0.1	0.3	--	--	0.005

DGK 2
Sample =
Sample Wt. (kg) Loadings

Date	Alkalinity mg/kg/wk	Sulphate mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk
24-Sep-96	12.096813	40.900398	0.0693227	0.0261347	0.0024263	0.0103984	0.0017331	0.0346614	0.0346614	0.000312	14.211155	0.0034661	0.0034661	0.0034661	0.0103984	0.0003466
1-Oct-96	18.130279	34.41992	0.0920319	0.0061201	0.0076847	0.0092032	0.0023008	0.0460159	0.0460159	0.0001841	14.080876	0.0046016	0.0046016	0.0046016	0.0138048	0.0004602
8-Oct-96	22.046813	29.055378	0.0928287	0.0923645	0.0125319	0.0092829	0.0023207	0.0464143	0.0464143	9.283E-05	11.696414	0.0046414	0.0046414	0.0046414	0.0139243	0.0004641
15-Oct-96	20.650996	18.264442	0.0974104	0.1008197	0.0091566	0.009741	0.0024353	0.0487052	0.0487052	9.741E-05	9.1078685	0.0048705	0.0048705	0.0048705	0.0146116	0.0004871
22-Oct-96	16.405378	10.015438	0.0906375	0.0607271	0.0121454	0.0045319	0.0022659	0.0453187	0.0453187	9.064E-05	6.8884462	0.0045319	0.0045319	0.0045319	0.0135956	0.0004532
29-Oct-96	14.493526	6.2051793	0.0886454	0.0660408	0.0113466	0.0044323	0.0022161	0.0443227	0.0443227	8.865E-05	5.185757	0.0044323	0.0044323	0.0044323	0.0132968	0.0004432
5-Nov-96	16.703785	6.3501992	0.0920319	0.0538386	0.0105376	0.0046016	0.0023008	0.0460159	0.0460159	9.203E-05	5.751992	0.0046016	0.0046016	0.0046016	0.0138048	0.0004602
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	14.675199	5.7603586	0.0914343	0.061261	0.0113378	0.0045717	0.0022859	0.0457171	0.0457171	9.143E-05	5.6689243	0.0045717	0.0045717	0.0045717	0.0137151	0.0004572
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	12.338247	4.2454183	0.0884462	0.0504143	0.0078717	0.0044223	0.0022112	0.0442231	0.0442231	8.845E-05	4.1171713	0.0044223	0.0044223	0.0044223	0.0132669	0.0004422
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	13.425896	3.5231076	0.0952191	0.0460861	0.0071414	0.004761	0.0023805	0.0476096	0.0476096	9.522E-05	4.6181275	0.004761	0.004761	0.004761	0.0142829	0.0004761
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	15.189243	4.3824701	0.0996016	0.061255	0.0077191	0.0049801	0.00249	0.0498008	0.0498008	9.96E-05	5.4282869	0.0049801	0.0049801	0.0049801	0.0149402	0.000498
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	7.7499004	2.2587649	0.0778884	0.0165513	0.0049459	0.0038944	0.0019472	0.0389442	0.0389442	7.789E-05	2.7767231	0.0038944	0.0038944	0.0038944	0.0116833	0.0003894
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	9.4992032	3.7816733	0.0900398	0.0262916	0.004502	0.004502	--	0.0450199	--	9.004E-05	3.6015936	0.004502	0.004502	0.004502	0.013506	0.0004502

Date	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	Th mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk
24-Sep-96	0.0069323	2.1212749	0.0159442	1.733E-05	0.0103984	0.0069323	0.1039841	2.0796813	0.0693227	0.3916733	0.0034661	5.8924303	0.5615139	0.0346614	0.0103984	0.0034661	0.0103984	0.0017331
1-Oct-96	0.0092032	2.0753187	0.0427948	2.301E-05	0.0138048	0.0092032	0.1380478	3.2211155	0.0920319	1.0905777	0.0046016	3.6812749	0.2770159	0.0460159	0.1380478	0.0046016	0.0138048	0.0059821
8-Oct-96	0.0092829	1.8890637	0.022743	2.321E-05	0.0139243	0.0092829	0.139243	2.3207171	0.0928287	1.1139442	0.0046414	2.7848606	0.5708964	0.0464143	0.0928287	0.0046414	0.0139243	0.0027849
15-Oct-96	0.0048705	1.4416733	0.0180209	2.435E-05	0.0146116	0.009741	0.1461155	2.435259	0.0974104	1.0569024	0.0048705	1.4611554	0.5260159	0.0487052	0.1461155	0.0048705	0.0146116	0.0029223
22-Oct-96	0.0045319	1.0106076	0.0117829	2.266E-05	0.0135956	0.0090637	0.1359562	1.3595618	0.0906375	0.9380976	0.0045319	0.9063745	0.3924602	0.0453187	0.1359562	0.0045319	0.0135956	0.0022659
29-Oct-96	0.0044323	0.8244024	0.0093078	2.216E-05	0.0132968	0.0088645	0.1329681	1.3296813	0.0886454	0.7446215	0.0044323	0.8864542	0.3089293	0.0443227	0.1329681	0.0044323	0.0132968	0.0022161
5-Nov-96	0.0046016	0.9295219	0.008743	2.301E-05	0.0138048	0.0092032	0.1380478	1.3804781	0.0920319	0.7868725	0.0046016	0.9203187	0.3506414	0.0460159	0.1380478	0.0046016	0.0138048	0.0036813
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	0.0045717	0.8960558	0.0077719	2.286E-05	0.0137151	0.0091434	0.1371514	1.3715139	0.0914343	0.8503386	0.0045717	0.9143426	0.3511076	0.0457171	0.1371514	0.0045717	0.0137151	0.002743
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	0.0044223	0.6589243	0.005749	2.211E-05	0.0132669	0.0088446	0.1326693	0.8844622	0.0884462	0.5616335	0.0044223	0.8844622	0.2556096	0.0442231	0.1326693	0.0044223	0.0132669	0.0022112
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	0.004761	0.6998606	0.0057131	2.38E-05	0.0142829	0.0095219	0.1428287	0.9521912	0.0952191	0.5570319	0.004761	0.9521912	0.278992	0.0476096	0.1428287	0.004761	0.0142829	0.0023805
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	0.0049801	0.7669323	0.0059761	2.49E-05	0.0149402	0.0099602	0.1494024	0.9960159	0.0996016	0.6772908	0.0049801	0.9960159	0.3197211	0.0498008	0.1494024	0.0049801	0.0149402	0.00249
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	0.0038944	0.4011255	0.0031155	1.947E-05	0.0116833	0.0077888	0.1168327	0.7788845	0.0778884	0.3543924	0.0038944	0.7788845	0.1565558	0.0389442	0.1168327	0.0038944	0.0116833	0.0019472
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	--	0.540239	0.004502	2.251E-05	0.013506	0.009004	0.1350598	0.9003984	0.0900398	0.4276892	0.004502	0.9003984	0.2070916	0.0450199	0.1350598	--	--	0.002251

DGK 3
Sample =
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Days	Volume (L)	pH	Conductivity (uS/cm)	Alkalinity (mg/L)	Sulphate (mg/L)	Al (mg/L)	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)
24-Sep-96	0	0	0.37	7.91	170	41.4	33	0.2	0.0066	0.0376	0.02	0.005	0.1	0.1	0.0015	20.3	0.01	0.01	0.01
1-Oct-96	1	7	0.47	7.68	240	37.6	62.4	0.2	0.0133	0.0735	0.02	0.005	0.1	0.1	0.0016	29.6	0.01	0.01	0.01
8-Oct-96	2	14	0.467	8.02	110	28.7	19.7	0.2	0.0113	0.0563	0.01	0.005	0.1	0.1	0.0002	12.7	0.01	0.01	0.01
15-Oct-96	3	21	0.464	7.79	90.9	22.7	13.9	0.2	0.007	0.0392	0.01	0.005	0.1	0.1	0.0002	10	0.01	0.01	0.01
22-Oct-96	4	28	0.457	8.02	75	25.7	11.1	0.2	0.0081	0.0654	0.01	0.005	0.1	0.1	0.0002	10.1	0.01	0.01	0.01
29-Oct-96	5	35	0.412	7.51	63	23	8.4	0.2	0.0066	0.0555	0.01	0.005	0.1	0.1	0.0002	8.42	0.01	0.01	0.01
5-Nov-96	6	42	0.455	7.56	78	20.6	12.9	0.2	0.0039	0.0389	0.01	0.005	0.1	0.1	0.0002	9.67	0.01	0.01	0.01
12-Nov-96	7	49	0.46	7.7	71	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	8	56	0.446	7.41	55	21.3	7.5	0.2	0.0043	0.0343	0.01	0.005	0.1	0.1	0.0002	7.17	0.01	0.01	0.01
26-Nov-96	9	63	0.443	7.9	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	10	70	0.425	7.64	61	18.5	9.4	0.2	0.0044	0.0389	0.01	0.005	0.1	0.1	0.0002	7.81	0.01	0.01	0.01
10-Dec-96	11	77	0.449	7.4	71	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	12	84	0.435	7.6	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	13	91	0.435	7.9	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	14	98	0.451	7.38	49	16.2	6	0.2	0.0037	0.0317	0.01	0.005	0.1	0.1	0.0002	6.58	0.01	0.01	0.01
7-Jan-97	15	105	0.461	7.5	53	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	16	112	0.469	7.6	48	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	17	119	0.484	7.3	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	18	126	0.478	7.68	53.7	18.5	5.9	0.2	0.0061	0.0345	0.01	0.005	0.1	0.1	0.0002	7.17	0.01	0.01	0.01
4-Feb-97	19	133	0.476	7.4	54	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	20	140	0.473	7.6	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	21	147	0.462	7.5	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	22	154	0.47	7.61	48.9	16.4	5.2	0.2	0.0043	0.0279	0.01	0.005	0.1	0.1	0.0002	6.17	0.01	0.01	0.01
4-Mar-97	23	161	0.435	7.5	38	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	24	168	0.478	7.4	42	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	25	175	0.447	7.1	33	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	26	182	0.448	7.2	43	13.9	6.9	0.2	0.0029	0.025	0.01	--	0.1	--	0.0002	6.1	0.01	0.01	0.01

Date	Fe (mg/L)	Pb (mg/L)	Li (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	P (mg/L)	K (mg/L)	Se (mg/L)	Si (mg/L)	Ag (mg/L)	Na (mg/L)	Sr (mg/L)	Th (mg/L)	Sn (mg/L)	Ti (mg/L)	V (mg/L)	Zn (mg/L)
24-Sep-96	0.03	0.001	0.01	1.8	0.018	0.00005	0.03	0.02	0.3	4	0.2	1.7	0.01	8	0.284	0.1	0.03	0.01	0.03	0.005
1-Oct-96	0.03	0.001	0.01	2.97	0.04	0.00005	0.03	0.02	0.3	4	0.2	2.87	0.01	9	0.426	0.1	0.3	0.01	0.03	0.007
8-Oct-96	0.03	0.001	0.01	1.21	0.014	0.00005	0.03	0.02	0.3	3	0.2	1.74	0.01	3	0.168	0.1	0.2	0.01	0.03	0.005
15-Oct-96	0.03	0.001	0.01	0.97	0.01	0.00005	0.03	0.02	0.3	3	0.2	1.44	0.01	2	0.144	0.1	0.3	0.01	0.03	0.005
22-Oct-96	0.03	0.001	0.01	0.95	0.009	0.00005	0.03	0.02	0.3	2	0.2	1.76	0.01	2	0.141	0.1	0.3	0.01	0.03	0.005
29-Oct-96	0.03	0.001	0.01	0.79	0.007	0.00005	0.03	0.02	0.3	2	0.2	1.54	0.01	2	0.118	0.1	0.3	0.01	0.03	0.005
5-Nov-96	0.03	0.001	0.01	0.85	0.008	0.00005	0.03	0.02	0.3	2	0.2	1.18	0.01	2	0.129	0.1	0.3	0.01	0.03	0.005
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	0.03	0.001	0.01	0.62	0.005	0.00005	0.03	0.02	0.3	2	0.2	0.98	0.01	2	0.097	0.1	0.3	0.01	0.03	0.005
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	0.03	0.001	0.01	0.7	0.005	0.00005	0.03	0.02	0.3	2	0.2	1.17	0.01	2	0.103	0.1	0.3	0.01	0.03	0.005
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	0.03	0.001	0.01	0.57	0.005	0.00005	0.03	0.02	0.3	2	0.2	0.87	0.01	2	0.085	0.1	0.3	0.01	0.03	0.005
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	0.03	0.001	0.01	0.61	0.005	0.00005	0.03	0.02	0.3	2	0.2	1.11	0.01	2	0.093	0.1	0.3	0.01	0.03	0.005
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	0.03	0.001	0.01	0.5	0.005	0.00005	0.03	0.02	0.3	2	0.2	0.89	0.01	2	0.077	0.1	0.3	0.01	0.03	0.005
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	0.03	0.001	--	0.5	0.005	0.00005	0.03	0.02	0.3	2	0.2	0.83	0.01	2	0.6	0.1	0.3	--	--	0.005

DGK 3
Sample =
Sample Wt. (kg) Loadings

Date	Alkalinity	Sulphate	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	Th	Sn	Ti	V	Zn
	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk
24-Sep-96	15.318	12.21	2.9267	0.002442	0.013912	0.0074	0.00185	0.037	0.037	0.000555	7.511	0.0037	0.0037	0.0037	0.0111	0.00037	0.0037	0.666	0.00666	0.0000185	0.0111	0.0074	0.111	1.48	0.074	0.629	0.0037	2.96	0.10508	0.037	0.0111	0.0037	0.0111	0.00185
1-Oct-96	17.672	29.328	0.094	0.006251	0.034545	0.0094	0.00235	0.047	0.047	0.000752	13.912	0.0047	0.0047	0.0047	0.0141	0.00047	0.0047	1.3959	0.0188	0.0000235	0.0141	0.0094	0.141	1.88	0.094	1.3489	0.0047	4.23	0.20022	0.047	0.141	0.0047	0.0141	0.00329
8-Oct-96	13.4029	9.1999	0.0934	0.0052771	0.0262921	0.00467	0.002335	0.0467	0.0467	0.0000934	5.9309	0.00467	0.00467	0.00467	0.01401	0.000467	0.00467	0.56507	0.006538	2.335E-05	0.01401	0.00934	0.1401	1.401	0.0934	0.81258	0.00467	1.401	0.078456	0.0467	0.0934	0.00467	0.01401	0.002335
15-Oct-96	10.5328	6.4496	0.0928	0.003248	0.0181888	0.00464	0.00232	0.0464	0.0464	0.0000928	4.64	0.00464	0.00464	0.00464	0.01392	0.000464	0.00464	0.45008	0.00464	0.0000232	0.01392	0.00928	0.1392	1.392	0.0928	0.66816	0.00464	0.928	0.066816	0.0464	0.1392	0.00464	0.01392	0.00232
22-Oct-96	11.7449	5.0727	0.0914	0.0037017	0.0298878	0.00457	0.002285	0.0457	0.0457	0.0000914	4.6157	0.00457	0.00457	0.00457	0.01371	0.000457	0.00457	0.43415	0.004113	2.285E-05	0.01371	0.00914	0.1371	0.914	0.0914	0.80432	0.00457	0.914	0.064437	0.0457	0.1371	0.00457	0.01371	0.002285
29-Oct-96	9.476	3.4608	0.0824	0.0027192	0.022866	0.00412	0.00206	0.0412	0.0412	0.0000824	3.46904	0.00412	0.00412	0.00412	0.01236	0.000412	0.00412	0.32548	0.002884	0.0000206	0.01236	0.00824	0.1236	0.824	0.0824	0.63448	0.00412	0.824	0.048616	0.0412	0.1236	0.00412	0.01236	0.00206
5-Nov-96	9.373	5.8695	0.091	0.0017745	0.0176995	0.00455	0.002275	0.0455	0.0455	0.000091	4.39985	0.00455	0.00455	0.00455	0.01365	0.000455	0.00455	0.38675	0.00364	2.275E-05	0.01365	0.0091	0.1365	0.91	0.091	0.5369	0.00455	0.91	0.058695	0.0455	0.1365	0.00455	0.01365	0.002275
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	9.4998	3.345	0.0892	0.0019178	0.0152978	0.00446	0.00223	0.0446	0.0446	0.0000892	3.19782	0.00446	0.00446	0.00446	0.01338	0.000446	0.00446	0.27652	0.00223	0.0000223	0.01338	0.00892	0.1338	0.892	0.0892	0.43708	0.00446	0.892	0.043262	0.0446	0.1338	0.00446	0.01338	0.00223
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	7.8625	3.995	0.085	0.00187	0.0165325	0.00425	0.002125	0.0425	0.0425	0.000085	3.31925	0.00425	0.00425	0.00425	0.01275	0.000425	0.00425	0.2975	0.002125	2.125E-05	0.01275	0.0085	0.1275	0.85	0.085	0.49725	0.00425	0.85	0.043775	0.0425	0.1275	0.00425	0.01275	0.002125
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	7.3062	2.706	0.0902	0.0016687	0.0142967	0.00451	0.002255	0.0451	0.0451	0.0000902	2.96758	0.00451	0.00451	0.00451	0.01353	0.000451	0.00451	0.25707	0.002255	2.255E-05	0.01353	0.00902	0.1353	0.902	0.0902	0.39237	0.00451	0.902	0.038335	0.0451	0.1353	0.00451	0.01353	0.002255
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	8.843	2.8202	0.0956	0.0029158	0.016491	0.00478	0.00239	0.0478	0.0478	0.0000956	3.42726	0.00478	0.00478	0.00478	0.01434	0.000478	0.00478	0.29158	0.00239	0.0000239	0.01434	0.00956	0.1434	0.956	0.0956	0.53058	0.00478	0.956	0.044454	0.0478	0.1434	0.00478	0.01434	0.00239
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	7.708	2.444	0.094	0.002021	0.013113	0.0047	0.00235	0.047	0.047	0.000094	2.8999	0.0047	0.0047	0.0047	0.0141	0.00047	0.0047	0.235	0.00235	0.0000235	0.0141	0.0094	0.141	0.94	0.094	0.4183	0.0047	0.94	0.03619	0.047	0.141	0.0047	0.0141	0.00235
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	6.2272	3.0912	0.0896	0.0012992	0.0112	0.00448	--	0.0448	--	0.0000896	2.7328	0.00448	0.00448	0.00448	0.01344	0.000448	--	0.224	0.00224	0.0000224	0.01344	0.00896	0.1344	0.896	0.0896	0.37184	0.00448	0.896	0.2688	0.0448	0.1344	--	--	0.00224

DGK 4
Sample =
Sample Wt. (kg) 1.00

Date	Cycle	Days	Volume (L)	pH	Conductivity (uS/cm)	Concentrations Alkalinity (mg/L)	Sulphate (mg/L)	Al (mg/L)	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Li (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	P (mg/L)	K (mg/L)	Se (mg/L)	Si (mg/L)	Ag (mg/L)	Na (mg/L)	Sr (mg/L)	Th (mg/L)	Sn (mg/L)	Ti (mg/L)	V (mg/L)	Zn (mg/L)
24-Sep-96	0	0	0.5	7.84	306	43.3	85.2	0.2	0.125	0.0532	0.03	0.005	0.1	0.1	0.0024	21.3	0.01	0.01	0.01	0.03	0.001	0.02	3.81	0.021	0.00005	0.03	0.02	0.3	6	0.2	0.94	0.01	34	1.22	0.1	0.03	0.01	0.03	0.005
1-Oct-96	1	7	0.466	8	525	69.6	170	0.2	0.31	0.131	0.04	0.005	0.1	0.1	0.0008	35.1	0.01	0.01	0.01	0.03	0.001	0.03	7.41	0.034	0.00005	0.03	0.02	0.3	7	0.2	2.4	0.01	59	2.12	0.1	0.3	0.01	0.03	0.006
8-Oct-96	2	14	0.465	8.28	190	57.4	38.5	0.2	0.27	0.0825	0.02	0.005	0.1	0.1	0.0002	12.4	0.01	0.01	0.01	0.03	0.001	0.01	2.7	0.013	0.00005	0.03	0.02	0.3	4	0.2	1.58	0.01	17	0.714	0.1	0.2	0.01	0.03	0.006
15-Oct-96	3	21	0.465	8.12	137	43.6	24.2	0.2	0.273	0.0451	0.02	0.005	0.1	0.1	0.0002	11.5	0.01	0.01	0.01	0.03	0.001	0.01	2.56	0.012	0.00005	0.03	0.02	0.3	3	0.2	1.16	0.01	8	0.684	0.1	0.3	0.01	0.03	0.005
22-Oct-96	4	28	0.451	8.4	104	25.3	16.1	0.2	0.104	0.0338	0.01	0.005	0.1	0.1	0.0002	8.54	0.01	0.01	0.01	0.03	0.001	0.01	1.86	0.008	0.00005	0.03	0.02	0.3	2	0.2	0.72	0.01	4	0.504	0.1	0.3	0.01	0.03	0.005
29-Oct-96	5	35	0.411	7.7	73	20.2	11.1	0.2	0.0698	0.0154	0.01	0.005	0.1	0.1	0.0002	7.69	0.01	0.01	0.01	0.03	0.001	0.01	1.54	0.025	0.00005	0.03	0.02	0.3	2	0.2	0.58	0.01	3	0.394	0.1	0.3	0.01	0.03	0.005
5-Nov-96	6	42	0.441	7.62	96	23.8	16.6	0.2	0.0818	0.0202	0.01	0.005	0.1	0.1	0.0002	8.99	0.01	0.01	0.01	0.03	0.001	0.01	2.12	0.01	0.00005	0.03	0.02	0.3	2	0.2	0.67	0.01	3	0.538	0.1	0.3	0.01	0.03	0.006
12-Nov-96	7	49	0.427	7.9	87	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	8	56	0.445	7.47	84	23.1	14.5	0.2	0.101	0.021	0.01	0.005	0.1	0.1	0.0002	8.77	0.01	0.01	0.01	0.03	0.001	0.01	2.16	0.01	0.00005	0.03	0.02	0.3	2	0.2	0.65	0.01	2	0.521	0.1	0.3	0.01	0.03	0.005
26-Nov-96	9	63	0.396	8.1	49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	10	70	0.45	7.6	68	15.2	15.6	0.2	0.0751	0.0104	0.01	0.005	0.1	0.1	0.0002	6.98	0.01	0.01	0.01	0.03	0.001	0.01	1.71	0.008	0.00005	0.03	0.02	0.3	2	0.2	0.35	0.01	2	0.4	0.1	0.3	0.01	0.03	0.005
10-Dec-96	11	77	0.467	7.6	79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	12	84	0.449	7.7	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	13	91	0.423	7.9	56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	14	98	0.411	7.39	57	15.1	9.8	0.2	0.0563	0.0118	0.01	0.005	0.1	0.1	0.0002	6.29	0.01	0.01	0.01	0.03	0.001	0.01	1.59	0.009	0.00005	0.03	0.02	0.3	2	0.2	0.4	0.01	2	0.357	0.1	0.3	0.01	0.03	0.005
7-Jan-97	15	105	0.434	7.5	57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	16	112	0.404	7.9	43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	17	119	0.467	7.3	64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	18	126	0.456	7.51	69.5	17.1	14.3	0.2	0.0851	0.0101	0.01	0.005	0.1	0.1	0.0002	7.5	0.01	0.01	0.01	0.03	0.001	0.01	2.11	0.009	0.00005	0.03	0.02	0.3	2	0.2	0.39	0.01	2	0.431	0.1	0.3	0.01	0.03	0.005
4-Feb-97	19	133	0.463	7.5	81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	20	140	0.458	7.6	74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	21	147	0.443	7.4	61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	22	154	0.493	7.97	77.6	24.3	11.2	0.2	0.0855	0.0077	0.01	0.005	0.1	0.1	0.0002	8.35	0.01	0.01	0.01	0.03	0.001	0.01	2.48	0.008	0.00005	0.03	0.02	0.3	2	0.2	0.38	0.01	2	0.447	0.1	0.3	0.01	0.03	0.005
4-Mar-97	23	161	0.434	7.4	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	24	168	0.441	7.5	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	25	175	0.452	7.1	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	26	182	0.455	7.4	55	17.3	10.3	0.2	0.0582	0.006	0.01	--	0.1	--	0.0002	6.6	0.01	0.01	0.01	0.03	0.001	--	2	0.01	0.00005	0.03	0.02	0.3	2	0.2	0.31	0.01	2	0.36	0.1	0.3	--	--	0.005

DGK 4
Sample =
Sample Wt. (kg) Loadings

Date	Alkalinity	Sulphate	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li
	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk
24-Sep-96	21.585244	42.472582	0.0997009	0.0623131	0.0265204	0.0149551	0.0024925	0.0498504	0.0498504	0.0011964	10.618146	0.004985	0.004985	0.004985	0.0149551	0.0004985	0.0099701
1-Oct-96	32.33659	78.983051	0.0929212	0.1440279	0.0608634	0.0185842	0.002323	0.0464606	0.0464606	0.0003717	16.307677	0.0046461	0.0046461	0.0046461	0.0139382	0.0004646	0.0139382
8-Oct-96	26.611167	17.848953	0.0927218	0.1251745	0.0382478	0.0092722	0.002318	0.0463609	0.0463609	9.272E-05	5.7487537	0.0046361	0.0046361	0.0046361	0.0139083	0.0004636	0.0046361
15-Oct-96	20.21336	11.219342	0.0927218	0.1265653	0.0209088	0.0092722	0.002318	0.0463609	0.0463609	9.272E-05	5.3315055	0.0046361	0.0046361	0.0046361	0.0139083	0.0004636	0.0046361
22-Oct-96	11.376171	7.2393819	0.0899302	0.0467637	0.0151982	0.0044965	0.0022483	0.0449651	0.0449651	8.993E-05	3.8400199	0.0044965	0.0044965	0.0044965	0.0134895	0.0004497	0.0044965
29-Oct-96	8.2773679	4.5484546	0.0819541	0.028602	0.0063105	0.0040977	0.0020489	0.0409771	0.0409771	8.195E-05	3.1511366	0.0040977	0.0040977	0.0040977	0.0122931	0.0004098	0.0040977
5-Nov-96	10.464407	7.2987039	0.0879362	0.0359659	0.0088816	0.0043968	0.0021984	0.0439681	0.0439681	8.794E-05	3.9527318	0.0043968	0.0043968	0.0043968	0.0131904	0.0004397	0.0043968
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	10.248754	6.4332004	0.0887338	0.0448106	0.009317	0.0044367	0.0022183	0.0443669	0.0443669	8.873E-05	3.8909771	0.0044367	0.0044367	0.0044367	0.0133101	0.0004437	0.0044367
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	6.8195414	6.999003	0.0897308	0.0336939	0.004666	0.0044865	0.0022433	0.0448654	0.0448654	8.973E-05	3.1316052	0.0044865	0.0044865	0.0044865	0.0134596	0.0004487	0.0044865
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	6.1875374	4.0157527	0.0819541	0.0230701	0.0048353	0.0040977	0.0020489	0.0409771	0.0409771	8.195E-05	2.5774576	0.0040977	0.0040977	0.0040977	0.0122931	0.0004098	0.0040977
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	7.7742772	6.5012961	0.0909272	0.0386895	0.0045918	0.0045464	0.0022732	0.0454636	0.0454636	9.093E-05	3.4097707	0.0045464	0.0045464	0.0045464	0.0136391	0.0004546	0.0045464
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	11.944068	5.5050847	0.0983051	0.0420254	0.0037847	0.0049153	0.0024576	0.0491525	0.0491525	9.831E-05	4.1042373	0.0049153	0.0049153	0.0049153	0.0147458	0.0004915	0.0049153
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	7.8479561	4.6724826	0.0907278	0.0264018	0.0027218	0.0045364	--	0.0453639	--	9.073E-05	2.9940179	0.0045364	0.0045364	0.0045364	0.0136092	0.0004536	--

Date	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	Th	Sn	Ti	V	Zn
	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk
24-Sep-96	1.8993021	0.0104686	2.493E-05	0.0149551	0.0099701	0.1495513	2.9910269	0.0997009	0.4685942	0.004985	16.949153	0.6081755	0.0498504	0.0149551	0.004985	0.0149551	0.0024925
1-Oct-96	3.4427318	0.0157966	2.323E-05	0.0139382	0.0092921	0.1393819	3.2522433	0.0929212	1.1150548	0.0046461	27.411765	0.9849651	0.0464606	0.1393819	0.0046461	0.0139382	0.0027876
8-Oct-96	1.2517448	0.0060269	2.318E-05	0.0139083	0.0092722	0.1390828	1.8544367	0.0927218	0.7325025	0.0046361	7.8813559	0.3310169	0.0463609	0.0927218	0.0046361	0.0139083	0.0027817
15-Oct-96	1.1868395	0.0055633	2.318E-05	0.0139083	0.0092722	0.1390828	1.3908275	0.0927218	0.5377866	0.0046361	3.7088734	0.3171087	0.0463609	0.1390828	0.0046361	0.0139083	0.002318
22-Oct-96	0.8363509	0.0035972	2.248E-05	0.0134895	0.008993	0.1348953	0.8993021	0.0899302	0.3237488	0.0044965	1.7986042	0.2266241	0.0449651	0.1348953	0.0044965	0.0134895	0.0022483
29-Oct-96	0.6310469	0.0102443	2.049E-05	0.0122931	0.0081954	0.1229312	0.8195414	0.0819541	0.237667	0.0040977	1.2293121	0.1614497	0.0409771	0.1229312	0.0040977	0.0122931	0.0020489
5-Nov-96	0.9321236	0.0043968	2.198E-05	0.0131904	0.0087936	0.1319043	0.8793619	0.0879362	0.2945862	0.0043968	1.3190429	0.2365484	0.0439681	0.1319043	0.0043968	0.0131904	0.0026381
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	0.958325	0.0044367	2.218E-05	0.0133101	0.0088734	0.1331007	0.887338	0.0887338	0.2883848	0.0044367	0.887338	0.2311515	0.0443669	0.1331007	0.0044367	0.0133101	0.0022183
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	0.7671984	0.0035892	2.243E-05	0.0134596	0.0089731	0.1345962	0.8973081	0.0897308	0.1570289	0.0044865	0.8973081	0.1794616	0.0448654	0.1345962	0.0044865	0.0134596	0.0022433
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	0.6515354	0.0036879	2.049E-05	0.0122931	0.0081954	0.1229312	0.8195414	0.0819541	0.1639083	0.0040977	0.8195414	0.1462881	0.0409771	0.1229312	0.0040977	0.0122931	0.0020489
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	0.9592822	0.0040917	2.273E-05	0.0136391	0.0090927	0.1363908	0.9092722	0.0909272	0.1773081	0.0045464	0.9092722	0.1959482	0.0454636	0.1363908	0.0045464	0.0136391	0.0022732
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	1.2189831	0.0039322	2.458E-05	0.0147458	0.0098305	0.1474576	0.9830508	0.0983051	0.1867797	0.0049153	0.9830508	0.2197119	0.0491525	0.1474576	0.0049153	0.0147458	0.0024576
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	0.9072782	0.0045364	2.268E-05	0.0136092	0.0090728	0.1360917	0.9072782	0.0907278	0.1406281	0.0045364	0.9072782	0.1633101	0.0453639	0.1360917	--	--	0.0022682

DGK 5
Sample =
Sample Wt. (kg) 1.00

Date	Cycle	Days	Volume (L)	pH	Conductivity (uS/cm)	Alkalinity (mg/L)	Sulphate (mg/L)	Al (mg/L)	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)
						Concentrations											
24-Sep-96	0	0	0.337	7.98	302	44.5	84.9	0.2	0.126	0.0562	0.03	0.005	0.1	0.1	0.0018	20.4	0.01
1-Oct-96	1	7	0.463	8	865	98.9	315	0.2	0.527	0.0819	0.05	0.005	0.1	0.1	0.0003	61.4	0.01
8-Oct-96	2	14	0.472	8.19	194	59.8	39.3	0.2	0.275	0.0788	0.02	0.005	0.1	0.1	0.0002	13.4	0.01
15-Oct-96	3	21	0.459	8.08	148	45.4	25.6	0.2	0.228	0.0519	0.02	0.005	0.1	0.1	0.0002	12.2	0.01
22-Oct-96	4	28	0.448	8.2	255	30.3	18.5	0.2	0.175	0.0485	0.02	0.005	0.1	0.1	0.0002	10.3	0.01
29-Oct-96	5	35	0.431	7.88	90	25.7	12.7	0.2	0.0989	0.0296	0.01	0.005	0.1	0.1	0.0002	9.08	0.01
5-Nov-96	6	42	0.436	7.8	86	24.6	13.2	0.2	0.0834	0.0304	0.01	0.005	0.1	0.1	0.0002	8.08	0.01
12-Nov-96	7	49	0.465	7.7	94	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	8	56	0.459	7.51	82	22.7	13.4	0.2	0.106	0.0173	0.01	0.005	0.1	0.1	0.0002	9.05	0.01
26-Nov-96	9	63	0.447	7.9	69	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	10	70	0.458	8.03	80	23.9	13.8	0.2	0.112	0.0211	0.01	0.005	0.1	0.1	0.0002	8.47	0.01
10-Dec-96	11	77	0.453	7.6	80	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	12	84	0.452	7.7	70	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	13	91	0.471	7.7	63	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	14	98	0.487	7.67	66	22.1	8.3	0.2	0.0833	0.0087	0.01	0.005	0.1	0.1	0.0002	7.77	0.01
7-Jan-97	15	105	0.484	7.5	62	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	16	112	0.475	7.7	67	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	17	119	0.481	7.5	67	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	18	126	0.451	7.66	65.5	20	9.8	0.2	0.0742	0.0108	0.01	0.005	0.1	0.1	0.0002	7.35	0.01
4-Feb-97	19	133	0.451	7.6	70	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	20	140	0.472	7.6	74	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	21	147	0.45	7.5	66	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	22	154	0.455	7.95	78	21.6	13.1	0.2	0.0875	0.0075	0.01	0.005	0.1	0.1	0.0002	8.27	0.01
4-Mar-97	23	161	0.445	7.5	51	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	24	168	0.45	7.6	52	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	25	175	0.452	7.3	51	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	26	182	0.468	7.5	58	19.7	10.2	0.2	0.0593	0.005	0.01	--	0.1	0.1	0.0002	7.2	0.01

Date	Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Li (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	P (mg/L)	K (mg/L)	Se (mg/L)	Si (mg/L)	Ag (mg/L)	Na (mg/L)	Sr (mg/L)	Th (mg/L)	Sn (mg/L)	Ti (mg/L)	V (mg/L)	Zn (mg/L)
24-Sep-96	0.01	0.01	0.03	0.001	0.02	3.64	0.021	0.00005	0.03	0.02	0.3	6	0.2	0.92	0.01	35	1.15	0.1	0.03	0.01	0.03	0.005
1-Oct-96	0.01	0.01	0.03	0.001	0.04	13.4	0.078	0.00005	0.04	0.02	0.3	12	0.2	3.15	0.01	98	3.8	0.1	0.3	0.01	0.03	0.018
8-Oct-96	0.01	0.01	0.03	0.001	0.01	2.9	0.013	0.00005	0.03	0.02	0.3	4	0.2	1.64	0.01	17	0.774	0.1	0.03	0.01	0.03	0.008
15-Oct-96	0.01	0.01	0.03	0.001	0.01	2.79	0.013	0.00005	0.03	0.02	0.3	4	0.2	1.28	0.01	9	0.74	0.1	0.3	0.01	0.03	0.006
22-Oct-96	0.01	0.01	0.03	0.001	0.01	2.37	0.011	0.00005	0.03	0.02	0.3	3	0.2	1	0.01	5	0.628	0.1	0.3	0.01	0.03	0.005
29-Oct-96	0.01	0.01	0.03	0.001	0.01	2.06	0.02	0.00005	0.03	0.02	0.3	3	0.2	0.82	0.01	3	0.509	0.1	0.3	0.01	0.03	0.005
5-Nov-96	0.01	0.01	0.03	0.001	0.01	2.01	0.008	0.00005	0.03	0.02	0.3	2	0.2	0.64	0.01	2	0.501	0.1	0.3	0.01	0.03	0.005
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	0.01	0.01	0.03	0.001	0.01	2.2	0.012	0.00005	0.03	0.02	0.3	2	0.2	0.66	0.01	2	0.531	0.1	0.3	0.01	0.03	0.005
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	0.01	0.01	0.03	0.001	0.01	2.22	0.008	0.00005	0.03	0.02	0.3	2	0.2	0.57	0.01	2	0.505	0.1	0.3	0.01	0.03	0.005
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	0.01	0.01	0.03	0.001	0.01	1.94	0.013	0.00005	0.03	0.02	0.3	2	0.2	0.39	0.01	2	0.417	0.1	0.3	0.01	0.03	0.006
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	0.01	0.01	0.03	0.001	0.01	2.02	0.008	0.00005	0.03	0.02	0.3	2	0.2	0.4	0.01	2	0.422	0.1	0.3	0.01	0.03	0.005
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	0.01	0.01	0.03	0.001	0.01	2.41	0.01	0.00005	0.03	0.02	0.3	2	0.2	0.44	0.01	2	0.448	0.1	0.3	0.01	0.03	0.005
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	0.01	0.01	0.03	0.001	--	2.4	0.01	0.00005	0.03	0.02	0.3	2	0.2	0.32	0.01	2	0.39	0.1	0.3	--	--	0.005

DGK 5
Sample =
Sample Wt. (kg) Loadings

Date	Alkalinity	Sulphate	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr	Co	Cu	Fe	Pb
	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk
24-Sep-96	14.9965	28.6113	0.0674	0.042462	0.0189394	0.01011	0.001685	0.0337	0.0337	0.0006066	6.8748	0.00337	0.00337	0.00337	0.01011	0.000337
1-Oct-96	45.7907	145.845	0.0926	0.244001	0.0379197	0.02315	0.002315	0.0463	0.0463	0.0001389	28.4282	0.00463	0.00463	0.00463	0.01389	0.000463
8-Oct-96	28.2256	18.5496	0.0944	0.1298	0.0371936	0.00944	0.00236	0.0472	0.0472	0.0000944	6.3248	0.00472	0.00472	0.00472	0.01416	0.000472
15-Oct-96	20.8386	11.7504	0.0918	0.104652	0.0238221	0.00918	0.002295	0.0459	0.0459	0.0000918	5.5998	0.00459	0.00459	0.00459	0.01377	0.000459
22-Oct-96	13.5744	8.288	0.0896	0.0784	0.021728	0.00896	0.00224	0.0448	0.0448	0.0000896	4.6144	0.00448	0.00448	0.00448	0.01344	0.000448
29-Oct-96	11.0767	5.4737	0.0862	0.0426259	0.0127576	0.00431	0.002155	0.0431	0.0431	0.0000862	3.91348	0.00431	0.00431	0.00431	0.01293	0.000431
5-Nov-96	10.7256	5.7552	0.0872	0.0363624	0.0132544	0.00436	0.00218	0.0436	0.0436	0.0000872	3.52288	0.00436	0.00436	0.00436	0.01308	0.000436
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	10.4193	6.1506	0.0918	0.048654	0.0079407	0.00459	0.002295	0.0459	0.0459	0.0000918	4.15395	0.00459	0.00459	0.00459	0.01377	0.000459
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	10.9462	6.3204	0.0916	0.051296	0.0096638	0.00458	0.00229	0.0458	0.0458	0.0000916	3.87926	0.00458	0.00458	0.00458	0.01374	0.000458
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	10.7627	4.0421	0.0974	0.0405671	0.0042369	0.00487	0.002435	0.0487	0.0487	0.0000974	3.78399	0.00487	0.00487	0.00487	0.01461	0.000487
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	9.02	4.4198	0.0902	0.0334642	0.0048708	0.00451	0.002255	0.0451	0.0451	0.0000902	3.31485	0.00451	0.00451	0.00451	0.01353	0.000451
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	9.828	5.9605	0.091	0.0398125	0.0034125	0.00455	0.002275	0.0455	0.0455	0.000091	3.76285	0.00455	0.00455	0.00455	0.01365	0.000455
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	9.2196	4.7736	0.0936	0.0277524	0.00234	0.00468	--	0.0468	0.0468	0.0000936	3.3696	0.00468	0.00468	0.00468	0.01404	0.000468

Date	Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	Th	Sn	Ti	V	Zn
	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk	mg/kg/wk
24-Sep-96	0.00674	1.22668	0.007077	1.685E-05	0.01011	0.00674	0.1011	2.022	0.0674	0.31004	0.00337	11.795	0.38755	0.0337	0.01011	0.00337	0.01011	0.001685
1-Oct-96	0.01852	6.2042	0.036114	2.315E-05	0.01852	0.00926	0.1389	5.556	0.0926	1.45845	0.00463	45.374	1.7594	0.0463	0.1389	0.00463	0.01389	0.008334
8-Oct-96	0.00472	1.3688	0.006136	0.0000236	0.01416	0.00944	0.1416	1.888	0.0944	0.77408	0.00472	8.024	0.365328	0.0472	0.01416	0.00472	0.01416	0.003776
15-Oct-96	0.00459	1.28061	0.005967	2.295E-05	0.01377	0.00918	0.1377	1.836	0.0918	0.58752	0.00459	4.131	0.33966	0.0459	0.1377	0.00459	0.01377	0.002754
22-Oct-96	0.00448	1.06176	0.004928	0.0000224	0.01344	0.00896	0.1344	1.344	0.0896	0.448	0.00448	2.24	0.281344	0.0448	0.1344	0.00448	0.01344	0.00224
29-Oct-96	0.00431	0.88786	0.00862	2.155E-05	0.01293	0.00862	0.1293	1.293	0.0862	0.35342	0.00431	1.293	0.219379	0.0431	0.1293	0.00431	0.01293	0.002155
5-Nov-96	0.00436	0.87636	0.003488	0.0000218	0.01308	0.00872	0.1308	0.872	0.0872	0.27904	0.00436	0.872	0.218436	0.0436	0.1308	0.00436	0.01308	0.00218
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	0.00459	1.0098	0.005508	2.295E-05	0.01377	0.00918	0.1377	0.918	0.0918	0.30294	0.00459	0.918	0.243729	0.0459	0.1377	0.00459	0.01377	0.002295
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	0.00458	1.01676	0.003664	0.0000229	0.01374	0.00916	0.1374	0.916	0.0916	0.26106	0.00458	0.916	0.23129	0.0458	0.1374	0.00458	0.01374	0.00229
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	0.00487	0.94478	0.006331	2.435E-05	0.01461	0.00974	0.1461	0.974	0.0974	0.18993	0.00487	0.974	0.203079	0.0487	0.1461	0.00487	0.01461	0.002922
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	0.00451	0.91102	0.003608	2.255E-05	0.01353	0.00902	0.1353	0.902	0.0902	0.1804	0.00451	0.902	0.190322	0.0451	0.1353	0.00451	0.01353	0.002255
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	0.00455	1.09655	0.00455	2.275E-05	0.01365	0.0091	0.1365	0.91	0.091	0.2002	0.00455	0.91	0.20384	0.0455	0.1365	0.00455	0.01365	0.002275
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	--	1.1232	0.00468	0.0000234	0.01404	0.00936	0.1404	0.936	0.0936	0.14976	0.00468	0.936	0.18252	0.0468	0.1404	--	--	0.00234

DGK 6
Sample =
Sample Wt. (kg) 3.02

Concentrations

Date	Cycle	Days	Volume (L)	pH	Conductivity (uS/cm)	Alkalinity (mg/L)	Sulphate (mg/L)	Al (mg/L)	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Li (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	P (mg/L)	K (mg/L)	Se (mg/L)	Si (mg/L)	Ag (mg/L)	Na (mg/L)	Sr (mg/L)	Th (mg/L)	Sn (mg/L)	Ti (mg/L)	V (mg/L)	Zn (mg/L)
24-Sep-96	0	0	1.198	7.8	420	64	119	0.2	0.184	0.0696	0.03	0.005	0.1	0.1	0.0005	28.7	0.01	0.01	0.01	0.04	0.001	0.02	5.4	0.022	0.00005	0.03	0.02	0.3	7	0.2	1.28	0.01	50	1.71	0.1	0.03	0.01	0.03	0.005
1-Oct-96	1	7	0.784	8.09	478	69.5	149	0.2	0.287	0.111	0.03	0.005	0.1	0.1	0.0012	32	0.01	0.01	0.01	0.03	0.001	0.03	6.9	0.033	0.00005	0.03	0.02	0.3	6	0.2	2.31	0.01	54	2	0.1	0.3	0.01	0.03	0.007
8-Oct-96	2	14	0.445	8	413	86.3	111	0.2	0.494	0.0981	0.04	0.005	0.1	0.1	0.0002	27.3	0.01	0.01	0.01	0.03	0.001	0.03	6.03	0.028	0.00005	0.03	0.02	0.3	8	0.2	2.61	0.01	48	1.63	0.1	0.2	0.01	0.03	0.01
15-Oct-96	3	21	0.439	8.01	339	79.5	83.2	0.2	0.413	0.0672	0.03	0.005	0.1	0.1	0.0002	22.6	0.01	0.01	0.01	0.03	0.001	0.02	5.38	0.024	0.00005	0.03	0.02	0.3	8	0.2	2.18	0.01	30	1.44	0.1	0.3	0.01	0.03	0.009
22-Oct-96	4	28	0.472	8.18	256	68.7	64	0.2	0.43	0.0734	0.03	0.005	0.1	0.1	0.0002	22.5	0.01	0.01	0.01	0.03	0.001	0.02	5.26	0.024	0.00005	0.03	0.02	0.3	6	0.2	2.13	0.01	20	1.41	0.1	0.3	0.01	0.03	0.009
29-Oct-96	5	35	0.468	7.95	253	62.4	56.6	0.2	0.412	0.0644	0.03	0.005	0.1	0.1	0.0002	23.6	0.01	0.01	0.01	0.03	0.001	0.02	5.71	0.024	0.00005	0.03	0.02	0.3	7	0.2	2.02	0.01	14	1.46	0.1	0.3	0.01	0.03	0.006
5-Nov-96	6	42	0.452	8.09	256	73	50.2	0.2	0.426	0.0525	0.03	0.005	0.1	0.1	0.0002	26.7	0.01	0.01	0.01	0.03	0.001	0.02	6.5	0.025	0.00005	0.03	0.02	0.3	6	0.2	2.02	0.01	10	1.65	0.1	0.3	0.01	0.03	0.045
12-Nov-96	7	49	0.47	7.6	222	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	8	56	0.42	7.6	199	47.2	41.4	0.2	0.344	0.0418	0.03	0.005	0.1	0.1	0.0002	20.8	0.01	0.01	0.01	0.03	0.001	0.01	5.3	0.018	0.00005	0.03	0.02	0.3	5	0.2	1.45	0.01	5	1.29	0.1	0.3	0.01	0.03	0.01
26-Nov-96	9	63	0.425	7.7	178	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	10	70	0.368	7.97	184	44.2	47.6	0.2	0.278	0.0392	0.02	0.005	0.1	0.1	0.0002	19.2	0.01	0.01	0.01	0.03	0.001	0.01	5.23	0.016	0.00005	0.03	0.02	0.3	5	0.2	1.19	0.01	3	1.21	0.1	0.3	0.01	0.03	0.006
10-Dec-96	11	77	0.422	7.5	181	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	12	84	0.41	7.7	166	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	13	91	0.4	7.4	145	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	14	98	0.461	7.91	175	50.1	35	0.2	0.342	0.0314	0.02	0.005	0.1	0.1	0.0002	19.7	0.01	0.01	0.01	0.03	0.001	0.01	5.59	0.012	0.00005	0.03	0.02	0.3	4	0.2	1.14	0.01	2	1.22	0.1	0.3	0.01	0.03	0.005
7-Jan-97	15	105	0.421	7.6	152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	16	112	0.436	7.7	158	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	17	119	0.453	7.5	159	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	18	126	0.449	7.88	174	48.3	35.1	0.2	0.269	0.0246	0.02	0.005	0.1	0.1	0.0002	19.9	0.01	0.01	0.01	0.03	0.001	0.01	5.81	0.013	0.00005	0.03	0.02	0.3	4	0.2	1.07	0.01	2	1.22	0.1	0.3	0.01	0.03	0.005
4-Feb-97	19	133	0.414	7.7	181	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	20	140	0.399	7.6	178	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	21	147	0.43	7.6	176	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	22	154	0.473	7.98	178	54.1	30.6	0.2	0.253	0.0175	0.02	0.005	0.1	0.1	0.0002	18.9	0.01	0.01	0.01	0.03	0.001	0.01	5.82	0.011	0.00005	0.03	0.02	0.3	3	0.2	0.97	0.01	2	1.07	0.1	0.3	0.01	0.03	0.01
4-Mar-97	23	161	0.516	7.5	160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	24	168	0.511	7.6	159	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	25	175	0.361	7.5	135	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	26	182	0.436	7.5	160	53.7	34.6	0.2	--	0.013	0.02	--	0.1	--	0.0002	19.4	0.01	0.01	0.01	0.03	0.001	--	6.6	0.01	0.00005	0.03	0.02	0.3	3	0.2	0.9	0.01	2	1.13	0.1	0.3	--	--	0.01

DGK 6
Sample =
Sample Wt. (kg) Loadings

Date	Alkalinity mg/kg/wk	Sulphate mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk
24-Sep-96	25.362885	47.159113	0.079259	0.0729183	0.0275821	0.0118889	0.0019815	0.0396295	0.0396295	0.0001981	11.373669	0.003963	0.003963	0.003963	0.0158518	0.0003963	0.0079259
1-Oct-96	18.024479	38.642408	0.051869	0.074432	0.0287873	0.0077804	0.0012967	0.0259345	0.0259345	0.0003112	8.2990407	0.0025935	0.0025935	0.0025935	0.0077804	0.0002593	0.0077804
8-Oct-96	12.703771	16.339729	0.029441	0.0727192	0.0144408	0.0058882	0.000736	0.0147205	0.0147205	2.944E-05	4.01869	0.001472	0.001472	0.001472	0.0044161	0.0001472	0.0044161
15-Oct-96	11.544988	12.082302	0.029044	0.0599759	0.0097588	0.0043566	0.0007261	0.014522	0.014522	2.904E-05	3.2819716	0.0014522	0.0014522	0.0014522	0.0043566	0.0001452	0.0029044
22-Oct-96	10.726563	9.9927225	0.0312273	0.0671386	0.0114604	0.0046841	0.0007807	0.0156136	0.0156136	3.123E-05	3.5130665	0.0015614	0.0015614	0.0015614	0.0046841	0.0001561	0.0031227
29-Oct-96	9.6603374	8.7624214	0.0309626	0.063783	0.00997	0.0046444	0.0007741	0.0154813	0.0154813	3.096E-05	3.6535891	0.0015481	0.0015481	0.0015481	0.0046444	0.0001548	0.0030963
5-Nov-96	10.914985	7.5059213	0.0299041	0.0636957	0.0078498	0.0044856	0.0007476	0.014952	0.014952	2.99E-05	3.9921932	0.0014952	0.0014952	0.0014952	0.0044856	0.0001495	0.0029904
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	6.5577241	5.7519021	0.027787	0.0477936	0.0058075	0.004168	0.0006947	0.0138935	0.0138935	2.779E-05	2.8898445	0.0013893	0.0013893	0.0013893	0.004168	0.0001389	0.0013893
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	5.3806153	5.7945088	0.0243467	0.0338419	0.0047719	0.0024347	0.0006087	0.0121733	0.0121733	2.435E-05	2.3372808	0.0012173	0.0012173	0.0012173	0.003652	0.0001217	0.0012173
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	7.6401257	5.3374132	0.0304995	0.0521542	0.0047884	0.00305	0.0007625	0.0152498	0.0152498	3.05E-05	3.0042011	0.001525	0.001525	0.001525	0.0045749	0.0001525	0.001525
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	7.1739001	5.2133311	0.0297056	0.039954	0.0036538	0.0029706	0.0007426	0.0148528	0.0148528	2.971E-05	2.9557063	0.0014853	0.0014853	0.0014853	0.0044558	0.0001485	0.0014853
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	8.4648693	4.7878928	0.0312934	0.0395862	0.0027382	0.0031293	0.0007823	0.0156467	0.0156467	3.129E-05	2.9572279	0.0015647	0.0015647	0.0015647	0.004694	0.0001565	0.0015647
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	7.7450215	4.9902746	0.0288455	--	0.001875	0.0028846	--	0.0144228	--	2.885E-05	2.7980152	0.0014423	0.0014423	0.0014423	0.0043268	0.0001442	--

Date	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	Th mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk
24-Sep-96	2.1399934	0.0087185	1.981E-05	0.0118889	0.0079259	0.1188885	2.7740655	0.079259	0.5072577	0.003963	19.814754	0.6776646	0.0396295	0.0118889	0.003963	0.0118889	0.0019815
1-Oct-96	1.7894806	0.0085584	1.297E-05	0.0077804	0.0051869	0.0778035	1.5560701	0.051869	0.599087	0.0025935	14.004631	0.51869	0.0259345	0.0778035	0.0025935	0.0077804	0.0018154
8-Oct-96	0.8876447	0.0041217	7.36E-06	0.0044161	0.0029441	0.0441614	1.1776381	0.029441	0.3842044	0.001472	7.0658286	0.2399438	0.0147205	0.029441	0.001472	0.0044161	0.001472
15-Oct-96	0.7812835	0.0034853	7.261E-06	0.0043566	0.0029044	0.043566	1.1617598	0.029044	0.3165796	0.0014522	4.3565994	0.2091168	0.014522	0.043566	0.0014522	0.0043566	0.001307
22-Oct-96	0.8212769	0.0037473	7.807E-06	0.0046841	0.0031227	0.0468409	0.9368177	0.0312273	0.3325703	0.0015614	3.1227258	0.2201522	0.0156136	0.0468409	0.0015614	0.0046841	0.0014052
29-Oct-96	0.8839828	0.0037155	7.741E-06	0.0046444	0.0030963	0.0464439	1.0836917	0.0309626	0.3127225	0.0015481	2.1673834	0.2260271	0.0154813	0.0464439	0.0015481	0.0046444	0.0009289
5-Nov-96	0.9718822	0.003738	7.476E-06	0.0044856	0.0029904	0.0448561	0.8971221	0.0299041	0.3020311	0.0014952	1.4952034	0.2467086	0.014952	0.0448561	0.0014952	0.0044856	0.0067284
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	0.7363546	0.0025008	6.947E-06	0.004168	0.0027787	0.0416804	0.6946742	0.027787	0.2014555	0.0013893	0.6946742	0.1792259	0.0138935	0.0416804	0.0013893	0.004168	0.0013893
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	0.6366656	0.0019477	6.087E-06	0.003652	0.0024347	0.03652	0.6086669	0.0243467	0.1448627	0.0012173	0.3652001	0.1472974	0.0121733	0.03652	0.0012173	0.003652	0.0007304
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31-Dec-96	0.8524611	0.00183	7.625E-06	0.0045749	0.00305	0.0457493	0.6099901	0.0304995	0.1738472	0.001525	0.304995	0.186047	0.0152498	0.0457493	0.001525	0.0045749	0.0007625
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	0.8629474	0.0019309	7.426E-06	0.0044558	0.0029706	0.0445584	0.5941118	0.0297056	0.1589249	0.0014853	0.2970559	0.1812041	0.0148528	0.0445584	0.0014853	0.0044558	0.0007426
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	0.9106384	0.0017211	7.823E-06	0.004694	0.0031293	0.0469401	0.4694013	0.0312934	0.1517731	0.0015647	0.3129342	0.1674198	0.0156467	0.0469401	0.0015647	0.004694	0.0015647
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	0.9519021	0.0014423	7.211E-06	0.0043268	0.0028846	0.0432683	0.4326828	0.0288455	0.1298048	0.0014423	0.2884552	0.1629772	0.0144228	0.0432683	--	--	0.0014423

DGK 7
Sample =
Sample Wt. (kg) 15.00

Date	Cycle	Days	Volume (L)	pH	Conductivity (uS/cm)	Concentrations Alkalinity (mg/L)	Sulphate (mg/L)	Al (mg/L)	Sb (mg/L)	As (mg/L)	Ba (mg/L)	Be (mg/L)	Bi (mg/L)	B (mg/L)	Cd (mg/L)	Ca (mg/L)	Cr (mg/L)	Co (mg/L)	Cu (mg/L)	Fe (mg/L)	Pb (mg/L)	Li (mg/L)	Mg (mg/L)	Mn (mg/L)	Hg (mg/L)	Mo (mg/L)	Ni (mg/L)	P (mg/L)	K (mg/L)	Se (mg/L)	Si (mg/L)	Ag (mg/L)	Na (mg/L)	Sr (mg/L)	Th (mg/L)	Sn (mg/L)	Ti (mg/L)	V (mg/L)	Zn (mg/L)
24-Sep-96	0	0	5.6	8.26	564	70.8	160	0.2	0.188	0.0713	0.04	0.005	0.1	0.1	0.001	42.4	0.01	0.01	0.02	0.03	0.001	0.03	7.91	0.038	0.00005	0.03	0.02	0.3	8	0.2	1.38	0.01	61	2.47	0.1	0.03	0.01	0.03	0.006
1-Oct-96	1	7	0.594	8.01	1180	144	429	0.2	0.559	0.062	0.1	0.005	0.1	0.1	0.0004	90.2	0.01	0.01	0.01	0.03	0.001	0.06	19.6	0.106	0.00005	0.09	0.02	0.3	14	0.2	3.75	0.01	136	5.66	0.1	0.3	0.01	0.03	0.012
8-Oct-96	2	14	0.609	8.06	1060	143	400	0.2	0.569	0.053	0.1	0.005	0.1	0.1	0.0003	88	0.01	0.01	0.01	0.03	0.001	0.06	19.2	0.099	0.00005	0.09	0.02	0.3	13	0.2	3.74	0.01	114	5.24	0.1	0.2	0.01	0.03	0.01
15-Oct-96	3	21	0.614	8.05	932	124	365	0.2	0.494	0.0417	0.08	0.005	0.1	0.1	0.0002	73	0.01	0.01	0.01	0.03	0.001	0.06	16.7	0.085	0.00005	0.07	0.02	0.3	13	0.2	3.25	0.01	92	4.62	0.1	0.3	0.01	0.03	0.007
22-Oct-96	4	28	0.586	8.21	819	111	334	0.2	0.643	0.0524	0.07	0.005	0.1	0.1	0.0002	73.4	0.01	0.01	0.01	0.03	0.001	0.05	17.1	0.071	0.00005	0.07	0.02	0.3	14	0.2	3.32	0.01	87	4.69	0.1	0.3	0.01	0.03	0.006
29-Oct-96	5	35	0.029	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Nov-96	6	42	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-96	7	49	0.007	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	8	56	0.022	7.75	1320	109	649	0.2	0.685	0.0409	0.09	0.005	0.1	0.1	0.0002	104	0.01	0.01	0.02	0.03	0.001	0.07	29.3	0.066	0.00005	0.08	0.02	0.3	16	0.2	3.05	0.01	116	6.87	0.1	0.3	0.01	0.03	0.045
26-Nov-96	9	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	10	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-96	11	77	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	12	84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	13	91	0.669	7.64	1680	76.3	866	0.2	0.515	0.0273	0.06	0.005	0.1	0.1	0.0005	190	0.01	0.01	0.01	0.03	0.001	0.07	48.3	0.15	0.00005	0.06	0.02	0.3	20	0.2	2.31	0.01	110	11.4	0.1	0.3	0.01	0.03	0.009
31-Dec-96	14	98	0.858	7.92	1070	73.3	494	0.2	0.518	0.0258	0.04	0.005	0.1	0.1	0.0002	112	0.01	0.01	0.01	0.03	0.001	0.05	28.6	0.101	0.00005	0.04	0.02	0.3	15	0.2	2.03	0.01	64	6.78	0.1	0.3	0.01	0.03	0.014
7-Jan-97	15	105	0.883	7.6	685	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	16	112	0.877	7.92	552	82.3	184	0.2	0.595	0.0289	0.04	0.005	0.1	0.1	0.0002	53.6	0.01	0.01	0.01	0.03	0.001	0.03	14.1	0.044	0.00005	0.03	0.02	0.3	10	0.2	2.14	0.01	30	3.49	0.1	0.3	0.01	0.03	0.005
21-Jan-97	17	119	0.629	7.7	420	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	18	126	0.586	7.7	419	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-97	19	133	0.618	7.7	490	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	20	140	0.699	7.6	448	88	134	0.2	0.683	0.02	0.04	--	0.1	--	0.0002	49	0.01	0.01	0.01	0.03	0.001	--	13.8	0.04	0.00005	0.03	0.02	0.3	11	0.2	2.03	0.01	17	3.1	0.1	0.3	--	--	0.007
18-Feb-97	21	147	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	22	154	0.017	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-97	23	161	0.014	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	24	168	0.04	7.7	646	84	266	0.2	0.694	0.022	0.07	--	0.1	--	0.0002	70.1	0.01	0.01	0.01	0.03	0.001	--	21.6	0.01	0.00005	0.04	0.02	0.3	12	0.2	2.16	0.01	20	4.56	0.1	0.3	--	--	0.025
18-Mar-97	25	175	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	26	182	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-97	27	189	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-97	28	196	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-97	29	203	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-97	30	210	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-97	31	217	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-May-97	32	224	--	8.16	559	98.5	179	0.2	0.446	0.0132	0.04	0.005	0.1	0.1	0.0002	60	0.01	0.01	0.01	0.03	0.001	0.04	20.2	0.024	0.00005	0.03	0.02	0.3	10	0.2	1.63	0.01	10	3.81	0.1	0.3	0.01	0.03	0.007
13-May-97	33	231	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-97	34	238	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-97	35	245	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-97	36	252	--	8.09	456	97.8	140	0.2	0.4	0.0115	0.04	0.005	0.1	0.1	0.0002	49.4	0.01	0.01	0.01	0.03	0.001	0.03	18.7	0.017	0.00005	0.03	0.02	0.3	10	0.2	1.59	0.01	6	3.17	0.1	0.3	0.01	0.03	0.006

DGK 7
Sample =
Sample Wt. (kg) Loadings

Date	Alkalinity mg/kg/wk	Sulphate mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk
24-Sep-96	26.426715	59.721389	0.0746517	0.0701726	0.0266133	0.0149303	0.0018663	0.0373259	0.0373259	0.0003733	15.826168	0.0037326	0.0037326	0.0074652	0.0111978	0.0003733
1-Oct-96	5.7012597	16.985003	0.0079184	0.022132	0.0024547	0.0039592	0.000198	0.0039592	0.0039592	1.584E-05	3.5712058	0.0003959	0.0003959	0.0003959	0.0011878	3.959E-05
8-Oct-96	5.8046391	16.236753	0.0081184	0.0230968	0.0021514	0.0040592	0.000203	0.0040592	0.0040592	1.218E-05	3.5720856	0.0004059	0.0004059	0.0004059	0.0012178	4.059E-05
15-Oct-96	5.0747184	14.937679	0.008185	0.020217	0.0017066	0.003274	0.0002046	0.0040925	0.0040925	8.185E-06	2.9875358	0.0004093	0.0004093	0.0004093	0.0012278	4.093E-05
22-Oct-96	4.3355329	13.045658	0.0078118	0.0251148	0.0020467	0.0027341	0.0001953	0.0039059	0.0039059	7.812E-06	2.8669199	0.0003906	0.0003906	0.0003906	0.0011718	3.906E-05
29-Oct-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	0.1598347	0.9516763	0.0002933	0.0010045	5.997E-05	0.000132	7.332E-06	0.0001466	0.0001466	2.933E-07	0.1525028	1.466E-05	1.466E-05	2.933E-05	4.399E-05	1.466E-06
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	3.4022995	38.615877	0.0089182	0.0229644	0.0012173	0.0026755	0.000223	0.0044591	0.0044591	2.23E-05	8.4723055	0.0004459	0.0004459	0.0004459	0.0013377	4.459E-05
31-Dec-96	4.1919216	28.25115	0.0114377	0.0296237	0.0014755	0.0022875	0.0002859	0.0057189	0.0057189	1.144E-05	6.405119	0.0005719	0.0005719	0.0005719	0.0017157	5.719E-05
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	4.8108445	10.755716	0.011691	0.0347807	0.0016893	0.0023382	0.0002923	0.0058455	0.0058455	1.169E-05	3.1331867	0.0005845	0.0005845	0.0005845	0.0017536	5.845E-05
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	4.09998	6.2431514	0.0093181	0.0318214	0.0009318	0.0018636	--	0.0046591	--	9.318E-06	2.2829434	0.0004659	0.0004659	0.0004659	0.0013977	4.659E-05
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	0.2239552	0.7091915	0.0005332	0.0018503	5.865E-05	0.0001866	--	0.0002666	--	5.332E-07	0.186896	2.666E-05	2.666E-05	2.666E-05	7.998E-05	2.666E-06
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-May-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-97		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	Th mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk
24-Sep-96	0.0111978	2.9524762	0.0141838	1.866E-05	0.0111978	0.0074652	0.1119776	2.9860695	0.0746517	0.515097	0.0037326	22.76878	0.9219489	0.0373259	0.0111978	0.0037326	0.0111978	0.0022396
1-Oct-96	0.0023755	0.7760048	0.0041968	1.98E-06	0.0035633	0.0007918	0.0118776	0.5542891	0.0079184	0.1484703	0.0003959	5.3845231	0.2240912	0.0039592	0.0118776	0.0003959	0.0011878	0.0004751
8-Oct-96	0.0024355	0.7793641	0.0040186	2.03E-06	0.0036533	0.0008118	0.0121776	0.5276945	0.0081184	0.1518136	0.0004059	4.6274745	0.2127015	0.0040592	0.0081184	0.0004059	0.0012178	0.0004059
15-Oct-96	0.0024555	0.68345	0.0034786	2.046E-06	0.0028648	0.0008185	0.0122775	0.5320269	0.008185	0.1330067	0.0004093	3.7651136	0.1890742	0.0040925	0.0122775	0.0004093	0.0012278	0.0002865
22-Oct-96	0.0019529	0.6679064	0.0027732	1.953E-06	0.0027341	0.0007812	0.0117177	0.546824	0.0078118	0.1296754	0.0003906	3.3981204	0.183186	0.0039059	0.0117177	0.0003906	0.0011718	0.0002344
29-Oct-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Nov-96	0.0001026	0.0429647	9.678E-05	7.332E-08	0.0001173	2.933E-05	0.0004399	0.023462	0.0002933	0.0044724	1.466E-05	0.1700993	0.010074	0.0001466	0.0004399	1.466E-05	4.399E-05	6.599E-05
26-Nov-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Dec-96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-96	0.0031214	2.1537493	0.0066887	2.23E-06	0.0026755	0.0008918	0.0133773	0.8918216	0.0089182	0.1030054	0.0004459	4.905019	0.5083383	0.0044591	0.0133773	0.0004459	0.0013377	0.0004013
31-Dec-96	0.0028594	1.6355929	0.005776	2.859E-06	0.0022875	0.0011438	0.0171566	0.8578284	0.0114377	0.1160928	0.0005719	3.660068	0.3877385	0.0057189	0.0171566	0.0005719	0.0017157	0.0008006
7-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
14-Jan-97	0.0017536	0.8242152	0.002572	2.923E-06	0.0017536	0.0011691	0.0175365	0.5845498	0.011691	0.1250936	0.0005845	1.7536493	0.2040079	0.0058455	0.0175365	0.0005845	0.0017536	0.0002923
21-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-97	--	0.6429514	0.0018636	2.33E-06	0.0013977	0.0009318	0.0139772	0.5124975	0.0093181	0.0945791	0.0004659	0.7920416	0.1444311	0.0046591	0.0139772	--	--	0.0003261
18-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-97	--	0.0575885	2.666E-05	1.333E-07	0.0001066	5.332E-05	0.0007998	0.0319936	0.0005332	0.0057588	2.666E-05	0.0533227	0.0121576	0.0002666	0.0007998	--	--	6.665E-05
18-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-May-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 1
Sample = DG07-331C 52.92-62.30
Sample Wt. (kg) 1.00

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP mV	Cond. umhos/cm	Concentrations: Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness mg CaCO3/L
2-Jul-09	0	750	385	7.71	369	326	--	2.14	29.28	133	3.9	0.12	126
9-Jul-09	1	500	380	7.58	324	323	--	2.28	23.38	188	13	0.17	185
16-Jul-09	2	500	380	7.53	367	190	--	2.69	22.46	77	1.3	0.13	83.7
23-Jul-09	3	500	425	7.60	379	148	--	2.61	22.44	53	0.6	0.13	58.8
30-Jul-09	4	500	425	7.53	342	125	--	4.38	22.61	37	--	--	--
6-Aug-09	5	500	450	8.04	210	100	--	1.75	24.63	38	0.9	0.09	49.5
13-Aug-09	6	500	440	7.40	328	106	--	4.76	24.59	27	--	--	--
20-Aug-09	7	500	450	7.50	332	92	--	2.5	23.49	26	0.5	0.06	40.9
27-Aug-09	8	500	450	7.74	308	87	--	2.77	23.72	19	--	--	--
3-Sep-09	9	500	460	8.15	106	90	--	2.36	25.22	21	0.5	0.05	40.2
10-Sep-09	10	500	420	7.82	332	100	--	1.24	23.55	25	--	--	--
17-Sep-09	11	500	435	7.69	342	109	--	2.95	25.53	29	0.7	0.07	47.7
24-Sep-09	12	500	450	7.68	342	99	--	2.19	25.26	33	--	--	--
1-Oct-09	13	500	435	7.63	347	95	--	2.45	25.28	26	0.5	0.04	43.5
8-Oct-09	14	500	445	7.50	332	88	--	3.88	25.45	24	--	--	--
15-Oct-09	15	500	440	7.53	348	83	--	2.83	23.39	28	0.5	0.04	42.4
22-Oct-09	16	500	450	7.42	373	78	--	2.99	21.71	17	--	--	--
29-Oct-09	17	500	445	7.65	341	72	--	2.14	17.33	18	0.5	0.03	28.5
5-Nov-09	18	500	475	7.54	336	68	--	3.95	20.42	16	--	--	--
12-Nov-09	19	500	465	7.47	332	71	--	4.52	23.19	12	0.5	0.03	30.1
19-Nov-09	20	500	455	7.49	345	79	--	4.54	23.14	15	--	--	--
26-Nov-09	21	500	460	7.41	230	86	--	1.88	28.46	18	0.5	0.04	34
3-Dec-09	22	500	485	7.35	336	75	--	4.97	24.63	15	--	--	--
10-Dec-09	23	500	470	7.17	378	64	--	4.93	17.75	21	0.5	0.02	27.7
17-Dec-09	24	500	475	7.17	357	68	--	2.94	21.77	13	--	--	--
24-Dec-09	25	500	470	7.70	367	69	--	2.38	25.25	14	0.5	0.02	31.7
31-Dec-09	26	500	470	7.55	392	80	--	2.68	23.91	16	--	--	--
7-Jan-10	27	500	500	7.57	379	76	--	2.62	22.91	15	0.5	0.03	31.5
14-Jan-10	28	500	480	7.26	350	73	--	--	21.92	15	--	--	--
21-Jan-10	29	500	500	7.72	344	70	--	2.17	23.26	15	0.5	0.01	32.7
28-Jan-10	30	500	480	7.26	359	61	--	4.1	22.2	18	--	--	--
4-Feb-10	31	500	510	7.19	299	56	--	3.5	21.87	14	0.5	0.02	33.3
11-Feb-10	32	500	475	7.32	347	72	--	3.07	21.15	15	--	--	--
18-Feb-10	33	500	440	7.23	231	69	--	3.99	17.85	16	--	--	--
25-Feb-10	34	500	480	7.26	375	54	--	3.36	15.8	15	--	0.02	25.7
4-Mar-10	35	500	480	7.31	373	66	--	3.01	16.97	14	--	--	--
11-Mar-10	36	500	445	7.26	391	60	--	3.27	15.48	14	--	--	--
18-Mar-10	37	500	465	7.32	339	65	--	3.42	16.8	12	--	0.02	26.6
25-Mar-10	38	500	470	7.30	371	54	--	3.23	14.96	11	--	--	--
1-Apr-10	39	500	445	7.39	378	59	--	2.89	14.59	17	--	--	--
8-Apr-10	40	500	470	7.28	359	55	--	3.24	15.27	9	--	0.02	24.3
15-Apr-10	41	500	485	7.33	300	67	--	3.51	17.06	15	--	--	--
22-Apr-10	42	500	450	7.28	355	54	--	4.06	13.85	14	--	--	--
29-Apr-10	43	500	515	7.38	357	58	--	2.3	16.14	14	--	0.02	24.1
6-May-10	44	500	410	7.31	297	66	--	4.45	17.81	14	--	--	--
13-May-10	45	500	505	7.35	293	73	--	3.64	16.84	13	--	--	--
20-May-10	46	500	475	7.56	352	64	--	4.19	17.5	12	--	0.01	26.7
27-May-10	47	500	495	7.36	379	65	--	6.07	23	8	--	--	--
3-Jun-10	48	500	485	7.35	364	58	--	3.16	16.42	8	--	--	--
10-Jun-10	49	500	480	7.42	272	66	--	4.6	23.34	8	--	0.01	25.8
17-Jun-10	50	500	465	7.37	339	53	--	4.45	15.74	5	--	--	--
24-Jun-10	51	500	480	7.45	405	55	--	2.85	17.07	11	--	--	--
1-Jul-10	52	500	480	7.42	409	57	--	2.87	16.42	8	--	0.07	23
8-Jul-10	53	500	465	7.28	274	52	--	2.45	14.31	9	--	--	--
15-Jul-10	54	500	475	7.21	345	55	--	4.42	15.57	12	--	--	--
22-Jul-10	55	500	510	7.01	360	55	--	4.35	15.81	5	--	--	--
29-Jul-10	56	500	500	7.27	345	45	--	4.7	14.07	9	--	0.01	17.6
5-Aug-10	57	500	495	7.38	227	47	--	2.52	12.91	8	--	--	--
12-Aug-10	58	500	475	7.36	397	51	--	4.68	16.29	9	--	--	--
19-Aug-10	59	500	475	6.94	361	53	--	5.58	15.78	8	--	--	--
26-Aug-10	60	500	455	7.29	368	52	--	2.97	14.7	9	--	0.03	23.8
2-Sep-10	61	500	475	7.35	250	48	--	4.08	15.57	16	--	--	--
9-Sep-10	62	500	440	7.02	380	50	--	5.2	14.64	11	--	--	--
16-Sep-10	63	500	465	7.11	354	51	--	3.19	16.92	11	--	--	--

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg mg/L
2-Jul-09	0.0238	0.0012	0.00188	0.00725	0.00001	0.000005	0.05	0.000005	45.3	0.0001	0.00103	0.00132	0.002	0.000024	0.0145	3.21	0.0514	0.00002
9-Jul-09	0.0587	0.00688	0.0106	0.00657	0.00001	0.000005	0.05	0.000054	64.8	0.0001	0.000747	0.00519	0.012	0.000321	0.0111	5.55	0.0463	0.00002
16-Jul-09	0.081	0.00721	0.00772	0.00349	0.00001	0.000005	0.05	0.00001	29.5	0.0001	0.000183	0.00144	0.003	0.00017	0.0101	2.42	0.0218	0.00001
23-Jul-09	0.104	0.00312	0.00735	0.00221	0.00001	0.000005	0.05	0.000018	21.5	0.0001	0.000072	0.00082	0.002	0.000094	0.0066	1.26	0.0154	0.00001
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.12	0.0028	0.00788	0.00146	0.00001	0.000005	0.05	0.000005	18.2	0.0001	0.000049	0.00069	0.006	0.000018	0.0046	0.99	0.0105	0.00001
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.126	0.00292	0.0087	0.00115	0.00001	0.000012	0.05	0.000006	15	0.0001	0.000046	0.00049	0.006	0.000058	0.0043	0.84	0.0092	0.00001
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.121	0.00282	0.00868	0.00133	0.00001	0.000005	0.05	0.000006	14.8	0.0001	0.00004	0.0006	0.005	0.000074	0.0038	0.79	0.0091	0.00001
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.117	0.00247	0.0096	0.00167	0.00001	0.000005	0.05	0.000011	17.6	0.0001	0.000071	0.00066	0.006	0.000015	0.0049	0.91	0.0083	0.00001
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.0965	0.00177	0.00746	0.00191	0.00001	0.000005	0.05	0.000005	16.1	0.0001	0.000072	0.00077	0.01	0.000011	0.0037	0.8	0.0089	0.00001
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.106	0.00181	0.00789	0.00145	0.00001	0.000005	0.05	0.000011	15.8	0.0001	0.000063	0.00109	0.006	0.000027	0.0034	0.73	0.0088	0.00001
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.0742	0.00133	0.00512	0.00097	0.00001	0.000005	0.05	0.000005	10.6	0.0001	0.000047	0.00087	0.007	0.000919	0.0027	0.49	0.0066	0.00001
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.0992	0.00139	0.00676	0.00103	0.00001	0.000005	0.05	0.000007	11.2	0.0001	0.000038	0.00023	0.006	0.000019	0.0027	0.51	0.0068	0.00001
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.111	0.00153	0.00812	0.00121	0.00001	0.000011	0.05	0.000005	12.7	0.0001	0.000052	0.00025	0.007	0.000018	0.0032	0.58	0.0048	0.00001
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.068	0.00108	0.00434	0.00085	0.00001	0.000006	0.05	0.000005	10.4	0.0001	0.000049	0.00027	0.011	0.00007	0.0023	0.44	0.0057	0.00001
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.0663	0.00132	0.00576	0.00096	0.00001	0.000005	0.05	0.000005	11.9	0.0001	0.000049	0.00032	0.005	0.000014	0.0026	0.46	0.0073	0.00001
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.0709	0.00126	0.00506	0.00091	0.00001	0.000005	0.05	0.000005	11.8	0.0001	0.000051	0.00019	0.01	0.000039	0.0023	0.47	0.0062	0.00001
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.0677	0.0012	0.00515	0.00086	0.00001	0.000005	0.05	0.000005	12.3	0.0001	0.00005	--	0.004	0.000009	0.0022	0.46	0.0053	0.00001
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.0658	0.00122	0.00542	0.00088	0.00001	0.000005	0.05	0.000005	12.6	0.0001	0.000041	0.00038	0.004	0.00005	0.0023	0.45	0.0046	0.00001
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.0488	0.00081	0.00382	0.00086	0.00001	0.000005	0.05	0.000005	9.76	0.0001	0.000065	0.00053	0.002	0.000051	0.0018	0.32	0.0057	0.00001
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0699	0.00078	0.00463	0.00086	0.00001	0.000005	0.05	0.000005	10.1	0.0001	0.000044	0.00029	0.006	0.000021	0.0019	0.33	0.0047	0.00001
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.0683	0.00068	0.00469	0.00168	0.00001	0.000005	0.05	0.000005	9.22	0.0001	0.000042	0.00048	0.007	0.000019	0.0017	0.3	0.0031	0.00001
15-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.0415	0.00076	0.00364	0.00084	0.00001	0.000005	0.05	0.000005	9.19	0.0001	0.000032	0.00031	0.003	0.000055	0.0017	0.27	0.0039	0.00001
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	0.0476	0.00074	0.00515	0.00077	0.00001	0.000005	0.05	0.000005	10.2	0.0001	0.000028	0.00038	0.003	0.000012	0.0019	0.3	0.0039	0.00001
27-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.0625	0.00077	0.00596	0.0007	0.00001	0.000005	0.05	0.00001	9.86	0.0002	0.000028	0.00044	0.002	0.000016	0.0018	0.28	0.0034	0.00001
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	0.0508	0.0006	0.00438	0.00088	0.00001	0.000005	0.05	0.000005	8.82	0.0001	0.000034	0.00027	0.002	0.000023	0.0014	0.25	0.0041	0.00001
8-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	0.0454	0.00054	0.00335	0.00072	0.00001	0.000005	0.05	0.000005	6.75	0.0001	0.000077	0.00055	0.003	0.000071	0.0012	0.18	0.0048	0.00001
5-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	0.0472	0.0005	0.00332	0.00206	0.00001	0.000005	0.05	0.000005	9.15	0.0001	0.000034	0.00118	0.003	0.000005	0.0014	0.22	0.0042	0.00001
2-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
2-Jul-09	0.00176	0.0122	0.007	9.19	0.00522	1.02	0.000005	4.77	0.141	44	0.000018	0.00001	0.0005	0.00182	0.0002	0.0005	0.0001
9-Jul-09	0.00217	0.00474	0.004	7.9	0.0112	1.4	0.000013	6.63	0.18	71	0.000017	0.00001	0.0005	0.00186	0.0003	0.0038	0.0001
16-Jul-09	0.00262	0.00128	0.002	5.76	0.00465	1.21	0.000005	3.28	0.0937	26	0.000012	0.00003	0.0005	0.00198	0.0002	0.0031	0.0001
23-Jul-09	0.00135	0.0004	0.002	3.81	0.00198	1.16	0.000005	1.39	0.0678	15	0.000012	0.00001	0.0005	0.000975	0.0002	0.0006	0.0001
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.00096	0.00035	0.002	3.02	0.00124	1.18	0.000005	0.9	0.0532	12	0.000005	0.00001	0.0005	0.000897	0.0002	0.0004	0.0001
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.00086	0.00029	0.002	2.96	0.00085	1.33	0.000005	0.56	0.041	8	0.000007	0.00001	0.0005	0.000897	0.0003	0.0008	0.0001
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.00073	0.00023	0.003	2.81	0.00082	1.3	0.000005	0.43	0.0412	9	0.000007	0.00002	0.0005	0.00103	0.0003	0.0004	0.0001
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.00067	0.00026	0.002	3.2	0.0009	1.55	0.000005	0.45	0.0506	11	0.000007	0.00008	0.0005	0.00106	0.0003	0.0011	0.0001
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.00054	0.00029	0.002	2.58	0.0007	1.21	0.000005	0.32	0.0436	10	0.000006	0.00001	0.0005	0.000971	0.0002	0.0006	0.0001
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.00049	0.00032	0.002	2.46	0.00067	1.15	0.000005	0.32	0.0416	10	0.000006	0.00002	0.0005	0.0011	0.0002	0.0008	0.0001
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.00036	0.00035	0.003	1.78	0.00044	0.8	0.000005	0.27	0.0318	7	0.000005	0.00009	0.0005	0.000872	0.0002	0.0008	0.0001
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.00042	0.0002	0.004	1.95	0.00043	1.01	0.000005	0.21	0.0314	6	0.000004	0.00002	0.0005	0.000896	0.0002	0.0004	0.0001
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.00045	0.00024	0.002	2.26	0.00047	1.21	0.000005	0.24	0.0349	7	0.000007	0.00003	0.0006	0.000848	0.0003	0.0007	0.0001
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.00032	0.00014	0.002	1.51	0.00037	0.95	0.000025	0.16	0.027	4	0.000012	0.00002	0.0006	0.000875	0.0002	0.0002	0.0001
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.00028	0.00023	0.002	1.82	0.00043	1.05	0.000005	0.16	0.0313	6	0.000005	0.00001	0.0005	0.000983	0.0002	0.0003	0.0001
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.00028	0.00019	0.002	1.58	0.00034	1	0.000005	0.12	0.0314	7	0.000002	0.00009	0.0006	0.00129	0.0002	0.0003	0.0001
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.00031	0.0002	0.002	1.74	0.00035	0.91	0.000005	0.16	0.0298	6	0.000004	0.00001	0.0005	0.00102	0.0002	0.0004	0.0001
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.0003	0.00026	0.002	1.58	0.00036	1.02	0.000005	0.15	0.0327	6	0.000009	--	0.0005	0.00144	0.0002	0.0006	0.0001
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.0002	0.00027	0.002	1.16	0.00029	0.75	0.000005	0.13	0.026	5	0.000006	0.00001	0.0005	0.000944	0.0002	0.0006	0.0001
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.00023	0.00028	0.002	1.29	0.00032	0.8	0.000005	0.15	0.0272	10	0.000006	0.00001	0.0005	0.000695	0.0002	0.0003	0.0001
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.0002	0.00026	0.002	1.3	0.00029	0.8	0.000005	0.2	0.0244	5	0.000002	0.00002	0.0005	0.000648	0.0002	0.001	0.0001
15-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.00018	0.00023	0.002	1.11	0.00028	0.72	0.000005	0.11	0.0246	10	0.000028	0.00001	0.0005	0.000853	0.0002	0.0007	0.0001
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	0.00009	0.00017	0.002	1.46	0.00051	0.94	0.000005	0.15	0.0257	10	0.000005	0.00004	0.0005	0.000636	0.0002	0.0005	0.0001
27-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.00024	0.00048	0.002	1.5	0.00043	0.93	0.000005	0.15	0.025	10	0.000005	0.00001	0.0005	0.000556	0.0002	0.0003	0.0001
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	0.00009	0.00019	0.002	1.2	0.00035	0.75	0.000005	0.15	0.024	10	0.000007	0.00001	0.0005	0.000847	0.0002	0.0004	0.0001
8-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	0.0001	0.00051	0.002	0.87	0.00028	0.51	0.000011	0.11	0.021	10	0.000006	0.00001	0.0005	0.000482	0.0002	0.0003	0.0001
5-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	0.00015	0.00018	0.002	1.06	0.00031	0.7	0.000005	0.13	0.0233	10	0.000006	0.00116	0.0005	0.000482	0.0002	0.0001	0.0001
2-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Cell Terminated

HC 1
Sample = DG07-33
Sample Wt. (kg) **Loadings**

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk
2-Jul-09	0.82	11.3	51.205	1.5015	0.0462	0.009163	0.000462	0.0007238	0.0027913	0.00000385	0.000001925	0.01925	0.000001925	17.4405	0.0000385	0.00039655	0.0005082	0.00077	0.00000924	0.0055825
9-Jul-09	0.87	8.9	71.44	4.94	0.0646	0.022306	0.0026144	0.004028	0.0024966	0.0000038	0.0000019	0.019	0.00002052	24.624	0.000038	0.00028386	0.0019722	0.00456	0.00012198	0.004218
16-Jul-09	1.02	8.5	29.26	0.494	0.0494	0.03078	0.0027398	0.0029336	0.0013262	0.0000038	0.0000019	0.019	0.0000038	11.21	0.000038	0.00006954	0.0005472	0.00114	0.0000646	0.003838
23-Jul-09	1.11	9.5	22.525	0.255	0.05525	0.0442	0.001326	0.0031238	0.0009393	0.00000425	0.000002125	0.02125	0.00000765	9.1375	0.0000425	0.0000306	0.0003485	0.00085	0.00003995	0.002805
30-Jul-09	1.86	9.6	15.725	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.79	11.1	17.1	0.405	0.0405	0.054	0.00126	0.003546	0.000657	0.0000045	0.00000225	0.0225	0.00000225	8.19	0.000045	0.00002205	0.0003105	0.0027	0.0000081	0.00207
13-Aug-09	2.09	10.8	11.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	1.13	10.6	11.7	0.225	0.027	0.0567	0.001314	0.003915	0.0005175	0.0000045	0.0000054	0.0225	0.0000027	6.75	0.000045	0.0000207	0.0002205	0.0027	0.0000261	0.001935
27-Aug-09	1.25	10.7	8.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	1.09	11.6	9.66	0.23	0.023	0.05566	0.0012972	0.0039928	0.0006118	0.0000046	0.0000023	0.023	0.00000276	6.808	0.000046	0.0000184	0.000276	0.0023	0.00003404	0.001748
10-Sep-09	0.52	9.9	10.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	1.28	11.1	12.615	0.3045	0.03045	0.050895	0.0010745	0.004176	0.0007265	0.00000435	0.000002175	0.02175	0.000004785	7.656	0.0000435	0.000030885	0.0002871	0.00261	0.000006525	0.0021315
24-Sep-09	0.99	11.4	14.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	1.07	11.0	11.31	0.2175	0.0174	0.0419775	0.00077	0.0032451	0.0008309	0.00000435	0.000002175	0.02175	0.000002175	7.0035	0.0000435	0.00003132	0.00033495	0.00435	0.000004785	0.0016095
8-Oct-09	1.73	11.3	10.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	1.25	10.3	12.32	0.22	0.0176	0.04664	0.0007964	0.0034716	0.000638	0.0000044	0.0000022	0.022	0.00000484	6.952	0.000044	0.00002772	0.0004796	0.00264	0.00001188	0.001496
22-Oct-09	1.35	9.8	7.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.95	7.7	8.01	0.2225	0.01335	0.033019	0.0005919	0.0022784	0.0004317	0.00000445	0.000002225	0.02225	0.000002225	4.717	0.0000445	0.000020915	0.00038715	0.003115	0.000408955	0.0012015
5-Nov-09	1.88	9.7	7.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	2.10	10.8	5.58	0.2325	0.01395	0.046128	0.0006464	0.0031434	0.000479	0.00000465	0.000002325	0.02325	0.000003255	5.208	0.0000465	0.00001767	0.00010695	0.00279	0.000008835	0.0012555
19-Nov-09	2.07	10.5	6.825	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.86	13.1	8.28	0.23	0.0184	0.05106	0.0007038	0.0037352	0.0005566	0.0000046	0.00000506	0.023	0.0000023	5.842	0.000046	0.00002392	0.000115	0.00322	0.00000828	0.001472
3-Dec-09	2.41	11.9	7.275	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	2.32	8.3	9.87	0.235	0.0094	0.03196	0.0005076	0.0020398	0.0003995	0.0000047	0.00000282	0.0235	0.00000235	4.888	0.000047	0.00002303	0.0001269	0.00517	0.0000329	0.001081
17-Dec-09	1.40	10.3	6.175	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	1.12	11.9	6.58	0.235	0.0094	0.031161	0.0006204	0.0027072	0.0004512	0.0000047	0.00000235	0.0235	0.00000235	5.593	0.000047	0.00002303	0.0001504	0.00235	0.00000658	0.001222
31-Dec-09	1.26	11.2	7.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	1.31	11.5	7.5	0.25	0.015	0.03545	0.00063	0.00253	0.000455	0.000005	0.0000025	0.025	0.0000025	5.9	0.00005	0.0000255	0.000095	0.005	0.0000195	0.00115
14-Jan-10	--	10.5	7.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	1.09	11.6	7.5	0.25	0.005	0.03385	0.0006	0.002575	0.00043	0.000005	0.0000025	0.025	0.0000025	6.15	0.00005	0.000025	--	0.002	0.0000045	0.0011
28-Jan-10	1.97	10.7	8.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	1.79	11.2	7.14	0.255	0.0102	0.033558	0.0006222	0.0027642	0.0004488	0.0000051	0.00000255	0.0255	0.00000255	6.426	0.000051	0.00002091	0.0001938	0.00204	0.0000255	0.001173
11-Feb-10	1.46	10.0	7.125	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	1.76	7.9	7.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	1.61	7.6	7.2	--	0.0096	0.023424	0.0003888	0.0018336	0.0004128	0.0000048	0.0000024	0.024	0.0000024	4.6848	0.000048	0.0000312	0.0002544	0.00096	0.00002448	0.000864
4-Mar-10	1.44	8.1	6.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	1.46	6.9	6.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	1.59	7.8	5.58	--	0.0093	0.0325035	0.0003627	0.002153	0.0003999	0.00000465	0.000002325	0.02325	0.000002325	4.6965	0.0000465	0.00002046	0.00013485	0.00279	0.000009765	0.0008835
25-Mar-10	1.52	7.0	5.17	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	1.29	6.5	7.565	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	1.52	7.2	4.23	--	0.0094	0.032101	0.0003196	0.0022043	0.0007896	0.0000047	0.00000235	0.0235	0.00000235	4.3334	0.000047	0.00001974	0.0002256	0.00329	0.00000893	0.000799
15-Apr-10	1.70	8.3	7.275	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	1.83	6.2	6.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	1.18	8.3	7.21	--	0.0103	0.0213725	0.0003914	0.0018746	0.0004326	0.00000515	0.000002575	0.02575	0.000002575	4.73285	0.0000515	0.00001648	0.00015965	0.001545	0.000028325	0.0008755
6-May-10	1.82	7.3	5.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	1.84	8.5	6.565	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	1.99	8.3	5.7	--	0.00475	0.02261	0.0003515	0.0024463	0.0003658	0.00000475	0.000002375	0.02375	0.000002375	4.845	0.0000475	0.0000133	0.0001805	0.001425	0.0000057	0.0009025
27-May-10	3.00	11.4	3.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	1.53	8.0	3.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	2.21	11.2	3.84	--	0.0048	0.03	0.0003696	0.0028608	0.000336	0.0000048	0.0000024	0.024	0.0000048	4.7328	0.000096	0.00001344	0.0002112	0.00096	0.00000768	0.000864
17-Jun-10	2.07	7.3	2.325	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	1.37	8.2	5.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	1.38	7.9	3.84	--	0.0336	0.024384	0.000288	0.0021024	0.0004224	0.0000048	0.0000024	0.024	0.0000024	4.2336	0.000048	0.00001632	0.0001296	0.00096	0.00001104	0.000672
8-Jul-10	1.14	6.7	4.185	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	2.10	7.4	5.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	2.22	8.1	2.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	2.35	7.0	4.5	--	0.005	0.0227	0.00027	0.001675	0.00036	0.000005	0.0000025	0.025	0.0000025	3.375	0.00005	0.0000385	0.000275	0.0015	0.0000355	0.0006
5-Aug-10	1.25	6.4	3.96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	2.22	7.7	4.275	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	2.65	7.5	3.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	1.35	6.7	4.095	--	0.01365	0.021476	0.0002275	0.0015106	0.0009373	0.00000455	0.000002275	0.02275	0.000002275	4.16325	0.0000455	0.00001547	0.0005369	0.001365	0.000002275	0.000637
2-Sep-10	1.94	7.4	7.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	2.29	6.4	4.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	1.48	7.9	5.115	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
2-Jul-09	1.23585	0.019789	0.0000077	0.0006776	0.004697	0.002695	3.53815	0.0020097	0.3927	1.925E-06	1.83645	0.054285	16.94	6.93E-06	3.85E-06	0.0001925	0.0007007	0.000077	0.0001925	0.0000385
9-Jul-09	2.109	0.017594	0.0000076	0.0008246	0.0018012	0.00152	3.002	0.004256	0.532	4.94E-06	2.5194	0.0684	26.98	6.46E-06	0.0000038	0.00019	0.0007068	0.000114	0.001444	0.000038
16-Jul-09	0.9196	0.008284	0.0000038	0.0009956	0.0004864	0.00076	2.1888	0.001767	0.4598	0.0000019	1.2464	0.035606	9.88	4.56E-06	0.0000114	0.00019	0.0007524	0.000076	0.001178	0.000038
23-Jul-09	0.5355	0.006545	0.00000425	0.00057375	0.00017	0.00085	1.61925	0.0008415	0.493	2.125E-06	0.59075	0.028815	6.375	0.0000051	4.25E-06	0.0002125	0.0004144	0.000085	0.000255	0.0000425
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.4455	0.004725	0.0000045	0.000432	0.0001575	0.0009	1.359	0.000558	0.531	2.25E-06	0.405	0.02394	5.4	2.25E-06	0.0000045	0.000225	0.0004037	0.00009	0.00018	0.000045
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.378	0.0041445	0.0000045	0.000387	0.0001305	0.0009	1.332	0.0003825	0.5985	2.25E-06	0.252	0.01845	3.6	3.15E-06	0.0000045	0.000225	0.0004037	0.000135	0.00036	0.000045
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.3634	0.0041814	0.0000046	0.0003358	0.0001058	0.00138	1.2926	0.0003772	0.598	0.0000023	0.1978	0.018952	4.14	3.22E-06	0.0000092	0.00023	0.0004738	0.000138	0.000184	0.000046
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.39585	0.0035975	0.00000435	0.00029145	0.0001131	0.00087	1.392	0.0003915	0.67425	2.175E-06	0.19575	0.022011	4.785	3.045E-06	0.0000348	0.0002175	0.0004611	0.0001305	0.0004785	0.0000435
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.348	0.0038759	0.00000435	0.0002349	0.00012615	0.00087	1.1223	0.0003045	0.52635	2.175E-06	0.1392	0.018966	4.35	2.61E-06	4.35E-06	0.0002175	0.0004224	0.000087	0.000261	0.0000435
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.3212	0.003872	0.0000044	0.0002156	0.0001408	0.00088	1.0824	0.0002948	0.506	0.0000022	0.1408	0.018304	4.4	2.64E-06	0.0000088	0.00022	0.000484	0.000088	0.000352	0.000044
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.21805	0.0029504	0.00000445	0.0001602	0.00015575	0.001335	0.7921	0.0001958	0.35689	2.225E-06	0.12015	0.014151	3.115	2.225E-06	4.005E-05	0.0002225	0.000388	0.000089	0.000356	0.0000445
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.23715	0.0031527	0.00000465	0.0001953	0.000093	0.00186	0.90675	0.0002	0.46965	2.325E-06	0.09765	0.014601	2.79	1.86E-06	0.0000093	0.0002325	0.0004166	0.000093	0.000186	0.0000465
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.2668	0.0022264	0.0000046	0.000207	0.0001104	0.00092	1.0396	0.0002162	0.5566	0.0000023	0.1104	0.016054	3.22	3.22E-06	0.0000138	0.000276	0.0003901	0.000138	0.000322	0.000046
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.2068	0.0026555	0.0000047	0.0001504	0.0000658	0.00094	0.7097	0.0001739	0.44603	1.175E-05	0.0752	0.01269	1.88	5.64E-06	0.0000094	0.000282	0.0004113	0.000094	0.000094	0.000047
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.2162	0.0034263	0.0000047	0.0001316	0.0001081	0.00094	0.8554	0.0002021	0.4935	2.35E-06	0.0752	0.014711	2.82	2.35E-06	0.0000047	0.000235	0.000462	0.000094	0.000141	0.000047
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.235	0.003115	0.000005	0.00014	0.000095	0.001	0.79	0.00017	0.5	0.0000025	0.06	0.0157	3.5	0.000001	0.000045	0.0003	0.000645	0.0001	0.00015	0.00005
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.23	0.002635	0.000005	0.000155	0.0001	0.001	0.87	0.000175	0.4525	0.0000025	0.08	0.0149	3	0.000002	0.000005	0.00025	0.00051	0.0001	0.0002	0.00005
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.2295	0.002346	0.0000051	0.000153	0.0001326	0.00102	0.8058	0.0001836	0.5202	2.55E-06	0.0765	0.016677	3.06	4.59E-06	--	0.000255	0.0007344	0.000102	0.000306	0.000051
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.1536	0.0027408	0.0000048	0.000096	0.0001296	0.00096	0.5568	0.0001392	0.35952	0.0000024	0.0624	0.01248	2.4	2.88E-06	0.0000048	0.00024	0.0004531	0.000096	0.000288	0.000048
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.15345	0.0021762	0.00000465	0.00010695	0.0001302	0.00093	0.59985	0.0001488	0.371535	2.325E-06	0.06975	0.012648	4.65	2.79E-06	4.65E-06	0.0002325	0.0003232	0.000093	0.0001395	0.0000465
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.141	0.0014711	0.0000047	0.000094	0.0001222	0.00094	0.611	0.0001363	0.37647	2.35E-06	0.094	0.011468	2.35	9.4E-07	0.0000094	0.000235	0.0003046	0.000094	0.00047	0.000047
15-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.13905	0.0020291	0.00000515	0.0000927	0.00011845	0.00103	0.57165	0.0001442	0.37183	2.575E-06	0.05665	0.012669	5.15	1.442E-05	5.15E-06	0.0002575	0.0004393	0.000103	0.0003605	0.0000515
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	0.1425	0.001843	0.00000475	0.00004275	0.00008075	0.00095	0.6935	0.0002423	0.4446	2.375E-06	0.07125	0.0122075	4.75	2.375E-06	0.000019	0.0002375	0.0003021	0.000095	0.0002375	0.0000475
27-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.1344	0.0016176	0.0000048	0.0001152	0.0002304	0.00096	0.72	0.0002064	0.44784	0.0000024	0.072	0.012	4.8	0.0000024	0.0000048	0.00024	0.0002669	0.000096	0.000144	0.000048
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	0.12	0.0019584	0.0000048	0.0000432	0.0000912	0.00096	0.576	0.000168	0.35904	0.0000024	0.072	0.01152	4.8	3.36E-06	0.0000048	0.00024	0.0004066	0.000096	0.000192	0.000048
8-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	0.09	0.002415	0.000005	0.00005	0.000255	0.001	0.435	0.00014	0.257	0.0000055	0.055	0.0105	5	0.000003	0.000005	0.00025	0.000241	0.0001	0.00015	0.00005
5-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	0.1001	0.0019247	0.00000455	0.00006825	0.0000819	0.00091	0.4823	0.0001411	0.31759	2.275E-06	0.05915	0.0106015	4.55	2.73E-06	0.0005278	0.0002275	0.0002193	0.000091	0.0000455	0.0000455
2-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Cell Terminated

HC 2
Sample = DG07-305C 1.52-9.14
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP mV	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness mg CaCO3/L
2-Jul-09	0	750	390	7.05	274	765	--	7.93	62.89	386	6.2	0.2	387
9-Jul-09	1	500	385	7.53	326	582	--	2.86	27.31	284	20	0.4	277
16-Jul-09	2	500	400	7.46	360	511	--	3.48	25.4	192	13	0.35	260
23-Jul-09	3	500	440	7.43	380	408	--	3.33	21.61	165	0.5	0.35	182
30-Jul-09	4	500	430	7.29	366	320	--	4.97	21.88	112	--	--	--
6-Aug-09	5	500	445	7.56	268	248	--	2.5	20.47	116	0.7	0.29	125
13-Aug-09	6	500	450	7.38	331	250	--	5.07	16.3	109	--	--	--
20-Aug-09	7	500	475	7.28	351	218	--	3.13	15.32	80	0.5	0.28	107
27-Aug-09	8	500	455	7.40	323	230	--	3.87	16.16	86	--	--	--
3-Sep-09	9	500	505	7.47	189	247	--	3.95	21.34	100	2.2	0.29	122
10-Sep-09	10	500	500	7.71	342	246	--	1.51	21.67	100	--	--	--
17-Sep-09	11	500	490	7.53	347	242	--	3.68	20.74	95	0.7	0.29	111
24-Sep-09	12	500	505	7.45	352	217	--	2.69	23.05	91	--	--	--
1-Oct-09	13	500	505	7.49	355	204	--	2.95	21.63	83	0.5	0.31	99.6
8-Oct-09	14	500	490	7.44	341	197	--	4.61	23.86	79	--	--	--
15-Oct-09	15	500	500	7.46	354	158	--	3.05	20.07	67	0.5	0.3	77.6
22-Oct-09	16	500	495	7.47	364	156	--	3.25	21.54	62	--	--	--
29-Oct-09	17	500	490	7.54	350	144	--	2.37	17.15	57	0.5	0.29	59.3
5-Nov-09	18	500	515	7.57	343	137	--	4.78	20.53	46	--	--	--
12-Nov-09	19	500	490	7.38	340	125	--	4.91	20.82	42	0.5	0.31	54.4
19-Nov-09	20	500	510	7.46	351	129	--	5.35	22.01	39	--	--	--
26-Nov-09	21	500	505	7.66	311	126	--	2.51	24.77	45	0.5	0.33	52.1
3-Dec-09	22	500	505	7.34	343	119	--	5.07	21.19	34	--	--	--
10-Dec-09	23	500	510	7.18	385	110	--	5.11	15.88	39	0.5	0.28	48.9
17-Dec-09	24	500	505	7.48	364	113	--	2.93	21.25	27	--	--	--
24-Dec-09	25	500	500	7.44	373	97	--	2.92	20.26	28	0.5	0.28	45
31-Dec-09	26	500	500	7.39	394	92	--	2.58	15.24	26	--	--	--
7-Jan-10	27	500	505	7.41	378	102	--	2.82	21.4	28	0.5	0.28	42.8
14-Jan-10	28	500	505	7.17	353	97	--	--	17	29	--	--	--
21-Jan-10	29	500	505	7.31	361	93	--	2.89	16.61	28	0.5	--	44.8
28-Jan-10	30	500	515	7.17	361	78	--	4.34	15.14	30	--	--	--
4-Feb-10	31	500	510	7.01	282	79	--	3.99	15.06	22	0.5	0.26	39.3

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L
2-Jul-09	0.0121	0.00041	0.00102	0.0292	0.00001	0.000005	0.05	0.000049	142	0.0001	0.036	0.00024	0.36	0.000007	0.0149	8.29
9-Jul-09	0.0338	0.00075	0.0164	0.0154	0.00001	0.000005	0.05	0.000027	97.4	0.0001	0.0016	0.00801	0.004	0.00325	0.0084	8.31
16-Jul-09	0.0394	0.00104	0.0231	0.0134	0.00001	0.000005	0.05	0.000029	91.4	0.0002	0.00193	0.00258	0.004	0.000083	0.0086	7.64
23-Jul-09	0.0425	0.00062	0.0334	0.00935	0.00001	0.000005	0.05	0.000011	66.6	0.0001	0.000532	0.00175	0.003	0.000016	0.007	3.9
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.0519	0.00052	0.0319	0.00484	0.00001	0.000005	0.05	0.000005	46.1	0.0001	0.000222	0.00098	0.003	0.000016	0.0045	2.32
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.0547	0.00054	0.0316	0.0044	0.00001	0.000011	0.05	0.000007	39.8	0.0001	0.000178	0.00059	0.007	0.000028	0.0043	1.89
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.0593	0.00063	0.0422	0.00468	0.00001	0.000005	0.05	0.000005	45.8	0.0001	0.000159	0.00067	0.002	0.000028	0.0045	1.86
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.0427	0.00067	0.0319	0.00464	0.00001	0.000005	0.05	0.000014	41.9	0.0001	0.000202	0.00074	0.003	0.000009	0.0041	1.58
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.0474	0.00055	0.0348	0.00441	0.00001	0.000005	0.05	0.000009	37.7	0.0001	0.000173	0.00154	0.005	0.000016	0.0038	1.36
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0438	0.00056	0.0342	0.00365	0.00001	0.000005	0.05	0.000012	29.4	0.0001	0.000188	0.0012	0.004	0.000114	0.0036	1.01
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.0331	0.00045	0.0271	0.00267	0.00001	0.000005	0.05	0.000005	22.5	0.0001	0.000145	0.00084	0.007	0.000011	0.0029	0.73
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.0386	0.00046	0.0313	0.00238	0.00001	0.000005	0.05	0.000005	20.7	0.0001	0.000119	0.00023	0.004	0.00001	0.0027	0.68
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.0474	0.00048	0.0338	0.00231	0.00001	0.000007	0.05	0.000038	19.8	0.0001	0.000109	0.00033	0.007	0.00227	0.0027	0.62
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.0329	0.00035	0.0258	0.00218	0.00001	0.000026	0.05	0.000005	18.6	0.0001	0.000129	0.00043	0.006	0.00001	0.0022	0.58
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.0304	0.00042	0.0292	0.002	0.00001	0.000005	0.05	0.00002	17.2	0.0001	0.000105	0.00031	0.003	0.00145	0.0024	0.5
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.0448	0.00037	0.0303	0.00198	0.00001	0.000005	0.05	0.000005	16.3	0.0001	0.000112	0.00024	0.011	0.000022	0.0021	0.49
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.0367	0.0004	0.0311	0.00199	0.00001	0.000005	0.05	0.000005	17.1	0.0001	0.000099	--	0.01	0.000005	0.0021	0.51
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.0389	0.00033	0.0313	0.00176	0.00001	0.000008	0.05	0.000005	15	0.0001	0.000056	0.0015	0.004	0.000058	0.002	0.43

Date	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
2-Jul-09	0.294	0.00001	0.00029	0.102	0.002	7.65	0.00814	1.18	0.000005	6.6	0.362	119	0.000021	0.00001	0.0005	0.00256	0.0002	0.0014	0.0001
9-Jul-09	0.0577	0.05	0.00073	0.00859	0.007	6.1	0.0138	1.62	0.000013	9.29	0.233	104	0.000019	0.00002	0.0005	0.00102	0.0002	0.0031	0.0001
16-Jul-09	0.0598	0.02	0.00061	0.00893	0.002	6.12	0.0107	1.91	0.000005	6.12	0.218	93	0.000018	0.00001	0.0005	0.00128	0.0002	0.0021	0.0001
23-Jul-09	0.0335	0.00001	0.00027	0.00264	0.002	4.07	0.00754	1.89	0.000005	2.82	0.168	57	0.00001	0.00001	0.0005	0.000635	0.0002	0.0008	0.0001
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.0184	0.00001	0.0002	0.00101	0.003	2.87	0.00452	1.67	0.000005	1.48	0.107	40	0.000006	0.00001	0.0005	0.000406	0.0002	0.0005	0.0001
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.0153	0.00001	0.00017	0.00083	0.002	2.63	0.0039	1.94	0.000005	1.03	0.0851	32	0.000007	0.00001	0.0005	0.000395	0.0002	0.0007	0.0001
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.0141	0.00001	0.00019	0.00062	0.002	2.74	0.00374	2.5	0.000005	0.76	0.0968	39	0.000006	0.00001	0.0005	0.000625	0.0002	0.0006	0.0001
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.0151	0.00001	0.00017	0.00087	0.002	2.34	0.00298	2.32	0.000005	0.6	0.0912	34	0.000007	0.00004	0.0005	0.000626	0.0002	0.0008	0.0001
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.0128	0.00001	0.00019	0.00111	0.003	2.23	0.00211	2.23	0.000011	0.55	0.0762	29	0.000006	0.00013	0.0005	0.000604	0.0002	0.0009	0.0001
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0108	0.00001	0.00019	0.00065	0.002	2	0.00183	2.27	0.000005	0.43	0.0612	22	0.000006	0.00001	0.0005	0.000564	0.0002	0.0026	0.0001
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.0095	0.00001	0.00016	0.00064	0.002	1.58	0.0013	1.71	0.000005	0.35	0.0509	15	0.000005	0.00009	0.0005	0.000525	0.0002	0.0005	0.0001
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.0084	0.00001	0.00021	0.00046	0.002	1.51	0.00125	2.05	0.000005	0.29	0.0452	13	0.000003	0.00004	0.0005	0.000514	0.0002	0.0004	0.0001
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.0075	0.00001	0.00019	0.00041	0.002	1.44	0.00121	2.09	0.000005	0.28	0.0414	13	0.000005	0.00003	0.0005	0.000473	0.0002	0.0036	0.0001
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.0076	0.00001	0.00015	0.00045	0.002	1.22	0.00099	1.76	0.000007	0.19	0.037	12	0.000006	0.00001	0.0005	0.000478	0.0002	0.0006	0.0001
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.0071	0.00001	0.00012	0.0004	0.002	1.29	0.00112	1.91	0.000005	0.19	0.0354	10	0.000005	0.00001	0.0005	0.000436	0.0002	0.0023	0.0001
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.0071	0.00001	0.00013	0.00032	0.002	1.2	0.00104	1.97	0.000005	0.15	0.0327	11	0.000002	0.00007	0.0005	0.000446	0.0002	0.0003	0.0001
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.0068	0.00001	0.00007	0.00041	0.002	1.31	0.00117	1.95	0.000005	0.19	0.0324	10	0.000003	0.00001	0.0005	0.000438	0.0002	0.0004	0.0001
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.0054	0.00001	0.00012	0.00031	0.002	1.08	0.00101	1.78	0.000005	0.21	0.0303	9	0.000005	0.00014	0.0005	0.00045	0.0002	0.0007	0.0001

Cell Terminated

HC 2
Sample = DG07-305
Sample Wt. (kg) **Loadings**

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk
2-Jul-09	3.0927	24.5271	150.54	2.418	0.078	0.004719	0.0001599	0.0003978	0.011388	0.0000039
9-Jul-09	1.1011	10.51435	109.34	7.7	0.154	0.013013	0.0002888	0.006314	0.005929	0.00000385
16-Jul-09	1.392	10.16	76.8	5.2	0.14	0.01576	0.000416	0.00924	0.00536	0.000004
23-Jul-09	1.4652	9.5084	72.6	0.22	0.154	0.0187	0.0002728	0.014696	0.004114	0.0000044
30-Jul-09	2.1371	9.4084	48.16	--	--	--	--	--	--	--
6-Aug-09	1.1125	9.10915	51.62	0.3115	0.12905	0.0230955	0.0002314	0.0141955	0.0021538	0.00000445
13-Aug-09	2.2815	7.335	49.05	--	--	--	--	--	--	--
20-Aug-09	1.48675	7.277	38	0.2375	0.133	0.0259825	0.0002565	0.01501	0.00209	0.00000475
27-Aug-09	1.76085	7.3528	39.13	--	--	--	--	--	--	--
3-Sep-09	1.99475	10.7767	50.5	1.111	0.14645	0.0299465	0.0003182	0.021311	0.0023634	0.00000505
10-Sep-09	0.755	10.835	50	--	--	--	--	--	--	--
17-Sep-09	1.8032	10.1626	46.55	0.343	0.1421	0.020923	0.0003283	0.015631	0.0022736	0.0000049
24-Sep-09	1.35845	11.64025	45.955	--	--	--	--	--	--	--
1-Oct-09	1.48975	10.92315	41.915	0.2525	0.15655	0.023937	0.0002778	0.017574	0.0022271	0.00000505
8-Oct-09	2.2589	11.6914	38.71	--	--	--	--	--	--	--
15-Oct-09	1.525	10.035	33.5	0.25	0.15	0.0219	0.00028	0.0171	0.001825	0.000005
22-Oct-09	1.60875	10.6623	30.69	--	--	--	--	--	--	--
29-Oct-09	1.1613	8.4035	27.93	0.245	0.1421	0.016219	0.0002205	0.013279	0.0013083	0.0000049
5-Nov-09	2.4617	10.57295	23.69	--	--	--	--	--	--	--
12-Nov-09	2.4059	10.2018	20.58	0.245	0.1519	0.018914	0.0002254	0.015337	0.0011662	0.0000049
19-Nov-09	2.7285	11.2251	19.89	--	--	--	--	--	--	--
26-Nov-09	1.26755	12.50885	22.725	0.2525	0.16665	0.023937	0.0002424	0.017069	0.0011666	0.00000505
3-Dec-09	2.56035	10.70095	17.17	--	--	--	--	--	--	--
10-Dec-09	2.6061	8.0988	19.89	0.255	0.1428	0.016779	0.0001785	0.013158	0.0011118	0.0000051
17-Dec-09	1.47965	10.73125	13.635	--	--	--	--	--	--	--
24-Dec-09	1.46	10.13	14	0.25	0.14	0.0152	0.00021	0.0146	0.001	0.000005
31-Dec-09	1.29	7.62	13	--	--	--	--	--	--	--
7-Jan-10	1.4241	10.807	14.14	0.2525	0.1414	0.022624	0.0001869	0.0153015	0.0009999	0.00000505
14-Jan-10	--	8.585	14.645	--	--	--	--	--	--	--
21-Jan-10	1.45945	8.38805	14.14	0.2525	--	0.0185335	0.000202	0.0157055	0.001005	0.00000505
28-Jan-10	2.2351	7.7971	15.45	--	--	--	--	--	--	--
4-Feb-10	2.0349	7.6806	11.22	0.255	0.1326	0.019839	0.0001683	0.015963	0.0008976	0.0000051

Date	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk
2-Jul-09	0.00000195	0.0195	0.00001911	55.38	0.000039	0.01404	0.0000936	0.1404	0.00000273
9-Jul-09	0.000001925	0.01925	0.000010395	37.499	0.0000385	0.000616	0.00308385	0.00154	0.00125125
16-Jul-09	0.000002	0.02	0.0000116	36.56	0.00008	0.000772	0.001032	0.0016	0.0000332
23-Jul-09	0.0000022	0.022	0.00000484	29.304	0.000044	0.00023408	0.00077	0.00132	0.00000704
30-Jul-09	--	--	--	--	--	--	--	--	--
6-Aug-09	0.000002225	0.02225	0.000002225	20.5145	0.0000445	0.00009879	0.0004361	0.001335	0.00000712
13-Aug-09	--	--	--	--	--	--	--	--	--
20-Aug-09	0.000005225	0.02375	0.000003325	18.905	0.0000475	0.00008455	0.00028025	0.003325	0.0000133
27-Aug-09	--	--	--	--	--	--	--	--	--
3-Sep-09	0.000002525	0.02525	0.000002525	23.129	0.0000505	0.000080295	0.00033835	0.00101	0.00001414
10-Sep-09	--	--	--	--	--	--	--	--	--
17-Sep-09	0.00000245	0.0245	0.00000686	20.531	0.000049	0.00009898	0.0003626	0.00147	0.00000441
24-Sep-09	--	--	--	--	--	--	--	--	--
1-Oct-09	0.000002525	0.02525	0.000004545	19.0385	0.0000505	0.000087365	0.0007777	0.002525	0.00000808
8-Oct-09	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0000025	0.025	0.000006	14.7	0.00005	0.000094	0.0006	0.002	0.000057
22-Oct-09	--	--	--	--	--	--	--	--	--
29-Oct-09	0.00000245	0.0245	0.00000245	11.025	0.000049	0.00007105	0.0004116	0.00343	0.00000539
5-Nov-09	--	--	--	--	--	--	--	--	--
12-Nov-09	0.00000245	0.0245	0.00000245	10.143	0.000049	0.00005831	0.0001127	0.00196	0.0000049
19-Nov-09	--	--	--	--	--	--	--	--	--
26-Nov-09	0.000003535	0.02525	0.00001919	9.999	0.0000505	0.000055045	0.00016665	0.003535	0.00114635
3-Dec-09	--	--	--	--	--	--	--	--	--
10-Dec-09	0.00001326	0.0255	0.00000255	9.486	0.000051	0.00006579	0.0002193	0.00306	0.0000051
17-Dec-09	--	--	--	--	--	--	--	--	--
24-Dec-09	0.0000025	0.025	0.00001	8.6	0.00005	0.0000525	0.000155	0.0015	0.000725
31-Dec-09	--	--	--	--	--	--	--	--	--
7-Jan-10	0.000002525	0.02525	0.000002525	8.2315	0.0000505	0.00005656	0.0001212	0.005555	0.00001111
14-Jan-10	--	--	--	--	--	--	--	--	--
21-Jan-10	0.000002525	0.02525	0.000002525	8.6355	0.0000505	0.000049995	--	0.00505	0.000002525
28-Jan-10	--	--	--	--	--	--	--	--	--
4-Feb-10	0.00000408	0.0255	0.00000255	7.65	0.000051	0.00002856	0.000765	0.00204	0.00002958

Date	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk
2-Jul-09	0.005811	3.2331	0.11466	0.0000039	0.0001131	0.03978	0.00078	2.9835	0.0031746	0.4602	0.00000195
9-Jul-09	0.003234	3.19935	0.0222145	0.01925	0.00028105	0.0033072	0.002695	2.3485	0.005313	0.6237	0.000005005
16-Jul-09	0.00344	3.056	0.02392	0.008	0.000244	0.003572	0.0008	2.448	0.00428	0.764	0.000002
23-Jul-09	0.00308	1.716	0.01474	0.0000044	0.0001188	0.0011616	0.00088	1.7908	0.0033176	0.8316	0.0000022
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.0020025	1.0324	0.008188	0.00000445	0.000089	0.0004495	0.001335	1.27715	0.0020114	0.74315	0.000002225
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.0020425	0.89775	0.0072675	0.00000475	0.00008075	0.0003943	0.00095	1.24925	0.0018525	0.9215	0.000002375
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.0022725	0.9393	0.0071205	0.00000505	0.00009595	0.0003131	0.00101	1.3837	0.0018887	1.2625	0.000002525
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.002009	0.7742	0.007399	0.0000049	0.0000833	0.0004263	0.00098	1.1466	0.0014602	1.1368	0.00000245
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.001919	0.6868	0.006464	0.00000505	0.00009595	0.0005606	0.001515	1.12615	0.0010656	1.12615	0.000005555
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0018	0.505	0.0054	0.000005	0.000095	0.000325	0.001	1	0.000915	1.135	0.0000025
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.001421	0.3577	0.0046599	0.0000049	0.0000784	0.0003136	0.00098	0.7742	0.000637	0.8379	0.00000245
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.001323	0.3332	0.0041209	0.0000049	0.0001029	0.0002254	0.00098	0.7399	0.0006125	1.0045	0.00000245
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.0013635	0.3131	0.0037875	0.00000505	0.00009595	0.0002071	0.00101	0.7272	0.0006111	1.05545	0.000002525
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.001122	0.2958	0.0038505	0.0000051	0.0000765	0.0002295	0.00102	0.6222	0.0005049	0.8976	0.00000357
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.0012	0.25	0.00353	0.000005	0.00006	0.0002	0.001	0.645	0.00056	0.955	0.0000025
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.0010605	0.24745	0.0035704	0.00000505	0.00006565	0.0001616	0.00101	0.606	0.0005252	0.99485	0.000002525
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.0010605	0.25755	0.0034542	0.00000505	0.00003535	0.0002071	0.00101	0.66155	0.0005909	0.98475	0.000002525
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.00102	0.2193	0.0027591	0.0000051	0.0000612	0.0001581	0.00102	0.5508	0.0005151	0.9078	0.00000255

Date	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
2-Jul-09	2.574	0.14118	46.41	0.00000819	0.0000039	0.000195	0.0009984	0.000078	0.000546	0.000039
9-Jul-09	3.57665	0.089705	40.04	0.000007315	0.0000077	0.0001925	0.0003927	0.000077	0.0011935	0.0000385
16-Jul-09	2.448	0.0872	37.2	0.0000072	0.000004	0.0002	0.000512	0.00008	0.00084	0.00004
23-Jul-09	1.2408	0.07392	25.08	0.0000044	0.0000044	0.00022	0.0002794	0.000088	0.000352	0.000044
30-Jul-09	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.6586	0.047615	17.8	0.00000267	0.00000445	0.0002225	0.0001807	0.000089	0.0002225	0.0000445
13-Aug-09	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.48925	0.0404225	15.2	0.000003325	0.00000475	0.0002375	0.0001876	0.000095	0.0003325	0.0000475
27-Aug-09	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.3838	0.048884	19.695	0.00000303	0.00000505	0.0002525	0.0003156	0.000101	0.000303	0.0000505
10-Sep-09	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.294	0.044688	16.66	0.00000343	0.0000196	0.000245	0.0003067	0.000098	0.000392	0.000049
24-Sep-09	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.27775	0.038481	14.645	0.00000303	0.00006565	0.0002525	0.000305	0.000101	0.0004545	0.0000505
8-Oct-09	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.215	0.0306	11	0.000003	0.000005	0.00025	0.000282	0.0001	0.0013	0.00005
22-Oct-09	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.1715	0.024941	7.35	0.00000245	0.0000441	0.000245	0.0002573	0.000098	0.000245	0.000049
5-Nov-09	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.1421	0.022148	6.37	0.00000147	0.0000196	0.000245	0.0002519	0.000098	0.000196	0.000049
19-Nov-09	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.1414	0.020907	6.565	0.000002525	0.00001515	0.0002525	0.0002389	0.000101	0.001818	0.0000505
3-Dec-09	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.0969	0.01887	6.12	0.00000306	0.0000051	0.000255	0.0002438	0.000102	0.000306	0.000051
17-Dec-09	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.095	0.0177	5	0.0000025	0.000005	0.00025	0.000218	0.0001	0.00115	0.00005
31-Dec-09	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.07575	0.0165135	5.555	0.00000101	0.00003535	0.0002525	0.0002252	0.000101	0.0001515	0.0000505
14-Jan-10	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.09595	0.016362	5.05	0.000001515	0.00000505	0.0002525	0.0002212	0.000101	0.000202	0.0000505
28-Jan-10	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.1071	0.015453	4.59	0.00000255	0.0000714	0.000255	0.0002295	0.000102	0.000357	0.000051

Cell Terminated

HC 3
Sample = DG07-305C 169.03-178.31
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Volume mL		pH	ORP	Cond.	Acidity (pH 4.5)	Acidity (pH 8.3)	Alkalinity	Sulphate	Chloride	Fluoride	Hardness
		Input	Output		mV	umhos/cm	mgCaCO3/L	mgCaCO3/L	mgCaCO3/L	(mg/L)	(mg/L)	(mg/L)	mg CaCO3/L
2-Jul-09	0	750	385	8.26	233	273	--	0.73	46.2	79	9.2	0.67	73.3
9-Jul-09	1	500	395	7.94	304	243	--	1.59	34.67	86	7.6	0.68	58.8
16-Jul-09	2	500	395	8.18	327	144	--	1.19	33.29	44	0.7	0.79	34.1
23-Jul-09	3	500	455	8.34	337	92	--	0.76	35.35	15	0.5	0.62	22.5
30-Jul-09	4	500	430	7.88	336	78	--	3.1	31.1	9	--	--	--
6-Aug-09	5	500	440	8.15	268	88	--	1.09	32.52	30	0.9	0.48	34.5
13-Aug-09	6	500	460	7.85	310	114	--	3.83	28.39	24	--	--	--
20-Aug-09	7	500	475	7.73	342	124	--	2.13	25.37	40	0.5	0.38	54.9
27-Aug-09	8	500	465	7.99	304	133	--	2.48	27.81	40	--	--	--
3-Sep-09	9	500	455	7.78	225	128	--	3.09	27.95	37	0.5	0.42	62.5
10-Sep-09	10	500	430	8.05	330	134	--	0.8	26.82	38	--	--	--
17-Sep-09	11	500	425	7.96	338	116	--	2.22	27.68	31	0.7	0.43	55.8
24-Sep-09	12	500	440	7.88	342	121	--	1.74	30.58	37	--	--	--
1-Oct-09	13	500	435	8.04	341	91	--	1.5	26.94	22	0.5	0.35	46.3
8-Oct-09	14	500	440	7.65	333	89	--	3.7	25.63	30	--	--	--
15-Oct-09	15	500	450	7.80	348	94	--	2.23	26.27	27	0.5	0.39	53
22-Oct-09	16	500	460	7.68	348	78	--	2.52	23.32	18	--	--	--
29-Oct-09	17	500	445	7.79	342	75	--	1.88	22.04	21	0.5	0.28	37.1
5-Nov-09	18	500	475	8.01	331	86	--	3.12	26.91	18	--	--	--
12-Nov-09	19	500	465	7.73	329	90	--	3.84	27.32	20	0.5	0.34	43.1
19-Nov-09	20	500	450	7.70	343	85	--	4.33	25.81	16	--	--	--
26-Nov-09	21	500	450	8.02	328	86	--	1.64	29.4	19	0.5	0.35	42.1
3-Dec-09	22	500	465	7.62	341	84	--	4.25	26.22	18	--	--	--
10-Dec-09	23	500	475	7.47	380	76	--	4.5	21.23	16	0.5	0.3	39.4
17-Dec-09	24	500	485	7.67	361	81	--	2.65	24.89	12	--	--	--
24-Dec-09	25	500	490	7.88	369	103	--	2.08	35.65	21	0.5	0.55	58.9
31-Dec-09	26	500	500	7.78	390	65	--	2.05	24.85	11	--	--	--
7-Jan-10	27	500	480	7.61	377	83	--	2.26	26.16	15	0.5	0.36	43
14-Jan-10	28	500	480	7.46	349	79	--	--	23.15	15	--	--	--
21-Jan-10	29	500	485	7.55	361	79	--	2.38	26.01	15	0.5	0.41	45.7
28-Jan-10	30	500	500	7.37	358	64	--	3.94	24.38	15	--	--	--
4-Feb-10	31	500	480	7.37	273	62	--	3.23	24.89	14	0.5	0.39	41
11-Feb-10	32	500	480	7.36	342	79	--	2.83	24.92	15	--	--	--
18-Feb-10	33	500	490	7.32	258	90	--	3.69	27.68	17	--	--	--
25-Feb-10	34	500	460	7.42	360	59	--	2.91	20.49	15	--	0.34	32.7
4-Mar-10	35	500	475	7.35	364	69	--	2.69	17.86	16	--	--	--
11-Mar-10	36	500	475	7.34	385	69	--	3.01	20.41	15	--	--	--
18-Mar-10	37	500	485	7.27	363	67	--	3.3	17.31	11	--	0.28	30.4
25-Mar-10	38	500	475	7.50	364	70	--	3.03	21.12	16	--	--	--
1-Apr-10	39	500	515	7.56	375	58	--	2.47	17.28	14	--	--	--
8-Apr-10	40	500	485	7.43	359	70	--	2.66	21	14	--	0.29	33

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg mg/L
2-Jul-09	0.0695	0.0316	0.00541	0.0181	0.00001	0.000007	0.05	0.00001	24.1	0.0001	0.000059	0.00133	0.002	0.000036	0.0101	3.19	0.0052	0.00001
9-Jul-09	0.1	0.063	0.00868	0.0107	0.00001	0.000008	0.05	0.000016	19	0.0001	0.000069	0.00117	0.003	0.00004	0.0072	2.75	0.0043	0.00001
16-Jul-09	0.154	0.0877	0.00866	0.00645	0.00001	0.000011	0.05	0.00001	11.1	0.0004	0.000071	0.002	0.016	0.00011	0.0059	1.57	0.003	0.00001
23-Jul-09	0.129	0.0763	0.00739	0.00443	0.00001	0.000008	0.05	0.000005	7.37	0.0001	0.000027	0.00102	0.003	0.000042	0.0048	1	0.0042	0.00001
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.119	0.0664	0.00564	0.0049	0.00001	0.00001	0.05	0.000005	11.5	0.0001	0.000027	0.00093	0.011	0.000051	0.0043	1.43	0.0051	0.00001
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.104	0.058	0.00303	0.0083	0.00001	0.000023	0.05	0.000005	17.8	0.0001	0.000032	0.00071	0.004	0.000059	0.0052	2.52	0.0074	0.00001
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.119	0.0522	0.0026	0.00823	0.00001	0.000011	0.05	0.000011	20.5	0.0001	0.000037	0.0007	0.003	0.00004	0.0051	2.74	0.0073	0.00001
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.101	0.0422	0.00231	0.00697	0.00001	0.00001	0.05	0.000011	18.6	0.0001	0.00004	0.00133	0.003	0.000031	0.0042	2.29	0.0082	0.00001
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.111	0.0332	0.00197	0.00506	0.00001	0.00001	0.05	0.000007	15.4	0.0001	0.000031	0.00081	0.007	0.00005	0.0031	1.91	0.0074	0.00001
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0861	0.0364	0.00155	0.00597	0.00001	0.00001	0.05	0.000012	17.8	0.0001	0.000114	0.00088	0.004	0.000366	0.0036	2.11	0.0089	0.00001
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.0732	0.0276	0.001	0.00404	0.00001	0.000009	0.05	0.000006	12.4	0.0001	0.000029	0.00072	0.006	0.000077	0.0025	1.46	0.0077	0.00001
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.0971	0.0351	0.0013	0.00434	0.00001	0.000008	0.05	0.000013	14.2	0.0001	0.000026	0.00034	0.003	0.000056	0.0028	1.86	0.0064	0.00001
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.0979	0.0311	0.00128	0.00388	0.00001	0.000017	0.05	0.000005	14.1	0.0001	0.000026	0.00048	0.004	0.00004	0.0023	1.66	0.0068	0.00001
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.0674	0.0273	0.00092	0.00385	0.00001	0.000009	0.05	0.000005	13.2	0.0001	0.000044	0.00031	0.005	0.00003	0.0021	1.58	0.0072	0.00001
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.072	0.0481	0.00173	0.00603	0.00001	0.000005	0.05	0.000007	19.9	0.0001	0.000046	0.00041	0.002	0.000435	0.0037	2.21	0.0084	0.00001
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.0706	0.0318	0.00132	0.00405	0.00001	0.000006	0.05	0.000007	14.5	0.0001	0.000037	0.00103	0.006	0.00014	0.0023	1.67	0.0095	0.00001
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.0731	0.0356	0.00114	0.00417	0.00001	0.000005	0.05	0.000008	15.3	0.0001	0.000031	--	0.003	0.000019	0.0023	1.8	0.0083	0.00001
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.0639	0.031	0.00091	0.00406	0.00001	0.000005	0.05	0.000005	13.7	0.0001	0.000036	0.00077	0.003	0.000063	0.0023	1.63	0.0078	0.00001
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.068	0.0225	0.00092	0.00332	0.00001	0.00001	0.05	0.000005	11.1	0.0001	0.000045	0.00038	0.001	0.000019	0.0019	1.19	0.0077	0.00001
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0605	0.0174	0.00067	0.00314	0.00001	0.000005	0.05	0.000033	10.3	0.0001	0.00003	0.00032	0.003	0.000219	0.0016	1.16	0.0079	0.00001
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.061	0.0183	0.00067	0.00558	0.00001	0.000005	0.05	0.000005	11.1	0.0001	0.000038	0.00094	0.003	0.000023	0.0016	1.27	0.008	0.00001

Date	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
2-Jul-09	0.0233	0.00072	0.005	4.44	0.0091	1.29	0.00002	28.1	1.03	27	0.000018	0.00001	0.0005	0.0302	0.0005	0.0008	0.0001
9-Jul-09	0.0529	0.00063	0.004	3.12	0.0104	1.1	0.000005	28.6	0.734	29	0.000009	0.00001	0.0005	0.0514	0.0006	0.0004	0.0001
16-Jul-09	0.0361	0.00057	0.004	2.53	0.00442	1.29	0.000005	18.5	0.455	15	0.000008	0.00003	0.0005	0.0498	0.0008	0.0007	0.0001
23-Jul-09	0.0141	0.00018	0.002	1.96	0.002	1.08	0.000005	9.6	0.293	5	0.000009	0.00001	0.0005	0.0345	0.0004	0.0004	0.0001
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.00865	0.00022	0.003	2.07	0.00186	1.14	0.000005	7.43	0.394	10	0.000007	0.00006	0.0006	0.0457	0.0004	0.0008	0.0001
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.00486	0.00024	0.002	2.45	0.00145	1.24	0.000005	5.26	0.643	13	0.00001	0.00001	0.0005	0.0648	0.0003	0.0006	0.0001
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.00389	0.00028	0.004	2.46	0.00165	1.23	0.000005	3.72	0.738	15	0.000009	0.00002	0.0005	0.0509	0.0003	0.0007	0.0001
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.00318	0.00025	0.002	1.96	0.00118	1.12	0.000005	2.44	0.632	11	0.000008	0.00009	0.0005	0.0324	0.0002	0.0006	0.0001
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.00271	0.00024	0.005	1.65	0.00104	0.95	0.000005	1.54	0.476	8	0.000007	0.00002	0.0005	0.0258	0.0002	0.0004	0.0001
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0028	0.00023	0.002	1.8	0.0011	0.99	0.000005	1.32	0.564	10	0.000007	0.00002	0.0005	0.0332	0.0002	0.0008	0.0001
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.00203	0.00027	0.003	1.24	0.00083	0.64	0.000005	0.75	0.401	7	0.000007	0.00009	0.0005	0.0241	0.0002	0.0005	0.0001
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.00232	0.00022	0.004	1.42	0.0008	0.84	0.000005	0.79	0.471	7	0.000005	0.00002	0.0005	0.0263	0.0002	0.0006	0.0001
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.00206	0.00018	0.002	1.3	0.00082	0.82	0.000005	0.65	0.403	6	0.000006	0.00004	0.0005	0.0186	0.0002	0.0003	0.0001
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.00188	0.00012	0.002	1.1	0.00064	0.72	0.000007	0.48	0.382	6	0.000008	0.00002	0.0007	0.0235	0.0002	0.0004	0.0001
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.00249	0.00029	0.002	1.82	0.00115	1.39	0.000005	0.66	0.593	8	0.000009	0.00001	0.0005	0.0334	0.0002	0.0007	0.0001
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.00161	0.00015	0.002	1.21	0.00076	0.88	0.000005	0.4	0.402	6	0.000003	0.00009	0.0005	0.0241	0.0002	0.0011	0.0001
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.00165	0.00021	0.002	1.42	0.00083	0.95	0.000023	0.44	0.404	6	0.00001	0.00001	0.0005	0.0222	0.0002	0.0005	0.0001
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.00152	0.00025	0.002	1.22	0.00082	0.95	0.000005	0.4	0.408	6	0.000009	0.00016	0.0005	0.0219	0.0002	0.0006	0.0001
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.001	0.00018	0.002	0.92	0.00075	0.79	0.000005	0.26	0.315	5	0.000008	0.00001	0.0005	0.0129	0.0002	0.0009	0.0001
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.00092	0.00023	0.002	0.86	0.00068	0.67	0.000005	0.24	0.294	10	0.000007	0.00001	0.0005	0.0119	0.0002	0.0028	0.0001
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.00097	0.0002	0.002	0.9	0.00071	0.66	0.000005	0.26	0.304	5	0.000004	0.00002	0.0005	0.0126	0.0002	0.0005	0.0001

Cell Terminated

HC 3
Sample = DG07-305
Sample Wt. (kg) **Loadings**

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk
2-Jul-09	0.28105	17.787	30.415	3.542	0.25795	0.0267575	0.012166	0.0020829	0.0069685	0.00000385	0.000002695	0.01925	0.00000385
9-Jul-09	0.62805	13.69465	33.97	3.002	0.2686	0.0395	0.024885	0.0034286	0.0042265	0.00000395	0.00000316	0.01975	0.00000632
16-Jul-09	0.47005	13.14955	17.38	0.2765	0.31205	0.06083	0.0346415	0.0034207	0.0025478	0.00000395	0.000004345	0.01975	0.00000395
23-Jul-09	0.3458	16.08425	6.825	0.2275	0.2821	0.058695	0.0347165	0.0033625	0.0020157	0.00000455	0.00000364	0.02275	0.000002275
30-Jul-09	1.333	13.373	3.87	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.4796	14.3088	13.2	0.396	0.2112	0.05236	0.029216	0.0024816	0.002156	0.0000044	0.0000044	0.022	0.0000022
13-Aug-09	1.7618	13.0594	11.04	--	--	--	--	--	--	--	--	--	--
20-Aug-09	1.01175	12.05075	19	0.2375	0.1805	0.0494	0.02755	0.0014393	0.0039425	0.00000475	0.000010925	0.02375	0.000002375
27-Aug-09	1.1532	12.93165	18.6	--	--	--	--	--	--	--	--	--	--
3-Sep-09	1.40595	12.71725	16.835	0.2275	0.1911	0.054145	0.023751	0.001183	0.0037447	0.00000455	0.000005005	0.02275	0.000005005
10-Sep-09	0.344	11.5326	16.34	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.9435	11.764	13.175	0.2975	0.18275	0.042925	0.017935	0.0009818	0.0029623	0.00000425	0.00000425	0.02125	0.000004675
24-Sep-09	0.7656	13.4552	16.28	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.6525	11.7189	9.57	0.2175	0.15225	0.048285	0.014442	0.000857	0.0022011	0.00000435	0.00000435	0.02175	0.000003045
8-Oct-09	1.628	11.2772	13.2	--	--	--	--	--	--	--	--	--	--
15-Oct-09	1.0035	11.8215	12.15	0.225	0.1755	0.038745	0.01638	0.0006975	0.0026865	0.0000045	0.0000045	0.0225	0.0000054
22-Oct-09	1.1592	10.7272	8.28	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.8366	9.8078	9.345	0.2225	0.1246	0.032574	0.012282	0.000445	0.0017978	0.00000445	0.000004005	0.02225	0.00000267
5-Nov-09	1.482	12.78225	8.55	--	--	--	--	--	--	--	--	--	--
12-Nov-09	1.7856	12.7038	9.3	0.2325	0.1581	0.0451515	0.0163215	0.0006045	0.0020181	0.00000465	0.00000372	0.02325	0.000006045
19-Nov-09	1.9485	11.6145	7.2	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.738	13.23	8.55	0.225	0.1575	0.044055	0.013995	0.000576	0.001746	0.0000045	0.00000765	0.0225	0.00000225
3-Dec-09	1.97625	12.1923	8.37	--	--	--	--	--	--	--	--	--	--
10-Dec-09	2.1375	10.08425	7.6	0.2375	0.1425	0.032015	0.0129675	0.000437	0.0018288	0.00000475	0.000004275	0.02375	0.000002375
17-Dec-09	1.28525	12.07165	5.82	--	--	--	--	--	--	--	--	--	--
24-Dec-09	1.0192	17.4685	10.29	0.245	0.2695	0.03528	0.023569	0.0008477	0.0029547	0.0000049	0.00000245	0.0245	0.00000343
31-Dec-09	1.025	12.425	5.5	--	--	--	--	--	--	--	--	--	--
7-Jan-10	1.0848	12.5568	7.2	0.24	0.1728	0.033888	0.015264	0.0006336	0.001944	0.0000048	0.00000288	0.024	0.00000336
14-Jan-10	--	11.112	7.2	--	--	--	--	--	--	--	--	--	--
21-Jan-10	1.1543	12.61485	7.275	0.2425	0.19885	0.0354535	0.017266	0.0005529	0.0020225	0.00000485	0.000002425	0.02425	0.00000388
28-Jan-10	1.97	12.19	7.5	--	--	--	--	--	--	--	--	--	--
4-Feb-10	1.5504	11.9472	6.72	0.24	0.1872	0.030672	0.01488	0.0004368	0.0019488	0.0000048	0.0000024	0.024	0.0000024
11-Feb-10	1.3584	11.9616	7.2	--	--	--	--	--	--	--	--	--	--
18-Feb-10	1.8081	13.5632	8.33	--	--	--	--	--	--	--	--	--	--
25-Feb-10	1.3386	9.4254	6.9	--	0.1564	0.03128	0.01035	0.0004232	0.0015272	0.0000046	0.0000046	0.023	0.0000023
4-Mar-10	1.27775	8.4835	7.6	--	--	--	--	--	--	--	--	--	--
11-Mar-10	1.42975	9.69475	7.125	--	--	--	--	--	--	--	--	--	--
18-Mar-10	1.6005	8.39535	5.335	--	0.1358	0.0293425	0.008439	0.000325	0.0015229	0.00000485	0.000002425	0.02425	0.000016005
25-Mar-10	1.43925	10.032	7.6	--	--	--	--	--	--	--	--	--	--
1-Apr-10	1.27205	8.8992	7.21	--	--	--	--	--	--	--	--	--	--
8-Apr-10	1.2901	10.185	6.79	--	0.14065	0.029585	0.0088755	0.000325	0.0027063	0.00000485	0.000002425	0.02425	0.000002425

Date	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk
2-Jul-09	9.2785	0.0000385	0.000022715	0.0005121	0.00077	0.00001386	0.0038885	1.22815	0.0019905	0.00000385	0.0089705	0.0002772
9-Jul-09	7.505	0.0000395	0.000027255	0.0004622	0.001185	0.0000158	0.002844	1.08625	0.0016946	0.00000395	0.0208955	0.00024885
16-Jul-09	4.3845	0.000158	0.000028045	0.00079	0.00632	0.00004345	0.0023305	0.62015	0.0011811	0.00000395	0.0142595	0.00022515
23-Jul-09	3.35335	0.0000455	0.000012285	0.0004641	0.001365	0.00001911	0.002184	0.455	0.001911	0.00000455	0.0064155	0.0000819
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	5.06	0.000044	0.00001188	0.0004092	0.00484	0.00002244	0.001892	0.6292	0.0022616	0.0000044	0.003806	0.0000968
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	8.455	0.0000475	0.0000152	0.0003373	0.0019	0.000028025	0.00247	1.197	0.0035293	0.00000475	0.0023085	0.000114
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	9.3275	0.0000455	0.000016835	0.0003185	0.001365	0.0000182	0.0023205	1.2467	0.0033215	0.00000455	0.00177	0.0001274
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	7.905	0.0000425	0.000017	0.0005653	0.001275	0.000013175	0.001785	0.97325	0.0034893	0.00000425	0.0013515	0.00010625
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	6.699	0.0000435	0.000013485	0.0003524	0.003045	0.00002175	0.0013485	0.83085	0.0032321	0.00000435	0.0011789	0.0001044
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	8.01	0.000045	0.0000513	0.000396	0.0018	0.0001647	0.00162	0.9495	0.004005	0.0000045	0.00126	0.0001035
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	5.518	0.0000445	0.000012905	0.0003204	0.00267	0.000034265	0.0011125	0.6497	0.0034221	0.00000445	0.0009034	0.00012015
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	6.603	0.0000465	0.00001209	0.0001581	0.001395	0.00002604	0.001302	0.8649	0.0029574	0.00000465	0.0010788	0.0001023
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	6.345	0.000045	0.0000117	0.000216	0.0018	0.000018	0.001035	0.747	0.0030645	0.0000045	0.000927	0.000081
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	6.27	0.0000475	0.0000209	0.0001473	0.002375	0.00001425	0.0009975	0.7505	0.0034248	0.00000475	0.000893	0.000057
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	9.751	0.000049	0.00002254	0.0002009	0.00098	0.00021315	0.001813	1.0829	0.0041013	0.0000049	0.0012201	0.0001421
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	6.96	0.000048	0.00001776	0.0004944	0.00288	0.0000672	0.001104	0.8016	0.0045504	0.0000048	0.0007728	0.000072
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	7.4205	0.0000485	0.000015035	--	0.001455	0.000009215	0.0011155	0.873	0.0040255	0.00000485	0.0008003	0.00010185
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	6.576	0.000048	0.00001728	0.0003696	0.00144	0.00003024	0.001104	0.7824	0.0037248	0.0000048	0.0007296	0.00012
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	5.106	0.000046	0.0000207	0.0001748	0.00046	0.00000874	0.000874	0.5474	0.0035374	0.0000046	0.00046	0.0000828
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	4.9955	0.0000485	0.00001455	0.0001552	0.001455	0.000106215	0.000776	0.5626	0.0038412	0.00000485	0.0004462	0.00011155
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	5.3835	0.0000485	0.00001843	0.0004559	0.001455	0.000011155	0.000776	0.61595	0.0038703	0.00000485	0.0004705	0.000097

Date	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
2-Jul-09	0.001925	1.7094	0.0035035	0.49665	0.0000077	10.8185	0.39655	10.395	0.00000693	0.00000385	0.0001925	0.011627	0.0001925	0.000308	0.0000385
9-Jul-09	0.00158	1.2324	0.004108	0.4345	0.000001975	11.297	0.28993	11.455	0.000003555	0.00000395	0.0001975	0.020303	0.000237	0.000158	0.0000395
16-Jul-09	0.00158	0.99935	0.0017459	0.50955	0.000001975	7.3075	0.179725	5.925	0.00000316	0.00001185	0.0001975	0.019671	0.000316	0.0002765	0.0000395
23-Jul-09	0.00091	0.8918	0.00091	0.4914	0.000002275	4.368	0.133315	2.275	0.000004095	0.00000455	0.0002275	0.0156975	0.000182	0.000182	0.0000455
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.00132	0.9108	0.0008184	0.5016	0.0000022	3.2692	0.17336	4.4	0.00000308	0.0000264	0.000264	0.020108	0.000176	0.000352	0.000044
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.00095	1.16375	0.0006888	0.589	0.000002375	2.4985	0.305425	6.175	0.00000475	0.00000475	0.0002375	0.03078	0.0001425	0.000285	0.0000475
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.00182	1.1193	0.0007508	0.55965	0.000002275	1.6926	0.33579	6.825	0.000004095	0.0000091	0.0002275	0.0231595	0.0001365	0.0003185	0.0000455
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.00085	0.833	0.0005015	0.476	0.000002125	1.037	0.2686	4.675	0.0000034	0.00003825	0.0002125	0.01377	0.000085	0.000255	0.0000425
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.002175	0.71775	0.0004524	0.411945	0.000002175	0.6699	0.20706	3.48	0.000003045	0.0000087	0.0002175	0.011223	0.000087	0.000174	0.0000435
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0009	0.81	0.000495	0.4473	0.00000225	0.594	0.2538	4.5	0.00000315	0.000009	0.000225	0.01494	0.00009	0.00036	0.000045
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.001335	0.5518	0.0003694	0.28391	0.000002225	0.33375	0.178445	3.115	0.000003115	0.00004005	0.0002225	0.0107245	0.000089	0.0002225	0.0000445
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.00186	0.6603	0.000372	0.390135	0.000002325	0.36735	0.219015	3.255	0.000002325	0.0000093	0.0002325	0.0122295	0.000093	0.000279	0.0000465
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.0009	0.585	0.000369	0.3699	0.00000225	0.2925	0.18135	2.7	0.0000027	0.000018	0.000225	0.00837	0.00009	0.000135	0.000045
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.00095	0.5225	0.000304	0.3439	0.000003325	0.228	0.18145	2.85	0.0000038	0.0000095	0.0003325	0.0111625	0.000095	0.00019	0.0000475
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.00098	0.8918	0.0005635	0.6811	0.00000245	0.3234	0.29057	3.92	0.00000441	0.0000049	0.000245	0.016366	0.000098	0.000343	0.000049
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.00096	0.5808	0.0003648	0.42336	0.0000024	0.192	0.19296	2.88	0.00000144	0.0000432	0.00024	0.011568	0.000096	0.000528	0.000048
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.00097	0.6887	0.0004026	0.45978	0.000011155	0.2134	0.19594	2.91	0.00000485	0.00000485	0.0002425	0.010767	0.000097	0.0002425	0.0000485
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.00096	0.5856	0.0003936	0.4536	0.0000024	0.192	0.19584	2.88	0.00000432	0.0000768	0.00024	0.010512	0.000096	0.000288	0.000048
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.00092	0.4232	0.000345	0.36478	0.0000023	0.1196	0.1449	2.3	0.00000368	0.0000046	0.00023	0.005934	0.000092	0.000414	0.000046
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.00097	0.4171	0.0003298	0.324465	0.000002425	0.1164	0.14259	4.85	0.000003395	0.00000485	0.0002425	0.0057715	0.000097	0.001358	0.0000485
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.00097	0.4365	0.0003444	0.321555	0.000002425	0.1261	0.14744	2.425	0.00000194	0.0000097	0.0002425	0.006111	0.000097	0.0002425	0.0000485

Cell Terminated

HC 4
Sample = DG07-305C 169.03-178.31
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP	Cond.	Acidity (pH 4.5)	Acidity (pH 8.3)	Alkalinity	Sulphate	Chloride	Fluoride	Hardness	Al	Sb	As	Ba	Be	Bi	B	Cd	Ca	Cr
					mV	umhos/cm	mgCaCO3/L	mgCaCO3/L	mgCaCO3/L	(mg/L)	(mg/L)	(mg/L)	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
2-Jul-09	0	750	350	8.22	252	259	--	0.89	52.72	80	4.9	0.39	106	0.0355	0.0247	0.0374	0.0226	0.00001	0.000052	0.05	0.000007	35.7	0.0001
9-Jul-09	1	500	435	7.93	306	305	--	2.01	40.8	113	5.6	0.52	134	0.0449	0.0615	0.0937	0.022	0.00001	0.000045	0.05	0.000014	45	0.0001
16-Jul-09	2	500	395	8.03	329	179	--	2.04	42.19	55	1.1	0.62	72.6	0.0662	0.0869	0.125	0.0136	0.00001	0.000041	0.05	0.000012	23.7	0.0001
23-Jul-09	3	500	455	8.12	346	134	--	1.58	42.09	28	0.5	0.42	49	0.0707	0.0791	0.111	0.0103	0.00001	0.000025	0.05	0.000014	16	0.0001
30-Jul-09	4	500	450	7.98	343	117	--	4.12	39.03	22	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	5	500	475	8.05	279	116	--	1.63	44.07	32	0.9	0.29	63.3	0.0636	0.0831	0.0953	0.0111	0.00001	0.000033	0.05	0.000007	20.9	0.0001
13-Aug-09	6	500	465	7.78	317	157	--	4.53	46.27	34	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	7	500	480	7.81	345	163	--	2.39	39.77	45	2.3	0.24	83	0.065	0.104	0.0948	0.0165	0.00001	0.000032	0.05	0.000011	27.3	0.0001
27-Aug-09	8	500	470	7.96	305	165	--	2.84	41.97	46	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	9	500	480	7.86	257	168	--	3.46	41.21	48	0.5	0.19	88.9	0.0625	0.117	0.0914	0.0161	0.00001	0.000041	0.05	0.000019	29.2	0.0001
10-Sep-09	10	500	440	8.04	331	152	--	0.9	36.8	41	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	11	500	465	7.94	340	174	--	2.62	41.94	46	0.5	0.16	92.3	0.069	0.101	0.0796	0.0146	0.00001	0.000032	0.05	0.000021	30.4	0.0001
24-Sep-09	12	500	460	7.92	342	158	--	2.01	45.29	47	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	13	500	440	7.92	346	165	--	2.03	46.42	42	0.5	0.12	89.1	0.0545	0.0866	0.0628	0.014	0.00001	0.00002	0.05	0.000051	29.2	0.0001
8-Oct-09	14	500	445	7.71	337	157	--	3.7	42.57	48	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	15	500	435	7.88	348	144	--	2.33	47.87	37	0.5	0.11	85.1	0.0574	0.0845	0.0718	0.012	0.00001	0.000025	0.05	0.000024	28	0.0001
22-Oct-09	16	500	445	7.81	344	130	--	2.33	38.69	34	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	17	500	455	7.90	345	139	--	2.01	44.07	34	0.5	0.08	73.1	0.0544	0.0756	0.0551	0.0103	0.00001	0.000026	0.05	0.000012	24.3	0.0001
5-Nov-09	18	500	480	7.90	336	125	--	3.77	43	24	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	19	500	465	7.71	331	122	--	4.65	44.35	26	0.5	0.07	64.4	0.0646	0.0729	0.0534	0.00879	0.00001	0.000023	0.05	0.000011	21	0.0003
19-Nov-09	20	500	470	7.72	345	118	--	4.69	39.6	19	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	21	500	460	7.97	345	130	--	2.23	49.17	26	0.5	0.08	70.6	0.0611	0.0768	0.0598	0.00904	0.00001	0.000031	0.05	0.000016	23.3	0.0001
3-Dec-09	22	500	470	7.69	345	132	--	4.72	51.95	22	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	23	500	470	7.66	380	126	--	4.99	47.09	23	0.5	0.06	70.6	0.0651	0.0561	0.0466	0.00889	0.00001	0.000036	0.05	0.000005	23.3	0.0001
17-Dec-09	24	500	490	7.88	361	143	--	2.67	53.72	23	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	25	500	475	7.89	368	124	--	2.35	49.41	26	0.5	0.05	78.6	0.0536	0.068	0.0531	0.00932	0.00001	0.000015	0.05	0.000006	26.4	0.0001
31-Dec-09	26	500	465	7.85	392	135	--	2.44	46.68	24	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	27	500	500	7.81	379	138	--	2.19	46.91	26	0.5	0.05	75.6	0.0528	0.0533	0.0429	0.00883	0.00001	0.000016	0.05	0.000006	25	0.0001
14-Jan-10	28	500	485	7.63	349	140	--	--	50.27	22	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	29	500	475	7.77	361	120	--	2.48	43.94	21	0.5	0.05	71.4	0.0596	0.0531	0.045	0.00808	0.00001	0.000017	0.05	0.000009	23.6	0.0001
28-Jan-10	30	500	490	7.60	354	101	--	4.16	42.11	26	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	31	500	470	7.59	271	96	--	3.51	46.07	18	0.5	0.05	63.8	0.0513	0.0485	0.0439	0.00776	0.00001	0.000016	0.05	0.000007	21	0.0001
11-Feb-10	32	500	480	7.61	341	122	--	3.26	47.02	22	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	33	500	475	7.57	268	118	--	3.87	45.88	18	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	34	500	460	7.67	354	109	--	3.08	46.12	15	--	0.04	65.6	0.0567	0.0457	0.0537	0.00822	0.00001	0.000011	0.05	0.000005	21.6	0.0001
4-Mar-10	35	500	455	7.72	359	116	--	2.87	43.84	20	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	36	500	475	7.64	378	108	--	3.07	43.06	17	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	37	500	475	7.52	368	107	--	3.7	38.16	15	--	0.03	50.5	0.0479	0.0305	0.0297	0.00627	0.00001	0.000014	0.05	0.000013	16.5	0.0001
25-Mar-10	38	500	475	7.69	363	105	--	3.25	38.11	18	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	39	500	445	7.77	375	116	--	2.45	45.26	21	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	40	500	470	7.68	356	108	--	2.57	39.3	19	--	0.04	56.2	0.0524	0.0323	0.0358	0.0126	0.00001	0.000011	0.05	0.00001	18.4	0.0001
15-Apr-10	41	500	490	7.61	319	133	--	4.02	49.3	22	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	42	500	490	7.63	351	119	--	4.35	40.4	25	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	43	500	495	7.75	355	136	--	2.41	50.43	25	--	0.06	72.3	0.046	0.0415	0.0409	0.00828	0.00001	0.000011	0.05	0.000012	24.2	0.0001
6-May-10	44	500	460	7.58	317	123	--	4.93	47.49	22	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	45	500	475	7.55	316	101	--	3.56	30.84	21	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	46	500	465	7.65	358	110	--	4.14	35.27	22	--	0.03	56.9	0.0669	0.0256	0.0451	0.00646	0.00001	0.00001	0.05	0.000037	18.7	0.0001
27-May-10	47	500	475	7.58	377	100	--	5.81	34.16	13	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	48	500	465	7.62	362	119	--	3.42	36.77	21	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	49	500	470	7.53	292	118	--	5.33	39.66	19	--	0.03	50.2	0.0553	0.0292	0.0466	0.00682	0.00001	0.000008	0.05	0.000006	15.6	0.0001
17-Jun-10	50	500	455	7.63	338	113	--	4.13	36.67	12	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	51	500	470	7.75	407	119	--	2.81	38.78	19	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	52	500	470	7.72	414	120	--	2.86	41.78	18	--	0.05	53.9	0.0506	0.025	0.0398	0.006	0.00001	0.000005	0.05	0.000005	17	0.0001
8-Jul-10	53	500	480	7.68	308	117	--	2.43	41.5	18	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	54	500	480	7.53	341	114	--	4.22	37.72	17	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	55	500	490	7.51	364	116	--	4.19	39.06	17	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	56	500	490	7.55	342	114	--	4.8	38.83	21	--	0.03	55.5	0.0624	0.0211	0.0377	0.00618	0.00001	0.000009	0.05	0.000006	17.7	0.0001
5-Aug-10	57	500	480	7.75	272	117	--	2.7	41.52	16	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	58	500	480	7.63	396	123	--	5.19	42.32	20	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	59	500	465	7.59	360	117	--	5.67	40.84	17	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	60	500	480	7.61	364	116	--	3.13	41.84	19	--	0.05	57.5	0.055	0.0204	0.0374	0.007	0.00001	0.000006	0.05	0.000008	18.2	0.0001
2-Sep-10	61	500	465	7.59	305	113	--	4.46	46.68	35	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	62	500	490	7.39	376	129	--	6	45.54	24	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	63	500	485	7.53	367	110	--	3.59	41.48	23	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Cycle	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	S	Tl	Sn	Ti	U	V	Zn	Zr
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
2-Jul-09	0	0.00033	0.00326	0.002	0.000056	0.0096	4.19	0.0053	0.00001	0.0146	0.00172	0.007	6.01	0.0117	1.46	0.000005	10.6	1.11	23	0.000224	0.00001	0.0005	0.0232	0.0003	0.0003	0.0001
9-Jul-09	1	0.000306	0.00321	0.002	0.000163	0.0132	5.2	0.0051	0.00001	0.0295	0.00769	0.003	6.68	0.0181	2.25	0.000005	14.2	1.34	37	0.000236	0.00002	0.0005	0.0437	0.0005	0.0007	0.0001
16-Jul-09	2	0.000195	0.00216	0.003	0.000125	0.0114	3.26	0.0037	0.00001	0.0296	0.0046	0.003	5.84	0.00939	2.33	0.000005	10.4	0.78	19	0.000226	0.00005	0.0005	0.0521	0.0007	0.001	0.0001
23-Jul-09	3	0.000074	0.00183	0.002	0.000118	0.0085	2.22	0.0042	0.00001	0.0148	0.0014	0.002	4.44	0.00585	2.14	0.000005	5.28	0.57	9	0.000197	0.00001	0.0005	0.0393	0.0005	0.0007	0.0001
30-Jul-09	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	5	0.000068	0.00108	0.003	0.00652	0.0069	2.66	0.0053	0.00001	0.00812	0.00055	0.003	4.48	0.00486	2.1	0.000005	2.98	0.622	11	0.000215	0.00001	0.0005	0.0491	0.0005	0.0004	0.0001
13-Aug-09	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	7	0.000108	0.00068	0.004	0.000315	0.0073	3.62	0.0064	0.00001	0.00547	0.00088	0.002	5.07	0.00441	2.34	0.000005	1.76	0.848	16	0.000281	0.00002	0.0005	0.0478	0.0005	0.0026	0.0001
27-Aug-09	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	9	0.000104	0.0008	0.002	0.000141	0.0066	3.89	0.007	0.00001	0.00425	0.00035	0.003	4.6	0.00475	2.41	0.000005	1.05	0.903	17	0.000293	0.00001	0.0005	0.0412	0.0004	0.0006	0.0001
10-Sep-09	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	11	0.000101	0.0018	0.004	0.000133	0.0062	3.96	0.0061	0.00001	0.00365	0.00036	0.002	3.88	0.00405	2.21	0.000005	0.81	0.935	16	0.00028	0.00009	0.0005	0.0368	0.0003	0.0012	0.0001
24-Sep-09	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	13	0.000122	0.00125	0.003	0.000496	0.0053	3.95	0.0084	0.00001	0.00306	0.00039	0.002	3.43	0.00317	1.87	0.000005	0.62	0.875	16	0.000236	0.00001	0.0005	0.0345	0.0002	0.0028	0.0001
8-Oct-09	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	15	0.000112	0.00186	0.003	0.000123	0.0051	3.67	0.0067	0.00001	0.00253	0.00028	0.002	3.19	0.00329	1.83	0.000005	0.56	0.79	13	0.000216	0.00001	0.0005	0.0293	0.0002	0.0016	0.0001
22-Oct-09	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	17	0.000093	0.00116	0.004	0.000137	0.0042	3.05	0.0072	0.00001	0.00218	0.00043	0.003	2.43	0.0027	1.42	0.000005	0.44	0.724	11	0.000196	0.00006	0.0005	0.0295	0.0002	0.0009	0.0001
5-Nov-09	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	19	0.000091	0.00044	0.003	0.000134	0.0035	2.9	0.0066	0.00001	0.00188	0.00029	0.002	2.11	0.00246	1.5	0.000005	0.37	0.625	8	0.000195	0.00002	0.0005	0.0251	0.0002	0.001	0.0001
19-Nov-09	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	21	0.00008	0.00057	0.002	0.00088	0.0035	3	0.006	0.00001	0.00179	0.00027	0.002	2.08	0.00271	1.6	0.000005	0.35	0.632	9	0.000205	0.00002	0.0005	0.0221	0.0002	0.0014	0.0001
3-Dec-09	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	23	0.000112	0.00046	0.004	0.000142	0.0031	3.04	0.0062	0.00001	0.0015	0.00021	0.002	1.76	0.00206	1.36	0.000005	0.25	0.624	9	0.000171	0.00001	0.0005	0.0261	0.0002	0.0008	0.0001
17-Dec-09	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	25	0.000107	0.00058	0.002	0.000135	0.0033	3.09	0.0076	0.00001	0.00143	0.00025	0.002	1.92	0.0025	1.47	0.000005	0.24	0.673	10	0.000202	0.00001	0.0005	0.0234	0.0002	0.0008	0.0001
31-Dec-09	26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	27	0.000099	0.00036	0.002	0.000072	0.0029	3.2	0.0076	0.00001	0.0013	0.00018	0.002	1.61	0.00214	1.33	0.000005	0.21	0.65	10	0.000169	0.00008	0.0005	0.0213	0.0002	0.0005	0.0001
14-Jan-10	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	29	0.000085	--	0.003	0.000068	0.0026	3.02	0.0071	0.00001	0.00128	0.00023	0.002	1.58	0.00217	1.19	0.000011	0.22	0.576	9	0.000175	0.00001	0.0005	0.0171	0.0002	0.0008	0.0001
28-Jan-10	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	31	0.000075	0.00099	0.003	0.000105	0.0026	2.76	0.0061	0.00001	0.00126	0.00029	0.002	1.34	0.0022	1.21	0.000005	0.24	0.575	7	0.000169	0.00017	0.0005	0.0162	0.0002	0.0007	0.0001
11-Feb-10	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	34	0.000154	0.00059	0.001	0.00007	0.0028	2.82	0.007	0.00001	0.00105	0.00029	0.002	1.35	0.00243	1.2	0.000005	0.22	0.565	8	0.000178	0.00001	0.0005	0.0132	0.0002	0.0011	0.0001
4-Mar-10	35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	37	0.000074	0.00047	0.002	0.000146	0.002	2.23	0.0067	0.00001	0.00083	0.00024	0.002	0.94	0.0018	0.845	0.000005	0.17	0.454	10	0.00014	0.00001	0.0005	0.0117	0.0002	0.0008	0.0001
25-Mar-10	38	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	40	0.000079	0.00064	0.002	0.000067	0.0022	2.51	0.0068	0.00001	0.00079	0.00021	0.002	1.07	0.00199	0.91	0.000005	0.2	0.455	7	0.000131	0.00002	0.0005	0.00997	0.0002	0.0008	0.0001
15-Apr-10	41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	42	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	43	0.000081	0.00059	0.005	0.000067	0.0028	2.9	0.0072	0.00001	0.00099	0.00025	0.002	1.19	0.00244	1.12	0.000005	0.2	0.597	10	0.000176	0.00001	0.0005	0.0136	0.0002	0.0008	0.0001
6-May-10	44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	46	0.000054	0.00047	0.002	0.000674	0.0022	2.45	0.0054	0.00001	0.0008	0.00026	0.002	0.97	0.00233	0.915	0.000005	0.2	0.436	10	0.000156	0.00004	0.0005	0.00581	0.0002	0.003	0.0001
27-May-10	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	49	0.000047	0.00038	0.002	0.00004	0.0026	2.73	0.0054	0.00001	0.00074	0.00019	0.002	1.1	0.0027	0.65	0.000005	0.22	0.475	10	0.000182	0.00002	0.0005	0.00662	0.0002	0.0006	0.0001
17-Jun-10	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	52	0.000052	0.00039	0.001	0.000057	0.0022	2.75	0.0065	0.00001	0.0007	0.00014	0.002	0.98	0.00229	0.817	0.000005	0.18	0.458	10	0.000172	0.00002	0.0005	0.00689	0.0002	0.0005	0.0001
8-Jul-10	53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	56	0.000062	0.00046	0.003	0.00004	0.0021	2.78	0.005	0.00001	0.00057	0.00019	0.002	0.87	0.00207	0.767	0.000008	0.18	0.435	10	0.00016	0.00001	0.0005	0.00585	0.0002	0.0004	0.0001
5-Aug-10	57	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	58	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	60	0.000048	0.0007	0.003	0.00004	0.0023	2.93	0.0046	0.00001	0.00053	0.00022	0.002	0.89	0.00205	0.745	0.000005	0.19	0.426	10	0.00018	0.00044	0.0005	0.00482	0.0002	0.0004	0.0001
2-Sep-10	61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 4
Sample = DG07-305
Sample Wt. (kg) **Loadings**

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk
2-Jul-09	0.3115	18.452	28	1.715	0.1365	0.012425	0.008645	0.01309	0.00791	0.0000035	0.0000182	0.0175	0.00000245	12.495	0.000035	0.0001155	0.001141	0.0007
9-Jul-09	0.87435	17.748	49.155	2.436	0.2262	0.0195315	0.0267525	0.0407595	0.00957	0.00000435	0.000019575	0.02175	0.00000609	19.575	0.0000435	0.00013311	0.0013964	0.00087
16-Jul-09	0.8058	16.66505	21.725	0.4345	0.2449	0.026149	0.0343255	0.049375	0.005372	0.00000395	0.000016195	0.01975	0.00000474	9.3615	0.0000395	0.000077025	0.0008532	0.001185
23-Jul-09	0.7189	19.15095	12.74	0.2275	0.1911	0.0321685	0.0359905	0.050505	0.0046865	0.00000455	0.000011375	0.02275	0.00000637	7.28	0.0000455	0.00003367	0.0008327	0.00091
30-Jul-09	1.854	17.5635	9.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.77425	20.93325	15.2	0.4275	0.13775	0.03021	0.0394725	0.0452675	0.0052725	0.00000475	0.000015675	0.02375	0.000003325	9.9275	0.0000475	0.0000323	0.000513	0.001425
13-Aug-09	2.10645	21.51555	15.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	1.1472	19.0896	21.6	1.104	0.1152	0.0312	0.04992	0.045504	0.00792	0.0000048	0.00001536	0.024	0.00000528	13.104	0.000048	0.00005184	0.0003264	0.00192
27-Aug-09	1.3348	19.7259	21.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	1.6608	19.7808	23.04	0.24	0.0912	0.03	0.05616	0.043872	0.007728	0.0000048	0.00001968	0.024	0.00000912	14.016	0.000048	0.00004992	0.000384	0.00096
10-Sep-09	0.396	16.192	18.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	1.2183	19.5021	21.39	0.2325	0.0744	0.032085	0.046965	0.037014	0.006789	0.00000465	0.00001488	0.02325	0.000009765	14.136	0.0000465	0.000046965	0.000837	0.00186
24-Sep-09	0.9246	20.8334	21.62	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.8932	20.4248	18.48	0.22	0.0528	0.02398	0.038104	0.027632	0.00616	0.0000044	0.0000088	0.022	0.00002244	12.848	0.000044	0.00005368	0.00055	0.00132
8-Oct-09	1.6465	18.94365	21.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	1.01355	20.82345	16.095	0.2175	0.04785	0.024969	0.0367575	0.031233	0.00522	0.00000435	0.000010875	0.02175	0.00001044	12.18	0.0000435	0.00004872	0.0008091	0.001305
22-Oct-09	1.03685	17.21705	15.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.91455	20.05185	15.47	0.2275	0.0364	0.024752	0.034398	0.0250705	0.0046865	0.00000455	0.00001183	0.02275	0.00000546	11.0565	0.0000455	0.000042315	0.0005278	0.00182
5-Nov-09	1.8096	20.64	11.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	2.16225	20.62275	12.09	0.2325	0.03255	0.030039	0.0338985	0.024831	0.0040874	0.00000465	0.000010695	0.02325	0.000005115	9.765	0.0001395	0.000042315	0.0002046	0.001395
19-Nov-09	2.2043	18.612	8.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	1.0258	22.6182	11.96	0.23	0.0368	0.028106	0.035328	0.027508	0.0041584	0.0000046	0.00001426	0.023	0.00000736	10.718	0.000046	0.0000368	0.0002622	0.00092
3-Dec-09	2.2184	24.4165	10.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	2.3453	22.1323	10.81	0.235	0.0282	0.030597	0.026367	0.021902	0.0041783	0.0000047	0.00001692	0.0235	0.00000235	10.951	0.000047	0.00005264	0.0002162	0.00188
17-Dec-09	1.3083	26.3228	11.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	1.11625	23.46975	12.35	0.2375	0.02375	0.02546	0.0323	0.0252225	0.004427	0.00000475	0.000007125	0.02375	0.00000285	12.54	0.0000475	0.000050825	0.0002755	0.00095
31-Dec-09	1.1346	21.7062	11.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	1.095	23.455	13	0.25	0.025	0.0264	0.02665	0.02145	0.004415	0.000005	0.000008	0.025	0.000003	12.5	0.00005	0.0000495	0.00018	0.001
14-Jan-10	--	24.38095	10.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	1.178	20.8715	9.975	0.2375	0.02375	0.02831	0.0252225	0.021375	0.003838	0.00000475	0.000008075	0.02375	0.000004275	11.21	0.0000475	0.000040375	--	0.001425
28-Jan-10	2.0384	20.6339	12.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	1.6497	21.6529	8.46	0.235	0.0235	0.024111	0.022795	0.020633	0.0036472	0.0000047	0.00000752	0.0235	0.00000329	9.87	0.000047	0.00003525	0.0004653	0.00141
11-Feb-10	1.5648	22.5696	10.56	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	1.83825	21.793	8.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	1.4168	21.2152	6.9	--	0.0184	0.026082	0.021022	0.024702	0.0037812	0.0000046	0.00000506	0.023	0.0000023	9.936	0.000046	0.00007084	0.0002714	0.00046
4-Mar-10	1.30585	19.9472	9.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	1.45825	20.4535	8.075	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	1.7575	18.126	7.125	--	0.01425	0.0227525	0.0144875	0.0141075	0.0029783	0.00000475	0.00000665	0.02375	0.000006175	7.8375	0.0000475	0.00003515	0.0002233	0.00095
25-Mar-10	1.54375	18.10225	8.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	1.09025	20.1407	9.345	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	1.2079	18.471	8.93	--	0.0188	0.024628	0.015181	0.016826	0.005922	0.0000047	0.00000517	0.0235	0.0000047	8.648	0.000047	0.00003713	0.0003008	0.00094
15-Apr-10	1.9698	24.157	10.78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	2.1315	19.796	12.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	1.19295	24.96285	12.375	--	0.0297	0.02277	0.0205425	0.0202455	0.0040986	0.00000495	0.000005445	0.02475	0.00000594	11.979	0.0000495	0.000040095	0.0002921	0.002475
6-May-10	2.2678	21.8454	10.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	1.691	14.649	9.975	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	1.9251	16.40055	10.23	--	0.01395	0.0311085	0.011904	0.0209715	0.0030039	0.00000465	0.00000465	0.02325	0.000017205	8.6955	0.0000465	0.00002511	0.0002186	0.00093
27-May-10	2.75975	16.226	6.175	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	1.5903	17.09805	9.765	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	2.5051	18.6402	8.93	--	0.0141	0.025991	0.013724	0.021902	0.0032054	0.0000047	0.00000376	0.0235	0.00000282	7.332	0.000047	0.00002209	0.0001786	0.00094
17-Jun-10	1.87915	16.68485	5.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	1.3207	18.2266	8.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	1.3442	19.6366	8.46	--	0.0235	0.023782	0.01175	0.018706	0.00282	0.0000047	0.00000235	0.0235	0.00000235	7.99	0.000047	0.00002444	0.0001833	0.00047
8-Jul-10	1.1664	19.92	8.64	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	2.0256	18.1056	8.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	2.0531	19.1394	8.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	2.352	19.0267	10.29	--	0.0147	0.030576	0.010339	0.018473	0.0030282	0.0000049	0.00000441	0.0245	0.00000294	8.673	0.000049	0.00003038	0.0002254	0.00147
5-Aug-10	1.296	19.9296	7.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	2.4912	20.3136	9.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	2.63655	18.9906	7.905	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	1.5024	20.0832	9.12	--	0.024	0.0264	0.009792	0.017952	0.00336	0.0000048	0.00000288	0.024	0.00000384	8.736	0.000048	0.00002304	0.000336	0.00144
2-Sep-10	2.0739	21.7062	16.275	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	2.94	22.3146	11.76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	1.74115	20.1178	11.155	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Pb mg/kg/wk	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
2-Jul-09	0.0000196	0.00336	1.4665	0.0018655	0.0000035	0.00511	0.000602	0.00245	2.1035	0.004095	0.511	1.75E-06	3.71	0.3885	8.05	0.0000784	0.0000035	0.000175	0.00812	0.000105	0.000105	0.000035
9-Jul-09	0.000070905	0.005742	2.262	0.0022011	0.00000435	0.0128325	0.0033452	0.001305	2.9058	0.0078735	0.97875	2.175E-06	6.177	0.5829	16.095	0.0001027	0.0000087	0.0002175	0.0190095	0.0002175	0.0003045	0.0000435
16-Jul-09	0.000049375	0.004503	1.2877	0.0014615	0.00000395	0.011692	0.001817	0.001185	2.3068	0.0037091	0.92035	1.975E-06	4.108	0.3081	7.505	8.927E-05	1.975E-05	0.0001975	0.0205795	0.0002765	0.000395	0.0000395
23-Jul-09	0.00005369	0.0038675	1.0101	0.0019201	0.00000455	0.006734	0.000637	0.00091	2.0202	0.0026618	0.9737	2.275E-06	2.4024	0.25935	4.095	8.964E-05	4.55E-06	0.0002275	0.0178815	0.0002275	0.0003185	0.0000455
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.003097	0.0032775	1.2635	0.0025175	0.00000475	0.003857	0.0002613	0.001425	2.128	0.0023085	0.9975	2.375E-06	1.4155	0.29545	5.225	0.0001021	4.75E-06	0.0002375	0.0233225	0.0002375	0.00019	0.0000475
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.0001512	0.003504	1.7376	0.0030528	0.0000048	0.0026256	0.0004224	0.00096	2.4336	0.0021168	1.1232	0.0000024	0.8448	0.40704	7.68	0.0001349	0.0000096	0.00024	0.022944	0.00024	0.001248	0.000048
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.00006768	0.003168	1.8672	0.0033792	0.0000048	0.00204	0.000168	0.00144	2.208	0.00228	1.1568	0.0000024	0.504	0.43344	8.16	0.0001406	0.0000048	0.00024	0.019776	0.000192	0.000288	0.000048
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.000061845	0.002883	1.8414	0.0028458	0.00000465	0.0016973	0.0001674	0.00093	1.8042	0.0018833	1.02765	2.325E-06	0.37665	0.434775	7.44	0.0001302	4.185E-05	0.0002325	0.017112	0.0001395	0.000558	0.0000465
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.00021824	0.002332	1.738	0.0037048	0.0000044	0.0013464	0.0001716	0.00088	1.5092	0.0013948	0.8228	0.0000022	0.2728	0.385	7.04	0.0001038	0.0000044	0.00022	0.01518	0.000088	0.001232	0.000044
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.000053505	0.0022185	1.59645	0.0029189	0.00000435	0.0011006	0.0001218	0.00087	1.38765	0.0014312	0.79605	2.175E-06	0.2436	0.34365	5.655	9.396E-05	4.35E-06	0.0002175	0.0127455	0.000087	0.000696	0.0000435
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.000062335	0.001911	1.38775	0.0032715	0.00000455	0.0009919	0.0001957	0.001365	1.10565	0.0012285	0.6461	2.275E-06	0.2002	0.32942	5.005	8.918E-05	0.0000273	0.0002275	0.0134225	0.000091	0.0004095	0.0000455
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.00006231	0.0016275	1.3485	0.0030644	0.00000465	0.0008742	0.0001349	0.00093	0.98115	0.0011439	0.6975	2.325E-06	0.17205	0.290625	3.72	9.068E-05	0.0000093	0.0002325	0.0116715	0.000093	0.000465	0.0000465
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.0004048	0.00161	1.38	0.0027554	0.0000046	0.0008234	0.0001242	0.00092	0.9568	0.0012466	0.736	0.0000023	0.161	0.29072	4.14	0.0000943	0.0000092	0.00023	0.010166	0.000092	0.000644	0.000046
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.00006674	0.001457	1.4288	0.0029187	0.0000047	0.000705	0.0000987	0.00094	0.8272	0.0009682	0.6392	2.35E-06	0.1175	0.29328	4.23	8.037E-05	0.0000047	0.000235	0.012267	0.000094	0.000376	0.000047
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.000064125	0.0015675	1.46775	0.0036005	0.00000475	0.0006793	0.0001188	0.00095	0.912	0.0011875	0.69825	2.375E-06	0.114	0.319675	4.75	9.595E-05	4.75E-06	0.0002375	0.011115	0.000095	0.00038	0.0000475
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.000036	0.00145	1.6	0.00379	0.000005	0.00065	0.00009	0.001	0.805	0.00107	0.665	0.0000025	0.105	0.325	5	0.0000845	0.00004	0.00025	0.01065	0.0001	0.00025	0.00005
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.0000323	0.001235	1.4345	0.0033915	0.00000475	0.000608	0.0001093	0.00095	0.7505	0.0010308	0.56525	5.225E-06	0.1045	0.2736	4.275	8.313E-05	4.75E-06	0.0002375	0.0081225	0.000095	0.00038	0.0000475
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.00004935	0.001222	1.2972	0.0028623	0.0000047	0.0005922	0.0001363	0.00094	0.6298	0.001034	0.5687	2.35E-06	0.1128	0.27025	3.29	7.943E-05	0.0000799	0.000235	0.007614	0.000094	0.000329	0.000047
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.0000322	0.001288	1.2972	0.0032154	0.0000046	0.000483	0.0001334	0.00092	0.621	0.0011178	0.552	0.0000023	0.1012	0.2599	3.68	8.188E-05	0.0000046	0.00023	0.006072	0.000092	0.000506	0.000046
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.00006935	0.00095	1.05925	0.003192	0.00000475	0.0003943	0.000114	0.00095	0.4465	0.000855	0.401375	2.375E-06	0.08075	0.21565	4.75	0.0000665	4.75E-06	0.0002375	0.0055575	0.000095	0.00038	0.0000475
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.00003149	0.001034	1.1797	0.0031819	0.0000047	0.0003713	0.0000987	0.00094	0.5029	0.0009353	0.4277	2.35E-06	0.094	0.21385	3.29	6.157E-05	0.0000094	0.000235	0.0046859	0.000094	0.000376	0.000047
15-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.000033165	0.001386	1.4355	0.0035739	0.00000495	0.0004901	0.0001238	0.00099	0.58905	0.0012078	0.5544	2.475E-06	0.099	0.295515	4.95	8.712E-05	4.95E-06	0.0002475	0.006732	0.000099	0.000396	0.0000495
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	0.00031341	0.001023	1.13925	0.0025203	0.00000465	0.000372	0.0001209	0.00093	0.45105	0.0010835	0.425475	2.325E-06	0.093	0.20274	4.65	7.254E-05	0.0000186	0.0002325	0.0027017	0.000093	0.001395	0.0000465
27-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.0000188	0.001222	1.2831	0.0025568	0.0000047	0.0003478	0.0000893	0.00094	0.517	0.001269	0.3055	2.35E-06	0.1034	0.22325	4.7	8.554E-05	0.0000094	0.000235	0.0031114	0.000094	0.000282	0.000047
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	0.00002679	0.001034	1.2925	0.0030409	0.0000047	0.000329	0.0000658	0.00094	0.4606	0.0010763	0.38399	2.35E-06	0.0846	0.21526	4.7	8.084E-05	0.0000094	0.000235	0.0032383	0.000094	0.000235	0.000047
8-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	0.0000196	0.001029	1.3622	0.0024353	0.0000049	0.0002793	0.0000931	0.00098	0.4263	0.0010143	0.37583	3.92E-06	0.0882	0.21315	4.9	0.0000784	0.0000049	0.000245	0.0028665	0.000098	0.000196	0.000049
5-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	0.0000192	0.001104	1.4064	0.002184	0.0000048	0.0002544	0.0001056	0.00096	0.4272	0.000984	0.3576	0.0000024	0.0912	0.20448	4.8	0.0000864	0.0002112	0.00024	0.0023136	0.000096	0.000192	0.000048
2-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 5
Sample = DG07-335C 103.02-113.69
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP mV	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness mg CaCO3/L
2-Jul-09	0	750	395	7.76	279	575	--	2.94	43.05	278	7	0.1	274
9-Jul-09	1	500	425	7.59	312	402	--	2.42	26.62	185	15	0.09	191
16-Jul-09	2	500	405	7.49	339	354	--	3.24	24.4	152	2.3	0.11	181
23-Jul-09	3	500	450	7.58	354	267	--	2.88	26.47	113	0.5	0.08	108
30-Jul-09	4	500	440	7.47	350	207	--	4.68	25.57	71	--	--	--
6-Aug-09	5	500	460	7.71	296	201	--	2.2	27.48	93	1	0.08	95.2
13-Aug-09	6	500	465	7.52	319	179	--	4.7	23.86	51	--	--	--
20-Aug-09	7	500	455	7.53	348	163	--	2.62	23.04	52	0.5	0.06	70.3
27-Aug-09	8	500	460	7.62	313	167	--	3.38	24.91	49	--	--	--
3-Sep-09	9	500	490	7.46	275	144	--	3.9	22.46	46	0.5	0.05	59
10-Sep-09	10	500	435	7.81	337	160	--	1.27	26.27	58	--	--	--
17-Sep-09	11	500	445	7.74	343	141	--	2.67	25.23	44	0.7	0.05	56.4
24-Sep-09	12	500	470	7.57	348	150	--	2.49	28.42	48	--	--	--
1-Oct-09	13	500	450	7.61	355	117	--	2.45	21.51	39	0.5	0.04	48.8
8-Oct-09	14	500	455	7.60	342	133	--	3.91	24	51	--	--	--
15-Oct-09	15	500	460	7.57	353	133	--	2.78	24.56	42	0.5	0.05	53.6
22-Oct-09	16	500	480	7.70	347	145	--	2.8	28.17	47	--	--	--
29-Oct-09	17	500	455	7.70	350	113	--	2.25	21.74	34	0.5	0.04	40.9
5-Nov-09	18	500	470	7.78	345	118	--	3.78	23.4	36	--	--	--
12-Nov-09	19	500	465	7.51	339	111	--	4.67	24.26	24	0.5	0.04	37
19-Nov-09	20	500	465	7.60	352	109	--	4.49	22.39	27	--	--	--
26-Nov-09	21	500	460	7.88	353	126	--	2.02	30.43	38	0.5	0.05	44.8
3-Dec-09	22	500	480	7.52	351	130	--	4.93	27.21	39	--	--	--
10-Dec-09	23	500	485	7.45	383	120	--	4.65	23.3	40	0.5	0.04	47.1
17-Dec-09	24	500	490	7.68	368	109	--	2.8	25.5	26	--	--	--
24-Dec-09	25	500	485	7.67	375	118	--	2.61	27.32	34	0.5	0.04	49.7
31-Dec-09	26	500	475	7.64	398	120	--	2.57	25.88	35	--	--	--
7-Jan-10	27	500	480	7.49	380	94	--	2.78	21.71	21	0.5	0.05	34.1
14-Jan-10	28	500	485	7.33	354	100	--	--	18.04	28	--	--	--
21-Jan-10	29	500	480	7.48	367	119	--	2.87	24.48	35	0.5	0.04	50.7
28-Jan-10	30	500	485	7.28	363	85	--	4.44	18.3	30	--	--	--
4-Feb-10	31	500	465	7.06	286	78	--	3.96	15.81	24	0.5	0.02	34.2
11-Feb-10	32	500	480	7.16	353	97	--	3.22	15.81	27	--	--	--
18-Feb-10	33	500	465	7.20	298	99	--	3.85	17.35	27	--	--	--
25-Feb-10	34	500	455	7.37	361	108	--	3.24	22.15	35	--	0.03	47.1
4-Mar-10	35	500	455	7.29	367	98	--	3.15	17.3	30	--	--	--
11-Mar-10	36	500	460	7.25	383	86	--	3.61	14.78	24	--	--	--
18-Mar-10	37	500	490	7.21	374	91	--	3.41	15.28	22	--	0.02	30.2
25-Mar-10	38	500	475	7.42	365	93	--	3.67	16.32	30	--	--	--
1-Apr-10	39	500	475	7.40	376	91	--	2.86	14.75	31	--	--	--
8-Apr-10	40	500	460	7.33	361	95	--	2.92	16.3	29	--	0.02	35.2

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L
2-Jul-09	0.016	0.00026	0.0023	0.0366	0.00001	0.000005	0.05	0.000018	101	0.0001	0.00298	0.00061	0.001	0.00001	0.0221	5.21
9-Jul-09	0.0372	0.00024	0.00972	0.0176	0.00001	0.000005	0.05	0.000013	69.4	0.0001	0.000377	0.00087	0.002	0.00001	0.0138	4.37
16-Jul-09	0.0481	0.00028	0.0115	0.0165	0.00001	0.000005	0.05	0.000018	66.3	0.0001	0.000316	0.0022	0.005	0.000068	0.0147	3.67
23-Jul-09	0.0615	0.00022	0.0121	0.0119	0.00001	0.000005	0.05	0.000005	40.3	0.0001	0.000164	0.00138	0.002	0.000009	0.0115	1.79
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.0592	0.00018	0.0121	0.0106	0.00001	0.000005	0.05	0.000006	35.6	0.0001	0.000098	0.00125	0.006	0.000028	0.0106	1.53
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.0628	0.00019	0.0113	0.00893	0.00001	0.000005	0.05	0.000005	26.4	0.0001	0.000073	0.0007	0.006	0.000019	0.0084	1.05
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.0624	0.00019	0.0103	0.00778	0.00001	0.000005	0.05	0.000005	22.1	0.0001	0.00006	0.00067	0.009	0.000038	0.0079	0.89
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.0684	0.00019	0.0112	0.00739	0.00001	0.000005	0.05	0.000006	21.2	0.0001	0.000058	0.00067	0.007	0.000014	0.0078	0.83
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.0708	0.00013	0.00911	0.00646	0.00001	0.000005	0.05	0.000005	18.3	0.0001	0.00006	0.00149	0.013	0.000013	0.0065	0.72
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0755	0.00016	0.0113	0.00659	0.00001	0.000005	0.05	0.000005	20.3	0.0001	0.000078	0.00114	0.009	0.000402	0.007	0.69
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.0659	0.00013	0.00857	0.0059	0.00001	0.000005	0.05	0.000005	15.5	0.0002	0.000057	0.00087	0.015	0.00139	0.0064	0.55
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.083	0.00011	0.0101	0.00446	0.00001	0.000005	0.05	0.000005	14	0.0006	0.000051	0.00066	0.017	0.000082	0.0058	0.51
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.0831	0.00021	0.011	0.00621	0.00001	0.000017	0.05	0.000006	16.9	0.0001	0.000056	0.00037	0.018	0.00015	0.0067	0.64
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.0645	0.00015	0.00811	0.00619	0.00001	0.000005	0.05	0.000005	17.8	0.0001	0.000058	0.0003	0.012	0.000008	0.0067	0.66
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.0565	0.00022	0.0103	0.0069	0.00001	0.000005	0.05	0.000005	18.9	0.0001	0.000059	0.00041	0.006	0.000005	0.0077	0.63
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.0577	0.00009	0.00644	0.00496	0.00001	0.000005	0.05	0.000005	12.9	0.0001	0.000052	0.00031	0.012	0.000048	0.0054	0.44
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.0609	0.00019	0.00959	0.00692	0.00001	0.000005	0.05	0.000005	19.2	0.0001	0.000051	--	0.005	0.000019	0.0074	0.66
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.0489	0.00012	0.00664	0.00475	0.00001	0.000005	0.05	0.000005	13	0.0002	0.000044	0.0009	0.006	0.000039	0.0053	0.43
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.0501	0.00015	0.0076	0.00794	0.00001	0.000005	0.05	0.000005	17.9	0.0001	0.000115	0.00055	0.005	0.000019	0.007	0.6
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0439	0.0001	0.00494	0.00465	0.00001	0.000005	0.05	0.000005	11.4	0.0001	0.000047	0.00037	0.006	0.000005	0.005	0.4
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.0479	0.0001	0.00551	0.00554	0.00001	0.000005	0.05	0.000005	13.4	0.0001	0.000039	0.0017	0.006	0.000028	0.0051	0.43

Date	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
2-Jul-09	0.131	0.00001	0.00155	0.00717	0.004	8.78	0.00544	1.39	0.00001	5.46	0.535	86	0.000025	0.00001	0.0005	0.0165	0.0002	0.0006	0.0001
9-Jul-09	0.0507	0.00002	0.00225	0.00084	0.002	9.3	0.00747	1.45	0.000005	5.75	0.361	74	0.000013	0.00001	0.0005	0.00562	0.0002	0.0008	0.0001
16-Jul-09	0.0442	0.00001	0.00238	0.00079	0.002	8.61	0.00545	1.63	0.000005	4.53	0.365	60	0.00001	0.00001	0.0005	0.00567	0.0004	0.0014	0.0001
23-Jul-09	0.0292	0.00001	0.00159	0.00033	0.002	7.41	0.00208	1.54	0.000005	2.37	0.237	31	0.000008	0.00001	0.0005	0.00481	0.0002	0.0005	0.0001
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.0258	0.00001	0.00149	0.00029	0.003	7.76	0.00148	1.66	0.000005	1.95	0.195	29	0.000007	0.00001	0.0005	0.0045	0.0003	0.0004	0.0001
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.0195	0.00001	0.00107	0.00018	0.002	6.65	0.00094	1.68	0.000005	1.17	0.14	20	0.000006	0.00001	0.0005	0.00379	0.0004	0.0006	0.0001
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.0173	0.00001	0.00094	0.00018	0.002	6.19	0.00081	1.44	0.000005	0.86	0.122	17	0.000007	0.00001	0.0005	0.00387	0.0004	0.0005	0.0001
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.0139	0.00001	0.00087	0.00016	0.002	6.16	0.00083	1.43	0.000005	0.75	0.121	15	0.000006	0.00005	0.0005	0.00327	0.0004	0.0007	0.0001
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.0126	0.00001	0.00061	0.00018	0.002	5.37	0.00066	1.09	0.000005	0.68	0.1	14	0.000005	0.00001	0.0005	0.00287	0.0002	0.0004	0.0001
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0133	0.00001	0.0006	0.00013	0.002	6.04	0.00075	1.31	0.000005	0.59	0.111	14	0.000004	0.00001	0.0005	0.00329	0.0004	0.0007	0.0001
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.012	0.00001	0.00055	0.00031	0.003	5.14	0.00059	1	0.000005	0.48	0.0925	11	0.000005	0.00008	0.0008	0.00299	0.0003	0.0004	0.0001
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.0092	0.00001	0.00051	0.00023	0.004	5	0.00052	1.11	0.000005	0.51	0.0785	9	0.000002	0.00002	0.0007	0.0028	0.0005	0.0009	0.0001
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.0121	0.00001	0.00059	0.00019	0.002	5.79	0.00057	1.26	0.000005	0.51	0.0954	11	0.000005	0.00002	0.0013	0.00322	0.0005	0.0008	0.0001
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.0129	0.00001	0.00053	0.00007	0.002	5.72	0.0005	1.21	0.000006	0.36	0.0987	12	0.000005	0.00001	0.0011	0.00465	0.0004	0.0002	0.0001
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.0141	0.00001	0.0006	0.00014	0.002	6.7	0.00058	1.53	0.000005	0.36	0.107	13	0.000005	0.00001	0.0005	0.00452	0.0004	0.0002	0.0001
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.0124	0.00001	0.00034	0.00014	0.002	4.66	0.00038	1.04	0.000005	0.23	0.0715	9	0.000002	0.00008	0.001	0.00311	0.0003	0.0002	0.0001
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.0137	0.00001	0.00051	0.00019	0.002	6.82	0.00061	1.34	0.000005	0.34	0.0987	13	0.000006	0.00002	0.0005	0.00393	0.0003	0.0004	0.0001
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.009	0.00001	0.00036	0.00022	0.002	4.57	0.00042	0.91	0.000005	0.25	0.0707	8	0.000004	0.00021	0.0005	0.00279	0.0003	0.0005	0.0001
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.0122	0.00001	0.00051	0.00017	0.002	5.68	0.00059	1.21	0.000005	0.31	0.101	12	0.000004	0.00001	0.0005	0.00332	0.0003	0.0004	0.0001
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0093	0.00001	0.00031	0.0002	0.002	4.21	0.00039	0.79	0.000005	0.21	0.0663	10	0.000004	0.00001	0.0005	0.00228	0.0002	0.0003	0.0001
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.009	0.00001	0.00032	0.00016	0.002	4.88	0.00045	1.01	0.000005	0.26	0.0708	10	0.000003	0.00001	0.0005	0.00225	0.0003	0.0007	0.0001

Cell Terminated

HC 5
Sample = DG07-335
Sample Wt. (kg) **Loadings**

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk
2-Jul-09	1.1613	17.00475	109.81	2.765	0.0395	0.00632	0.0001027	0.0009085	0.014457	0.00000395
9-Jul-09	1.0285	11.3135	78.625	6.375	0.03825	0.01581	0.000102	0.004131	0.00748	0.00000425
16-Jul-09	1.3122	9.882	61.56	0.9315	0.04455	0.0194805	0.0001134	0.0046575	0.0066825	0.00000405
23-Jul-09	1.296	11.9115	50.85	0.225	0.036	0.027675	0.000099	0.005445	0.005355	0.0000045
30-Jul-09	2.0592	11.2508	31.24	--	--	--	--	--	--	--
6-Aug-09	1.012	12.6408	42.78	0.46	0.0368	0.027232	0.0000828	0.005566	0.004876	0.0000046
13-Aug-09	2.1855	11.0949	23.715	--	--	--	--	--	--	--
20-Aug-09	1.1921	10.4832	23.66	0.2275	0.0273	0.028574	8.645E-05	0.0051415	0.0040632	0.00000455
27-Aug-09	1.5548	11.4586	22.54	--	--	--	--	--	--	--
3-Sep-09	1.911	11.0054	22.54	0.245	0.0245	0.030576	0.0000931	0.005047	0.0038122	0.0000049
10-Sep-09	0.55245	11.42745	25.23	--	--	--	--	--	--	--
17-Sep-09	1.18815	11.22735	19.58	0.3115	0.02225	0.030438	8.455E-05	0.004984	0.0032886	0.00000445
24-Sep-09	1.1703	13.3574	22.56	--	--	--	--	--	--	--
1-Oct-09	1.1025	9.6795	17.55	0.225	0.018	0.03186	0.0000585	0.0040995	0.002907	0.0000045
8-Oct-09	1.77905	10.92	23.205	--	--	--	--	--	--	--
15-Oct-09	1.2788	11.2976	19.32	0.23	0.023	0.03473	0.0000736	0.005198	0.0030314	0.0000046
22-Oct-09	1.344	13.5216	22.56	--	--	--	--	--	--	--
29-Oct-09	1.02375	9.8917	15.47	0.2275	0.0182	0.0299845	5.915E-05	0.0038994	0.0026845	0.00000455
5-Nov-09	1.7766	10.998	16.92	--	--	--	--	--	--	--
12-Nov-09	2.17155	11.2809	11.16	0.2325	0.0186	0.038595	5.115E-05	0.0046965	0.0020739	0.00000465
19-Nov-09	2.08785	10.41135	12.555	--	--	--	--	--	--	--
26-Nov-09	0.9292	13.9978	17.48	0.23	0.023	0.038226	0.0000966	0.00506	0.0028566	0.0000046
3-Dec-09	2.3664	13.0608	18.72	--	--	--	--	--	--	--
10-Dec-09	2.25525	11.3005	19.4	0.2425	0.0194	0.0312825	7.275E-05	0.0039334	0.0030022	0.00000485
17-Dec-09	1.372	12.495	12.74	--	--	--	--	--	--	--
24-Dec-09	1.26585	13.2502	16.49	0.2425	0.0194	0.0274025	0.0001067	0.0049955	0.0033465	0.00000485
31-Dec-09	1.22075	12.293	16.625	--	--	--	--	--	--	--
7-Jan-10	1.3344	10.4208	10.08	0.24	0.024	0.027696	0.0000432	0.0030912	0.0023808	0.0000048
14-Jan-10	--	8.7494	13.58	--	--	--	--	--	--	--
21-Jan-10	1.3776	11.7504	16.8	0.24	0.0192	0.029232	0.0000912	0.0046032	0.0033216	0.0000048
28-Jan-10	2.1534	8.8755	14.55	--	--	--	--	--	--	--
4-Feb-10	1.8414	7.35165	11.16	0.2325	0.0093	0.0227385	0.0000558	0.0030876	0.0022088	0.00000465
11-Feb-10	1.5456	7.5888	12.96	--	--	--	--	--	--	--
18-Feb-10	1.79025	8.06775	12.555	--	--	--	--	--	--	--
25-Feb-10	1.4742	10.07825	15.925	--	0.01365	0.0227955	6.825E-05	0.003458	0.0036127	0.00000455
4-Mar-10	1.43325	7.8715	13.65	--	--	--	--	--	--	--
11-Mar-10	1.6606	6.7988	11.04	--	--	--	--	--	--	--
18-Mar-10	1.6709	7.4872	10.78	--	0.0098	0.021511	0.000049	0.0024206	0.0022785	0.0000049
25-Mar-10	1.74325	7.752	14.25	--	--	--	--	--	--	--
1-Apr-10	1.3585	7.00625	14.725	--	--	--	--	--	--	--
8-Apr-10	1.3432	7.498	13.34	--	0.0092	0.022034	0.000046	0.0025346	0.0025484	0.0000046

Date	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk
2-Jul-09	0.000001975	0.01975	0.00000711	39.895	0.0000395	0.0011771	0.000241	0.000395	0.00000395	0.0087295
9-Jul-09	0.000002125	0.02125	0.000005525	29.495	0.0000425	0.000160225	0.0003698	0.00085	0.00000425	0.005865
16-Jul-09	0.000002025	0.02025	0.00000729	26.8515	0.0000405	0.00012798	0.000891	0.002025	0.00002754	0.0059535
23-Jul-09	0.00000225	0.0225	0.00000225	18.135	0.000045	0.0000738	0.000621	0.0009	0.00000405	0.005175
30-Jul-09	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.0000023	0.023	0.00000276	16.376	0.000046	0.00004508	0.000575	0.00276	0.00001288	0.004876
13-Aug-09	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.000002275	0.02275	0.000002275	12.012	0.0000455	0.000033215	0.0003185	0.00273	0.000008645	0.003822
27-Aug-09	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.00000245	0.0245	0.00000245	10.829	0.000049	0.0000294	0.0003283	0.00441	0.00001862	0.003871
10-Sep-09	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.000002225	0.02225	0.00000267	9.434	0.0000445	0.00002581	0.0002982	0.003115	0.00000623	0.003471
24-Sep-09	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.00000225	0.0225	0.00000225	8.235	0.000045	0.000027	0.0006705	0.00585	0.00000585	0.002925
8-Oct-09	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0000023	0.023	0.0000023	9.338	0.000046	0.00003588	0.0005244	0.00414	0.00018492	0.00322
22-Oct-09	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.000002275	0.02275	0.000002275	7.0525	0.000091	0.000025935	0.0003959	0.006825	0.00063245	0.002912
5-Nov-09	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.000002325	0.02325	0.000002325	6.51	0.000279	0.000023715	0.0003069	0.007905	0.00003813	0.002697
19-Nov-09	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.00000782	0.023	0.00000276	7.774	0.000046	0.00002576	0.0001702	0.00828	0.000069	0.003082
3-Dec-09	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.000002425	0.02425	0.000002425	8.633	0.0000485	0.00002813	0.0001455	0.00582	0.00000388	0.0032495
17-Dec-09	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.000002425	0.02425	0.000002425	9.1665	0.0000485	0.000028615	0.0001989	0.00291	0.000002425	0.0037345
31-Dec-09	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.0000024	0.024	0.0000024	6.192	0.000048	0.00002496	0.0001488	0.00576	0.00002304	0.002592
14-Jan-10	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.0000024	0.024	0.0000024	9.216	0.000048	0.00002448	--	0.0024	0.00000912	0.003552
28-Jan-10	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.000002325	0.02325	0.000002325	6.045	0.000093	0.00002046	0.0004185	0.00279	0.000018135	0.0024645
11-Feb-10	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.000002275	0.02275	0.000002275	8.1445	0.0000455	0.000052325	0.0002503	0.002275	0.000008645	0.003185
4-Mar-10	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.00000245	0.0245	0.00000245	5.586	0.000049	0.00002303	0.0001813	0.00294	0.00000245	0.00245
25-Mar-10	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.0000023	0.023	0.0000023	6.164	0.000046	0.00001794	0.000782	0.00276	0.00001288	0.002346

Date	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk
2-Jul-09	2.05795	0.051745	0.00000395	0.0006123	0.00283215	0.00158	3.4681	0.0021488	0.54905	0.00000395
9-Jul-09	1.85725	0.0215475	0.0000085	0.0009563	0.000357	0.00085	3.9525	0.0031748	0.61625	0.000002125
16-Jul-09	1.48635	0.017901	0.00000405	0.0009639	0.00031995	0.00081	3.48705	0.0022073	0.66015	0.000002025
23-Jul-09	0.8055	0.01314	0.0000045	0.0007155	0.0001485	0.0009	3.3345	0.000936	0.693	0.00000225
30-Jul-09	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.7038	0.011868	0.0000046	0.0006854	0.0001334	0.00138	3.5696	0.0006808	0.7636	0.0000023
13-Aug-09	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.47775	0.0088725	0.00000455	0.0004869	0.0000819	0.00091	3.02575	0.0004277	0.7644	0.000002275
27-Aug-09	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.4361	0.008477	0.0000049	0.0004606	0.0000882	0.00098	3.0331	0.0003969	0.7056	0.00000245
10-Sep-09	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.36935	0.0061855	0.00000445	0.0003872	0.0000712	0.00089	2.7412	0.0003694	0.63635	0.000002225
24-Sep-09	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.324	0.00567	0.0000045	0.0002745	0.000081	0.0009	2.4165	0.000297	0.4905	0.00000225
8-Oct-09	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.3174	0.006118	0.0000046	0.000276	0.0000598	0.00092	2.7784	0.000345	0.6026	0.0000023
22-Oct-09	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.25025	0.00546	0.00000455	0.0002503	0.00014105	0.001365	2.3387	0.0002685	0.453635	0.000002275
5-Nov-09	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.23715	0.0042687	0.00000465	0.0002372	0.00010695	0.00186	2.325	0.0002418	0.51615	0.000002325
19-Nov-09	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.2944	0.005566	0.0000046	0.0002714	0.0000874	0.00092	2.6634	0.0002622	0.5796	0.0000023
3-Dec-09	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.3201	0.0062565	0.00000485	0.0002571	0.00003395	0.00097	2.7742	0.0002425	0.58685	0.00000291
17-Dec-09	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.30555	0.0068385	0.00000485	0.000291	0.0000679	0.00097	3.2495	0.0002813	0.74205	0.000002425
31-Dec-09	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.2112	0.005952	0.0000048	0.0001632	0.0000672	0.00096	2.2368	0.0001824	0.4992	0.0000024
14-Jan-10	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.3168	0.006576	0.0000048	0.0002448	0.0000912	0.00096	3.2736	0.0002928	0.6432	0.0000024
28-Jan-10	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.19995	0.0041664	0.00000465	0.0001674	0.0001023	0.00093	2.12505	0.0001953	0.42129	0.000002325
11-Feb-10	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.273	0.005551	0.00000455	0.0002321	0.00007735	0.00091	2.5844	0.0002685	0.55055	0.000002275
4-Mar-10	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.196	0.0045766	0.0000049	0.0001519	0.000098	0.00098	2.0629	0.0001911	0.38514	0.00000245
25-Mar-10	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.1978	0.0041216	0.0000046	0.0001472	0.0000736	0.00092	2.2448	0.000207	0.4646	0.0000023

Date	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
2-Jul-09	2.1567	0.211325	33.97	0.000009875	0.00000395	0.0001975	0.0065175	0.000079	0.000237	0.0000395
9-Jul-09	2.44375	0.153425	31.45	0.000005525	0.00000425	0.0002125	0.0023885	0.000085	0.00034	0.0000425
16-Jul-09	1.83465	0.147825	24.3	0.00000405	0.00000405	0.0002025	0.0022964	0.000162	0.000567	0.0000405
23-Jul-09	1.0665	0.10665	13.95	0.0000036	0.0000045	0.000225	0.0021645	0.00009	0.000225	0.000045
30-Jul-09	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.897	0.0897	13.34	0.00000322	0.0000046	0.00023	0.00207	0.000138	0.000184	0.000046
13-Aug-09	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.53235	0.0637	9.1	0.00000273	0.00000455	0.0002275	0.0017245	0.000182	0.000273	0.0000455
27-Aug-09	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.4214	0.05978	8.33	0.00000343	0.0000049	0.000245	0.0018963	0.000196	0.000245	0.000049
10-Sep-09	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.33375	0.053845	6.675	0.00000267	0.00002225	0.0002225	0.0014552	0.000178	0.0003115	0.0000445
24-Sep-09	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.306	0.045	6.3	0.00000225	0.0000045	0.000225	0.0012915	0.00009	0.00018	0.000045
8-Oct-09	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.2714	0.05106	6.44	0.00000184	0.0000046	0.00023	0.0015134	0.000184	0.000322	0.000046
22-Oct-09	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.2184	0.0420875	5.005	0.000002275	0.0000364	0.000364	0.0013605	0.0001365	0.000182	0.0000455
5-Nov-09	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.23715	0.0365025	4.185	0.00000093	0.0000093	0.0003255	0.001302	0.0002325	0.0004185	0.0000465
19-Nov-09	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.2346	0.043884	5.06	0.0000023	0.0000092	0.000598	0.0014812	0.00023	0.000368	0.000046
3-Dec-09	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.1746	0.0478695	5.82	0.000002425	0.00000485	0.0005335	0.0022553	0.000194	0.000097	0.0000485
17-Dec-09	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.1746	0.051895	6.305	0.000002425	0.00000485	0.0002425	0.0021922	0.000194	0.000097	0.0000485
31-Dec-09	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.1104	0.03432	4.32	0.00000096	0.0000384	0.00048	0.0014928	0.000144	0.000096	0.000048
14-Jan-10	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.1632	0.047376	6.24	0.00000288	0.0000096	0.00024	0.0018864	0.000144	0.000192	0.000048
28-Jan-10	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.11625	0.0328755	3.72	0.00000186	0.00009765	0.0002325	0.0012974	0.0001395	0.0002325	0.0000465
11-Feb-10	--	--	--	--	--	--	--	--	--	--
18-Feb-10	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.14105	0.045955	5.46	0.00000182	0.00000455	0.0002275	0.0015106	0.0001365	0.000182	0.0000455
4-Mar-10	--	--	--	--	--	--	--	--	--	--
11-Mar-10	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.1029	0.032487	4.9	0.00000196	0.0000049	0.000245	0.0011172	0.000098	0.000147	0.000049
25-Mar-10	--	--	--	--	--	--	--	--	--	--
1-Apr-10	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.1196	0.032568	4.6	0.00000138	0.0000046	0.00023	0.001035	0.000138	0.000322	0.000046

Cell Terminated

HC 6
Sample = DG07-303C 175.26-185.93
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP mV	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness mg CaCO3/L	Al mg/L
2-Jul-09	0	750	380	8.03	284	271	--	1.53	63.34	53	3.1	0.63	107	0.0453
9-Jul-09	1	500	445	8.05	296	184	--	1.2	37.62	48	6.5	0.48	95	0.101
16-Jul-09	2	500	415	8.15	328	124	--	1.27	32.21	38	2.3	0.58	59.9	0.108
23-Jul-09	3	500	455	8.31	329	80	--	0.93	34.2	10	0.5	0.33	32	0.109
30-Jul-09	4	500	435	7.78	337	82	--	3.67	29.99	16	--	--	--	--
6-Aug-09	5	500	460	8.19	285	74	--	1.03	32.59	16	0.8	0.24	41	0.124
13-Aug-09	6	500	460	8.11	297	80	--	2.73	32.88	10	--	--	--	--
20-Aug-09	7	500	460	8.01	333	79	--	1.46	29.4	10	0.5	0.2	39.5	0.132
27-Aug-09	8	500	460	8.29	287	78	--	1.37	31.38	13	--	--	--	--
3-Sep-09	9	500	485	7.88	279	90	--	2.65	30.31	21	0.5	0.19	42.8	0.135
10-Sep-09	10	500	430	8.24	319	87	--	0.06	29.71	18	--	--	--	--
17-Sep-09	11	500	445	8.18	331	89	--	1.41	32.14	15	0.9	0.16	45	0.118
24-Sep-09	12	500	450	8.13	324	89	--	0.8	35.75	24	--	--	--	--
1-Oct-09	13	500	470	7.87	343	83	--	1.9	31.09	14	0.5	0.13	44.8	0.109
8-Oct-09	14	500	450	7.78	333	86	--	3.07	31.06	20	--	--	--	--
15-Oct-09	15	500	465	8.12	334	77	--	1.43	32.11	17	0.5	0.12	43.8	0.122
22-Oct-09	16	500	450	7.89	333	87	--	2.09	31.14	14	--	--	--	--
29-Oct-09	17	500	460	7.94	341	83	--	1.54	29.61	18	0.5	0.1	41.6	0.0946
5-Nov-09	18	500	460	8.15	331	84	--	2.53	31.3	15	--	--	--	--
12-Nov-09	19	500	465	7.73	323	83	--	4.04	29.64	16	0.5	0.08	42.1	0.116
19-Nov-09	20	500	455	7.84	341	89	--	3.45	29.24	17	--	--	--	--
26-Nov-09	21	500	440	8.15	350	90	--	1.35	33.14	21	0.5	0.08	44.5	0.0996
3-Dec-09	22	500	470	7.77	343	87	--	4.16	30.74	15	--	--	--	--
10-Dec-09	23	500	480	7.69	376	85	--	3.87	27.27	16	0.5	0.07	45.5	0.0797
17-Dec-09	24	500	495	7.81	360	80	--	2.31	27.69	10	--	--	--	--
24-Dec-09	25	500	475	7.77	368	76	--	2.34	28.83	14	0.5	0.06	44.5	0.0697
31-Dec-09	26	500	470	7.84	390	81	--	2.01	29.47	15	--	--	--	--
7-Jan-10	27	500	475	7.68	378	90	--	2.2	29.63	16	0.5	0.06	47.7	0.0796
14-Jan-10	28	500	485	7.54	348	78	--	--	26.02	11	--	--	--	--
21-Jan-10	29	500	490	7.64	361	80	--	2.28	28.09	17	0.5	0.05	44.3	0.0766
28-Jan-10	30	500	485	7.46	356	67	--	3.7	25.88	21	--	--	--	--
4-Feb-10	31	500	470	7.54	273	77	--	2.89	30.64	19	0.5	0.06	50.2	0.0771

Date	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L
2-Jul-09	0.0262	0.00673	0.0209	0.00001	0.000074	0.05	0.000005	34.3	0.0001	0.00072	0.0028	0.002	0.000039	0.0066	5.25	0.0035
9-Jul-09	0.075	0.0134	0.0147	0.00001	0.000068	0.05	0.000005	30.6	0.0001	0.000528	0.00277	0.002	0.000051	0.0048	4.52	0.0034
16-Jul-09	0.113	0.0142	0.00993	0.00001	0.000072	0.05	0.000005	18.8	0.0002	0.000283	0.00204	0.007	0.000163	0.0043	3.18	0.0023
23-Jul-09	0.06	0.00814	0.00515	0.00001	0.00004	0.05	0.000005	9.83	0.0001	0.000122	0.00143	0.003	0.000037	0.0025	1.82	0.0033
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.053	0.00656	0.00531	0.00001	0.000062	0.05	0.000005	12.7	0.0001	0.000104	0.00095	0.007	0.000066	0.002	2.24	0.0036
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.0523	0.00608	0.0051	0.00001	0.000076	0.05	0.000005	11.8	0.0001	0.000093	0.0005	0.005	0.000069	0.002	2.43	0.0031
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.0615	0.00624	0.00533	0.00001	0.000075	0.05	0.000007	12.7	0.0001	0.000073	0.00074	0.003	0.000089	0.0021	2.68	0.0028
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.0555	0.00556	0.00556	0.00001	0.000058	0.05	0.000005	13.5	0.0001	0.000076	0.00072	0.003	0.000069	0.0019	2.77	0.0037
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.0534	0.00419	0.00541	0.00001	0.000065	0.05	0.000007	13	0.0001	0.000088	0.00101	0.008	0.000095	0.0017	2.98	0.005
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.047	0.00462	0.00515	0.00001	0.00006	0.05	0.000009	12.9	0.0001	0.000066	0.00129	0.006	0.000061	0.0016	2.81	0.004
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.0497	0.00325	0.00467	0.00001	0.000098	0.05	0.000005	12.2	0.0001	0.000079	0.00173	0.006	0.000109	0.0016	2.69	0.0044
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.0514	0.00335	0.00425	0.00001	0.000083	0.05	0.000009	12.1	0.0001	0.000066	0.00039	0.004	0.000079	0.0013	2.88	0.0041
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.0517	0.00288	0.00414	0.00001	0.000077	0.05	0.000005	13.1	0.0001	0.000074	0.00056	0.007	0.00007	0.0013	2.89	0.005
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.0454	0.00232	0.00421	0.00001	0.000097	0.05	0.000005	13.2	0.0001	0.000074	0.00032	0.005	0.000111	0.0011	3.02	0.004
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.0502	0.00232	0.00397	0.00001	0.000049	0.05	0.000005	13.2	0.0001	0.000082	0.00032	0.003	0.00021	0.0011	2.79	0.0051
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.0469	0.00232	0.00423	0.00001	0.000053	0.05	0.000005	13.8	0.0001	0.000071	0.00049	0.004	0.000064	0.0012	3.23	0.006
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.0428	0.00217	0.00406	0.00001	0.000045	0.05	0.000005	12.8	0.0001	0.000074	--	0.003	0.00004	0.0012	2.99	0.0053
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.0446	0.00282	0.00483	0.00001	0.000048	0.05	0.000005	14.3	0.0001	0.000085	0.00114	0.003	0.000088	0.0013	3.52	0.0042

Date	Hg mg/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
2-Jul-09	0.00001	0.00292	0.00173	0.006	9.67	0.0048	1.23	0.000005	9.09	1.41	14	0.000013	0.00003	0.0005	0.0199	0.0002	0.0002	0.0001
9-Jul-09	0.00001	0.00435	0.00156	0.006	5.24	0.00659	1.42	0.000005	8	1.12	18	0.000006	0.00001	0.0005	0.0428	0.0003	0.0006	0.0001
16-Jul-09	0.00001	0.00378	0.00096	0.003	4.21	0.00524	1.38	0.000005	6.26	0.843	14	0.000006	0.00005	0.0005	0.0559	0.0005	0.001	0.0001
23-Jul-09	0.00001	0.00134	0.0003	0.002	2.46	0.00213	1.06	0.000005	2.7	0.419	4	0.000004	0.00001	0.0005	0.0374	0.0002	0.0004	0.0001
30-Jul-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.00001	0.00089	0.00019	0.003	2.34	0.0025	1.01	0.000005	2.07	0.453	6	0.000003	0.00001	0.0005	0.0438	0.0002	0.0009	0.0001
13-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.00001	0.00064	0.00022	0.003	2.29	0.00245	1.13	0.000005	1.4	0.451	5	0.000006	0.00002	0.0005	0.0423	0.0003	0.0004	0.0001
27-Aug-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.00001	0.00064	0.00013	0.002	2.2	0.00313	1.15	0.000005	1.19	0.528	7	0.000005	0.00002	0.0005	0.0456	0.0004	0.0006	0.0001
10-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.00001	0.00063	0.00011	0.002	1.98	0.00317	0.91	0.000005	1.04	0.511	7	0.000008	0.00008	0.0005	0.0364	0.0003	0.0003	0.0001
24-Sep-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.00001	0.00063	0.00028	0.002	1.97	0.00279	0.94	0.000005	0.89	0.462	7	0.000009	0.00004	0.0005	0.038	0.0002	0.0007	0.0001
8-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.00001	0.00059	0.00012	0.002	1.82	0.00286	0.98	0.000005	0.7	0.452	5	0.00001	0.00002	0.0005	0.0288	0.0002	0.0006	0.0001
22-Oct-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.00001	0.00076	0.00035	0.003	1.61	0.00234	0.73	0.000005	0.58	0.434	6	0.000005	0.00007	0.0005	0.032	0.0002	0.0008	0.0001
5-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.00001	0.001	0.00032	0.003	1.45	0.00202	0.8	0.000005	0.51	0.416	6	0.000003	0.00002	0.0005	0.0277	0.0002	0.0004	0.0001
19-Nov-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.00001	0.00111	0.00014	0.002	1.31	0.00198	0.71	0.000005	0.44	0.398	6	0.000005	0.00003	0.0005	0.0236	0.0002	0.0003	0.0001
3-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.00001	0.00115	0.00008	0.002	1.22	0.00181	0.69	0.000005	0.33	0.418	6	0.000006	0.00002	0.0005	0.0277	0.0002	0.0003	0.0001
17-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.00001	0.00102	0.00011	0.002	1.24	0.00194	0.69	0.000005	0.3	0.391	6	0.000007	0.00001	0.0005	0.0252	0.0002	0.0003	0.0001
31-Dec-09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.00001	0.00114	0.00011	0.002	1.17	0.00192	0.73	0.000005	0.33	0.405	7	0.000002	0.00015	0.0005	0.0242	0.0002	0.001	0.0001
14-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.00001	0.00098	0.00019	0.002	1.19	0.00186	0.66	0.000008	0.29	0.367	6	0.000006	0.00001	0.0005	0.0208	0.0002	0.0004	0.0001
28-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.00001	0.00116	0.00021	0.002	1.31	0.00219	0.81	0.000005	0.38	0.476	7	0.000003	0.00019	0.0005	0.0252	0.0002	0.0005	0.0001

Cell Terminated

HC 6
Sample = DG07-303
Sample Wt. (kg) **Loadings**

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk
2-Jul-09	0.5814	24.0692	20.14	1.178	0.2394	0.017214	0.009956	0.0025574	0.007942	0.0000038
9-Jul-09	0.534	16.7409	21.36	2.8925	0.2136	0.044945	0.033375	0.005963	0.0065415	0.00000445
16-Jul-09	0.52705	13.36715	15.77	0.9545	0.2407	0.04482	0.046895	0.005893	0.004121	0.00000415
23-Jul-09	0.42315	15.561	4.55	0.2275	0.15015	0.049595	0.0273	0.0037037	0.0023433	0.00000455
30-Jul-09	1.59645	13.04565	6.96	--	--	--	--	--	--	--
6-Aug-09	0.4738	14.9914	7.36	0.368	0.1104	0.05704	0.02438	0.0030176	0.0024426	0.0000046
13-Aug-09	1.2558	15.1248	4.6	--	--	--	--	--	--	--
20-Aug-09	0.6716	13.524	4.6	0.23	0.092	0.06072	0.024058	0.0027968	0.002346	0.0000046
27-Aug-09	0.6302	14.4348	5.98	--	--	--	--	--	--	--
3-Sep-09	1.28525	14.70035	10.185	0.2425	0.09215	0.065475	0.0298275	0.0030264	0.0025851	0.00000485
10-Sep-09	0.0258	12.7753	7.74	--	--	--	--	--	--	--
17-Sep-09	0.62745	14.3023	6.675	0.4005	0.0712	0.05251	0.0246975	0.0024742	0.0024742	0.00000445
24-Sep-09	0.36	16.0875	10.8	--	--	--	--	--	--	--
1-Oct-09	0.893	14.6123	6.58	0.235	0.0611	0.05123	0.025098	0.0019693	0.0025427	0.0000047
8-Oct-09	1.3815	13.977	9	--	--	--	--	--	--	--
15-Oct-09	0.66495	14.93115	7.905	0.2325	0.0558	0.05673	0.021855	0.0021483	0.0023948	0.00000465
22-Oct-09	0.9405	14.013	6.3	--	--	--	--	--	--	--
29-Oct-09	0.7084	13.6206	8.28	0.23	0.046	0.043516	0.022862	0.001495	0.0021482	0.0000046
5-Nov-09	1.1638	14.398	6.9	--	--	--	--	--	--	--
12-Nov-09	1.8786	13.7826	7.44	0.2325	0.0372	0.05394	0.023901	0.0015578	0.0019763	0.00000465
19-Nov-09	1.56975	13.3042	7.735	--	--	--	--	--	--	--
26-Nov-09	0.594	14.5816	9.24	0.22	0.0352	0.043824	0.022748	0.0012672	0.0018216	0.0000044
3-Dec-09	1.9552	14.4478	7.05	--	--	--	--	--	--	--
10-Dec-09	1.8576	13.0896	7.68	0.24	0.0336	0.038256	0.021792	0.0011136	0.0020208	0.0000048
17-Dec-09	1.14345	13.70655	4.95	--	--	--	--	--	--	--
24-Dec-09	1.1115	13.69425	6.65	0.2375	0.0285	0.0331075	0.023845	0.001102	0.0018858	0.00000475
31-Dec-09	0.9447	13.8509	7.05	--	--	--	--	--	--	--
7-Jan-10	1.045	14.07425	7.6	0.2375	0.0285	0.03781	0.0222775	0.001102	0.0020093	0.00000475
14-Jan-10	--	12.6197	5.335	--	--	--	--	--	--	--
21-Jan-10	1.1172	13.7641	8.33	0.245	0.0245	0.037534	0.020972	0.0010633	0.0019894	0.0000049
28-Jan-10	1.7945	12.5518	10.185	--	--	--	--	--	--	--
4-Feb-10	1.3583	14.4008	8.93	0.235	0.0282	0.036237	0.020962	0.0013254	0.0022701	0.0000047

Date	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk
2-Jul-09	0.00002812	0.019	0.0000019	13.034	0.000038	0.0002736	0.001064	0.00076	0.00001482	0.002508
9-Jul-09	0.00003026	0.02225	0.000002225	13.617	0.0000445	0.00023496	0.0012327	0.00089	0.000022695	0.002136
16-Jul-09	0.00002988	0.02075	0.000002075	7.802	0.000083	0.000117445	0.0008466	0.002905	0.000067645	0.0017845
23-Jul-09	0.0000182	0.02275	0.000002275	4.47265	0.0000455	0.00005551	0.0006507	0.001365	0.000016835	0.0011375
30-Jul-09	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.00002852	0.023	0.0000023	5.842	0.000046	0.00004784	0.000437	0.00322	0.00003036	0.00092
13-Aug-09	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.00003496	0.023	0.0000023	5.428	0.000046	0.00004278	0.00023	0.0023	0.00003174	0.00092
27-Aug-09	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.000036375	0.02425	0.000003395	6.1595	0.0000485	0.000035405	0.0003589	0.001455	0.000043165	0.0010185
10-Sep-09	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.00002581	0.02225	0.000002225	6.0075	0.0000445	0.00003382	0.0003204	0.001335	0.000030705	0.0008455
24-Sep-09	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.00003055	0.0235	0.00000329	6.11	0.000047	0.00004136	0.0004747	0.00376	0.00004465	0.000799
8-Oct-09	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.0000279	0.02325	0.000004185	5.9985	0.0000465	0.00003069	0.0005999	0.00279	0.000028365	0.000744
22-Oct-09	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.00004508	0.023	0.0000023	5.612	0.000046	0.00003634	0.0007958	0.00276	0.00005014	0.000736
5-Nov-09	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.000038595	0.02325	0.000004185	5.6265	0.0000465	0.00003069	0.0001814	0.00186	0.000036735	0.0006045
19-Nov-09	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.00003388	0.022	0.0000022	5.764	0.000044	0.00003256	0.0002464	0.00308	0.0000308	0.000572
3-Dec-09	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.00004656	0.024	0.0000024	6.336	0.000048	0.00003552	0.0001536	0.0024	0.00005328	0.000528
17-Dec-09	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.000023275	0.02375	0.000002375	6.27	0.0000475	0.00003895	0.000152	0.001425	0.00009975	0.0005225
31-Dec-09	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.000025175	0.02375	0.000002375	6.555	0.0000475	0.000033725	0.0002328	0.0019	0.0000304	0.00057
14-Jan-10	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.00002205	0.0245	0.00000245	6.272	0.000049	0.00003626	--	0.00147	0.0000196	0.000588
28-Jan-10	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.00002256	0.0235	0.00000235	6.721	0.000047	0.00003995	0.0005358	0.00141	0.00004136	0.000611

Date	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk
2-Jul-09	1.995	0.0013148	0.0000038	0.0011096	0.0006574	0.00228	3.6746	0.001824	0.4674	0.0000019
9-Jul-09	2.0114	0.0015308	0.00000445	0.0019358	0.0006942	0.00267	2.3318	0.0029326	0.6319	0.000002225
16-Jul-09	1.3197	0.0009379	0.00000415	0.0015687	0.0003984	0.001245	1.74715	0.0021746	0.5727	0.000002075
23-Jul-09	0.8281	0.0015197	0.00000455	0.0006097	0.0001365	0.00091	1.1193	0.0009692	0.4823	0.000002275
30-Jul-09	--	--	--	--	--	--	--	--	--	--
6-Aug-09	1.0304	0.0016652	0.0000046	0.0004094	0.0000874	0.00138	1.0764	0.00115	0.4646	0.0000023
13-Aug-09	--	--	--	--	--	--	--	--	--	--
20-Aug-09	1.1178	0.0014122	0.0000046	0.0002944	0.0001012	0.00138	1.0534	0.001127	0.5198	0.0000023
27-Aug-09	--	--	--	--	--	--	--	--	--	--
3-Sep-09	1.2998	0.0013532	0.00000485	0.0003104	0.00006305	0.00097	1.067	0.0015181	0.55775	0.000002425
10-Sep-09	--	--	--	--	--	--	--	--	--	--
17-Sep-09	1.23265	0.0016287	0.00000445	0.0002804	0.00004895	0.00089	0.8811	0.0014107	0.40584	0.000002225
24-Sep-09	--	--	--	--	--	--	--	--	--	--
1-Oct-09	1.4006	0.0023265	0.0000047	0.0002961	0.0001316	0.00094	0.9259	0.0013113	0.44227	0.00000235
8-Oct-09	--	--	--	--	--	--	--	--	--	--
15-Oct-09	1.30665	0.0018554	0.00000465	0.0002744	0.0000558	0.00093	0.8463	0.0013299	0.455235	0.000002325
22-Oct-09	--	--	--	--	--	--	--	--	--	--
29-Oct-09	1.2374	0.002024	0.0000046	0.0003496	0.000161	0.00138	0.7406	0.0010764	0.33534	0.0000023
5-Nov-09	--	--	--	--	--	--	--	--	--	--
12-Nov-09	1.3392	0.0019019	0.00000465	0.000465	0.0001488	0.001395	0.67425	0.0009393	0.372465	0.000002325
19-Nov-09	--	--	--	--	--	--	--	--	--	--
26-Nov-09	1.2716	0.0022132	0.0000044	0.0004884	0.0000616	0.00088	0.5764	0.0008712	0.31372	0.0000022
3-Dec-09	--	--	--	--	--	--	--	--	--	--
10-Dec-09	1.4496	0.0019056	0.0000048	0.000552	0.0000384	0.00096	0.5856	0.0008688	0.3312	0.0000024
17-Dec-09	--	--	--	--	--	--	--	--	--	--
24-Dec-09	1.32525	0.002432	0.00000475	0.0004845	0.00005225	0.00095	0.589	0.0009215	0.32775	0.000002375
31-Dec-09	--	--	--	--	--	--	--	--	--	--
7-Jan-10	1.53425	0.0028405	0.00000475	0.0005415	0.00005225	0.00095	0.55575	0.000912	0.346275	0.000002375
14-Jan-10	--	--	--	--	--	--	--	--	--	--
21-Jan-10	1.4651	0.0025872	0.0000049	0.0004802	0.0000931	0.00098	0.5831	0.0009114	0.32144	0.00000392
28-Jan-10	--	--	--	--	--	--	--	--	--	--
4-Feb-10	1.6544	0.0019505	0.0000047	0.0005452	0.0000987	0.00094	0.6157	0.0010293	0.38117	0.00000235

Date	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
2-Jul-09	3.4542	0.5358	5.32	0.00000494	0.0000114	0.00019	0.007562	0.000076	0.000076	0.000038
9-Jul-09	3.56	0.4984	8.01	0.00000267	0.00000445	0.0002225	0.019046	0.0001335	0.000267	0.0000445
16-Jul-09	2.5979	0.349845	5.81	0.00000249	0.00002075	0.0002075	0.0231985	0.0002075	0.000415	0.0000415
23-Jul-09	1.2285	0.190645	1.82	0.00000182	0.00000455	0.0002275	0.017017	0.000091	0.000182	0.0000455
30-Jul-09	--	--	--	--	--	--	--	--	--	--
6-Aug-09	0.9522	0.20838	2.76	0.00000138	0.0000046	0.00023	0.020148	0.000092	0.000414	0.000046
13-Aug-09	--	--	--	--	--	--	--	--	--	--
20-Aug-09	0.644	0.20746	2.3	0.00000276	0.0000092	0.00023	0.019458	0.000138	0.000184	0.000046
27-Aug-09	--	--	--	--	--	--	--	--	--	--
3-Sep-09	0.57715	0.25608	3.395	0.000002425	0.0000097	0.0002425	0.022116	0.000194	0.000291	0.0000485
10-Sep-09	--	--	--	--	--	--	--	--	--	--
17-Sep-09	0.4628	0.227395	3.115	0.00000356	0.0000356	0.0002225	0.016198	0.0001335	0.0001335	0.0000445
24-Sep-09	--	--	--	--	--	--	--	--	--	--
1-Oct-09	0.4183	0.21714	3.29	0.00000423	0.0000188	0.000235	0.01786	0.000094	0.000329	0.000047
8-Oct-09	--	--	--	--	--	--	--	--	--	--
15-Oct-09	0.3255	0.21018	2.325	0.00000465	0.0000093	0.0002325	0.013392	0.000093	0.000279	0.0000465
22-Oct-09	--	--	--	--	--	--	--	--	--	--
29-Oct-09	0.2668	0.19964	2.76	0.0000023	0.0000322	0.00023	0.01472	0.000092	0.000368	0.000046
5-Nov-09	--	--	--	--	--	--	--	--	--	--
12-Nov-09	0.23715	0.19344	2.79	0.000001395	0.0000093	0.0002325	0.0128805	0.000093	0.000186	0.0000465
19-Nov-09	--	--	--	--	--	--	--	--	--	--
26-Nov-09	0.1936	0.17512	2.64	0.0000022	0.0000132	0.00022	0.010384	0.000088	0.000132	0.000044
3-Dec-09	--	--	--	--	--	--	--	--	--	--
10-Dec-09	0.1584	0.20064	2.88	0.00000288	0.0000096	0.00024	0.013296	0.000096	0.000144	0.000048
17-Dec-09	--	--	--	--	--	--	--	--	--	--
24-Dec-09	0.1425	0.185725	2.85	0.000003325	0.00000475	0.0002375	0.01197	0.000095	0.0001425	0.0000475
31-Dec-09	--	--	--	--	--	--	--	--	--	--
7-Jan-10	0.15675	0.192375	3.325	0.00000095	0.00007125	0.0002375	0.011495	0.000095	0.000475	0.0000475
14-Jan-10	--	--	--	--	--	--	--	--	--	--
21-Jan-10	0.1421	0.17983	2.94	0.00000294	0.0000049	0.000245	0.010192	0.000098	0.000196	0.000049
28-Jan-10	--	--	--	--	--	--	--	--	--	--
4-Feb-10	0.1786	0.22372	3.29	0.00000141	0.0000893	0.000235	0.011844	0.000094	0.000235	0.000047

Cell Terminated

HC 7
Sample = KCA No. 42979
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP mV	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness mg CaCO3/L
24-Dec-09	0	750	320	7.43	410	542	--	2.06	23.04	393	12	0.22	409
31-Dec-09	1	500	445	7.43	410	542	--	2.06	23.04	249	4.1	0.17	260
7-Jan-10	2	500	455	7.62	395	495	--	2.54	28.2	238	0.6	0.22	259
14-Jan-10	3	500	470	7.49	364	391	--	6.2	30.15	165	0.5	0.21	199
21-Jan-10	4	500	465	7.63	375	261	--	2.79	28.34	102	--	--	--
28-Jan-10	5	500	470	7.45	369	225	--	4.06	29.24	121	0.9	0.17	128
4-Feb-10	6	500	460	7.58	272	174	--	2.72	29.9	82	--	--	--
11-Feb-10	7	500	480	7.48	349	173	--	2.75	26.39	57	0.5	0.21	87.4
18-Feb-10	8	500	450	7.49	312	166	--	3.38	29.98	58	--	--	--
25-Feb-10	9	500	440	7.64	359	166	--	2.84	30.72	51	0.5	0.23	84.5
4-Mar-10	10	500	455	7.62	368	135	--	2.48	29.58	45	--	--	--
11-Mar-10	11	500	440	7.67	377	152	--	3.15	40.19	38	0.5	0.18	79
18-Mar-10	12	500	485	7.58	376	139	--	3.49	35.96	30	--	--	--
25-Mar-10	13	500	475	7.75	363	121	--	3.06	37.92	27	0.5	0.21	56.8
1-Apr-10	14	500	460	7.74	377	106	--	2.58	34.74	21	--	--	--
8-Apr-10	15	500	460	7.80	360	114	--	2.34	37.18	23	0.5	0.18	52.3
15-Apr-10	16	500	460	7.67	325	117	--	3.25	39.23	28	--	--	--
22-Apr-10	17	500	490	7.70	346	102	--	4.13	35.78	17	0.5	0.14	48
29-Apr-10	18	500	475	7.71	354	97	--	2.69	34.65	18	--	--	--
6-May-10	19	500	465	7.66	320	99	--	4.57	38.83	13	0.5	0.1	48.6
13-May-10	20	500	470	7.68	326	99	--	3.51	35.25	16	--	--	--
20-May-10	21	500	440	7.73	356	82	--	3.66	31.16	15	0.5	0.06	39.6
27-May-10	22	500	455	7.73	369	82	--	5.22	34.8	8	--	--	--
3-Jun-10	23	500	440	7.72	354	89	--	2.86	35.84	14	0.5	0.07	39.9
10-Jun-10	24	500	450	7.59	304	95	--	5.11	37.07	11	--	--	--
17-Jun-10	25	500	460	7.74	335	85	--	3.85	35.4	4	0.5	0.05	37.5
24-Jun-10	26	500	460	7.83	407	90	--	2.43	36.68	9	--	--	--
1-Jul-10	27	500	450	7.77	414	89	--	2.59	37.26	11	0.5	0.06	36.5
8-Jul-10	28	500	440	7.72	314	85	--	2.22	33.15	8	--	--	--
15-Jul-10	29	500	470	7.63	338	90	--	3.95	35.88	8	0.5	0.06	40.8
22-Jul-10	30	500	475	7.60	355	88	--	3.64	37.39	6	--	--	--
29-Jul-10	31	500	465	7.64	339	87	--	4.68	37.53	7	0.5	0.04	40.5
5-Aug-10	32	500	460	7.78	304	88	--	2.53	37.28	9	--	--	--
12-Aug-10	33	500	470	7.70	396	87	--	4.94	38.38	11	0.5	0.04	39.8
19-Aug-10	34	500	420	7.75	368	84	--	5.43	34.77	10	--	--	--
26-Aug-10	35	500	450	7.69	354	88	--	2.81	36.43	12	0.5	0.03	40.2
2-Sep-10	36	500	460	7.71	344	79	--	4.1	38.65	18	--	--	--
9-Sep-10	37	500	460	7.45	365	94	--	5.19	39.45	12	0.5	0.07	41.1
16-Sep-10	38	500	435	7.59	358	93	--	3.57	42.16	15	--	--	--

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L
24-Dec-09	0.0483	0.0465	0.00987	0.0334	0.00001	0.00001	0.05	0.00005	149	0.0001	0.000759	0.00264	0.011	0.000157	0.0179
31-Dec-09	0.0425	0.0261	0.00846	0.0191	0.00001	0.000017	0.05	0.000005	92.6	0.0001	0.000335	0.00124	0.004	0.000037	0.0103
7-Jan-10	0.0502	0.0326	0.012	0.017	0.00001	0.000011	0.05	0.000015	93.2	0.0001	0.000284	0.00096	0.003	0.000032	0.0102
14-Jan-10	0.0646	0.0423	0.0143	0.0133	0.00001	0.000012	0.05	0.000018	71.9	0.0003	0.000194	0.00065	0.006	0.000042	0.0091
21-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-10	0.0679	0.0375	0.0134	0.00947	0.00001	0.000013	0.05	0.000008	46.6	0.0002	0.000116	0.0006	0.007	0.000042	0.0063
4-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-10	0.0679	0.0388	0.0116	0.00936	0.00001	0.000018	0.05	0.000008	32.2	0.0001	0.000067	0.00103	0.003	0.000035	0.005
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.0675	0.0574	0.0173	0.00955	0.00001	0.000014	0.05	0.000007	31.3	0.0001	0.000082	0.00041	0.002	0.000036	0.0058
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	0.0607	0.0678	0.0208	0.00894	0.00001	0.000013	0.05	0.000009	29.1	0.0001	0.000058	0.00045	0.002	0.00008	0.0055
18-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-10	0.0744	0.0716	0.0219	0.00806	0.00001	0.000023	0.05	0.000008	20.9	0.0001	0.000059	0.00063	0.005	0.000054	0.0054
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.0672	0.0625	0.0214	0.00794	0.00001	0.000018	0.05	0.000007	19.3	0.0001	0.000043	0.00093	0.005	0.000044	0.0046
15-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	0.0718	0.0563	0.0204	0.00625	0.00001	0.000095	0.05	0.000011	17.8	0.0001	0.000032	0.00051	0.005	0.000043	0.0041
29-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-May-10	0.0705	0.0582	0.0227	0.00641	0.00001	0.000017	0.05	0.000008	18	0.0001	0.000039	0.00033	0.005	0.000051	0.0041
13-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	0.0823	0.0423	0.022	0.00519	0.00001	0.000018	0.05	0.00001	14.6	0.0001	0.000027	0.00047	0.004	0.000114	0.0031
27-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	0.0845	0.0455	0.0244	0.00643	0.00001	0.000018	0.05	0.00001	14.5	0.0001	0.000044	0.0004	0.004	0.000052	0.0036
10-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Jun-10	0.0861	0.0478	0.0273	0.0112	0.00001	0.000011	0.05	0.000005	13.6	0.0001	0.000035	0.00072	0.005	0.000038	0.0033
24-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	0.0696	0.0431	0.0239	0.00583	0.00001	0.000009	0.05	0.000005	13.3	0.0001	0.000025	0.00027	0.002	0.000036	0.0028
8-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	0.0695	0.0455	0.032	0.00611	0.00001	0.000008	0.05	0.000006	14.9	0.0001	0.000029	0.00045	0.002	0.000035	0.0032
22-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	0.078	0.0424	0.0255	0.00598	0.00001	0.000014	0.05	0.000008	14.8	0.0001	0.000029	0.00046	0.004	0.000038	0.0031
5-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	0.0853	0.0389	0.0255	0.00601	0.00001	0.000018	0.05	0.000008	14.6	0.0001	0.000039	0.00082	0.005	0.000083	0.003
19-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	0.0763	0.0384	0.0242	0.00706	0.00001	0.000011	0.05	0.000005	14.7	0.0001	0.000035	0.00072	0.004	0.000037	0.0032
2-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	0.0781	0.0384	0.0253	0.00655	0.00001	0.000017	0.05	0.000006	15	0.0002	0.000027	0.0004	0.005	0.000041	0.0031
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Mg mg/L	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
24-Dec-09	9.38	0.0365	0.00002	0.00692	0.00226	0.009	7.38	0.024	1.51	0.000092	18.4	3.36	140	0.000038	0.00005	0.0005	0.0377	0.0002	0.001	0.0001
31-Dec-09	6.97	0.0185	0.00001	0.0093	0.00095	0.003	4.69	0.0166	1.09	0.000005	14.4	2.12	80	0.000016	0.00003	0.0005	0.0298	0.0002	0.0004	0.0001
7-Jan-10	6.25	0.0196	0.00001	0.0112	0.00075	0.003	4.89	0.00913	1.59	0.000005	9.75	2.23	80	0.000016	0.00011	0.0005	0.0228	0.0002	0.0006	0.0001
14-Jan-10	4.7	0.0143	0.00001	0.0118	0.00059	0.002	4.38	0.00485	1.87	0.000005	5.59	1.68	58	0.000018	0.00002	0.0005	0.0202	0.0002	0.0006	0.0001
21-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-10	2.81	0.0094	0.00001	0.00929	0.00044	0.003	3.31	0.0022	1.49	0.000005	2.35	1.12	33	0.000014	0.00017	0.0007	0.0149	0.0002	0.0003	0.0001
4-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-10	1.68	0.0057	0.00001	0.00785	0.0004	0.002	2.6	0.00124	1.36	0.000005	1.45	0.756	22	0.000012	0.00001	0.0005	0.0104	0.0002	0.0007	0.0001
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	1.56	0.0041	0.00001	0.00895	0.00029	0.002	2.96	0.00144	1.77	0.000005	1.24	0.779	20	0.000015	0.00001	0.0005	0.0106	0.0002	0.001	0.0001
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	1.54	0.0037	0.00001	0.00863	0.0002	0.002	3.09	0.00141	1.98	0.000005	0.99	0.723	15	0.000019	0.00001	0.0005	0.0133	0.0003	0.0003	0.0001
18-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-10	1.15	0.0026	0.00001	0.00803	0.00038	0.002	2.85	0.0014	2.11	0.000005	0.82	0.559	10	0.000014	0.00001	0.0005	0.0103	0.0003	0.0004	0.0001
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	1.01	0.0027	0.00001	0.00681	0.00024	0.002	2.63	0.00132	1.89	0.000005	0.64	0.483	7	0.000024	0.00004	0.0005	0.00968	0.0003	0.0011	0.0001
15-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	0.87	0.0027	0.00001	0.00636	0.00016	0.003	2.5	0.00132	1.93	0.000005	0.51	0.432	10	0.000013	0.00001	0.0005	0.00946	0.0002	0.001	0.0001
29-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-May-10	0.9	0.0027	0.00001	0.00586	0.00017	0.002	2.42	0.00138	1.89	0.000011	0.48	0.421	10	0.000035	0.00001	0.0005	0.00947	0.0003	0.0004	0.0001
13-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	0.76	0.0024	0.00001	0.00447	0.00017	0.002	2	0.00133	1.56	0.000005	0.38	0.344	10	0.000015	0.00001	0.0005	0.00717	0.0002	0.0004	0.0001
27-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	0.91	0.0032	0.00001	0.00492	0.00018	0.002	2.37	0.00137	1.82	0.000005	0.44	0.381	10	0.000013	0.00001	0.0005	0.00818	0.0004	0.0005	0.0001
10-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Jun-10	0.86	0.0023	0.00001	0.00456	0.00013	0.002	2.31	0.00151	1.71	0.000005	0.44	0.378	10	0.000015	0.00003	0.0005	0.00793	0.0003	0.0006	0.0001
24-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	0.8	0.0022	0.00001	0.00387	0.00016	0.002	2.02	0.00134	1.65	0.000005	0.34	0.373	10	0.000013	0.00002	0.0005	0.00836	0.0003	0.0002	0.0001
8-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	0.89	0.0023	0.00001	0.0038	0.00009	0.002	2.16	0.00161	1.87	0.000005	0.37	0.414	10	0.00001	0.00007	0.0005	0.0093	0.0004	0.0002	0.0001
22-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	0.89	0.0024	0.00001	0.00301	0.00016	0.002	2.05	0.00136	1.85	0.000006	0.33	0.387	10	0.000011	0.00001	0.0005	0.00817	0.0003	0.0004	0.0001
5-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	0.84	0.0023	0.00001	0.00269	0.00024	0.002	2.01	0.00129	1.64	0.000005	0.33	0.376	10	0.000013	0.00002	0.0005	0.00898	0.0003	0.0009	0.0001
19-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	0.88	0.0024	0.00001	0.00278	0.00023	0.002	2.1	0.00129	1.54	0.000005	0.32	0.385	10	0.000013	0.00023	0.0005	0.00653	0.0002	0.0005	0.0001
2-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	0.9	0.002	0.00001	0.00258	0.00022	0.002	2.18	0.00144	1.77	0.000005	0.33	0.395	10	0.000013	0.00002	0.0005	0.0076	0.0002	0.0001	0.0001
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 7
Sample = KCA No. 4
Sample Wt. (kg) **Loadings**

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk
24-Dec-09	0.6592	7.3728	125.76	3.84	0.0704	0.015456	0.01488	0.0031584	0.010688	0.0000032	0.0000032	0.016
31-Dec-09	0.9167	10.2528	110.805	1.8245	0.07565	0.0189125	0.0116145	0.0037647	0.0084995	4.45E-06	7.565E-06	0.02225
7-Jan-10	1.1557	12.831	108.29	0.273	0.1001	0.022841	0.014833	0.00546	0.007735	4.55E-06	5.005E-06	0.02275
14-Jan-10	2.914	14.1705	77.55	0.235	0.0987	0.030362	0.019881	0.006721	0.006251	0.0000047	5.64E-06	0.0235
21-Jan-10	1.29735	13.1781	47.43	--	--	--	--	--	--	--	--	--
28-Jan-10	1.9082	13.7428	56.87	0.423	0.0799	0.031913	0.017625	0.006298	0.0044509	0.0000047	6.11E-06	0.0235
4-Feb-10	1.2512	13.754	37.72	--	--	--	--	--	--	--	--	--
11-Feb-10	1.32	12.6672	27.36	0.24	0.1008	0.032592	0.018624	0.005568	0.0044928	0.0000048	8.64E-06	0.024
18-Feb-10	1.521	13.491	26.1	--	--	--	--	--	--	--	--	--
25-Feb-10	1.2496	13.5168	22.44	0.22	0.1012	0.0297	0.025256	0.007612	0.004202	0.0000044	6.16E-06	0.022
4-Mar-10	1.1284	13.4589	20.475	--	--	--	--	--	--	--	--	--
11-Mar-10	1.386	17.6836	16.72	0.22	0.0792	0.026708	0.029832	0.009152	0.0039336	0.0000044	5.72E-06	0.022
18-Mar-10	1.69265	17.4406	14.55	--	--	--	--	--	--	--	--	--
25-Mar-10	1.4535	18.012	12.825	0.2375	0.09975	0.03534	0.03401	0.0104025	0.0038285	4.75E-06	1.093E-05	0.02375
1-Apr-10	1.1868	15.9804	9.66	--	--	--	--	--	--	--	--	--
8-Apr-10	1.0764	17.1028	10.58	0.23	0.0828	0.030912	0.02875	0.009844	0.0036524	0.0000046	8.28E-06	0.023
15-Apr-10	1.495	18.0458	12.88	--	--	--	--	--	--	--	--	--
22-Apr-10	2.0237	17.5322	8.33	0.245	0.0686	0.035182	0.027587	0.009996	0.0030625	0.0000049	4.655E-05	0.0245
29-Apr-10	1.27775	16.45875	8.55	--	--	--	--	--	--	--	--	--
6-May-10	2.12505	18.05595	6.045	0.2325	0.0465	0.0327825	0.027063	0.0105555	0.0029807	4.65E-06	7.905E-06	0.02325
13-May-10	1.6497	16.5675	7.52	--	--	--	--	--	--	--	--	--
20-May-10	1.6104	13.7104	6.6	0.22	0.0264	0.036212	0.018612	0.00968	0.0022836	0.0000044	7.92E-06	0.022
27-May-10	2.3751	15.834	3.64	--	--	--	--	--	--	--	--	--
3-Jun-10	1.2584	15.7696	6.16	0.22	0.0308	0.03718	0.02002	0.010736	0.0028292	0.0000044	7.92E-06	0.022
10-Jun-10	2.2995	16.6815	4.95	--	--	--	--	--	--	--	--	--
17-Jun-10	1.771	16.284	1.84	0.23	0.023	0.039606	0.021988	0.012558	0.005152	0.0000046	5.06E-06	0.023
24-Jun-10	1.1178	16.8728	4.14	--	--	--	--	--	--	--	--	--
1-Jul-10	1.1655	16.767	4.95	0.225	0.027	0.03132	0.019395	0.010755	0.0026235	0.0000045	4.05E-06	0.0225
8-Jul-10	0.9768	14.586	3.52	--	--	--	--	--	--	--	--	--
15-Jul-10	1.8565	16.8636	3.76	0.235	0.0282	0.032665	0.021385	0.01504	0.0028717	0.0000047	3.76E-06	0.0235
22-Jul-10	1.729	17.76025	2.85	--	--	--	--	--	--	--	--	--
29-Jul-10	2.1762	17.45145	3.255	0.2325	0.0186	0.03627	0.019716	0.0118575	0.0027807	4.65E-06	6.51E-06	0.02325
5-Aug-10	1.1638	17.1488	4.14	--	--	--	--	--	--	--	--	--
12-Aug-10	2.3218	18.0386	5.17	0.235	0.0188	0.040091	0.018283	0.011985	0.0028247	0.0000047	8.46E-06	0.0235
19-Aug-10	2.2806	14.6034	4.2	--	--	--	--	--	--	--	--	--
26-Aug-10	1.2645	16.3935	5.4	0.225	0.0135	0.034335	0.01728	0.01089	0.003177	0.0000045	4.95E-06	0.0225
2-Sep-10	1.886	17.779	8.28	--	--	--	--	--	--	--	--	--
9-Sep-10	2.3874	18.147	5.52	0.23	0.0322	0.035926	0.017664	0.011638	0.003013	0.0000046	7.82E-06	0.023
16-Sep-10	1.55295	18.3396	6.525	--	--	--	--	--	--	--	--	--

Date	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk
24-Dec-09	0.000016	47.68	0.000032	0.00024288	0.0008448	0.00352	0.00005024	0.005728	3.0016	0.01168	0.0000064	0.0022144	0.0007232
31-Dec-09	2.225E-06	41.207	0.0000445	0.000149075	0.0005518	0.00178	0.000016465	0.0045835	3.10165	0.0082325	0.00000445	0.0041385	0.00042275
7-Jan-10	6.825E-06	42.406	0.0000455	0.00012922	0.0004368	0.001365	0.00001456	0.004641	2.84375	0.008918	0.00000455	0.005096	0.00034125
14-Jan-10	8.46E-06	33.793	0.000141	0.00009118	0.0003055	0.00282	0.00001974	0.004277	2.209	0.006721	0.0000047	0.005546	0.0002773
21-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-10	3.76E-06	21.902	0.000094	0.00005452	0.000282	0.00329	0.00001974	0.002961	1.3207	0.0044274	0.0000047	0.0043663	0.0002068
4-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-10	3.84E-06	15.456	0.000048	0.00003216	0.0004944	0.00144	0.0000168	0.0024	0.8064	0.002712	0.0000048	0.003768	0.000192
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	3.08E-06	13.772	0.000044	0.00003608	0.0001804	0.00088	0.00001584	0.002552	0.6864	0.0018216	0.0000044	0.003938	0.0001276
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	3.96E-06	12.804	0.000044	0.00002552	0.000198	0.00088	0.0000352	0.00242	0.6776	0.0016236	0.0000044	0.0037972	0.000088
18-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-10	0.0000038	9.9275	0.0000475	0.000028025	0.00029925	0.002375	0.00002565	0.002565	0.54625	0.00123025	0.00000475	0.00381425	0.0001805
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	3.22E-06	8.878	0.000046	0.00001978	0.0004278	0.0023	0.00002024	0.002116	0.4646	0.0012604	0.0000046	0.0031326	0.0001104
15-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	5.39E-06	8.722	0.000049	0.00001568	0.0002499	0.00245	0.00002107	0.002009	0.4263	0.0013181	0.0000049	0.0031164	0.0000784
29-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--
6-May-10	3.72E-06	8.37	0.0000465	0.000018135	0.00015345	0.002325	0.000023715	0.0019065	0.4185	0.0012648	0.00000465	0.0027249	0.00007905
13-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	0.0000044	6.424	0.000044	0.00001188	0.0002068	0.00176	0.00005016	0.001364	0.3344	0.0010604	0.0000044	0.0019668	0.0000748
27-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	0.0000044	6.38	0.000044	0.00001936	0.000176	0.00176	0.00002288	0.001584	0.4004	0.0014036	0.0000044	0.0021648	0.0000792
10-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Jun-10	0.0000023	6.256	0.000046	0.0000161	0.0003312	0.0023	0.00001748	0.001518	0.3956	0.0010718	0.0000046	0.0020976	0.0000598
24-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	2.25E-06	5.985	0.000045	0.00001125	0.0001215	0.0009	0.0000162	0.00126	0.36	0.0009765	0.0000045	0.0017415	0.000072
8-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	2.82E-06	7.003	0.000047	0.00001363	0.0002115	0.00094	0.00001645	0.001504	0.4183	0.0010857	0.0000047	0.001786	0.0000423
22-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	3.72E-06	6.882	0.0000465	0.000013485	0.0002139	0.00186	0.00001767	0.0014415	0.41385	0.00111135	0.00000465	0.00139965	0.0000744
5-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	3.76E-06	6.862	0.000047	0.00001833	0.0003854	0.00235	0.00003901	0.00141	0.3948	0.0010669	0.0000047	0.0012643	0.0001128
19-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	2.25E-06	6.615	0.000045	0.00001575	0.000324	0.0018	0.00001665	0.00144	0.396	0.001071	0.0000045	0.001251	0.0001035
2-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	2.76E-06	6.9	0.000092	0.00001242	0.000184	0.0023	0.00001886	0.001426	0.414	0.0009154	0.0000046	0.0011868	0.0001012
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
24-Dec-09	0.00288	2.3616	0.00768	0.4832	0.00002944	5.888	1.0752	44.8	0.00001216	0.000016	0.00016	0.012064	0.000064	0.00032	0.000032
31-Dec-09	0.001335	2.08705	0.007387	0.48505	0.000002225	6.408	0.9434	35.6	0.00000712	0.00001335	0.0002225	0.013261	0.000089	0.000178	0.0000445
7-Jan-10	0.001365	2.22495	0.00415415	0.72345	0.000002275	4.43625	1.01465	36.4	0.00000728	0.00005005	0.0002275	0.010374	0.000091	0.000273	0.0000455
14-Jan-10	0.00094	2.0586	0.0022795	0.8789	0.00000235	2.6273	0.7896	27.26	0.00000846	0.0000094	0.000235	0.009494	0.000094	0.000282	0.000047
21-Jan-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28-Jan-10	0.00141	1.5557	0.001034	0.7003	0.00000235	1.1045	0.5264	15.51	0.00000658	0.0000799	0.000329	0.007003	0.000094	0.000141	0.000047
4-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Feb-10	0.00096	1.248	0.0005952	0.6528	0.0000024	0.696	0.36288	10.56	0.00000576	0.0000048	0.00024	0.004992	0.000096	0.000336	0.000048
18-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Feb-10	0.00088	1.3024	0.0006336	0.7788	0.0000022	0.5456	0.34276	8.8	0.0000066	0.0000044	0.00022	0.004664	0.000088	0.00044	0.000044
4-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
11-Mar-10	0.00088	1.3596	0.0006204	0.8712	0.0000022	0.4356	0.31812	6.6	0.00000836	0.0000044	0.00022	0.005852	0.000132	0.000132	0.000044
18-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
25-Mar-10	0.00095	1.35375	0.000665	1.00225	0.000002375	0.3895	0.265525	4.75	0.00000665	0.00000475	0.0002375	0.0048925	0.0001425	0.00019	0.0000475
1-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Apr-10	0.00092	1.2098	0.0006072	0.8694	0.0000023	0.2944	0.22218	3.22	0.00001104	0.0000184	0.00023	0.0044528	0.000138	0.000506	0.000046
15-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Apr-10	0.00147	1.225	0.0006468	0.9457	0.00000245	0.2499	0.21168	4.9	0.00000637	0.0000049	0.000245	0.0046354	0.000098	0.00049	0.000049
29-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6-May-10	0.00093	1.1253	0.0006417	0.87885	0.000005115	0.2232	0.195765	4.65	0.000016275	0.00000465	0.0002325	0.00440355	0.0001395	0.000186	0.0000465
13-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
20-May-10	0.00088	0.88	0.0005852	0.6864	0.0000022	0.1672	0.15136	4.4	0.0000066	0.0000044	0.00022	0.0031548	0.000088	0.000176	0.000044
27-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3-Jun-10	0.00088	1.0428	0.0006028	0.8008	0.0000022	0.1936	0.16764	4.4	0.00000572	0.0000044	0.00022	0.0035992	0.000176	0.00022	0.000044
10-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
17-Jun-10	0.00092	1.0626	0.0006946	0.7866	0.0000023	0.2024	0.17388	4.6	0.0000069	0.0000138	0.00023	0.0036478	0.000138	0.000276	0.000046
24-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Jul-10	0.0009	0.909	0.000603	0.7425	0.00000225	0.153	0.16785	4.5	0.00000585	0.000009	0.000225	0.003762	0.000135	0.00009	0.000045
8-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Jul-10	0.00094	1.0152	0.0007567	0.8789	0.00000235	0.1739	0.19458	4.7	0.0000047	0.0000329	0.000235	0.004371	0.000188	0.000094	0.000047
22-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Jul-10	0.00093	0.95325	0.0006324	0.86025	0.00000279	0.15345	0.179955	4.65	0.000005115	0.00000465	0.0002325	0.00379905	0.0001395	0.000186	0.0000465
5-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12-Aug-10	0.00094	0.9447	0.0006063	0.7708	0.00000235	0.1551	0.17672	4.7	0.00000611	0.0000094	0.000235	0.0042206	0.000141	0.000423	0.000047
19-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26-Aug-10	0.0009	0.945	0.0005805	0.693	0.00000225	0.144	0.17325	4.5	0.00000585	0.0001035	0.000225	0.0029385	0.00009	0.000225	0.000045
2-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
9-Sep-10	0.00092	1.0028	0.0006624	0.8142	0.0000023	0.1518	0.1817	4.6	0.00000598	0.0000092	0.00023	0.003496	0.000092	0.000046	0.000046
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 8
Sample = DG05-308C 12.19-18.00
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP mV	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness mg CaCO3/L	Al mg/L
14-Jan-10	0	500	395	7.36	351	107	--	5.46	20.11	21	1.2	0.16	35.9	0.0848
21-Jan-10	1	500	505	7.48	366	66	--	2.41	20.07	14	0.7	0.1	28.9	0.0603
28-Jan-10	2	500	505	7.40	355	41	--	3.96	21.88	7	0.5	0.1	20.7	0.0512
4-Feb-10	3	500	470	7.02	288	29	--	3.67	13.75	2	0.5	0.08	13	0.0477
11-Feb-10	4	500	470	6.99	353	24	--	2.85	10.84	3	--	--	--	--
18-Feb-10	5	500	460	7.09	327	24	--	3.62	11.99	1	0.5	0.05	10.9	0.0488
25-Feb-10	6	500	440	7.17	355	19	--	3.24	10.04	5	--	--	--	--
4-Mar-10	7	500	445	7.09	370	19	--	2.99	9.21	2	0.5	0.04	9.1	0.0457
11-Mar-10	8	500	470	7.05	376	16	--	3.63	8.6	1	--	--	--	--
18-Mar-10	9	500	475	7.18	369	19	--	3.24	10.13	1	0.5	0.04	8.2	0.0312
25-Mar-10	10	500	480	7.36	359	19	--	3.83	10.43	1	--	--	--	--
1-Apr-10	11	500	455	7.28	374	16	--	3.15	9.28	2	--	0.02	7.5	0.0363
8-Apr-10	12	500	475	7.20	351	17	--	3.27	9.04	3	--	--	--	--
15-Apr-10	13	500	485	7.11	333	18	--	3.42	9.94	2	0.5	0.04	8.1	0.0328
22-Apr-10	14	500	490	7.40	340	15	--	4.24	9.2	3	--	--	--	--
29-Apr-10	15	500	480	7.29	343	17	--	2.28	8.86	5	0.5	0.05	7.4	0.0273
6-May-10	16	500	490	7.28	321	16	--	4.46	9.46	1	--	--	--	--
13-May-10	17	500	475	7.27	331	17	--	3.38	8.89	2	0.5	0.04	7.5	0.0257
20-May-10	18	500	455	7.50	348	13	--	3.66	7.84	2	--	--	--	--
27-May-10	19	500	465	7.53	358	14	--	4.75	10.51	1	0.5	0.03	6.9	0.028
3-Jun-10	20	500	495	7.25	343	14	--	2.74	8.33	4	--	--	--	--
10-Jun-10	21	500	460	7.42	305	17	--	3.96	12.13	1	0.5	0.02	7.2	0.0453
17-Jun-10	22	500	475	7.48	330	17	--	3.53	11.06	1	--	--	--	--
24-Jun-10	23	500	480	7.40	408	18	--	2.61	11.43	5	0.5	0.1	8.1	0.0341
1-Jul-10	24	500	475	7.38	417	17	--	2.62	10.61	1	--	--	--	--
8-Jul-10	25	500	480	7.15	317	17	--	2.49	9.65	4	0.5	0.02	8	0.0425
15-Jul-10	26	500	475	7.37	328	16	--	3.56	9.75	2	--	--	--	--
22-Jul-10	27	500	485	7.15	345	16	--	3.75	10.17	1	0.5	0.02	7.7	0.0291
29-Jul-10	28	500	520	7.23	327	14	--	4.01	9.09	3	--	--	--	--
5-Aug-10	29	500	480	7.32	329	16	--	2.32	9.59	3	0.5	0.02	7.9	0.0254
12-Aug-10	30	500	470	7.44	402	15	--	4.3	10.19	2	--	--	--	--
19-Aug-10	31	500	455	7.51	379	13	--	4.62	9.41	1	0.5	0.05	6.3	0.0379
26-Aug-10	32	500	475	7.08	350	14	--	3.16	8.19	2	--	--	--	--
2-Sep-10	33	500	455	7.42	375	14	--	3.53	9.49	5	0.5	0.06	7.4	0.0266
9-Sep-10	34	500	475	7.04	354	14	--	4.54	9.15	2	--	--	--	--
16-Sep-10	35	500	465	6.99	349	11	--	2.92	8.14	3	--	--	--	--

Date	Cycle	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L
14-Jan-10	0	0.00169	0.0643	0.00053	0.00001	0.000005	0.05	0.000008	13.1	0.0001	0.000028	0.0009	0.004	0.000006	0.0025
21-Jan-10	1	0.00177	0.0476	0.00065	0.00001	0.000005	0.05	0.000005	10.5	0.0001	0.00005	0.00196	0.006	0.000015	0.0015
28-Jan-10	2	0.00152	0.0445	0.00042	0.00001	0.000005	0.05	0.000005	7.53	0.0002	0.000035	0.00045	0.005	0.000016	0.0011
4-Feb-10	3	0.00114	0.0417	0.0004	0.00001	0.000005	0.05	0.000005	4.73	0.0001	0.000038	0.00038	0.008	0.000038	0.0008
11-Feb-10	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	5	0.00086	0.0353	0.00038	0.00001	0.000005	0.05	0.000005	3.95	0.0001	0.000038	0.00049	0.01	0.000047	0.0006
25-Feb-10	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	7	0.00076	0.0385	0.00055	0.00001	0.000005	0.05	0.000005	3.31	0.0001	0.000041	0.00031	0.014	0.000066	0.0007
11-Mar-10	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	9	0.00075	0.0293	0.00045	0.00001	0.000005	0.05	0.000005	2.95	0.0001	0.000034	0.00043	0.006	0.000007	0.0006
25-Mar-10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	11	0.00071	0.0286	0.00046	0.00001	0.000005	0.05	0.000005	2.72	0.0001	0.000037	0.00072	0.01	0.00012	0.0006
8-Apr-10	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	13	0.00074	0.0275	0.00034	0.00001	0.000005	0.05	0.000005	2.93	0.0002	0.000032	0.00064	0.008	0.000059	0.0005
22-Apr-10	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	15	0.00066	0.0256	0.00032	0.00001	0.000016	0.05	0.000005	2.69	0.0001	0.000037	0.00026	0.007	0.000011	0.0005
6-May-10	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	17	0.00065	0.0271	0.00025	0.00001	0.000005	0.05	0.000005	2.74	0.0001	0.000025	0.00017	0.005	0.000027	0.0007
20-May-10	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	19	0.00053	0.0233	0.00035	0.00001	0.000005	0.05	0.000005	2.52	0.0001	0.00005	0.00028	0.008	0.00019	0.0005
3-Jun-10	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	21	0.0005	0.0302	0.00031	0.00001	0.000005	0.05	0.000005	2.63	0.0002	0.000028	0.00027	0.007	0.000015	0.0005
17-Jun-10	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	23	0.00063	0.0328	0.00035	0.00001	0.000005	0.05	0.000005	2.94	0.0001	0.000026	0.00032	0.007	0.000006	0.0005
1-Jul-10	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	25	0.00054	0.0335	0.00034	0.00001	0.000007	0.05	0.000005	2.9	0.0001	0.000019	0.00014	0.006	0.000005	0.0005
15-Jul-10	26	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	27	0.00048	0.0284	0.00033	0.00001	0.000005	0.05	0.000005	2.82	0.0001	0.000016	0.00015	0.006	0.000007	0.0005
29-Jul-10	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	29	0.00046	0.0303	0.00074	0.00001	0.000005	0.05	0.000005	2.87	0.0002	0.000029	0.00045	0.003	0.000014	0.0005
12-Aug-10	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	31	0.00037	0.0252	0.00068	0.00001	0.000005	0.05	0.000005	2.31	0.0001	0.000089	0.00049	0.012	0.000007	0.0005
26-Aug-10	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	33	0.00039	0.0247	0.00044	0.00001	0.000005	0.05	0.000005	2.69	0.0001	0.000028	0.00043	0.007	0.000005	0.0005
9-Sep-10	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	35	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Cycle	Mg mg/L	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
14-Jan-10	0	0.8	0.0037	0.00001	0.00239	0.00022	0.004	1.98	0.00088	1.7	0.000005	2.3	0.0917	8	0.000006	0.00001	0.0008	0.00565	0.0003	0.0003	0.0001
21-Jan-10	1	0.65	0.0048	0.00001	0.00303	0.00039	0.002	1.7	0.00075	1.66	0.000006	1.67	0.0732	5	0.000008	0.00001	0.0005	0.00693	0.0003	0.0004	0.0001
28-Jan-10	2	0.46	0.0039	0.00001	0.00257	0.00027	0.002	1.39	0.00059	1.53	0.000005	1.07	0.0547	3	0.000003	0.00014	0.0005	0.00569	0.0003	0.0003	0.0001
4-Feb-10	3	0.3	0.0028	0.00001	0.0017	0.00026	0.002	1.02	0.00043	1.16	0.000005	0.68	0.0369	3	0.000004	0.00014	0.0006	0.00314	0.0002	0.0004	0.0001
11-Feb-10	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	5	0.25	0.0026	0.00001	0.00119	0.00027	0.002	0.96	0.00025	1.01	0.000005	0.52	0.0294	3	0.000004	0.00013	0.0006	0.00217	0.0002	0.0004	0.0001
25-Feb-10	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	7	0.21	0.002	0.00001	0.00079	0.00025	0.002	0.88	0.00025	0.96	0.000005	0.37	0.025	2	0.000003	0.00003	0.001	0.0015	0.0002	0.0003	0.0001
11-Mar-10	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	9	0.19	0.0019	0.00001	0.0006	0.00026	0.002	0.71	0.00018	0.83	0.000005	0.31	0.023	10	0.000002	0.00001	0.0005	0.00185	0.0002	0.0003	0.0001
25-Mar-10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	11	0.18	0.0015	0.00001	0.00053	0.00027	0.002	0.72	0.00016	0.8	0.000023	0.25	0.0216	2	0.000004	0.00001	0.0008	0.00156	0.0002	0.0014	0.0001
8-Apr-10	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	13	0.18	0.0014	0.00001	0.00067	0.00022	0.002	0.71	0.00017	0.79	0.000006	0.25	0.0231	10	0.000004	0.00008	0.0005	0.00174	0.0002	0.001	0.0001
22-Apr-10	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	15	0.15	0.0014	0.00001	0.00066	0.00023	0.002	0.64	0.00017	0.75	0.000005	0.19	0.0211	10	0.000003	0.00001	0.0005	0.00147	0.0002	0.0005	0.0001
6-May-10	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	17	0.16	0.0013	0.00001	0.00068	0.00016	0.002	0.67	0.00017	0.95	0.000005	0.18	0.0202	10	0.000012	0.00002	0.0005	0.00143	0.0002	0.0003	0.0001
20-May-10	18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	19	0.14	0.0012	0.00001	0.00068	0.00014	0.002	0.62	0.00015	0.84	0.000005	0.14	0.0194	10	0.000003	0.00001	0.0005	0.00118	0.0002	0.0001	0.0001
3-Jun-10	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	21	0.16	0.001	0.00001	0.00077	0.00017	0.002	0.72	0.00023	0.66	0.000005	0.18	0.0215	10	0.000005	0.00001	0.0005	0.00115	0.0002	0.0002	0.0001
17-Jun-10	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	23	0.18	0.001	0.00001	0.00094	0.00018	0.002	0.83	0.0003	0.9	0.000005	0.19	0.0243	10	0.000002	0.00001	0.0005	0.00141	0.0002	0.0004	0.0001
1-Jul-10	24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	25	0.18	0.0011	0.00001	0.00079	0.0002	0.002	0.76	0.00022	0.92	0.000005	0.19	0.0209	10	0.000005	0.00001	0.0005	0.00127	0.0002	0.0001	0.0001
15-Jul-10	26	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	27	0.17	0.0008	0.00001	0.00061	0.00016	0.002	0.71	0.00018	0.79	0.000005	0.16	0.0213	10	0.000004	0.00001	0.0005	0.00141	0.0002	0.0001	0.0001
29-Jul-10	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	29	0.17	0.0009	0.00001	0.00053	0.00049	0.002	0.74	0.00016	0.84	0.000005	0.16	0.0205	10	0.000003	0.00001	0.0005	0.00154	0.0002	0.0003	0.0001
12-Aug-10	30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	31	0.14	0.002	0.00001	0.00044	0.00043	0.002	0.63	0.00017	0.67	0.000005	0.18	0.0183	10	0.000003	0.00001	0.0005	0.000977	0.0002	0.0002	0.0001
26-Aug-10	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	33	0.16	0.0011	0.00001	0.00061	0.00023	0.002	0.65	0.00021	0.78	0.000005	0.14	0.0186	10	0.000004	0.00004	0.0005	0.00107	0.0002	0.0003	0.0001
9-Sep-10	34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 8
Sample = DG05-308
Sample Wt. (kg)

Loadings

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk
14-Jan-10	2.1567	7.94345	8.295	0.474	0.0632	0.033496	0.0006676	0.0253985	0.0002094	3.95E-06	1.975E-06	0.01975	0.00000316
21-Jan-10	1.21705	10.13535	7.07	0.3535	0.0505	0.0304515	0.0008939	0.024038	0.0003283	5.05E-06	2.525E-06	0.02525	0.000002525
28-Jan-10	1.9998	11.0494	3.535	0.2525	0.0505	0.025856	0.0007676	0.0224725	0.0002121	5.05E-06	2.525E-06	0.02525	0.000002525
4-Feb-10	1.7249	6.4625	0.94	0.235	0.0376	0.022419	0.0005358	0.019599	0.000188	0.0000047	2.35E-06	0.0235	0.00000235
11-Feb-10	1.3395	5.0948	1.41	--	--	--	--	--	--	--	--	--	--
18-Feb-10	1.6652	5.5154	0.46	0.23	0.023	0.022448	0.0003956	0.016238	0.0001748	0.0000046	0.0000023	0.023	0.0000023
25-Feb-10	1.4256	4.4176	2.2	--	--	--	--	--	--	--	--	--	--
4-Mar-10	1.33055	4.09845	0.89	0.2225	0.0178	0.0203365	0.0003382	0.0171325	0.0002448	4.45E-06	2.225E-06	0.02225	0.000002225
11-Mar-10	1.7061	4.042	0.47	--	--	--	--	--	--	--	--	--	--
18-Mar-10	1.539	4.81175	0.475	0.2375	0.019	0.01482	0.0003563	0.0139175	0.0002138	4.75E-06	2.375E-06	0.02375	0.000002375
25-Mar-10	1.8384	5.0064	0.48	--	--	--	--	--	--	--	--	--	--
1-Apr-10	1.43325	4.2224	0.91	--	0.0091	0.0165165	0.0003231	0.013013	0.0002093	4.55E-06	2.275E-06	0.02275	0.000002275
8-Apr-10	1.55325	4.294	1.425	--	--	--	--	--	--	--	--	--	--
15-Apr-10	1.6587	4.8209	0.97	0.2425	0.0194	0.015908	0.0003589	0.0133375	0.0001649	4.85E-06	2.425E-06	0.02425	0.000002425
22-Apr-10	2.0776	4.508	1.47	--	--	--	--	--	--	--	--	--	--
29-Apr-10	1.0944	4.2528	2.4	0.24	0.024	0.013104	0.0003168	0.012288	0.0001536	0.0000048	7.68E-06	0.024	0.0000024
6-May-10	2.1854	4.6354	0.49	--	--	--	--	--	--	--	--	--	--
13-May-10	1.6055	4.22275	0.95	0.2375	0.019	0.0122075	0.0003088	0.0128725	0.0001188	4.75E-06	2.375E-06	0.02375	0.000002375
20-May-10	1.6653	3.5672	0.91	--	--	--	--	--	--	--	--	--	--
27-May-10	2.20875	4.88715	0.465	0.2325	0.01395	0.01302	0.0002465	0.0108345	0.0001628	4.65E-06	2.325E-06	0.02325	0.000002325
3-Jun-10	1.3563	4.12335	1.98	--	--	--	--	--	--	--	--	--	--
10-Jun-10	1.8216	5.5798	0.46	0.23	0.0092	0.020838	0.00023	0.013892	0.0001426	0.0000046	0.0000023	0.023	0.0000023
17-Jun-10	1.67675	5.2535	0.475	--	--	--	--	--	--	--	--	--	--
24-Jun-10	1.2528	5.4864	2.4	0.24	0.048	0.016368	0.0003024	0.015744	0.000168	0.0000048	0.0000024	0.024	0.0000024
1-Jul-10	1.2445	5.03975	0.475	--	--	--	--	--	--	--	--	--	--
8-Jul-10	1.1952	4.632	1.92	0.24	0.0096	0.0204	0.0002592	0.01608	0.0001632	0.0000048	3.36E-06	0.024	0.0000024
15-Jul-10	1.691	4.63125	0.95	--	--	--	--	--	--	--	--	--	--
22-Jul-10	1.81875	4.93245	0.485	0.2425	0.0097	0.0141135	0.0002328	0.013774	0.0001601	4.85E-06	2.425E-06	0.02425	0.000002425
29-Jul-10	2.0852	4.7268	1.56	--	--	--	--	--	--	--	--	--	--
5-Aug-10	1.1136	4.6032	1.44	0.24	0.0096	0.012192	0.0002208	0.014544	0.0003552	0.0000048	0.0000024	0.024	0.0000024
12-Aug-10	2.021	4.7893	0.94	--	--	--	--	--	--	--	--	--	--
19-Aug-10	2.1021	4.28155	0.455	0.2275	0.02275	0.0172445	0.0001684	0.011466	0.0003094	4.55E-06	2.275E-06	0.02275	0.000002275
26-Aug-10	1.501	3.89025	0.95	--	--	--	--	--	--	--	--	--	--
2-Sep-10	1.60615	4.31795	2.275	0.2275	0.0273	0.012103	0.0001775	0.0112385	0.0002002	4.55E-06	2.275E-06	0.02275	0.000002275
9-Sep-10	2.1565	4.34625	0.95	--	--	--	--	--	--	--	--	--	--
16-Sep-10	1.3578	3.7851	1.395	--	--	--	--	--	--	--	--	--	--

Date	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk
14-Jan-10	5.1745	0.0000395	0.00001106	0.0003555	0.00158	0.00000237	0.0009875	0.316	0.0014576	0.00000395	0.0009441	0.0000869	0.00158
21-Jan-10	5.3025	0.0000505	0.00002525	0.0009898	0.00303	0.000007575	0.0007575	0.32825	0.0024139	0.00000505	0.0015302	0.00019695	0.00101
28-Jan-10	3.80265	0.000101	0.000017675	0.00022725	0.002525	0.00000808	0.0005555	0.2323	0.0019645	0.00000505	0.0012979	0.00013635	0.00101
4-Feb-10	2.2231	0.000047	0.00001786	0.0001786	0.00376	0.00001786	0.000376	0.141	0.0013301	0.0000047	0.000799	0.0001222	0.00094
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	1.817	0.000046	0.00001748	0.0002254	0.0046	0.00002162	0.000276	0.115	0.0012098	0.0000046	0.0005474	0.0001242	0.00092
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	1.47295	0.0000445	0.000018245	0.00013795	0.00623	0.00002937	0.0003115	0.09345	0.0008722	0.00000445	0.0003516	0.00011125	0.00089
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	1.40125	0.0000475	0.00001615	0.00020425	0.00285	0.000003325	0.000285	0.09025	0.0008788	0.00000475	0.000285	0.0001235	0.00095
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	1.2376	0.0000455	0.000016835	0.0003276	0.00455	0.0000546	0.000273	0.0819	0.0006962	0.00000455	0.0002412	0.00012285	0.00091
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	1.42105	0.000097	0.00001552	0.0003104	0.00388	0.000028615	0.0002425	0.0873	0.0006596	0.00000485	0.000325	0.0001067	0.00097
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	1.2912	0.000048	0.00001776	0.0001248	0.00336	0.00000528	0.00024	0.072	0.0006528	0.0000048	0.0003168	0.0001104	0.00096
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	1.3015	0.0000475	0.000011875	0.00008075	0.002375	0.000012825	0.0003325	0.076	0.0005985	0.00000475	0.000323	0.000076	0.00095
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	1.1718	0.0000465	0.00002325	0.0001302	0.00372	0.00008835	0.0002325	0.0651	0.0005394	0.00000465	0.0003162	0.0000651	0.00093
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	1.2098	0.000092	0.00001288	0.0001242	0.00322	0.0000069	0.00023	0.0736	0.0004738	0.0000046	0.0003542	0.0000782	0.00092
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	1.4112	0.000048	0.00001248	0.0001536	0.00336	0.00000288	0.00024	0.0864	0.0004944	0.0000048	0.0004512	0.0000864	0.00096
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	1.392	0.000048	0.00000912	0.0000672	0.00288	0.0000024	0.00024	0.0864	0.0005376	0.0000048	0.0003792	0.000096	0.00096
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	1.3677	0.0000485	0.00000776	0.00007275	0.00291	0.000003395	0.0002425	0.08245	0.0003977	0.00000485	0.0002959	0.0000776	0.00097
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	1.3776	0.000096	0.00001392	0.000216	0.00144	0.00000672	0.00024	0.0816	0.0004224	0.0000048	0.0002544	0.0002352	0.00096
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	1.05105	0.0000455	0.000040495	0.00022295	0.00546	0.000003185	0.0002275	0.0637	0.0008964	0.00000455	0.0002002	0.00019565	0.00091
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	1.22395	0.0000455	0.00001274	0.00019565	0.003185	0.000002275	0.0002275	0.0728	0.0005142	0.00000455	0.0002776	0.00010465	0.00091
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
14-Jan-10	0.7821	0.0003476	0.6715	0.000001975	0.9085	0.0362215	3.16	0.00000237	0.00000395	0.000316	0.0022318	0.0001185	0.0001185	0.0000395
21-Jan-10	0.8585	0.00037875	0.8383	0.00000303	0.84335	0.036966	2.525	0.00000404	0.00000505	0.0002525	0.0034997	0.0001515	0.000202	0.0000505
28-Jan-10	0.70195	0.00029795	0.77265	0.000002525	0.54035	0.0276235	1.515	0.000001515	0.0000707	0.0002525	0.0028735	0.0001515	0.0001515	0.0000505
4-Feb-10	0.4794	0.0002021	0.5452	0.00000235	0.3196	0.017343	1.41	0.00000188	0.0000658	0.000282	0.0014758	0.000094	0.000188	0.000047
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.4416	0.000115	0.4646	0.0000023	0.2392	0.013524	1.38	0.00000184	0.0000598	0.000276	0.0009982	0.000092	0.000184	0.000046
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.3916	0.00011125	0.42631	0.000002225	0.16465	0.011125	0.89	0.000001335	0.00001335	0.000445	0.0006675	0.000089	0.0001335	0.0000445
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.33725	0.0000855	0.394725	0.000002375	0.14725	0.010925	4.75	0.00000095	0.00000475	0.0002375	0.0008788	0.000095	0.0001425	0.0000475
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.3276	0.0000728	0.36582	0.000010465	0.11375	0.009828	0.91	0.00000182	0.00000455	0.000364	0.0007098	0.000091	0.000637	0.0000455
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.34435	0.00008245	0.384605	0.00000291	0.12125	0.0112035	4.85	0.00000194	0.0000388	0.0002425	0.0008439	0.000097	0.000485	0.0000485
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.3072	0.0000816	0.35808	0.0000024	0.0912	0.010128	4.8	0.00000144	0.0000048	0.00024	0.0007056	0.000096	0.00024	0.000048
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.31825	0.00008075	0.4503	0.000002375	0.0855	0.009595	4.75	0.0000057	0.0000095	0.0002375	0.0006793	0.000095	0.0001425	0.0000475
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.2883	0.00006975	0.391065	0.000002325	0.0651	0.009021	4.65	0.000001395	0.00000465	0.0002325	0.0005487	0.000093	0.0000465	0.0000465
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.3312	0.0001058	0.3036	0.0000023	0.0828	0.00989	4.6	0.0000023	0.0000046	0.00023	0.000529	0.000092	0.000092	0.000046
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.3984	0.000144	0.43152	0.0000024	0.0912	0.011664	4.8	0.00000096	0.0000048	0.00024	0.0006768	0.000096	0.000192	0.000048
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.3648	0.0001056	0.44064	0.0000024	0.0912	0.010032	4.8	0.0000024	0.0000048	0.00024	0.0006096	0.000096	0.000048	0.000048
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.34435	0.0000873	0.38412	0.000002425	0.0776	0.0103305	4.85	0.00000194	0.00000485	0.0002425	0.0006839	0.000097	0.0000485	0.0000485
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.3552	0.0000768	0.4032	0.0000024	0.0768	0.00984	4.8	0.00000144	0.0000048	0.00024	0.0007392	0.000096	0.000144	0.000048
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.28665	0.00007735	0.304395	0.000002275	0.0819	0.0083265	4.55	0.000001365	0.00000455	0.0002275	0.0004445	0.000091	0.000091	0.0000455
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.29575	0.00009555	0.35399	0.000002275	0.0637	0.008463	4.55	0.00000182	0.0000182	0.0002275	0.0004869	0.000091	0.0001365	0.0000455
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 9
Sample = DG06-311C 130.45-140.45
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP mV	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness mg CaCO3/L
14-Jan-10	0	500	375	7.77	349	225	--	4.14	34.62	56	11	0.54	74.9
21-Jan-10	1	500	510	7.81	375	195	--	2.33	43.81	57	3	0.49	72.3
28-Jan-10	2	500	490	7.64	361	83	--	3.42	35.22	13	0.7	0.37	33.3
4-Feb-10	3	500	495	7.55	264	79	--	2.85	36.36	8	0.5	0.33	36.1
11-Feb-10	4	500	505	7.55	331	99	--	2.57	33.36	23	--	--	--
18-Feb-10	5	500	480	7.41	331	105	--	3.44	27.5	27	0.5	0.19	48
25-Feb-10	6	500	495	7.63	358	112	--	2.64	31.62	33	--	--	--
4-Mar-10	7	500	500	7.64	373	108	--	2.35	29.32	30	0.5	0.2	55.9
11-Mar-10	8	500	505	7.51	385	103	--	3.29	29.45	20	--	--	--
18-Mar-10	9	500	505	7.48	387	98	--	2.98	29.48	15	0.5	0.19	43.4
25-Mar-10	10	500	520	7.61	371	89	--	3.35	28.91	19	--	--	--
1-Apr-10	11	500	510	7.66	385	92	--	2.53	30.98	20	0.5	0.15	43.9
8-Apr-10	12	500	495	7.72	366	96	--	2.35	33.03	18	--	--	--
15-Apr-10	13	500	510	7.55	347	101	--	3.54	32.42	22	0.5	0.15	44.9
22-Apr-10	14	500	515	7.61	352	103	--	4.29	32.18	22	--	--	--
29-Apr-10	15	500	495	7.60	357	90	--	2.7	29.82	17	0.5	0.17	50.7
6-May-10	16	500	520	7.52	345	82	--	4.44	30.99	13	--	--	--
13-May-10	17	500	500	7.52	348	82	--	3.23	26.92	15	0.5	0.09	41.4
20-May-10	18	500	465	7.55	372	72	--	3.81	24.12	14	--	--	--
27-May-10	19	500	470	7.49	383	64	--	5.36	24.94	8	0.5	0.07	33.8
3-Jun-10	20	500	465	7.57	359	74	--	2.7	24.32	10	--	--	--
10-Jun-10	21	500	465	7.46	333	81	--	4.4	28.97	9	0.5	0.11	31.1
17-Jun-10	22	500	475	7.58	345	72	--	3.38	26.89	5	--	--	--
24-Jun-10	23	500	460	7.70	408	73	--	2.29	29.02	8	0.5	0.1	32.2
1-Jul-10	24	500	480	7.63	418	65	--	2.33	26.22	7	--	--	--
8-Jul-10	25	500	455	7.55	339	64	--	2.26	24.7	8	0.5	0.07	27.9
15-Jul-10	26	500	470	7.42	342	57	--	3.35	22.01	6	--	--	--
22-Jul-10	27	500	480	7.40	361	62	--	3.6	23.31	7	0.5	0.06	27.4
29-Jul-10	28	500	520	7.52	340	58	--	3.96	23.28	9	--	--	--
5-Aug-10	29	500	475	7.52	349	54	--	2.4	21.83	4	0.5	0.05	25.4
12-Aug-10	30	500	485	7.46	400	62	--	4.4	24.74	5	--	--	--
19-Aug-10	31	500	455	7.48	376	67	--	5.5	27.23	8	0.5	0.07	31.9
26-Aug-10	32	500	465	7.51	365	64	--	2.86	26.01	11	--	--	--
2-Sep-10	33	500	465	7.45	399	56	--	3.82	26.75	12	0.5	0.06	29.3
9-Sep-10	34	500	445	7.19	375	63	--	4.66	23.33	13	--	--	--
16-Sep-10	35	500	450	7.43	366	64	--	2.88	25.24	13	--	--	--

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L	Hg mg/L
14-Jan-10	0.0865	0.00849	0.00411	0.0223	0.00001	0.000011	0.05	0.000007	25.4	0.0001	0.000198	0.00431	0.003	0.000019	0.0112	2.78	0.00526	0.00001
21-Jan-10	0.0844	0.0354	0.00507	0.0185	0.00001	0.000012	0.05	0.000005	24.4	0.0001	0.000164	0.00523	0.003	0.000021	0.0131	2.76	0.00618	0.00001
28-Jan-10	0.101	0.0288	0.00349	0.00758	0.00001	0.000055	0.05	0.00037	11.4	0.0001	0.000038	0.00113	0.005	0.0024	0.0065	1.21	0.00434	0.00001
4-Feb-10	0.0901	0.0332	0.0034	0.00791	0.00001	0.000018	0.05	0.000005	12.3	0.0003	0.000036	0.00072	0.004	0.000058	0.0065	1.29	0.00489	0.00001
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.101	0.0198	0.00186	0.00976	0.00001	0.000016	0.05	0.000008	16.4	0.0001	0.000064	0.00063	0.003	0.000027	0.0057	1.7	0.00817	0.00001
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.0885	0.0226	0.00193	0.0107	0.00001	0.000022	0.05	0.000011	19.3	0.0003	0.000074	0.00048	0.002	0.000017	0.0062	1.86	0.00931	0.00001
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0937	0.0204	0.00214	0.0082	0.00001	0.000022	0.05	0.00001	15	0.0001	0.000058	0.00053	0.002	0.000063	0.0049	1.47	0.0083	0.00001
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.0996	0.0186	0.00183	0.00801	0.00001	0.000027	0.05	0.000033	15.3	0.0001	0.000057	0.00081	0.009	0.000188	0.0043	1.41	0.00898	0.00001
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.103	0.0179	0.00175	0.00837	0.00001	0.000024	0.05	0.000016	15.6	0.0002	0.000075	0.00046	0.007	0.000068	0.0042	1.46	0.00976	0.00001
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.0823	0.0158	0.00189	0.00655	0.00001	0.000013	0.05	0.000011	18	0.0002	0.00006	0.00044	0.002	0.000022	0.0032	1.38	0.0108	0.00001
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.105	0.0112	0.00145	0.00553	0.00001	0.000014	0.05	0.000005	14.8	0.0001	0.000031	0.00039	0.003	0.000024	0.0025	1.09	0.00866	0.00001
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.0984	0.00751	0.00115	0.00451	0.00001	0.000012	0.05	0.000008	12.2	0.0001	0.000024	0.00021	0.002	0.000028	0.002	0.81	0.00728	0.00001
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.113	0.0105	0.00179	0.00529	0.00001	0.000021	0.05	0.000009	10.6	0.0004	0.000036	--	0.003	0.000027	0.0026	1.11	0.00633	0.00001
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.119	0.0102	0.00161	0.00511	0.00001	0.000015	0.05	0.000005	11.2	0.0001	0.000022	0.00033	0.005	0.000016	0.0026	1.05	0.00664	0.00001
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.095	0.00774	0.00136	0.00419	0.00001	0.000016	0.05	0.000005	9.68	0.0001	0.000023	0.00043	0.003	0.000035	0.0019	0.9	0.00549	0.00001
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.0843	0.00742	0.00127	0.00409	0.00001	0.00001	0.05	0.000005	9.56	0.0001	0.000026	0.0004	0.003	0.000016	0.0019	0.86	0.00517	0.00001
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.0762	0.00628	0.00093	0.00428	0.00001	0.000007	0.05	0.000005	8.91	0.0001	0.000022	0.00023	0.002	0.000011	0.0016	0.76	0.0033	0.00001
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.107	0.00595	0.00117	0.00511	0.00001	0.000015	0.05	0.000005	11.2	0.0002	0.000022	0.00053	0.005	0.00003	0.0019	0.97	0.00584	0.00001
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.0978	0.00565	0.00106	0.0042	0.00001	0.000011	0.05	0.000005	10.2	0.0001	0.000018	0.00068	0.004	0.000021	0.0017	0.93	0.00418	0.00001
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
14-Jan-10	0.00176	0.00246	0.005	6.83	0.00531	1.42	0.00001	14.7	0.933	26	0.000013	0.00002	0.0006	0.053	0.0006	0.0005	0.0001
21-Jan-10	0.00278	0.00546	0.004	7.4	0.00409	1.85	0.000006	13.8	0.823	19	0.000016	0.00002	0.0006	0.141	0.0004	0.0005	0.0001
28-Jan-10	0.00161	0.00109	0.002	3.88	0.00131	1.41	0.000005	5.06	0.376	5	0.000008	0.00015	0.0005	0.0631	0.0002	0.0003	0.0001
4-Feb-10	0.00122	0.00052	0.002	3.71	0.001	1.53	0.000005	4.09	0.409	4	0.000009	0.00017	0.0005	0.0797	0.0004	0.0008	0.0001
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.00053	0.00032	0.003	3.22	0.0006	1.31	0.000005	2.07	0.547	10	0.00001	0.00014	0.0005	0.0774	0.0002	0.0007	0.0001
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.00049	0.00025	0.002	3.27	0.00073	1.65	0.000005	1.46	0.572	10	0.000012	0.00002	0.0005	0.0756	0.0002	0.0006	0.0001
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.00039	0.00029	0.002	2.45	0.00072	1.57	0.000005	0.88	0.474	10	0.000012	0.00001	0.0005	0.0575	0.0002	0.0008	0.0001
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.00034	0.00034	0.002	2.24	0.00066	1.59	0.00001	0.69	0.466	7	0.00001	0.00009	0.0005	0.0535	0.0003	0.0172	0.0001
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.00036	0.00027	0.003	2.28	0.00069	1.64	0.000006	0.6	0.491	10	0.000011	0.00007	0.0005	0.0537	0.0002	0.001	0.0001
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.00033	0.00024	0.002	1.95	0.00051	1.21	0.000005	0.47	0.432	10	0.000008	0.00001	0.0005	0.0433	0.0002	0.0009	0.0001
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.00025	0.00017	0.002	1.49	0.00053	1.63	0.000005	0.35	0.346	10	0.000011	0.00001	0.0005	0.0305	0.0003	0.0007	0.0001
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.00023	0.00004	0.002	1	0.00043	1.09	0.000005	0.24	0.299	10	0.000006	0.00001	0.0005	0.0218	0.0002	0.0003	0.0001
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.00029	0.00015	0.002	1.64	0.0008	1.29	0.000005	0.43	0.369	10	0.000006	0.00001	0.0005	0.024	0.0004	0.001	0.0001
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.00031	0.00011	0.002	1.52	0.00079	1.5	0.000005	0.39	0.347	10	0.000008	0.00001	0.0005	0.0236	0.0003	0.0003	0.0001
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.0003	0.00012	0.002	1.17	0.00059	1.28	0.000005	0.31	0.276	10	0.000006	0.00001	0.0005	0.0208	0.0002	0.0002	0.0001
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.00024	0.00018	0.002	1.03	0.0006	1.15	0.000005	0.28	0.28	10	0.000005	0.00002	0.0005	0.0213	0.0003	0.0004	0.0001
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.00021	0.00021	0.002	0.92	0.00051	1.13	0.000005	0.26	0.234	10	0.000005	0.00002	0.0005	0.0184	0.0002	0.0001	0.0001
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.00025	0.00019	0.002	1.06	0.00068	1.32	0.000005	0.33	0.309	10	0.000005	0.00001	0.0005	0.0164	0.0003	0.0004	0.0001
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.00034	0.00014	0.002	1.04	0.00064	1.11	0.000005	0.28	0.27	10	0.000007	0.00003	0.0005	0.0144	0.0002	0.0003	0.0001
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 9
Sample = DG06-3
Sample Wt. (kg) **Loadings**

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk
14-Jan-10	1.5525	12.9825	21	4.125	0.2025	0.0324375	0.0031838	0.0015413	0.0083625	3.75E-06	4.125E-06	0.01875	2.625E-06
21-Jan-10	1.1883	22.3431	29.07	1.53	0.2499	0.043044	0.018054	0.0025857	0.009435	0.0000051	6.12E-06	0.0255	2.55E-06
28-Jan-10	1.6758	17.2578	6.37	0.343	0.1813	0.04949	0.014112	0.0017101	0.0037142	0.0000049	2.695E-05	0.0245	0.0001813
4-Feb-10	1.41075	17.9982	3.96	0.2475	0.16335	0.0445995	0.016434	0.001683	0.0039155	4.95E-06	8.91E-06	0.02475	2.475E-06
11-Feb-10	1.29785	16.8468	11.615	--	--	--	--	--	--	--	--	--	--
18-Feb-10	1.6512	13.2	12.96	0.24	0.0912	0.04848	0.009504	0.0008928	0.0046848	0.0000048	7.68E-06	0.024	3.84E-06
25-Feb-10	1.3068	15.6519	16.335	--	--	--	--	--	--	--	--	--	--
4-Mar-10	1.175	14.66	15	0.25	0.1	0.04425	0.0113	0.000965	0.00535	0.000005	0.000011	0.025	0.0000055
11-Mar-10	1.66145	14.87225	10.1	--	--	--	--	--	--	--	--	--	--
18-Mar-10	1.5049	14.8874	7.575	0.2525	0.09595	0.0473185	0.010302	0.0010807	0.004141	5.05E-06	1.111E-05	0.02525	5.05E-06
25-Mar-10	1.742	15.0332	9.88	--	--	--	--	--	--	--	--	--	--
1-Apr-10	1.2903	15.7998	10.2	0.255	0.0765	0.050796	0.009486	0.0009333	0.0040851	0.0000051	1.377E-05	0.0255	1.683E-05
8-Apr-10	1.16325	16.34985	8.91	--	--	--	--	--	--	--	--	--	--
15-Apr-10	1.8054	16.5342	11.22	0.255	0.0765	0.05253	0.009129	0.0008925	0.0042687	0.0000051	1.224E-05	0.0255	8.16E-06
22-Apr-10	2.20935	16.5727	11.33	--	--	--	--	--	--	--	--	--	--
29-Apr-10	1.3365	14.7609	8.415	0.2475	0.08415	0.0407385	0.007821	0.0009356	0.0032423	4.95E-06	6.435E-06	0.02475	5.445E-06
6-May-10	2.3088	16.1148	6.76	--	--	--	--	--	--	--	--	--	--
13-May-10	1.615	13.46	7.5	0.25	0.045	0.0525	0.0056	0.000725	0.002765	0.000005	0.000007	0.025	0.0000025
20-May-10	1.77165	11.2158	6.51	--	--	--	--	--	--	--	--	--	--
27-May-10	2.5192	11.7218	3.76	0.235	0.0329	0.046248	0.0035297	0.0005405	0.0021197	0.0000047	5.64E-06	0.0235	3.76E-06
3-Jun-10	1.2555	11.3088	4.65	--	--	--	--	--	--	--	--	--	--
10-Jun-10	2.046	13.47105	4.185	0.2325	0.05115	0.052545	0.0048825	0.0008324	0.0024599	4.65E-06	9.765E-06	0.02325	4.185E-06
17-Jun-10	1.6055	12.77275	2.375	--	--	--	--	--	--	--	--	--	--
24-Jun-10	1.0534	13.3492	3.68	0.23	0.046	0.05474	0.004692	0.0007406	0.0023506	0.0000046	0.0000069	0.023	0.0000023
1-Jul-10	1.1184	12.5856	3.36	--	--	--	--	--	--	--	--	--	--
8-Jul-10	1.0283	11.2385	3.64	0.2275	0.03185	0.043225	0.0035217	0.0006188	0.0019065	4.55E-06	7.28E-06	0.02275	2.275E-06
15-Jul-10	1.5745	10.3447	2.82	--	--	--	--	--	--	--	--	--	--
22-Jul-10	1.728	11.1888	3.36	0.24	0.0288	0.040464	0.0035616	0.0006096	0.0019632	0.0000048	0.0000048	0.024	0.0000024
29-Jul-10	2.0592	12.1056	4.68	--	--	--	--	--	--	--	--	--	--
5-Aug-10	1.14	10.36925	1.9	0.2375	0.02375	0.036195	0.002983	0.0004418	0.002033	4.75E-06	3.325E-06	0.02375	2.375E-06
12-Aug-10	2.134	11.9989	2.425	--	--	--	--	--	--	--	--	--	--
19-Aug-10	2.5025	12.38965	3.64	0.2275	0.03185	0.048685	0.0027073	0.0005324	0.0023251	4.55E-06	6.825E-06	0.02275	2.275E-06
26-Aug-10	1.3299	12.09465	5.115	--	--	--	--	--	--	--	--	--	--
2-Sep-10	1.7763	12.43875	5.58	0.2325	0.0279	0.045477	0.0026273	0.0004929	0.001953	4.65E-06	5.115E-06	0.02325	2.325E-06
9-Sep-10	2.0737	10.38185	5.785	--	--	--	--	--	--	--	--	--	--
16-Sep-10	1.296	11.358	5.85	--	--	--	--	--	--	--	--	--	--

Date	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk	Ni mg/kg/wk
14-Jan-10	9.525	0.0000375	7.425E-05	0.0016163	0.001125	7.125E-06	0.0042	1.0425	0.0019725	0.00000375	0.00066	0.0009225
21-Jan-10	12.444	0.000051	8.364E-05	0.0026673	0.00153	1.071E-05	0.006681	1.4076	0.0031518	0.0000051	0.0014178	0.0027846
28-Jan-10	5.586	0.000049	1.862E-05	0.0005537	0.00245	0.001176	0.003185	0.5929	0.0021266	0.0000049	0.0007889	0.0005341
4-Feb-10	6.0885	0.0001485	1.782E-05	0.0003564	0.00198	2.871E-05	0.0032175	0.63855	0.0024206	0.00000495	0.0006039	0.0002574
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	7.872	0.000048	3.072E-05	0.0003024	0.00144	1.296E-05	0.002736	0.816	0.0039216	0.0000048	0.0002544	0.0001536
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	9.65	0.00015	0.000037	0.00024	0.001	0.0000085	0.0031	0.93	0.004655	0.000005	0.000245	0.000125
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	7.575	0.0000505	2.929E-05	0.0002677	0.00101	3.182E-05	0.0024745	0.74235	0.0041915	0.00000505	0.00019695	0.00014645
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	7.803	0.000051	2.907E-05	0.0004131	0.00459	9.588E-05	0.002193	0.7191	0.0045798	0.0000051	0.0001734	0.0001734
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	7.956	0.000102	3.825E-05	0.0002346	0.00357	3.468E-05	0.002142	0.7446	0.0049776	0.0000051	0.0001836	0.0001377
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	8.91	0.000099	0.0000297	0.0002178	0.00099	1.089E-05	0.001584	0.6831	0.005346	0.00000495	0.00016335	0.0001188
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	7.4	0.00005	0.0000155	0.000195	0.0015	0.000012	0.00125	0.545	0.00433	0.000005	0.000125	0.000085
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	5.734	0.000047	1.128E-05	0.0000987	0.00094	1.316E-05	0.00094	0.3807	0.0034216	0.0000047	0.0001081	0.0000188
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	4.929	0.000186	1.674E-05	--	0.001395	1.256E-05	0.001209	0.51615	0.0029435	0.00000465	0.00013485	0.00006975
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	5.152	0.000046	1.012E-05	0.0001518	0.0023	7.36E-06	0.001196	0.483	0.0030544	0.0000046	0.0001426	0.0000506
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	4.4044	0.0000455	1.047E-05	0.0001957	0.001365	1.593E-05	0.0008645	0.4095	0.002498	0.00000455	0.0001365	0.0000546
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	4.5888	0.000048	1.248E-05	0.000192	0.00144	7.68E-06	0.000912	0.4128	0.0024816	0.0000048	0.0001152	0.0000864
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	4.23225	0.0000475	1.045E-05	0.0001093	0.00095	5.225E-06	0.00076	0.361	0.0015675	0.00000475	0.00009975	0.00009975
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	5.096	0.000091	1.001E-05	0.0002412	0.002275	1.365E-05	0.0008645	0.44135	0.0026572	0.00000455	0.00011375	0.00008645
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	4.743	0.0000465	8.37E-06	0.0003162	0.00186	9.765E-06	0.0007905	0.43245	0.0019437	0.00000465	0.0001581	0.0000651
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--

Date	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
14-Jan-10	0.001875	2.56125	0.0019913	0.5325	0.00000375	5.5125	0.349875	9.75	0.000004875	0.0000075	0.000225	0.019875	0.000225	0.0001875	0.0000375
21-Jan-10	0.00204	3.774	0.0020859	0.9435	0.00000306	7.038	0.41973	9.69	0.00000816	0.0000102	0.000306	0.07191	0.000204	0.000255	0.000051
28-Jan-10	0.00098	1.9012	0.0006419	0.6909	0.00000245	2.4794	0.18424	2.45	0.00000392	0.0000735	0.000245	0.030919	0.000098	0.000147	0.000049
4-Feb-10	0.00099	1.83645	0.000495	0.75735	0.000002475	2.02455	0.202455	1.98	0.000004455	0.00008415	0.0002475	0.0394515	0.000198	0.000396	0.0000495
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.00144	1.5456	0.000288	0.6288	0.0000024	0.9936	0.26256	4.8	0.0000048	0.0000672	0.00024	0.037152	0.000096	0.000336	0.000048
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.001	1.635	0.000365	0.825	0.0000025	0.73	0.286	5	0.000006	0.00001	0.00025	0.0378	0.0001	0.0003	0.00005
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.00101	1.23725	0.0003636	0.79285	0.000002525	0.4444	0.23937	5.05	0.00000606	0.00000505	0.0002525	0.0290375	0.000101	0.000404	0.0000505
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.00102	1.1424	0.0003366	0.8109	0.0000051	0.3519	0.23766	3.57	0.0000051	0.0000459	0.000255	0.027285	0.000153	0.008772	0.000051
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.00153	1.1628	0.0003519	0.8364	0.00000306	0.306	0.25041	5.1	0.00000561	0.0000357	0.000255	0.027387	0.000102	0.00051	0.000051
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.00099	0.96525	0.0002525	0.59895	0.000002475	0.23265	0.21384	4.95	0.00000396	0.00000495	0.0002475	0.0214335	0.000099	0.0004455	0.0000495
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.001	0.745	0.000265	0.815	0.0000025	0.175	0.173	5	0.0000055	0.000005	0.00025	0.01525	0.00015	0.00035	0.00005
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.00094	0.47	0.0002021	0.5123	0.00000235	0.1128	0.14053	4.7	0.00000282	0.0000047	0.000235	0.010246	0.000094	0.000141	0.000047
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.00093	0.7626	0.000372	0.59985	0.000002325	0.19995	0.171585	4.65	0.00000279	0.00000465	0.0002325	0.01116	0.000186	0.000465	0.0000465
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.00092	0.6992	0.0003634	0.69	0.0000023	0.1794	0.15962	4.6	0.00000368	0.0000046	0.00023	0.010856	0.000138	0.000138	0.000046
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.00091	0.53235	0.0002685	0.5824	0.000002275	0.14105	0.12558	4.55	0.00000273	0.00000455	0.0002275	0.009464	0.000091	0.000091	0.0000455
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.00096	0.4944	0.000288	0.552	0.0000024	0.1344	0.1344	4.8	0.0000024	0.0000096	0.00024	0.010224	0.000144	0.000192	0.000048
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.00095	0.437	0.0002423	0.53675	0.000002375	0.1235	0.11115	4.75	0.000002375	0.0000095	0.0002375	0.00874	0.000095	0.0000475	0.0000475
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.00091	0.4823	0.0003094	0.6006	0.000002275	0.15015	0.140595	4.55	0.000002275	0.00000455	0.0002275	0.007462	0.0001365	0.000182	0.0000455
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.00093	0.4836	0.0002976	0.51615	0.000002325	0.1302	0.12555	4.65	0.000003255	0.00001395	0.0002325	0.006696	0.000093	0.0001395	0.0000465
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 10
Sample = DG07-327C 24.69-33.83
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP mV	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness mg CaCO3/L
14-Jan-10	0	500	360	7.65	319	190	--	5.71	54.53	7	5.9	0.49	68.8
21-Jan-10	1	500	480	7.94	360	94	--	1.98	41.96	7	1.4	0.41	36
28-Jan-10	2	500	470	7.67	356	65	--	3.19	37.79	5	0.6	0.35	30.6
4-Feb-10	3	500	480	7.65	261	56	--	2.52	38	1	0.5	0.35	29.9
11-Feb-10	4	500	480	7.61	322	72	--	2.46	38.54	2	--	--	--
18-Feb-10	5	500	480	7.77	320	80	--	2.89	45.65	1	0.5	0.42	34.2
25-Feb-10	6	500	465	7.77	347	58	--	2.41	38.49	3	--	--	--
4-Mar-10	7	500	465	7.80	359	59	--	1.81	37.28	1	0.5	0.27	28.4
11-Mar-10	8	500	465	7.70	372	59	--	2.76	35.76	1	--	--	--
18-Mar-10	9	500	475	7.64	373	56	--	2.65	33.14	1	0.5	0.22	24.8
25-Mar-10	10	500	475	7.74	360	52	--	2.9	34.22	1	--	--	--
1-Apr-10	11	500	465	7.81	370	52	--	2.16	32.53	2	0.5	0.2	25.4
8-Apr-10	12	500	460	7.71	352	72	--	2.49	36.61	2	--	--	--
15-Apr-10	13	500	460	7.61	340	73	--	3.4	37.74	1	0.5	0.2	28.8
22-Apr-10	14	500	475	7.79	340	59	--	3.58	35.9	1	--	--	--
29-Apr-10	15	500	480	7.77	348	59	--	2.21	34.41	3	0.5	0.25	27.9
6-May-10	16	500	455	7.65	337	60	--	4.01	37.4	1	--	--	--
13-May-10	17	500	470	7.70	341	57	--	3.08	34.63	2	0.5	0.16	28
20-May-10	18	500	455	7.82	357	51	--	3.11	32.86	2	--	--	--
27-May-10	19	500	480	7.80	369	54	--	4.87	37.44	1	0.5	0.16	28.4
3-Jun-10	20	500	465	7.75	350	50	--	2.45	32.13	4	--	--	--
10-Jun-10	21	500	480	7.63	330	53	--	4.2	34.89	3	0.5	0.15	25
17-Jun-10	22	500	475	7.74	336	50	--	3.32	33.89	1	--	--	--
24-Jun-10	23	500	480	7.82	406	52	--	2.14	35.15	3	0.5	0.1	26.2
1-Jul-10	24	500	470	7.78	421	48	--	2.14	32.73	1	--	--	--
8-Jul-10	25	500	470	7.63	337	48	--	2.17	31.18	1	0.5	0.1	24.6
15-Jul-10	26	500	490	7.59	337	51	--	3.46	34.34	2	--	--	--
22-Jul-10	27	500	475	7.64	354	49	--	3.29	31.82	1	0.5	0.11	24.8
29-Jul-10	28	500	495	7.65	335	48	--	4.07	32.48	2	--	--	--
5-Aug-10	29	500	515	7.85	362	50	--	2.05	34.62	5	0.5	0.1	26.3
12-Aug-10	30	500	490	7.70	401	56	--	4.1	37.37	2	--	--	--
19-Aug-10	31	500	465	7.79	377	47	--	4.61	33.76	1	0.5	0.09	25.2
26-Aug-10	32	500	460	7.74	360	53	--	2.54	37.18	4	--	--	--
2-Sep-10	33	500	470	7.72	392	47	--	3.25	36.85	5	0.5	0.09	25.9
9-Sep-10	34	500	465	7.43	369	55	--	4.63	37.96	7	--	--	--
16-Sep-10	35	500	480	7.57	358	46	--	2.71	32.3	--	--	--	--

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L
14-Jan-10	0.0243	0.00033	0.00462	0.0257	0.00001	0.000005	0.05	0.000015	15.6	0.0001	0.000041	0.00072	0.002	0.000013
21-Jan-10	0.0415	0.00027	0.00778	0.0127	0.00001	0.000005	0.05	0.000021	8.2	0.0001	0.000025	0.00235	0.007	0.000013
28-Jan-10	0.0446	0.00021	0.00713	0.0104	0.00001	0.000005	0.05	0.000009	7.3	0.0002	0.000015	0.00037	0.007	0.000027
4-Feb-10	0.0401	0.00023	0.00672	0.0111	0.00001	0.000005	0.05	0.000007	6.96	0.0001	0.000014	0.00032	0.008	0.00383
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.0402	0.00026	0.00673	0.0135	0.00001	0.000005	0.05	0.000009	7.89	0.0001	0.000019	0.00048	0.008	0.000017
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.0353	0.0002	0.00579	0.0115	0.00001	0.000005	0.05	0.00001	6.85	0.0001	0.000007	0.00025	0.006	0.000082
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0409	0.00018	0.00575	0.01	0.00001	0.000005	0.05	0.000012	5.98	0.0001	0.000015	0.00042	0.013	0.0013
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.0315	0.0002	0.00503	0.0104	0.00001	0.000006	0.05	0.000012	6.19	0.0001	0.000015	0.00036	0.01	0.000208
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.0362	0.00022	0.00648	0.0125	0.00001	0.000005	0.05	0.000008	6.84	0.0002	0.000008	0.00023	0.005	0.000027
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.0312	0.00021	0.00573	0.0111	0.00001	0.000005	0.05	0.000013	6.95	0.0001	0.000011	0.00028	0.005	0.000014
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.0309	0.00022	0.00606	0.0114	0.00001	0.000005	0.05	0.000009	6.81	0.0001	0.000015	0.00041	0.006	0.000061
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.0264	0.00018	0.00526	0.0113	0.00001	0.000005	0.05	0.000005	7.13	0.0001	0.000007	0.00016	0.002	0.000149
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.0276	0.00018	0.0059	0.0109	0.00001	0.000005	0.05	0.000005	5.79	0.0001	0.000013	0.00017	0.004	0.000028
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.0432	0.0002	0.00578	0.0122	0.00001	0.000005	0.05	0.000005	6.22	0.0001	0.000016	0.00025	0.028	0.00002
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.027	0.00019	0.00455	0.0104	0.00001	0.000005	0.05	0.000005	5.73	0.0001	0.000007	0.00014	0.005	0.000007
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.0267	0.00016	0.00459	0.0107	0.00001	0.000005	0.05	0.000005	5.96	0.0001	0.000011	0.00024	0.006	0.000012
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.0313	0.00016	0.00558	0.0105	0.00001	0.000005	0.05	0.000005	6.36	0.0001	0.00001	0.00023	0.004	0.00001
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.0336	0.00016	0.00447	0.00997	0.00001	0.000005	0.05	0.000005	6.14	0.0002	0.000008	0.00027	0.006	0.000065
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.0278	0.00017	0.005	0.012	0.00001	0.000005	0.05	0.000014	6.06	0.0001	0.000008	0.00028	0.004	0.000007
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Li mg/L	Mg mg/L	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
14-Jan-10	0.006	7.27	0.002	0.00001	0.0342	0.0004	0.005	5.21	0.00126	1.5	0.000005	8.27	0.218	3	0.000063	0.00001	0.0008	0.00207	0.0002	0.0004	0.0001
21-Jan-10	0.004	3.76	0.0016	0.00001	0.0326	0.00034	0.034	3.51	0.00123	1.48	0.000014	5.49	0.109	4	0.000037	0.00001	0.0005	0.00223	0.0002	0.0003	0.0001
28-Jan-10	0.0029	3.01	0.0016	0.00001	0.0279	0.00025	0.004	2.64	0.00065	1.41	0.000005	3.3	0.0934	3	0.000027	0.00017	0.0005	0.00198	0.0002	0.0003	0.0001
4-Feb-10	0.0029	3.03	0.0015	0.00001	0.0294	0.00034	0.002	2.5	0.00057	1.47	0.000005	3.11	0.095	3	0.000029	0.00019	0.0005	0.00233	0.0002	0.0006	0.0001
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.0032	3.52	0.0022	0.00001	0.0338	0.00022	0.003	2.96	0.00035	1.66	0.000005	2.92	0.11	3	0.000034	0.00014	0.0005	0.0031	0.0002	0.0005	0.0001
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.0024	2.73	0.0014	0.00001	0.0242	0.00019	0.002	2.24	0.00026	1.5	0.000005	1.53	0.0865	2	0.000025	0.00003	0.0005	0.0025	0.0002	0.0002	0.0001
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0019	2.4	0.0014	0.00001	0.0192	0.00026	0.002	1.67	0.00023	1.32	0.000005	1.05	0.0793	10	0.000021	0.00002	0.0005	0.00224	0.0002	0.0004	0.0001
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.0018	2.41	0.0016	0.00001	0.0173	0.0003	0.004	1.62	0.00018	1.26	0.000011	0.83	0.0808	2	0.000023	0.00008	0.0005	0.0022	0.0002	0.0163	0.0001
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.0019	2.83	0.0013	0.00001	0.0194	0.00021	0.002	1.77	0.00024	1.47	0.000005	0.83	0.0941	10	0.000021	0.00004	0.0005	0.00258	0.0002	0.0006	0.0001
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.0019	2.56	0.0015	0.00001	0.0169	0.00016	0.002	1.58	0.0002	1.39	0.000005	0.6	0.0884	10	0.000018	0.00001	0.0005	0.00266	0.0002	0.0004	0.0001
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.002	2.67	0.0017	0.00001	0.0162	0.00017	0.002	1.61	0.00025	1.78	0.000005	0.57	0.086	10	0.000024	0.00001	0.0005	0.0023	0.0002	0.0005	0.0001
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.0017	2.58	0.0014	0.00001	0.0153	0.00006	0.002	1.45	0.00018	1.49	0.000005	0.47	0.088	10	0.000019	0.00001	0.0005	0.00235	0.0002	0.0001	0.0001
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.0016	2.55	0.0012	0.00001	0.0146	0.0002	0.002	1.49	0.00021	1.26	0.000005	0.43	0.0845	10	0.00002	0.00001	0.0005	0.00209	0.0002	0.0001	0.0001
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.0017	2.59	0.0012	0.00001	0.0146	0.00027	0.002	1.4	0.00023	1.48	0.000005	0.4	0.0909	10	0.000017	0.00001	0.0014	0.00221	0.0003	0.0006	0.0001
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.0014	2.5	0.0015	0.00001	0.0114	0.00014	0.002	1.25	0.00019	1.23	0.000005	0.36	0.0755	10	0.000018	0.00001	0.0005	0.00223	0.0002	0.0001	0.0001
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.0014	2.41	0.0013	0.00001	0.0103	0.00019	0.002	1.13	0.00017	1.19	0.000005	0.3	0.0803	10	0.000018	0.00001	0.0005	0.00219	0.0002	0.0001	0.0001
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.0014	2.53	0.001	0.00001	0.0103	0.00017	0.002	1.16	0.00018	1.26	0.000005	0.32	0.0777	10	0.000015	0.00002	0.0005	0.00228	0.0002	0.0004	0.0001
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.0012	2.41	0.001	0.00001	0.00978	0.00018	0.002	0.98	0.0002	1.14	0.000011	0.31	0.0809	10	0.000018	0.00001	0.0005	0.0019	0.0003	0.0002	0.0001
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.0014	2.61	0.0009	0.00001	0.0101	0.00014	0.002	1.14	0.0002	1.15	0.000005	0.26	0.0882	10	0.000019	0.00003	0.0005	0.00241	0.0002	0.0002	0.0001
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 10
Sample = DG07-327
Sample Wt. (kg)

Loadings

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk
14-Jan-10	2.0556	19.6308	2.52	2.124	0.1764	0.008748	0.0001188	0.0016632	0.009252	0.0000036	0.0000018	0.018
21-Jan-10	0.9504	20.1408	3.36	0.672	0.1968	0.01992	0.0001296	0.0037344	0.006096	0.0000048	0.0000024	0.024
28-Jan-10	1.4993	17.7613	2.35	0.282	0.1645	0.020962	0.0000987	0.0033511	0.004888	0.0000047	0.00000235	0.0235
4-Feb-10	1.2096	18.24	0.48	0.24	0.168	0.019248	0.0001104	0.0032256	0.005328	0.0000048	0.0000024	0.024
11-Feb-10	1.1808	18.4992	0.96	--	--	--	--	--	--	--	--	--
18-Feb-10	1.3872	21.912	0.48	0.24	0.2016	0.019296	0.0001248	0.0032304	0.00648	0.0000048	0.0000024	0.024
25-Feb-10	1.12065	17.89785	1.395	--	--	--	--	--	--	--	--	--
4-Mar-10	0.84165	17.3352	0.465	0.2325	0.12555	0.0164145	0.000093	0.00269235	0.0053475	0.00000465	0.000002325	0.02325
11-Mar-10	1.2834	16.6284	0.465	--	--	--	--	--	--	--	--	--
18-Mar-10	1.25875	15.7415	0.475	0.2375	0.1045	0.0194275	0.0000855	0.00273125	0.00475	0.00000475	0.000002375	0.02375
25-Mar-10	1.3775	16.2545	0.475	--	--	--	--	--	--	--	--	--
1-Apr-10	1.0044	15.12645	0.93	0.2325	0.093	0.0146475	0.000093	0.00233895	0.004836	0.00000465	0.00000279	0.02325
8-Apr-10	1.1454	16.8406	0.92	--	--	--	--	--	--	--	--	--
15-Apr-10	1.564	17.3604	0.46	0.23	0.092	0.016652	0.0001012	0.0029808	0.00575	0.0000046	0.0000023	0.023
22-Apr-10	1.7005	17.0525	0.475	--	--	--	--	--	--	--	--	--
29-Apr-10	1.0608	16.5168	1.44	0.24	0.12	0.014976	0.0001008	0.0027504	0.005328	0.0000048	0.0000024	0.024
6-May-10	1.82455	17.017	0.455	--	--	--	--	--	--	--	--	--
13-May-10	1.4476	16.2761	0.94	0.235	0.0752	0.014523	0.0001034	0.0028482	0.005358	0.0000047	0.00000235	0.0235
20-May-10	1.41505	14.9513	0.91	--	--	--	--	--	--	--	--	--
27-May-10	2.3376	17.9712	0.48	0.24	0.0768	0.012672	0.0000864	0.0025248	0.005424	0.0000048	0.0000024	0.024
3-Jun-10	1.13925	14.94045	1.86	--	--	--	--	--	--	--	--	--
10-Jun-10	2.016	16.7472	1.44	0.24	0.072	0.013248	0.0000864	0.002832	0.005232	0.0000048	0.0000024	0.024
17-Jun-10	1.577	16.09775	0.475	--	--	--	--	--	--	--	--	--
24-Jun-10	1.0272	16.872	1.44	0.24	0.048	0.020736	0.000096	0.0027744	0.005856	0.0000048	0.0000024	0.024
1-Jul-10	1.0058	15.3831	0.47	--	--	--	--	--	--	--	--	--
8-Jul-10	1.0199	14.6546	0.47	0.235	0.047	0.01269	0.0000893	0.0021385	0.004888	0.0000047	0.00000235	0.0235
15-Jul-10	1.6954	16.8266	0.98	--	--	--	--	--	--	--	--	--
22-Jul-10	1.56275	15.1145	0.475	0.2375	0.05225	0.0126825	0.000076	0.00218025	0.0050825	0.00000475	0.000002375	0.02375
29-Jul-10	2.01465	16.0776	0.99	--	--	--	--	--	--	--	--	--
5-Aug-10	1.05575	17.8293	2.575	0.2575	0.0515	0.0161195	0.0000824	0.0028737	0.0054075	0.00000515	0.000002575	0.02575
12-Aug-10	2.009	18.3113	0.98	--	--	--	--	--	--	--	--	--
19-Aug-10	2.14365	15.6984	0.465	0.2325	0.04185	0.015624	0.0000744	0.00207855	0.00463605	0.00000465	0.000002325	0.02325
26-Aug-10	1.1684	17.1028	1.84	--	--	--	--	--	--	--	--	--
2-Sep-10	1.5275	17.3195	2.35	0.235	0.0423	0.013066	0.0000799	0.00235	0.00564	0.0000047	0.00000235	0.0235
9-Sep-10	2.15295	17.6514	3.255	--	--	--	--	--	--	--	--	--
16-Sep-10	1.3008	15.504	--	--	--	--	--	--	--	--	--	--

Date	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk
14-Jan-10	0.0000054	5.616	0.000036	0.00001476	0.0002592	0.00072	0.00000468	0.00216	2.6172	0.0007308	0.0000036	0.012312
21-Jan-10	0.00001008	3.936	0.000048	0.000012	0.001128	0.00336	0.00000624	0.00192	1.8048	0.0007536	0.0000048	0.015648
28-Jan-10	0.00000423	3.431	0.000094	0.00000705	0.0001739	0.00329	0.00001269	0.001363	1.4147	0.0007379	0.0000047	0.013113
4-Feb-10	0.00000336	3.3408	0.000048	0.00000672	0.0001536	0.00384	0.0018384	0.001392	1.4544	0.0007248	0.0000048	0.014112
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.00000432	3.7872	0.000048	0.00000912	0.0002304	0.00384	0.00000816	0.001536	1.6896	0.0010608	0.0000048	0.016224
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.00000465	3.18525	0.0000465	0.000003255	0.0001163	0.00279	0.00003813	0.001116	1.26945	0.0006696	0.00000465	0.011253
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0000057	2.8405	0.0000475	0.000007125	0.0001995	0.006175	0.0006175	0.0009025	1.14	0.000684	0.00000475	0.00912
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.00000558	2.87835	0.0000465	0.000006975	0.0001674	0.00465	0.00009672	0.000837	1.12065	0.0007301	0.00000465	0.0080445
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.00000368	3.1464	0.000092	0.00000368	0.0001058	0.0023	0.00001242	0.000874	1.3018	0.0006026	0.0000046	0.008924
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.00000624	3.336	0.000048	0.00000528	0.0001344	0.0024	0.00000672	0.000912	1.2288	0.0007344	0.0000048	0.008112
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.00000423	3.2007	0.000047	0.00000705	0.0001927	0.00282	0.00002867	0.00094	1.2549	0.0008178	0.0000047	0.007614
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.0000024	3.4224	0.000048	0.00000336	0.0000768	0.00096	0.00007152	0.000816	1.2384	0.000648	0.0000048	0.007344
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.0000024	2.7792	0.000048	0.00000624	0.0000816	0.00192	0.00001344	0.000768	1.224	0.0005856	0.0000048	0.007008
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.0000024	2.9856	0.000048	0.00000768	0.00012	0.01344	0.0000096	0.000816	1.2432	0.000576	0.0000048	0.007008
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.00000235	2.6931	0.000047	0.00000329	0.0000658	0.00235	0.00000329	0.000658	1.175	0.0007191	0.0000047	0.005358
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.000002375	2.831	0.0000475	0.000005225	0.000114	0.00285	0.0000057	0.000665	1.14475	0.0006033	0.00000475	0.0048925
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.000002575	3.2754	0.0000515	0.00000515	0.0001185	0.00206	0.00000515	0.000721	1.30295	0.0005356	0.00000515	0.0053045
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.000002325	2.8551	0.000093	0.00000372	0.0001256	0.00279	0.000030225	0.000558	1.12065	0.000465	0.00000465	0.0045477
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.00000658	2.8482	0.000047	0.00000376	0.0001316	0.00188	0.00000329	0.000658	1.2267	0.0004418	0.0000047	0.004747
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--

Date	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk
14-Jan-10	0.000144	0.0018	1.8756	0.0004536	0.54	0.0000018	2.9772	0.07848	1.08	0.00002268
21-Jan-10	0.0001632	0.01632	1.6848	0.0005904	0.7104	0.00000672	2.6352	0.05232	1.92	0.00001776
28-Jan-10	0.0001175	0.00188	1.2408	0.0003055	0.6627	0.00000235	1.551	0.043898	1.41	0.00001269
4-Feb-10	0.0001632	0.00096	1.2	0.0002736	0.7056	0.0000024	1.4928	0.0456	1.44	0.00001392
11-Feb-10	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.0001056	0.00144	1.4208	0.000168	0.7968	0.0000024	1.4016	0.0528	1.44	0.00001632
25-Feb-10	--	--	--	--	--	--	--	--	--	--
4-Mar-10	8.835E-05	0.00093	1.0416	0.0001209	0.6975	0.000002325	0.71145	0.0402225	0.93	0.000011625
11-Mar-10	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0001235	0.00095	0.79325	0.0001093	0.627	0.000002375	0.49875	0.0376675	4.75	0.000009975
25-Mar-10	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.0001395	0.00186	0.7533	0.0000837	0.5859	0.000005115	0.38595	0.037572	0.93	0.000010695
8-Apr-10	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.0000966	0.00092	0.8142	0.0001104	0.6762	0.0000023	0.3818	0.043286	4.6	0.00000966
22-Apr-10	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.0000768	0.00096	0.7584	0.000096	0.6672	0.0000024	0.288	0.042432	4.8	0.00000864
6-May-10	--	--	--	--	--	--	--	--	--	--
13-May-10	0.0000799	0.00094	0.7567	0.0001175	0.8366	0.00000235	0.2679	0.04042	4.7	0.00001128
20-May-10	--	--	--	--	--	--	--	--	--	--
27-May-10	0.0000288	0.00096	0.696	0.0000864	0.7152	0.0000024	0.2256	0.04224	4.8	0.00000912
3-Jun-10	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.000096	0.00096	0.7152	0.0001008	0.6048	0.0000024	0.2064	0.04056	4.8	0.0000096
17-Jun-10	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.0001296	0.00096	0.672	0.0001104	0.7104	0.0000024	0.192	0.043632	4.8	0.00000816
1-Jul-10	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.0000658	0.00094	0.5875	0.0000893	0.5781	0.00000235	0.1692	0.035485	4.7	0.00000846
15-Jul-10	--	--	--	--	--	--	--	--	--	--
22-Jul-10	9.025E-05	0.00095	0.53675	8.075E-05	0.56525	0.000002375	0.1425	0.0381425	4.75	0.00000855
29-Jul-10	--	--	--	--	--	--	--	--	--	--
5-Aug-10	8.755E-05	0.00103	0.5974	0.0000927	0.6489	0.000002575	0.1648	0.0400155	5.15	0.000007725
12-Aug-10	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.0000837	0.00093	0.4557	0.000093	0.5301	0.000005115	0.14415	0.0376185	4.65	0.00000837
26-Aug-10	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.0000658	0.00094	0.5358	0.000094	0.5405	0.00000235	0.1222	0.041454	4.7	0.00000893
9-Sep-10	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--

Date	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
14-Jan-10	0.0000036	0.000288	0.0007452	0.000072	0.000144	0.000036
21-Jan-10	0.0000048	0.00024	0.0010704	0.000096	0.000144	0.000048
28-Jan-10	0.0000799	0.000235	0.0009306	0.000094	0.000141	0.000047
4-Feb-10	0.0000912	0.00024	0.0011184	0.000096	0.000288	0.000048
11-Feb-10	--	--	--	--	--	--
18-Feb-10	0.0000672	0.00024	0.001488	0.000096	0.00024	0.000048
25-Feb-10	--	--	--	--	--	--
4-Mar-10	0.00001395	0.0002325	0.0011625	0.000093	0.000093	0.0000465
11-Mar-10	--	--	--	--	--	--
18-Mar-10	0.0000095	0.0002375	0.001064	0.000095	0.00019	0.0000475
25-Mar-10	--	--	--	--	--	--
1-Apr-10	0.0000372	0.0002325	0.001023	0.000093	0.0075795	0.0000465
8-Apr-10	--	--	--	--	--	--
15-Apr-10	0.0000184	0.00023	0.0011868	0.000092	0.000276	0.000046
22-Apr-10	--	--	--	--	--	--
29-Apr-10	0.0000048	0.00024	0.0012768	0.000096	0.000192	0.000048
6-May-10	--	--	--	--	--	--
13-May-10	0.0000047	0.000235	0.001081	0.000094	0.000235	0.000047
20-May-10	--	--	--	--	--	--
27-May-10	0.0000048	0.00024	0.001128	0.000096	0.000048	0.000048
3-Jun-10	--	--	--	--	--	--
10-Jun-10	0.0000048	0.00024	0.0010032	0.000096	0.000048	0.000048
17-Jun-10	--	--	--	--	--	--
24-Jun-10	0.0000048	0.000672	0.0010608	0.000144	0.000288	0.000048
1-Jul-10	--	--	--	--	--	--
8-Jul-10	0.0000047	0.000235	0.0010481	0.000094	0.000047	0.000047
15-Jul-10	--	--	--	--	--	--
22-Jul-10	0.00000475	0.0002375	0.00104025	0.000095	0.0000475	0.0000475
29-Jul-10	--	--	--	--	--	--
5-Aug-10	0.0000103	0.0002575	0.0011742	0.000103	0.000206	0.0000515
12-Aug-10	--	--	--	--	--	--
19-Aug-10	0.00000465	0.0002325	0.0008835	0.0001395	0.000093	0.0000465
26-Aug-10	--	--	--	--	--	--
2-Sep-10	0.0000141	0.000235	0.0011327	0.000094	0.000094	0.000047
9-Sep-10	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--

HC 11
Sample = DG05-308C 125.00-128.00
Sample Wt. (kg) 1.00

Concentrations

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP mV	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness mg CaCO3/L
14-Jan-10	0	500	350	7.25	298	514	--	6.54	29.52	196	6.1	0.48	231
21-Jan-10	1	500	470	7.47	380	368	--	3.14	28.57	165	2.2	0.48	189
28-Jan-10	2	500	480	7.34	369	218	--	4.29	29.12	93	0.8	0.49	109
4-Feb-10	3	500	480	7.32	266	119	--	3.1	24.83	45	0.5	0.38	64.9
11-Feb-10	4	500	485	7.31	338	121	--	3.19	26.79	32	--	--	--
18-Feb-10	5	500	440	7.45	333	114	--	3.47	31.5	30	0.5	0.51	53.6
25-Feb-10	6	500	455	7.40	355	59	--	2.87	20.96	13	--	--	--
4-Mar-10	7	500	455	7.40	368	64	--	2.31	20.26	10	0.5	0.25	30.7
11-Mar-10	8	500	455	7.36	380	67	--	3.47	22.9	11	--	--	--
18-Mar-10	9	500	480	7.33	382	60	--	3.06	21.28	5	0.5	0.26	24.7
25-Mar-10	10	500	490	7.41	370	49	--	3.59	17.71	7	--	--	--
1-Apr-10	11	500	465	7.46	381	54	--	2.84	20.6	11	0.5	0.21	24.3
8-Apr-10	12	500	465	7.37	351	68	--	2.89	20.98	9	--	--	--
15-Apr-10	13	500	490	7.32	349	75	--	3.62	24.25	12	0.5	0.32	26.9
22-Apr-10	14	500	465	7.49	349	62	--	4.32	25.58	8	--	--	--
29-Apr-10	15	500	485	7.48	356	61	--	2.51	25.35	7	0.5	0.45	26.4
6-May-10	16	500	470	7.42	346	58	--	4.45	26.48	9	--	--	--
13-May-10	17	500	465	7.51	350	58	--	3.23	24.64	6	0.5	0.25	27
20-May-10	18	500	465	7.57	364	53	--	3.94	23.43	5	--	--	--
27-May-10	19	500	455	7.60	372	54	--	5.8	29.22	2	0.5	0.27	26
3-Jun-10	20	500	470	7.54	354	55	--	2.94	26.18	5	--	--	--
10-Jun-10	21	500	455	7.43	339	50	--	4.47	24.38	5	0.5	0.22	23.3
17-Jun-10	22	500	460	7.57	344	59	--	3.77	29.79	2	--	--	--
24-Jun-10	23	500	460	7.65	406	57	--	2.67	29.51	7	0.5	0.2	25.8
1-Jul-10	24	500	455	7.59	418	52	--	2.61	27.07	6	--	--	--
8-Jul-10	25	500	445	7.40	345	46	--	2.35	21.11	1	0.5	0.2	20.5
15-Jul-10	26	500	465	7.38	339	41	--	4.09	20.64	4	--	--	--
22-Jul-10	27	500	480	7.35	359	50	--	3.68	24.68	4	0.5	0.21	22.3
29-Jul-10	28	500	460	7.46	340	43	--	4.29	22.75	2	--	--	--
5-Aug-10	29	500	450	7.54	373	43	--	2.4	22.08	2	0.5	0.18	20.8
12-Aug-10	30	500	465	7.49	403	44	--	4.55	23.77	2	--	--	--
19-Aug-10	31	500	435	7.54	374	42	--	5.23	22.94	1	0.5	0.18	20.8
26-Aug-10	32	500	450	7.45	366	45	--	2.91	23.17	5	--	--	--
2-Sep-10	33	500	450	7.38	396	35	--	3.32	21.75	6	0.5	0.72	17.3
9-Sep-10	34	500	460	7.19	368	37	--	4.66	17.73	4	--	--	--
16-Sep-10	35	500	450	7.25	362	38	--	3.17	21.58	5	--	--	--

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L
14-Jan-10	0.0099	0.01	0.0934	0.00329	0.00001	0.000005	0.05	0.000296	78.8	0.0001	0.000642	0.00337	0.004	0.000018	0.0077	8.28
21-Jan-10	0.0118	0.0102	0.119	0.00243	0.00001	0.000005	0.05	0.000208	64.9	0.0001	0.000347	0.00584	0.006	0.000026	0.0068	6.54
28-Jan-10	0.0148	0.00925	0.125	0.00133	0.00001	0.000007	0.05	0.000117	37.5	0.0001	0.0002	0.00129	0.005	0.000086	0.0051	3.67
4-Feb-10	0.0194	0.00785	0.119	0.00086	0.00001	0.000008	0.05	0.000066	22.3	0.0002	0.000122	0.00079	0.007	0.000156	0.0035	2.2
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.0245	0.0116	0.184	0.00083	0.00001	0.000011	0.05	0.000061	18.1	0.0001	0.000096	0.00108	0.01	0.000137	0.0039	2.03
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.0256	0.00626	0.11	0.00052	0.00001	0.000017	0.05	0.000039	10.6	0.0003	0.00005	0.00075	0.009	0.000129	0.0025	1.02
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0289	0.00622	0.117	0.00073	0.00001	0.000025	0.05	0.000041	8.49	0.0001	0.000054	0.0007	0.015	0.000215	0.0023	0.86
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.0225	0.00613	0.104	0.00051	0.00001	0.000023	0.05	0.000044	8.39	0.0001	0.000048	0.00084	0.012	0.000193	0.0022	0.82
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.0269	0.00861	0.137	0.00054	0.00001	0.000014	0.05	0.000048	9.17	0.0002	0.000052	0.00051	0.01	0.000133	0.0026	0.96
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.0259	0.00885	0.147	0.00057	0.00001	0.000054	0.05	0.000032	9.14	0.0003	0.00005	0.00044	0.013	0.000251	0.0027	0.86
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.0282	0.00842	0.145	0.00138	0.00001	0.000019	0.05	0.000034	9.39	0.0002	0.00004	0.00047	0.013	0.00021	0.0026	0.86
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.0216	0.00785	0.138	0.00051	0.00001	0.00001	0.05	0.000033	9.06	0.0001	0.000035	0.0004	0.006	0.000069	0.0025	0.83
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.0255	0.00743	0.138	0.00062	0.00001	0.000026	0.05	0.000042	8	0.0002	0.000041	0.00051	0.01	0.000175	0.0023	0.81
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.0237	0.00936	0.168	0.00058	0.00001	0.000013	0.05	0.000029	8.84	0.0001	0.000032	0.00044	0.01	0.000089	0.0027	0.9
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.0267	0.00653	0.128	0.00066	0.00001	0.000023	0.05	0.000026	6.97	0.0001	0.000037	0.00041	0.013	0.000214	0.0021	0.75
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.0209	0.00652	0.128	0.00053	0.00001	0.000013	0.05	0.000028	7.68	0.0001	0.000033	0.00046	0.008	0.000087	0.0022	0.77
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.0222	0.00569	0.115	0.00119	0.00001	0.000013	0.05	0.000025	7.17	0.0001	0.000032	0.00104	0.012	0.000126	0.0019	0.7
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.031	0.00594	0.114	0.00084	0.00001	0.000033	0.05	0.000033	7.15	0.0001	0.000035	0.00039	0.022	0.000241	0.0019	0.7
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.0252	0.00513	0.114	0.0006	0.00001	0.000022	0.05	0.000026	5.87	0.0002	0.000022	0.00058	0.011	0.00015	0.0019	0.65
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Mn mg/L	Hg mg/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
14-Jan-10	0.142	0.00012	0.0255	0.00142	0.017	3.43	0.0627	2.32	0.000012	11.5	0.918	75	0.000015	0.00001	0.0007	0.00473	0.0002	0.0974	0.0001
21-Jan-10	0.0952	0.00002	0.0305	0.00061	0.013	3.42	0.0528	2.33	0.000023	8.9	0.741	60	0.000012	0.00001	0.0005	0.00458	0.0002	0.0023	0.0001
28-Jan-10	0.0563	0.00002	0.0296	0.00042	0.015	2.48	0.0279	2.09	0.000005	5.03	0.457	30	0.000009	0.00018	0.0006	0.00328	0.0002	0.001	0.0001
4-Feb-10	0.0334	0.00001	0.0251	0.00036	0.015	1.7	0.0159	1.69	0.000005	3.07	0.271	17	0.000008	0.00018	0.0005	0.00218	0.0002	0.0011	0.0001
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.0252	0.00001	0.0342	0.00035	0.021	2.23	0.0112	2.43	0.000005	2.72	0.218	10	0.00001	0.00014	0.0005	0.00242	0.0002	0.002	0.0001
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.0158	0.00001	0.0192	0.0002	0.013	1.26	0.0066	1.38	0.000005	1.01	0.117	6	0.000005	0.00002	0.0005	0.00108	0.0002	0.0007	0.0001
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0137	0.00001	0.0178	0.00024	0.011	1.14	0.00563	1.25	0.000005	0.75	0.1	10	0.000005	0.00002	0.0005	0.00111	0.0002	0.001	0.0001
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.0132	0.00001	0.0186	0.00018	0.011	1.16	0.00523	1.22	0.000005	0.66	0.097	3	0.000008	0.00008	0.0005	0.000961	0.0002	0.0025	0.0001
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.0134	0.00001	0.0235	0.00022	0.015	1.52	0.00623	1.61	0.000005	0.71	0.114	10	0.000007	0.00008	0.0005	0.0013	0.0002	0.0009	0.0001
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.0117	0.00001	0.0211	0.00022	0.012	1.38	0.00593	1.59	0.000005	0.58	0.108	10	0.000005	0.00002	0.0005	0.00123	0.0002	0.001	0.0001
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.0145	0.00001	0.0201	0.00018	0.015	1.46	0.00544	1.95	0.000005	0.46	0.0987	10	0.000009	0.00001	0.0005	0.00116	0.0002	0.0011	0.0001
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.0112	0.00001	0.0189	0.00009	0.013	1.43	0.00527	1.67	0.000005	0.36	0.104	10	0.000006	0.00001	0.0005	0.00109	0.0002	0.0005	0.0001
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.00936	0.00001	0.0172	0.00015	0.013	1.44	0.00512	1.56	0.000007	0.34	0.0901	10	0.000014	0.00001	0.0005	0.000917	0.0002	0.0009	0.0001
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.00858	0.00001	0.0217	0.00014	0.016	1.63	0.00587	1.83	0.000005	0.35	0.112	10	0.000005	0.00001	0.0005	0.00135	0.0002	0.0004	0.0001
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.00681	0.00001	0.0148	0.00014	0.014	1.32	0.00426	1.32	0.000005	0.26	0.0834	10	0.000004	0.00001	0.0005	0.000946	0.0002	0.0007	0.0001
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.00597	0.00001	0.0164	0.00028	0.013	1.29	0.00482	1.43	0.000005	0.23	0.0947	10	0.000005	0.00001	0.0005	0.00126	0.0002	0.0008	0.0001
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.00566	0.00001	0.0147	0.00015	0.011	1.27	0.00413	1.31	0.000005	0.21	0.0811	10	0.000005	0.00001	0.0005	0.00087	0.0002	0.0007	0.0001
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.006	0.00001	0.0156	0.00016	0.01	1.17	0.00434	1.24	0.000007	0.24	0.0862	10	0.000007	0.00001	0.0005	0.000739	0.0002	0.001	0.0001
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.00453	0.00001	0.0125	0.0002	0.01	1.19	0.00374	1.01	0.000005	0.2	0.074	10	0.000006	0.00003	0.0005	0.000759	0.0002	0.0007	0.0001
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HC 11
Sample = DG05-3
Sample Wt. (kg) **Loadings**

Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk	Bi mg/kg/wk	B mg/kg/wk
14-Jan-10	2.289	10.332	68.6	2.135	0.168	0.003465	0.0035	0.03269	0.0011515	0.0000035	0.00000175	0.0175
21-Jan-10	1.4758	13.4279	77.55	1.034	0.2256	0.005546	0.004794	0.05593	0.0011421	0.0000047	0.00000235	0.0235
28-Jan-10	2.0592	13.9776	44.64	0.384	0.2352	0.007104	0.00444	0.06	0.0006384	0.0000048	0.00000336	0.024
4-Feb-10	1.488	11.9184	21.6	0.24	0.1824	0.009312	0.003768	0.05712	0.0004128	0.0000048	0.00000384	0.024
11-Feb-10	1.54715	12.99315	15.52	--	--	--	--	--	--	--	--	--
18-Feb-10	1.5268	13.86	13.2	0.22	0.2244	0.01078	0.005104	0.08096	0.0003652	0.0000044	0.00000484	0.022
25-Feb-10	1.30585	9.5368	5.915	--	--	--	--	--	--	--	--	--
4-Mar-10	1.05105	9.2183	4.55	0.2275	0.11375	0.011648	0.0028483	0.05005	0.0002366	0.00000455	0.000007735	0.02275
11-Mar-10	1.57885	10.4195	5.005	--	--	--	--	--	--	--	--	--
18-Mar-10	1.4688	10.2144	2.4	0.24	0.1248	0.013872	0.0029856	0.05616	0.0003504	0.0000048	0.000012	0.024
25-Mar-10	1.7591	8.6779	3.43	--	--	--	--	--	--	--	--	--
1-Apr-10	1.3206	9.579	5.115	0.2325	0.09765	0.0104625	0.0028505	0.04836	0.0002372	0.00000465	0.000010695	0.02325
8-Apr-10	1.34385	9.7557	4.185	--	--	--	--	--	--	--	--	--
15-Apr-10	1.7738	11.8825	5.88	0.245	0.1568	0.013181	0.0042189	0.06713	0.0002646	0.0000049	0.00000686	0.0245
22-Apr-10	2.0088	11.8947	3.72	--	--	--	--	--	--	--	--	--
29-Apr-10	1.21735	12.29475	3.395	0.2425	0.21825	0.0125615	0.0042923	0.071295	0.0002765	0.00000485	0.00002619	0.02425
6-May-10	2.0915	12.4456	4.23	--	--	--	--	--	--	--	--	--
13-May-10	1.50195	11.4576	2.79	0.2325	0.11625	0.013113	0.0039153	0.067425	0.0006417	0.00000465	0.000008835	0.02325
20-May-10	1.8321	10.89495	2.325	--	--	--	--	--	--	--	--	--
27-May-10	2.639	13.2951	0.91	0.2275	0.12285	0.009828	0.0035718	0.06279	0.0002321	0.00000455	0.00000455	0.02275
3-Jun-10	1.3818	12.3046	2.35	--	--	--	--	--	--	--	--	--
10-Jun-10	2.03385	11.0929	2.275	0.2275	0.1001	0.0116025	0.0033807	0.06279	0.0002821	0.00000455	0.00001183	0.02275
17-Jun-10	1.7342	13.7034	0.92	--	--	--	--	--	--	--	--	--
24-Jun-10	1.2282	13.5746	3.22	0.23	0.092	0.010902	0.0043056	0.07728	0.0002668	0.0000046	0.00000598	0.023
1-Jul-10	1.18755	12.31685	2.73	--	--	--	--	--	--	--	--	--
8-Jul-10	1.04575	9.39395	0.445	0.2225	0.089	0.0118815	0.0029059	0.05696	0.0002937	0.00000445	0.000010235	0.02225
15-Jul-10	1.90185	9.5976	1.86	--	--	--	--	--	--	--	--	--
22-Jul-10	1.7664	11.8464	1.92	0.24	0.1008	0.010032	0.0031296	0.06144	0.0002544	0.0000048	0.00000624	0.024
29-Jul-10	1.9734	10.465	0.92	--	--	--	--	--	--	--	--	--
5-Aug-10	1.08	9.936	0.9	0.225	0.081	0.00999	0.0025605	0.05175	0.0005355	0.0000045	0.00000585	0.0225
12-Aug-10	2.11575	11.05305	0.93	--	--	--	--	--	--	--	--	--
19-Aug-10	2.27505	9.9789	0.435	0.2175	0.0783	0.013485	0.0025839	0.04959	0.0003654	0.00000435	0.000014355	0.02175
26-Aug-10	1.3095	10.4265	2.25	--	--	--	--	--	--	--	--	--
2-Sep-10	1.494	9.7875	2.7	0.225	0.324	0.01134	0.0023085	0.0513	0.00027	0.0000045	0.0000099	0.0225
9-Sep-10	2.1436	8.1558	1.84	--	--	--	--	--	--	--	--	--
16-Sep-10	1.4265	9.711	2.25	--	--	--	--	--	--	--	--	--

Date	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk	Mo mg/kg/wk
14-Jan-10	0.0001036	27.58	0.000035	0.0002247	0.0011795	0.0014	0.0000063	0.002695	2.898	0.0497	0.000042	0.008925
21-Jan-10	0.00009776	30.503	0.000047	0.00016309	0.0027448	0.00282	0.00001222	0.003196	3.0738	0.044744	0.0000094	0.014335
28-Jan-10	0.00005616	18	0.000048	0.000096	0.0006192	0.0024	0.00004128	0.002448	1.7616	0.027024	0.0000096	0.014208
4-Feb-10	0.00003168	10.704	0.000096	0.00005856	0.0003792	0.00336	0.00007488	0.00168	1.056	0.016032	0.0000048	0.012048
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.00002684	7.964	0.000044	0.00004224	0.0004752	0.0044	0.00006028	0.001716	0.8932	0.011088	0.0000044	0.015048
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.000017745	4.823	0.0001365	0.00002275	0.0003413	0.004095	0.000058695	0.0011375	0.4641	0.007189	0.00000455	0.008736
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.00001968	4.0752	0.000048	0.00002592	0.000336	0.0072	0.0001032	0.001104	0.4128	0.006576	0.0000048	0.008544
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.00002046	3.90135	0.0000465	0.00002232	0.0003906	0.00558	0.000089745	0.001023	0.3813	0.006138	0.00000465	0.008649
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.00002352	4.4933	0.000098	0.00002548	0.0002499	0.0049	0.00006517	0.001274	0.4704	0.006566	0.0000049	0.011515
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.00001552	4.4329	0.0001455	0.00002425	0.0002134	0.006305	0.000121735	0.0013095	0.4171	0.0056745	0.00000485	0.0102335
6-May-10	--	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.00001581	4.36635	0.000093	0.0000186	0.0002186	0.006045	0.00009765	0.001209	0.3999	0.0067425	0.00000465	0.0093465
20-May-10	--	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.000015015	4.1223	0.0000455	0.000015925	0.000182	0.00273	0.000031395	0.0011375	0.37765	0.005096	0.00000455	0.0085995
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.00001911	3.64	0.000091	0.000018655	0.0002321	0.00455	0.000079625	0.0010465	0.36855	0.0042588	0.00000455	0.007826
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.00001334	4.0664	0.000046	0.00001472	0.0002024	0.0046	0.00004094	0.001242	0.414	0.0039468	0.0000046	0.009982
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.00001157	3.10165	0.0000445	0.000016465	0.0001825	0.005785	0.00009523	0.0009345	0.33375	0.0030305	0.00000445	0.006586
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.00001344	3.6864	0.000048	0.00001584	0.0002208	0.00384	0.00004176	0.001056	0.3696	0.0028656	0.0000048	0.007872
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.00001125	3.2265	0.000045	0.0000144	0.000468	0.0054	0.0000567	0.000855	0.315	0.002547	0.0000045	0.006615
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.000014355	3.11025	0.0000435	0.000015225	0.0001697	0.00957	0.000104835	0.0008265	0.3045	0.00261	0.00000435	0.006786
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.0000117	2.6415	0.00009	0.0000099	0.000261	0.00495	0.0000675	0.000855	0.2925	0.0020385	0.0000045	0.005625
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--	--

Date	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk
14-Jan-10	0.000497	0.00595	1.2005	0.021945	0.812	0.0000042	4.025	0.3213	26.25	0.00000525	0.0000035
21-Jan-10	0.0002867	0.00611	1.6074	0.024816	1.0951	0.00001081	4.183	0.34827	28.2	0.00000564	0.0000047
28-Jan-10	0.0002016	0.0072	1.1904	0.013392	1.0032	0.0000024	2.4144	0.21936	14.4	0.00000432	0.0000864
4-Feb-10	0.0001728	0.0072	0.816	0.007632	0.8112	0.0000024	1.4736	0.13008	8.16	0.00000384	0.0000864
11-Feb-10	--	--	--	--	--	--	--	--	--	--	--
18-Feb-10	0.000154	0.00924	0.9812	0.004928	1.0692	0.0000022	1.1968	0.09592	4.4	0.0000044	0.0000616
25-Feb-10	--	--	--	--	--	--	--	--	--	--	--
4-Mar-10	0.000091	0.005915	0.5733	0.003003	0.6279	0.000002275	0.45955	0.053235	2.73	0.000002275	0.0000091
11-Mar-10	--	--	--	--	--	--	--	--	--	--	--
18-Mar-10	0.0001152	0.00528	0.5472	0.0027024	0.6	0.0000024	0.36	0.048	4.8	0.0000024	0.0000096
25-Mar-10	--	--	--	--	--	--	--	--	--	--	--
1-Apr-10	0.0000837	0.005115	0.5394	0.002432	0.5673	0.000002325	0.3069	0.045105	1.395	0.00000372	0.0000372
8-Apr-10	--	--	--	--	--	--	--	--	--	--	--
15-Apr-10	0.0001078	0.00735	0.7448	0.0030527	0.7889	0.00000245	0.3479	0.05586	4.9	0.00000343	0.0000392
22-Apr-10	--	--	--	--	--	--	--	--	--	--	--
29-Apr-10	0.0001067	0.00582	0.6693	0.0028761	0.77115	0.000002425	0.2813	0.05238	4.85	0.000002425	0.0000097
6-May-10	--	--	--	--	--	--	--	--	--	--	--
13-May-10	0.0000837	0.006975	0.6789	0.0025296	0.90675	0.000002325	0.2139	0.0458955	4.65	0.000004185	0.00000465
20-May-10	--	--	--	--	--	--	--	--	--	--	--
27-May-10	0.00004095	0.005915	0.65065	0.0023979	0.75985	0.000002275	0.1638	0.04732	4.55	0.00000273	0.00000455
3-Jun-10	--	--	--	--	--	--	--	--	--	--	--
10-Jun-10	0.00006825	0.005915	0.6552	0.0023296	0.7098	0.000003185	0.1547	0.0409955	4.55	0.00000637	0.00000455
17-Jun-10	--	--	--	--	--	--	--	--	--	--	--
24-Jun-10	0.0000644	0.00736	0.7498	0.0027002	0.8418	0.0000023	0.161	0.05152	4.6	0.0000023	0.0000046
1-Jul-10	--	--	--	--	--	--	--	--	--	--	--
8-Jul-10	0.0000623	0.00623	0.5874	0.0018957	0.5874	0.000002225	0.1157	0.037113	4.45	0.00000178	0.00000445
15-Jul-10	--	--	--	--	--	--	--	--	--	--	--
22-Jul-10	0.0001344	0.00624	0.6192	0.0023136	0.6864	0.0000024	0.1104	0.045456	4.8	0.0000024	0.0000048
29-Jul-10	--	--	--	--	--	--	--	--	--	--	--
5-Aug-10	0.0000675	0.00495	0.5715	0.0018585	0.5895	0.00000225	0.0945	0.036495	4.5	0.00000225	0.0000045
12-Aug-10	--	--	--	--	--	--	--	--	--	--	--
19-Aug-10	0.0000696	0.00435	0.50895	0.0018879	0.5394	0.000003045	0.1044	0.037497	4.35	0.000003045	0.00000435
26-Aug-10	--	--	--	--	--	--	--	--	--	--	--
2-Sep-10	0.00009	0.0045	0.5355	0.001683	0.4545	0.00000225	0.09	0.0333	4.5	0.0000027	0.0000135
9-Sep-10	--	--	--	--	--	--	--	--	--	--	--
16-Sep-10	--	--	--	--	--	--	--	--	--	--	--

Date	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
14-Jan-10	0.000245	0.0016555	0.00007	0.03409	0.000035
21-Jan-10	0.000235	0.0021526	0.000094	0.001081	0.000047
28-Jan-10	0.000288	0.0015744	0.000096	0.00048	0.000048
4-Feb-10	0.00024	0.0010464	0.000096	0.000528	0.000048
11-Feb-10	--	--	--	--	--
18-Feb-10	0.00022	0.0010648	0.000088	0.00088	0.000044
25-Feb-10	--	--	--	--	--
4-Mar-10	0.0002275	0.0004914	0.000091	0.0003185	0.0000455
11-Mar-10	--	--	--	--	--
18-Mar-10	0.00024	0.0005328	0.000096	0.00048	0.000048
25-Mar-10	--	--	--	--	--
1-Apr-10	0.0002325	0.0004469	0.000093	0.0011625	0.0000465
8-Apr-10	--	--	--	--	--
15-Apr-10	0.000245	0.000637	0.000098	0.000441	0.000049
22-Apr-10	--	--	--	--	--
29-Apr-10	0.0002425	0.0005966	0.000097	0.000485	0.0000485
6-May-10	--	--	--	--	--
13-May-10	0.0002325	0.0005394	0.000093	0.0005115	0.0000465
20-May-10	--	--	--	--	--
27-May-10	0.0002275	0.000496	0.000091	0.0002275	0.0000455
3-Jun-10	--	--	--	--	--
10-Jun-10	0.0002275	0.0004172	0.000091	0.0004095	0.0000455
17-Jun-10	--	--	--	--	--
24-Jun-10	0.00023	0.000621	0.000092	0.000184	0.000046
1-Jul-10	--	--	--	--	--
8-Jul-10	0.0002225	0.000421	0.000089	0.0003115	0.0000445
15-Jul-10	--	--	--	--	--
22-Jul-10	0.00024	0.0006048	0.000096	0.000384	0.000048
29-Jul-10	--	--	--	--	--
5-Aug-10	0.000225	0.0003915	0.00009	0.000315	0.000045
12-Aug-10	--	--	--	--	--
19-Aug-10	0.0002175	0.0003215	0.000087	0.000435	0.0000435
26-Aug-10	--	--	--	--	--
2-Sep-10	0.000225	0.0003416	0.00009	0.000315	0.000045
9-Sep-10	--	--	--	--	--
16-Sep-10	--	--	--	--	--

Hcol 7B
Sample = KCA No. 42979
Sample Wt. (kg) 80.00

Concentrations

Date	Cycle	Volume mL Input	Volume mL Output	pH	ORP mV	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L	Sulphate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Hardness mg CaCO3/L
16-Feb-10	1	5000	3870	7.59	250	4300	#N/A	#N/A	61	2800	36	0.74	
23-Feb-10	2	5000	4325	7.87	280	2700	#N/A	#N/A	74	1300	13	1.4	
2-Mar-10	3	3000	2820	8.11	260	990	#N/A	#N/A	120	330	1.6	2.2	
9-Mar-10	4	3000	2660	8.28	270	590	#N/A	#N/A	150	200	0.8	2.4	
16-Mar-10	5	3000	2860	8.18	280	720	#N/A	#N/A	170	180	0.63	2	
23-Mar-10	6	3000	2700	8.22	310	740	#N/A	#N/A	170	160	0.61	1.7	
30-Mar-10	7	3000	2725	8.14	270	530	#N/A	#N/A	160	140	0.75	1.5	
6-Apr-10	8	3000	2735	7.97	290	610	#N/A	#N/A	150	170	1.2	1.4	
13-Apr-10	9	3000	2649	8.15	270	690	#N/A	#N/A	160	230	1.5	1.3	
20-Apr-10	10	3000	2644	8.13	250	620	#N/A	#N/A	150	220	1.2	1.2	
27-Apr-10	11	3000	2630	8.06	300	710	#N/A	#N/A	140	230	0.79	1.2	
4-May-10	12	3000	2394	8.14	300	780	#N/A	#N/A	130	280	0.78	0.97	
11-May-10	13	3000	2591	7.99	280	740	#N/A	#N/A	110	370	0.62	0.81	
18-May-10	14	3000	2559	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
25-May-10	15	3000	2608	7.95	260	1300	#N/A	#N/A	81	580	0.28	0.58	
1-Jun-10	16	3000	2677	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
8-Jun-10	17	3000	2564	7.81	280	1700	#N/A	#N/A	63	750	0.18	0.05	
15-Jun-10	18	3000	2615	7.71	280	1700	#N/A	#N/A	61	720	0.13	0.1	
22-Jun-10	19	3000	2755	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
29-Jun-10	20	3000	2410	7.6	320	2000	#N/A	#N/A	64	670	0.29	1	
9-Jul-10	21	3000	2529	7.83	270	2200	#N/A	#N/A	120	780	0.5	0.64	
20-Jul-10	22	3000	2288	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
27-Jul-10	23	3000	2555	7.63	270	2000	#N/A	#N/A	53	870	0.21	1.6	
3-Aug-10	24	3000	2534	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
10-Aug-10	25	3000	2625	7.96	300	1400	#N/A	#N/A	43	600	0.13	0.37	
17-Aug-10	26	3000	2583	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
24-Aug-10	27	3000	2826	7.93	340	1200	#N/A	#N/A	48	600	0.12	0.38	
31-Aug-10	28	3000	2678	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
7-Sep-10	29	3000	2549	7.89	280	940	#N/A	#N/A	55	460	0.11	0.44	
14-Sep-10	30	3000	2224	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
21-Sep-10	31	3000	2833	7.74	320	710	#N/A	#N/A	62	340	0.13	0.4	
28-Sep-10	32	3000	2703	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	
5-Oct-10	33	3000	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Date	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L	Cd mg/L	Ca mg/L	Cr mg/L	Co mg/L	Cu mg/L	Fe mg/L	Pb mg/L	Li mg/L	Mg mg/L	Mn mg/L
16-Feb-10	0.045	0.64	0.41	0.14	0.001	0.1	0.19	0.00051	530	0.005	0.89	0.035	0.19	0.011	0.1	9.4	0.024
23-Feb-10	0.045	1.1	0.88	0.051	0.001	0.1	0.37	0.00046	170	0.005	0.31	0.01	0.056	0.0055	0.1	3.7	0.009
2-Mar-10	0.12	1.7	2	0.099	0.001	0.1	0.48	0.0003	34	0.005	0.078	0.0078	0.078	0.011	0.1	0.78	0.005
9-Mar-10	0.76	1.4	2.1	0.066	0.001	0.1	0.5	0.00038	20	0.005	0.052	0.0066	0.24	0.028	0.1	0.5	0.0075
16-Mar-10	1.1	1.2	1.9	0.067	0.001	0.1	0.43	0.00045	18	0.005	0.04	0.0083	0.33	0.044	0.1	0.5	0.01
23-Mar-10	2.1	1.2	2.1	0.13	0.001	0.1	0.32	0.00033	20	0.005	0.035	0.013	0.6	0.095	0.1	0.55	0.019
30-Mar-10	2.6	1.2	1.9	0.097	0.001	0.1	0.26	0.00035	23	0.005	0.039	0.0079	0.74	0.12	0.1	0.63	0.026
6-Apr-10	1.8	1.1	1.7	0.074	0.001	0.1	0.23	0.0003	21	0.005	0.043	0.0091	0.54	0.076	0.1	0.63	0.018
13-Apr-10	1.6	0.94	1.5	0.071	0.001	0.1	0.25	0.0003	25	0.005	0.054	0.0055	0.44	0.066	0.1	0.86	0.015
20-Apr-10	1.6	0.89	1.4	0.064	0.001	0.1	0.16	0.0003	24	0.005	0.036	0.0068	0.46	0.061	0.1	0.81	0.015
27-Apr-10	1.7	0.81	1.5	0.064	0.001	0.1	0.15	0.0003	27	0.005	0.028	0.0072	0.52	0.071	0.1	0.86	0.015
4-May-10	1.2	0.74	1.1	0.061	0.001	0.1	0.12	0.0003	33	0.005	0.025	0.0057	0.32	0.051	0.1	1.2	0.011
11-May-10	0.36	0.74	0.81	0.061	0.001	0.1	0.11	0.0003	44	0.005	0.024	0.0062	0.14	0.029	0.1	1.7	0.005
18-May-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25-May-10	0.045	0.74	0.51	0.08	0.001	0.1	0.1	0.0003	76	0.005	0.014	0.008	0.025	0.0089	0.1	3.1	0.005
1-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
8-Jun-10	0.045	0.74	0.43	0.1	0.001	0.1	0.1	0.0003	120	0.005	0.011	0.006	0.03	0.01	0.1	4.5	0.005
15-Jun-10	0.045	0.61	0.38	0.095	0.001	0.1	0.1	0.0003	120	0.005	0.009	0.007	0.05	0.0078	0.1	4.4	0.005
22-Jun-10		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
29-Jun-10	0.045	0.65	0.29	0.13	0.001	0.1	0.1	0.0003	180	0.005	0.012	0.005	0.029	0.0098	0.1	6.7	0.005
9-Jul-10	0.045	0.58	0.25	0.17	0.001	0.1	0.1	0.0003	260	0.005	0.02	0.006	0.04	0.013	0.1	11	0.005
20-Jul-10		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
27-Jul-10	0.045	0.57	0.25	0.15	0.001	0.1	0.1	0.0003	300	0.005	0.02	0.005	0.016	0.0072	0.1	13	0.005
3-Aug-10		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
10-Aug-10	0.045	0.46	0.28	0.087	0.001	0.1	0.1	0.0003	200	0.005	0.012	0.004	0.01	0.015	0.1	7.8	0.005
17-Aug-10		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
24-Aug-10	0.045	0.52	0.32	0.09	0.001	0.1	0.1	0.0003	200	0.005	0.012	0.003	0.05	0.013	0.1	7.9	0.005
31-Aug-10		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
7-Sep-10	0.045	0.46	0.36	0.07	0.001	0.1	0.1	0.001	150	0.005	0.011	0.01	0.01	0.024	0.1	6	0.005
14-Sep-10		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
21-Sep-10	0.17	0.44	0.37	0.058	0.001	0.1	0.1	0.0003	140	0.005	0.006	0.003	0.25	0.0097	0.1	5.7	0.012
28-Sep-10		#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5-Oct-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Date	Hg mg/L	Mo mg/L	Ni mg/L	P mg/L	K mg/L	Se mg/L	Si mg/L	Ag mg/L	Na mg/L	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L	Zr mg/L
16-Feb-10	0.0001	0.2	0.011	0.5	36	0.091	8.3	0.005	720	12	#N/A	0.001	0.1	0.1	0.093	0.01	0.2	#N/A
23-Feb-10	#N/A	0.1	0.01	0.5	22	0.041	9.6	0.005	430	3.9	#N/A	0.001	0.1	0.1	0.11	0.01	0.14	#N/A
2-Mar-10	#N/A	0.094	0.01	0.5	9.6	0.025	11	0.005	190	0.77	#N/A	0.001	0.1	0.1	0.09	0.019	0.042	#N/A
9-Mar-10	#N/A	0.11	0.01	0.5	7.4	0.022	13	0.032	150	0.43	#N/A	0.001	0.1	0.1	#N/A	0.027	0.032	#N/A
16-Mar-10	0.00005	0.085	0.01	0.5	7.4	0.016	16	0.016	140	0.4	#N/A	0.001	0.1	0.1	0.218	0.022	0.029	#N/A
23-Mar-10	#N/A	0.07	0.01	0.5	7	0.017	19	0.005	130	0.42	#N/A	0.001	0.1	0.1	0.31	0.028	0.035	#N/A
30-Mar-10	#N/A	0.065	0.01	0.5	7.8	0.014	21	0.0075	130	0.45	#N/A	0.01	0.1	0.1	0.3	0.03	0.034	#N/A
6-Apr-10	#N/A	0.054	0.01	0.5	8.1	0.013	20	0.014	130	0.46	#N/A	0.001	0.1	0.1	0.32	0.026	0.035	#N/A
13-Apr-10	0.00005	0.056	0.01	0.5	9.1	0.012	19	0.005	150	0.51	#N/A	0.001	0.1	0.1	0.367	0.026	0.022	#N/A
20-Apr-10	#N/A	0.044	0.01	0.5	8.4	0.01	17	0.005	140	0.53	#N/A	0.001	0.1	0.1	#N/A	0.022	0.023	#N/A
27-Apr-10	#N/A	0.037	0.01	0.5	8.3	0.009	18	0.005	140	0.53	#N/A	0.001	0.1	0.1	0.25	0.024	0.037	#N/A
4-May-10	#N/A	0.035	0.01	0.5	9.1	0.0096	16	0.005	160	0.75	#N/A	0.001	0.1	0.1	#N/A	0.016	0.017	#N/A
11-May-10	0.00005	0.036	0.01	0.5	9.8	0.0064	12	0.005	180	1	#N/A	0.001	0.1	0.1	0.24	0.014	0.011	#N/A
18-May-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25-May-10	#N/A	0.032	0.01	0.5	14	0.0059	12	0.005	210	1.8	#N/A	0.001	0.1	0.1	0.15	0.014	0.01	#N/A
1-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
8-Jun-10	0.00005	0.037	0.01	0.5	17	0.0052	12	0.005	250	2.8	#N/A	0.001	0.1	0.1	0.097	0.016	0.014	#N/A
15-Jun-10	#N/A	0.033	0.01	0.5	16	0.0035	9.8	0.005	220	2.8	#N/A	0.001	0.1	0.1	0.087	0.012	0.018	#N/A
22-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
29-Jun-10	#N/A	0.04	0.01	0.5	21	0.0036	12	0.005	230	4.1	#N/A	0.001	0.1	0.1	0.06	0.013	0.027	#N/A
9-Jul-10	#N/A	0.019	0.01	0.5	26	0.0047	14	0.005	220	6.3	#N/A	0.001	0.1	0.1	0.32	0.02	0.022	#N/A
20-Jul-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
27-Jul-10	#N/A	0.033	0.01	0.5	28	0.0048	15	0.005	120	6.9	#N/A	0.001	0.1	0.1	0.069	0.01	0.037	#N/A
3-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
10-Aug-10	#N/A	0.022	0.01	0.5	19	0.0038	12	0.005	50	4	#N/A	0.001	0.1	0.1	0.044	0.017	0.021	#N/A
17-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
24-Aug-10	#N/A	0.036	0.01	0.5	20	0.0038	13	0.005	47	3.9	#N/A	0.001	0.1	0.1	0.044	0.018	0.042	#N/A
31-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
7-Sep-10	#N/A	0.01	0.01	0.5	16	0.005	12	0.005	35	3	#N/A	0.001	0.1	0.1	0.054	0.012	0.033	#N/A
14-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
21-Sep-10	#N/A	0.022	0.01	0.5	15	0.005	12	0.005	27	2.7	#N/A	0.001	0.1	0.1	0.067	0.01	0.026	#N/A
28-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5-Oct-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Hcol 7B
Sample = KCA No
Sample Wt. (kg)

Date	TDS mg/L	Bicarbonate mg/L	Carbonate mg/L	WAD CN mg/L	Total CN mg/L	Cyanate mg/L	Thiocyanate mg/L	Nitrate mg/L	Nitrite mg/L	Ammonia mg/L	Total N mg/L	Ga mg/L	Sc mg/L
16-Feb-10	3900	74	1	0.24	0.71	120	58	3.9	12	15	65	0.1	0.1
23-Feb-10	1900	90	1	0.11	0.32	14	22	10	1.9	12	14	0.1	0.1
2-Mar-10	660	150	1	0.033	0.12	3.1	1.9	0.16	0.074	3.3	3	0.1	0.1
9-Mar-10	510	190	1	0.038	0.16	0.72	2.6	1	0.16	0.75	3	0.1	0.1
16-Mar-10	510	200	1	0.02	0.24	0.01	1.1	0.1	0.14	0.6	1.8	0.1	0.1
23-Mar-10	470	210	1	0.067	0.24	0.18	1	0.1	0.17	0.49	1.7	0.1	0.1
30-Mar-10	480	200	1	0.042	0.18	0.32	1.4	0.1	0.12	0.72	2.2	0.1	0.1
6-Apr-10	510	190	1	0.065	0.15	0.36	2.4	1	0.11	0.69	2.1	0.1	0.1
13-Apr-10	560	200	1	0.04	0.13	0.06	1.3	1	0.14	0.41	2	0.1	0.1
20-Apr-10	550	190	1	0.097	0.024	0.084	1.3	0.1	0.1	0.27	1.3	0.1	0.1
27-Apr-10	540	180	1	0.02	0.058	0.21	0.29	0.1	0.063	0.3	1.2	0.1	0.1
4-May-10	620	150	1	0.034	0.068	0.12	0.01	0.1	0.36	0.22	1	0.1	0.1
11-May-10	660	130	1	0.019	0.049	0.12	0.01	0.1	2.9	0.09	3.6	0.1	0.1
18-May-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25-May-10	990	98	1	0.01	0.051	0.066	0.01	0.11	6.3	0.34	7.5	0.1	0.1
1-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
8-Jun-10	1300	77	1	0.027	0.057	0.27	0.01	0.13	11	0.19	12	0.1	0.1
15-Jun-10	1100	74	1	0.042	0.061	0.33	0.01	0.19	29	0.12	29	0.1	0.1
22-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
29-Jun-10	1300	78	1	0.028	0.063	0.09	0.01	1.2	96	0.26	69	0.1	0.1
9-Jul-10	1700	150	1	0.031	0.057	0.48	0.01	2	130	0.25	130	0.1	0.1
20-Jul-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
27-Jul-10	1500	64	1	0.033	0.046	0.39	0.01	13	53	0.33	68	0.1	0.1
3-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
10-Aug-10	980	53	1	0.01	0.017	0.19	0.01	15	0.32	0.25	17	0.1	0.1
17-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
24-Aug-10	910	#N/A	1	0.016	0.022	0.099	0.01	4.7	0.34	0.18	5.8	0.1	0.1
31-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
7-Sep-10	760	67	1	0.01	0.018	0.05	0.1	0.29	0.039	0.18	0.81	0.1	0.1
14-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
21-Sep-10	620	75	1	0.018	0.022	0.06	0.01	0.21	0.1	0.2	0.8	0.1	0.1
28-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5-Oct-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Hcol 7B
Sample = KCA No
Sample Wt. (kg) **Loadings**

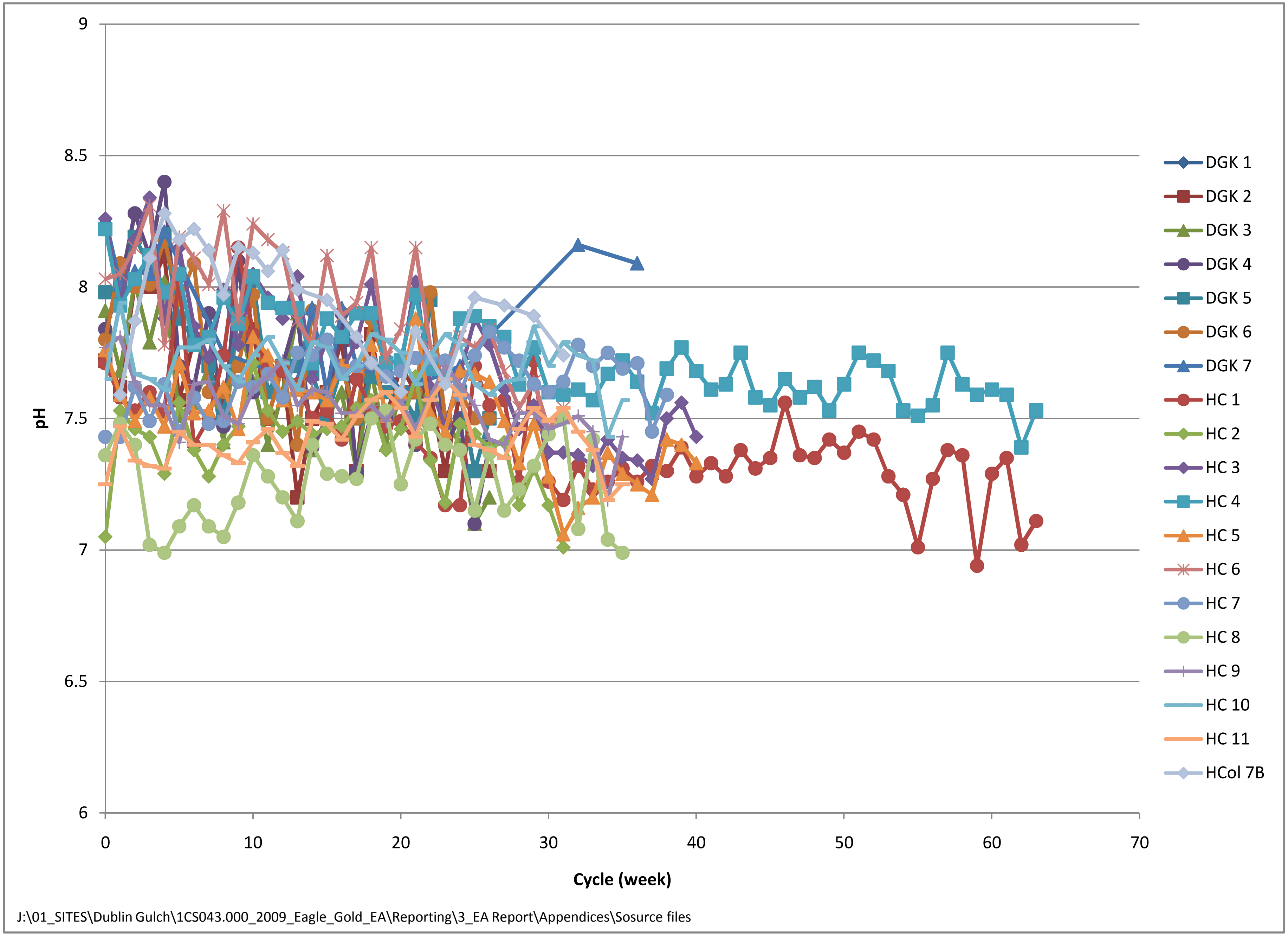
Date	Acidity (pH 8.3) mgCaCO3/kg/wk	Alkalinity mgCaCO3/kg/wk	Sulphate mg/kg/wk	Chloride mg/kg/wk	Fluoride mg/kg/wk	Al mg/kg/wk	Sb mg/kg/wk	As mg/kg/wk	Ba mg/kg/wk	Be mg/kg/wk
16-Feb-10	#N/A	2.950875	135.45	1.7415	0.0357975	0.002176875	0.03096	0.0198338	0.0067725	4.838E-05
23-Feb-10	#N/A	4.000625	70.28125	0.7028125	0.0756875	0.002432813	0.0594688	0.047575	0.0027572	5.406E-05
2-Mar-10	#N/A	4.23	11.6325	0.0564	0.07755	0.00423	0.059925	0.0705	0.0034898	3.525E-05
9-Mar-10	#N/A	4.9875	6.65	0.0266	0.0798	0.02527	0.04655	0.069825	0.0021945	3.325E-05
16-Mar-10	#N/A	6.0775	6.435	0.0225225	0.0715	0.039325	0.0429	0.067925	0.0023953	3.575E-05
23-Mar-10	#N/A	5.7375	5.4	0.0205875	0.057375	0.070875	0.0405	0.070875	0.0043875	3.375E-05
30-Mar-10	#N/A	5.45	4.76875	0.025546875	0.05109375	0.0885625	0.040875	0.0647188	0.0033041	3.406E-05
6-Apr-10	#N/A	5.128125	5.811875	0.041025	0.0478625	0.0615375	0.0376063	0.0581188	0.0025299	3.419E-05
13-Apr-10	#N/A	5.298	7.615875	0.04966875	0.04304625	0.05298	0.0311258	0.0496688	0.002351	3.311E-05
20-Apr-10	#N/A	4.9575	7.271	0.03966	0.03966	0.05288	0.0294145	0.04627	0.0021152	3.305E-05
27-Apr-10	#N/A	4.6025	7.56125	0.02597125	0.03945	0.0558875	0.0266288	0.0493125	0.002104	3.288E-05
4-May-10	#N/A	3.89025	8.379	0.0233415	0.02902725	0.03591	0.0221445	0.0329175	0.0018254	2.993E-05
11-May-10	#N/A	3.562625	11.983375	0.02008025	0.026233875	0.0116595	0.0239668	0.0262339	0.0019756	3.239E-05
18-May-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25-May-10	#N/A	2.6406	18.908	0.009128	0.018908	0.001467	0.024124	0.016626	0.002608	0.0000326
1-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
8-Jun-10	#N/A	2.01915	24.0375	0.005769	0.0016025	0.00144225	0.023717	0.0137815	0.003205	3.205E-05
15-Jun-10	#N/A	1.9939375	23.535	0.004249375	0.00326875	0.001470938	0.0199394	0.0124213	0.0031053	3.269E-05
22-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
29-Jun-10	#N/A	1.928	20.18375	0.00873625	0.030125	0.001355625	0.0195813	0.0087363	0.0039163	3.013E-05
9-Jul-10	#N/A	3.7935	24.65775	0.01580625	0.020232	0.001422563	0.0183353	0.0079031	0.0053741	3.161E-05
20-Jul-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
27-Jul-10	#N/A	1.6926875	27.785625	0.006706875	0.0511	0.001437188	0.0182044	0.0079844	0.0047906	3.194E-05
3-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
10-Aug-10	#N/A	1.4109375	19.6875	0.004265625	0.012140625	0.001476563	0.0150938	0.0091875	0.0028547	3.281E-05
17-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
24-Aug-10	#N/A	1.6956	21.195	0.004239	0.0134235	0.001589625	0.018369	0.011304	0.0031793	3.533E-05
31-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
7-Sep-10	#N/A	1.7524375	14.65675	0.003504875	0.0140195	0.001433813	0.0146568	0.0114705	0.0022304	3.186E-05
14-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
21-Sep-10	#N/A	2.195575	12.04025	0.004603625	0.014165	0.006020125	0.0155815	0.0131026	0.0020539	3.541E-05
28-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5-Oct-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Date	Bi mg/kg/wk	B mg/kg/wk	Cd mg/kg/wk	Ca mg/kg/wk	Cr mg/kg/wk	Co mg/kg/wk	Cu mg/kg/wk	Fe mg/kg/wk	Pb mg/kg/wk	Li mg/kg/wk	Mg mg/kg/wk	Mn mg/kg/wk	Hg mg/kg/wk
16-Feb-10	0.0048375	0.0091913	2.467E-05	25.63875	0.0002419	0.0430538	0.0016931	0.0091913	0.0005321	0.0048375	0.454725	0.001161	4.838E-06
23-Feb-10	0.0054063	0.0200031	2.487E-05	9.190625	0.0002703	0.0167594	0.0005406	0.0030275	0.0002973	0.0054063	0.2000313	0.0004866	#N/A
2-Mar-10	0.003525	0.01692	1.058E-05	1.1985	0.0001763	0.0027495	0.000275	0.0027495	0.0003878	0.003525	0.027495	0.0001763	#N/A
9-Mar-10	0.003325	0.016625	1.264E-05	0.665	0.0001663	0.001729	0.0002195	0.00798	0.000931	0.003325	0.016625	0.0002494	#N/A
16-Mar-10	0.003575	0.0153725	1.609E-05	0.6435	0.0001788	0.00143	0.0002967	0.0117975	0.001573	0.003575	0.017875	0.0003575	1.788E-06
23-Mar-10	0.003375	0.0108	1.114E-05	0.675	0.0001688	0.0011813	0.0004388	0.02025	0.0032063	0.003375	0.0185625	0.0006413	#N/A
30-Mar-10	0.0034063	0.0088563	1.192E-05	0.7834375	0.0001703	0.0013284	0.0002691	0.0252063	0.0040875	0.0034063	0.0214594	0.0008856	#N/A
6-Apr-10	0.0034188	0.0078631	1.026E-05	0.7179375	0.0001709	0.0014701	0.0003111	0.0184613	0.0025983	0.0034188	0.0215381	0.0006154	#N/A
13-Apr-10	0.0033113	0.0082781	9.934E-06	0.8278125	0.0001656	0.0017881	0.0001821	0.0145695	0.0021854	0.0033113	0.0284768	0.0004967	1.656E-06
20-Apr-10	0.003305	0.005288	9.915E-06	0.7932	0.0001653	0.0011898	0.0002247	0.015203	0.0020161	0.003305	0.0267705	0.0004958	#N/A
27-Apr-10	0.0032875	0.0049313	9.863E-06	0.887625	0.0001644	0.0009205	0.0002367	0.017095	0.0023341	0.0032875	0.0282725	0.0004931	#N/A
4-May-10	0.0029925	0.003591	8.978E-06	0.987525	0.0001496	0.0007481	0.0001706	0.009576	0.0015262	0.0029925	0.03591	0.0003292	#N/A
11-May-10	0.0032388	0.0035626	9.716E-06	1.42505	0.0001619	0.0007773	0.0002008	0.0045343	0.0009392	0.0032388	0.0550588	0.0001619	1.619E-06
18-May-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25-May-10	0.00326	0.00326	9.78E-06	2.4776	0.000163	0.0004564	0.0002608	0.000815	0.0002901	0.00326	0.10106	0.000163	#N/A
1-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
8-Jun-10	0.003205	0.003205	9.615E-06	3.846	0.0001603	0.0003526	0.0001923	0.0009615	0.0003205	0.003205	0.144225	0.0001603	1.603E-06
15-Jun-10	0.0032688	0.0032688	9.806E-06	3.9225	0.0001634	0.0002942	0.0002288	0.0016344	0.000255	0.0032688	0.143825	0.0001634	#N/A
22-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
29-Jun-10	0.0030125	0.0030125	9.038E-06	5.4225	0.0001506	0.0003615	0.0001506	0.0008736	0.0002952	0.0030125	0.2018375	0.0001506	#N/A
9-Jul-10	0.0031613	0.0031613	9.484E-06	8.21925	0.0001581	0.0006323	0.0001897	0.0012645	0.000411	0.0031613	0.3477375	0.0001581	#N/A
20-Jul-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
27-Jul-10	0.0031938	0.0031938	9.581E-06	9.58125	0.0001597	0.0006388	0.0001597	0.000511	0.00023	0.0031938	0.4151875	0.0001597	#N/A
3-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
10-Aug-10	0.0032813	0.0032813	9.844E-06	6.5625	0.0001641	0.0003938	0.0001313	0.0003281	0.0004922	0.0032813	0.2559375	0.0001641	#N/A
17-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
24-Aug-10	0.0035325	0.0035325	1.06E-05	7.065	0.0001766	0.0004239	0.000106	0.0017663	0.0004592	0.0035325	0.2790675	0.0001766	#N/A
31-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
7-Sep-10	0.0031863	0.0031863	3.186E-05	4.779375	0.0001593	0.0003505	0.0003186	0.0003186	0.0007647	0.0031863	0.191175	0.0001593	#N/A
14-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
21-Sep-10	0.0035413	0.0035413	1.062E-05	4.95775	0.0001771	0.0002125	0.0001062	0.0088531	0.0003435	0.0035413	0.2018513	0.000425	#N/A
28-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5-Oct-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Date	Mo mg/kg/wk	Ni mg/kg/wk	P mg/kg/wk	K mg/kg/wk	Se mg/kg/wk	Si mg/kg/wk	Ag mg/kg/wk	Na mg/kg/wk	Sr mg/kg/wk	S mg/kg/wk	Tl mg/kg/wk	Sn mg/kg/wk	Ti mg/kg/wk	U mg/kg/wk	V mg/kg/wk	Zn mg/kg/wk	Zr mg/kg/wk
16-Feb-10	0.009675	0.0005321	0.0241875	1.7415	0.004402	0.401513	0.000242	34.83	0.5805	#N/A	4.84E-05	0.004838	0.004838	0.004499	0.000484	0.009675	#N/A
23-Feb-10	0.0054063	0.0005406	0.0270313	1.189375	0.002217	0.519	0.00027	23.24688	0.210844	#N/A	5.41E-05	0.005406	0.005406	0.005947	0.000541	0.007569	#N/A
2-Mar-10	0.0033135	0.0003525	0.017625	0.3384	0.000881	0.38775	0.000176	6.6975	0.027143	#N/A	3.53E-05	0.003525	0.003525	0.003173	0.00067	0.001481	#N/A
9-Mar-10	0.0036575	0.0003325	0.016625	0.24605	0.000732	0.43225	0.001064	4.9875	0.014298	#N/A	3.33E-05	0.003325	0.003325	#N/A	0.000898	0.001064	#N/A
16-Mar-10	0.0030388	0.0003575	0.017875	0.26455	0.000572	0.572	0.000572	5.005	0.0143	#N/A	3.58E-05	0.003575	0.003575	0.007794	0.000787	0.001037	#N/A
23-Mar-10	0.0023625	0.0003375	0.016875	0.23625	0.000574	0.64125	0.000169	4.3875	0.014175	#N/A	3.38E-05	0.003375	0.003375	0.010463	0.000945	0.001181	#N/A
30-Mar-10	0.0022141	0.0003406	0.0170313	0.2656875	0.000477	0.715313	0.000255	4.428125	0.015328	#N/A	0.000341	0.003406	0.003406	0.010219	0.001022	0.001158	#N/A
6-Apr-10	0.0018461	0.0003419	0.0170938	0.2769188	0.000444	0.68375	0.000479	4.444375	0.015726	#N/A	3.42E-05	0.003419	0.003419	0.01094	0.000889	0.001197	#N/A
13-Apr-10	0.0018543	0.0003311	0.0165563	0.3013238	0.000397	0.629138	0.000166	4.966875	0.016887	#N/A	3.31E-05	0.003311	0.003311	0.012152	0.000861	0.000728	#N/A
20-Apr-10	0.0014542	0.0003305	0.016525	0.27762	0.000331	0.56185	0.000165	4.627	0.017517	#N/A	3.31E-05	0.003305	0.003305	#N/A	0.000727	0.00076	#N/A
27-Apr-10	0.0012164	0.0003288	0.0164375	0.2728625	0.000296	0.59175	0.000164	4.6025	0.017424	#N/A	3.29E-05	0.003288	0.003288	0.008219	0.000789	0.001216	#N/A
4-May-10	0.0010474	0.0002993	0.0149625	0.2723175	0.000287	0.4788	0.00015	4.788	0.022444	#N/A	2.99E-05	0.002993	0.002993	#N/A	0.000479	0.000509	#N/A
11-May-10	0.001166	0.0003239	0.0161938	0.3173975	0.000207	0.38865	0.000162	5.82975	0.032388	#N/A	3.24E-05	0.003239	0.003239	0.007773	0.000453	0.000356	#N/A
18-May-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25-May-10	0.0010432	0.000326	0.0163	0.4564	0.000192	0.3912	0.000163	6.846	0.05868	#N/A	3.26E-05	0.00326	0.00326	0.00489	0.000456	0.000326	#N/A
1-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
8-Jun-10	0.0011859	0.0003205	0.016025	0.54485	0.000167	0.3846	0.00016	8.0125	0.08974	#N/A	3.21E-05	0.003205	0.003205	0.003109	0.000513	0.000449	#N/A
15-Jun-10	0.0010787	0.0003269	0.0163438	0.523	0.000114	0.320338	0.000163	7.19125	0.091525	#N/A	3.27E-05	0.003269	0.003269	0.002844	0.000392	0.000588	#N/A
22-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
29-Jun-10	0.001205	0.0003013	0.0150625	0.632625	0.000108	0.3615	0.000151	6.92875	0.123513	#N/A	3.01E-05	0.003013	0.003013	0.001808	0.000392	0.000813	#N/A
9-Jul-10	0.0006006	0.0003161	0.0158063	0.821925	0.000149	0.442575	0.000158	6.95475	0.199159	#N/A	3.16E-05	0.003161	0.003161	0.010116	0.000632	0.000695	#N/A
20-Jul-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
27-Jul-10	0.0010539	0.0003194	0.0159688	0.89425	0.000153	0.479063	0.00016	3.8325	0.220369	#N/A	3.19E-05	0.003194	0.003194	0.002204	0.000319	0.001182	#N/A
3-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
10-Aug-10	0.0007219	0.0003281	0.0164063	0.6234375	0.000125	0.39375	0.000164	1.640625	0.13125	#N/A	3.28E-05	0.003281	0.003281	0.001444	0.000558	0.000689	#N/A
17-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
24-Aug-10	0.0012717	0.0003533	0.0176625	0.7065	0.000134	0.459225	0.000177	1.660275	0.137768	#N/A	3.53E-05	0.003533	0.003533	0.001554	0.000636	0.001484	#N/A
31-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
7-Sep-10	0.0003186	0.0003186	0.0159313	0.5098	0.000159	0.38235	0.000159	1.115188	0.095588	#N/A	3.19E-05	0.003186	0.003186	0.001721	0.000382	0.001051	#N/A
14-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
21-Sep-10	0.0007791	0.0003541	0.0177063	0.5311875	0.000177	0.42495	0.000177	0.956138	0.095614	#N/A	3.54E-05	0.003541	0.003541	0.002373	0.000354	0.000921	#N/A
28-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5-Oct-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Hcol 7B
Sample = KCA No
Sample Wt. (kg)

Date	TDS mg/kg/wk	Bicarbonate mg/kg/wk	Carbonate mg/kg/wk	WAD CN mg/kg/wk	Total CN mg/kg/wk	Cyanate mg/kg/wk	Thiocyanate mg/kg/wk	Nitrate mg/kg/wk	Nitrite mg/kg/wk	Ammonia mg/kg/wk	Total N mg/kg/wk	Ga mg/kg/wk	Sc mg/kg/wk
16-Feb-10	188.6625	3.57975	0.048375	0.01161	0.03434625	5.805	2.80575	0.1886625	0.5805	0.725625	3.144375	0.0048375	0.0048375
23-Feb-10	102.7188	4.865625	0.0540625	0.005946875	0.0173	0.756875	1.189375	0.540625	0.10271875	0.64875	0.756875	0.00540625	0.00540625
2-Mar-10	23.265	5.2875	0.03525	0.00116325	0.00423	0.109275	0.066975	0.00564	0.0026085	0.116325	0.10575	0.003525	0.003525
9-Mar-10	16.9575	6.3175	0.03325	0.0012635	0.00532	0.02394	0.08645	0.03325	0.00532	0.0249375	0.09975	0.003325	0.003325
16-Mar-10	18.2325	7.15	0.03575	0.000715	0.00858	0.0003575	0.039325	0.003575	0.005005	0.02145	0.06435	0.003575	0.003575
23-Mar-10	15.8625	7.0875	0.03375	0.00226125	0.0081	0.006075	0.03375	0.003375	0.0057375	0.0165375	0.057375	0.003375	0.003375
30-Mar-10	16.35	6.8125	0.0340625	0.001430625	0.00613125	0.0109	0.0476875	0.00340625	0.0040875	0.024525	0.0749375	0.00340625	0.00340625
6-Apr-10	17.43563	6.495625	0.0341875	0.002222188	0.005128125	0.0123075	0.08205	0.0341875	0.003760625	0.023589375	0.07179375	0.00341875	0.00341875
13-Apr-10	18.543	6.6225	0.0331125	0.0013245	0.004304625	0.00198675	0.04304625	0.0331125	0.00463575	0.013576125	0.066225	0.00331125	0.00331125
20-Apr-10	18.1775	6.2795	0.03305	0.00320585	0.0007932	0.0027762	0.042965	0.003305	0.003305	0.0089235	0.042965	0.003305	0.003305
27-Apr-10	17.7525	5.9175	0.032875	0.0006575	0.00190675	0.00690375	0.00953375	0.0032875	0.002071125	0.0098625	0.03945	0.0032875	0.0032875
4-May-10	18.5535	4.48875	0.029925	0.00101745	0.0020349	0.003591	0.00029925	0.0029925	0.010773	0.0065835	0.029925	0.0029925	0.0029925
11-May-10	21.37575	4.210375	0.0323875	0.000615363	0.001586988	0.0038865	0.000323875	0.00323875	0.09392375	0.002914875	0.116595	0.00323875	0.00323875
18-May-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
25-May-10	32.274	3.1948	0.0326	0.000326	0.0016626	0.0021516	0.000326	0.003586	0.20538	0.011084	0.2445	0.00326	0.00326
1-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
8-Jun-10	41.665	2.46785	0.03205	0.00086535	0.00182685	0.0086535	0.0003205	0.0041665	0.35255	0.0060895	0.3846	0.003205	0.003205
15-Jun-10	35.95625	2.418875	0.0326875	0.001372875	0.001993938	0.010786875	0.000326875	0.006210625	0.9479375	0.0039225	0.9479375	0.00326875	0.00326875
22-Jun-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
29-Jun-10	39.1625	2.34975	0.030125	0.0008435	0.001897875	0.00271125	0.00030125	0.03615	2.892	0.0078325	2.078625	0.0030125	0.0030125
9-Jul-10	53.74125	4.741875	0.0316125	0.000979988	0.001801913	0.015174	0.000316125	0.063225	4.109625	0.007903125	4.109625	0.00316125	0.00316125
20-Jul-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
27-Jul-10	47.90625	2.044	0.0319375	0.001053938	0.001469125	0.012455625	0.000319375	0.4151875	1.6926875	0.010539375	2.17175	0.00319375	0.00319375
3-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
10-Aug-10	32.15625	1.7390625	0.0328125	0.000328125	0.000557813	0.006234375	0.000328125	0.4921875	0.0105	0.008203125	0.5578125	0.00328125	0.00328125
17-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
24-Aug-10	32.14575	#N/A	0.035325	0.0005652	0.00077715	0.003497175	0.00035325	0.1660275	0.0120105	0.0063585	0.204885	0.0035325	0.0035325
31-Aug-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
7-Sep-10	24.2155	2.1347875	0.0318625	0.000318625	0.000573525	0.001593125	0.00318625	0.009240125	0.001242638	0.00573525	0.025808625	0.00318625	0.00318625
14-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
21-Sep-10	21.95575	2.6559375	0.0354125	0.000637425	0.000779075	0.00212475	0.000354125	0.007436625	0.00354125	0.0070825	0.02833	0.00354125	0.00354125
28-Sep-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
5-Oct-10	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A


9
8.5
8
7.5
7
6.5
6
pH
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
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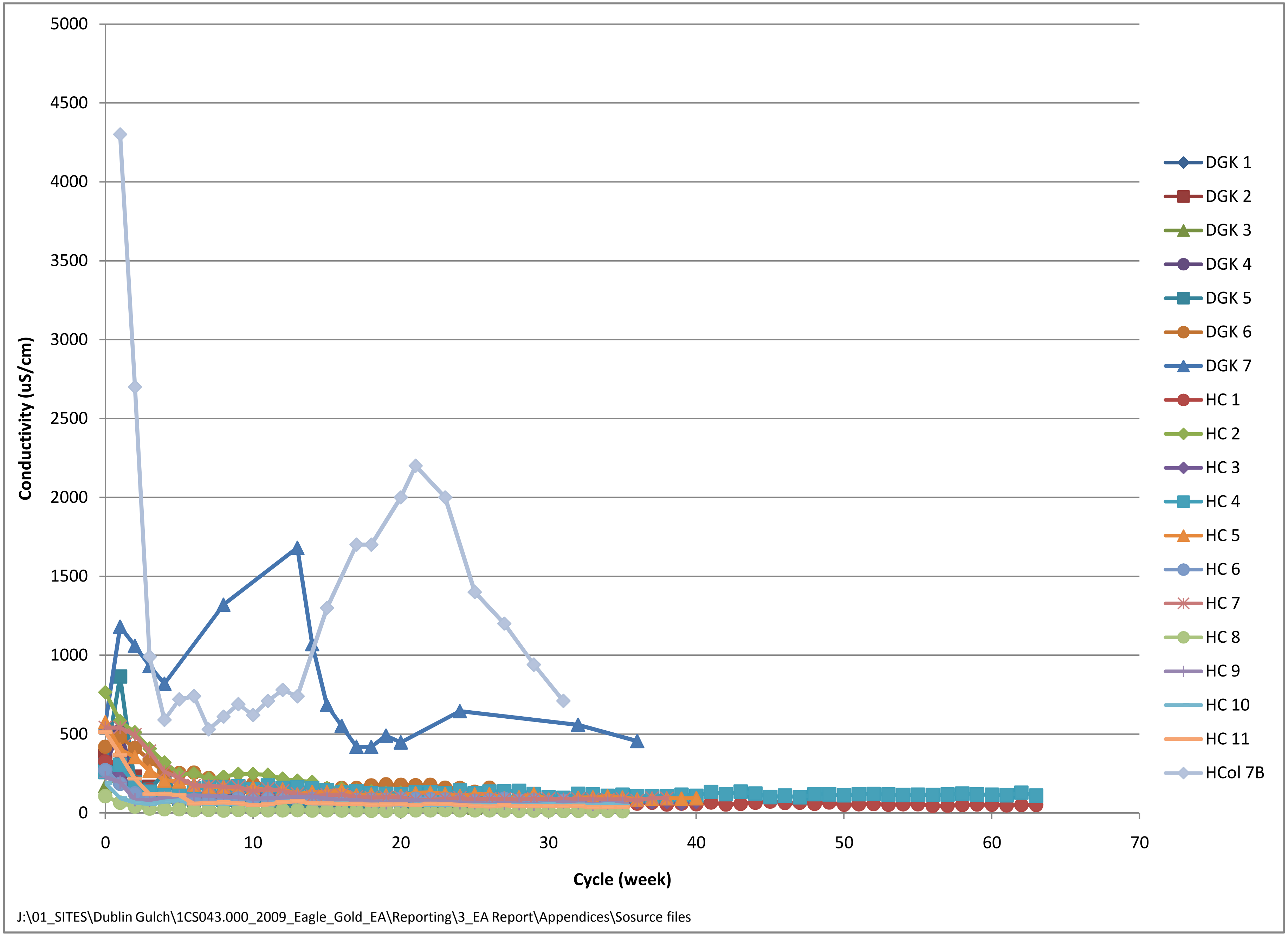
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
Conductivity (uS/cm)
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
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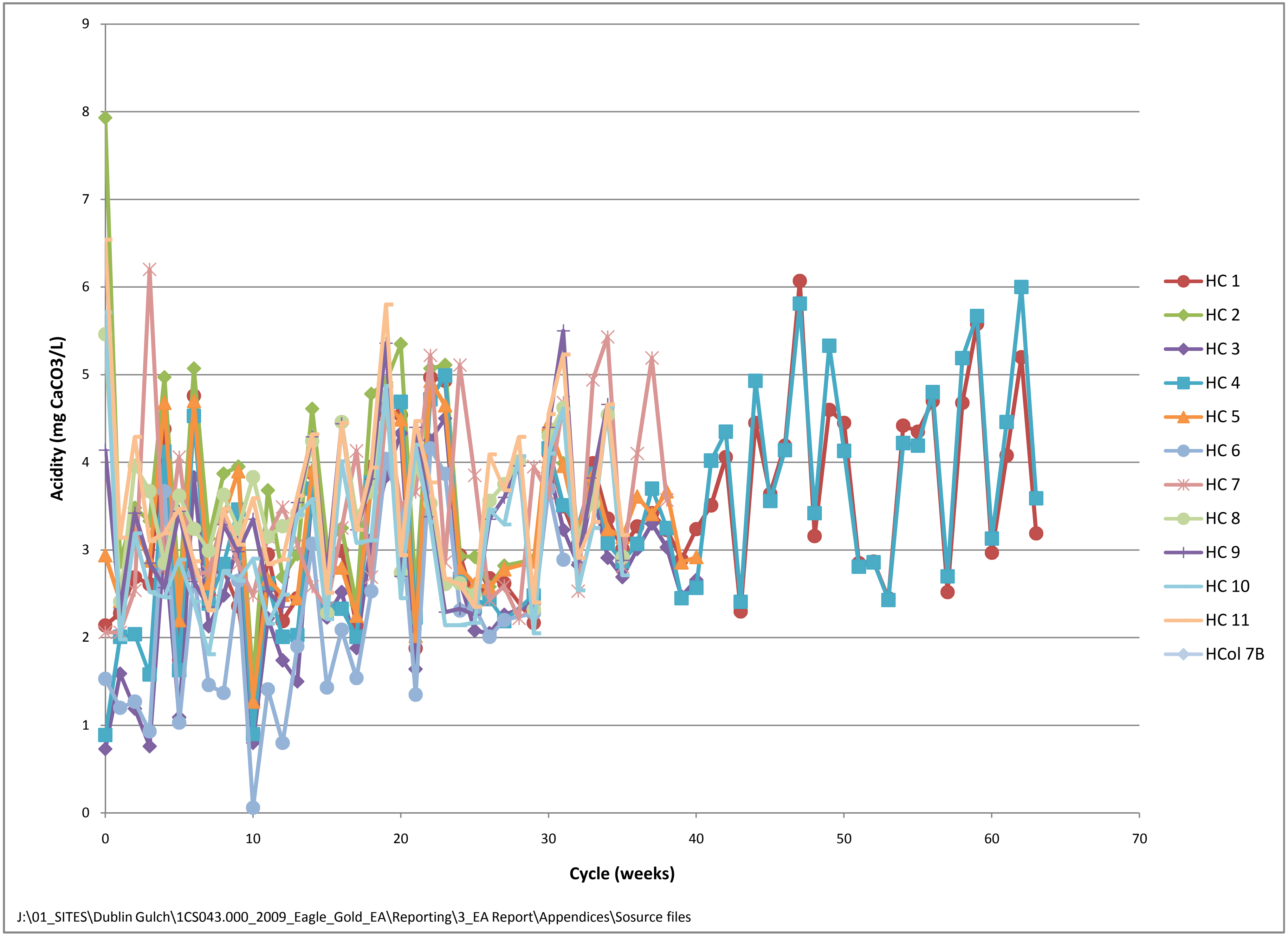
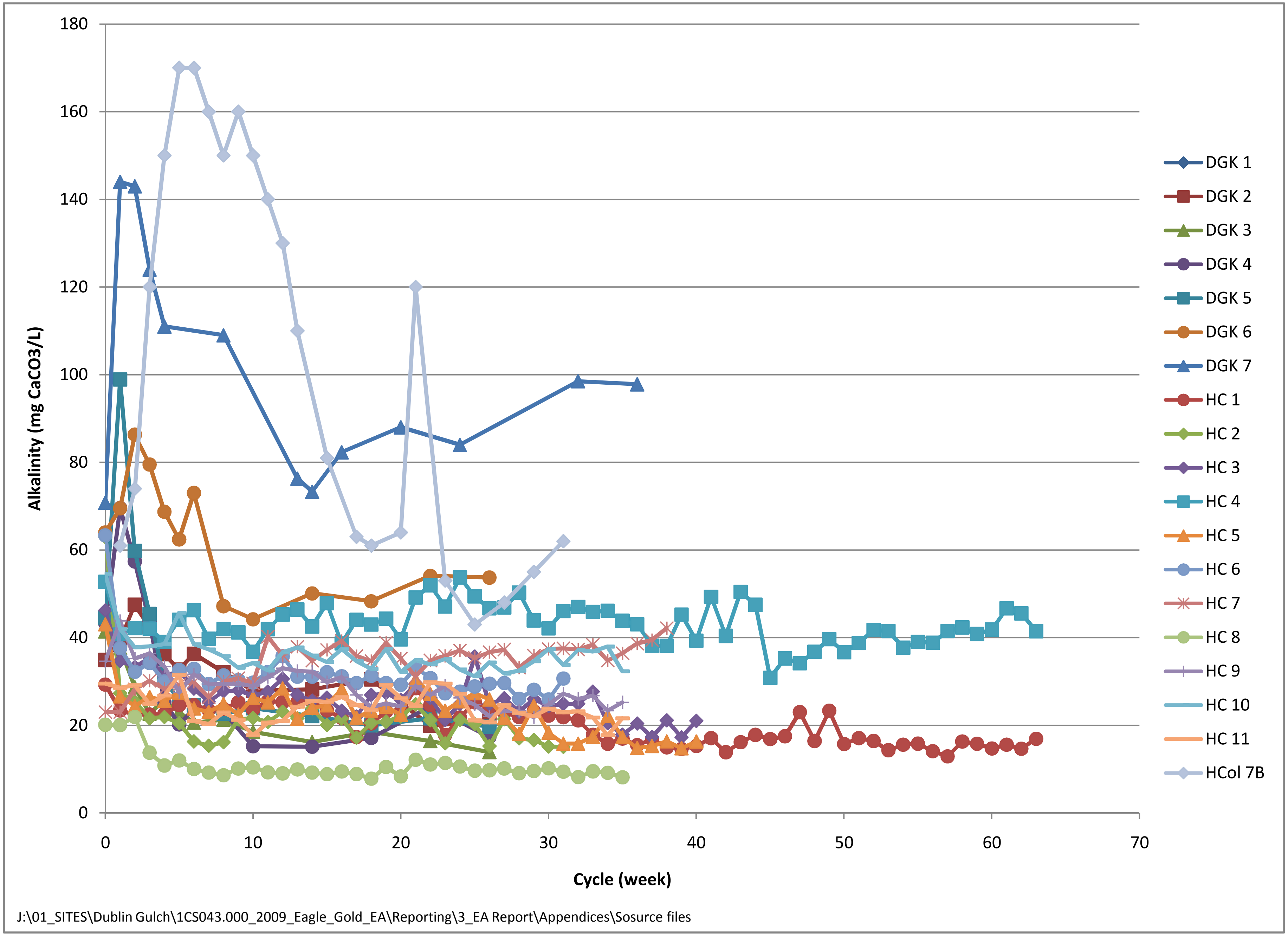

Acidity (mg CaCO3/L)
0
1
2
3
4
5
6
7
8
9
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


Alkalinity (mg CaCO3/L)
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
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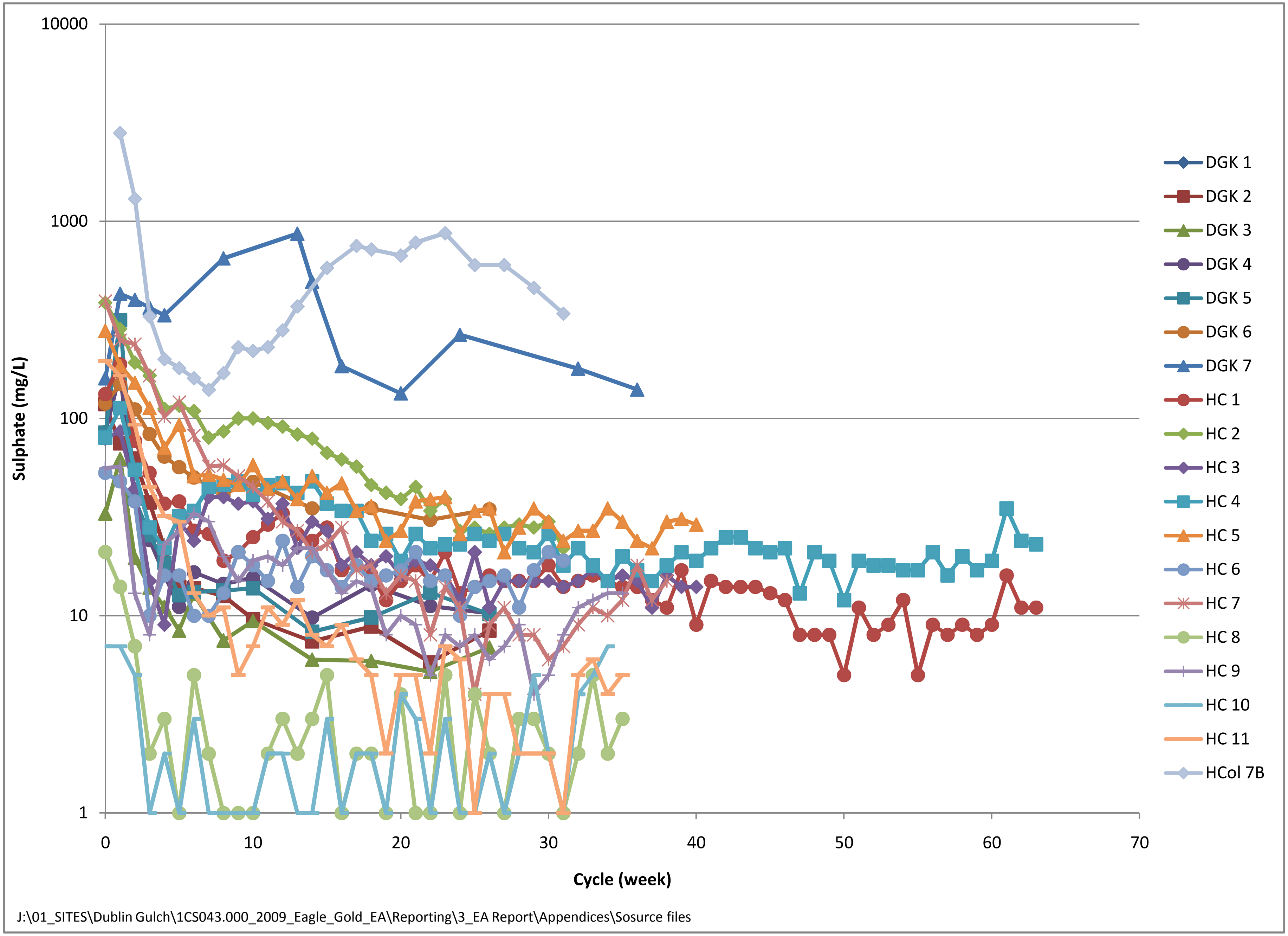
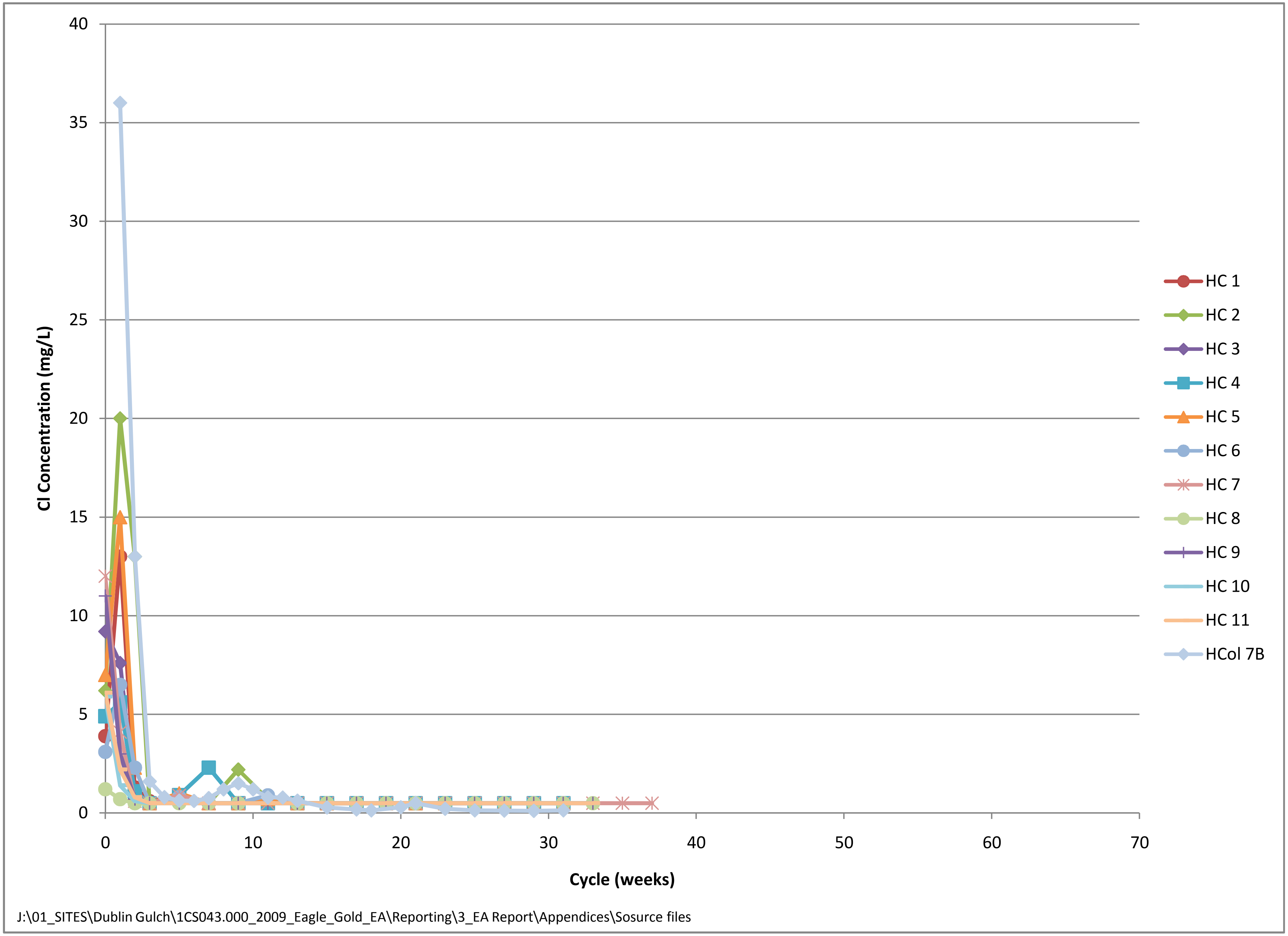
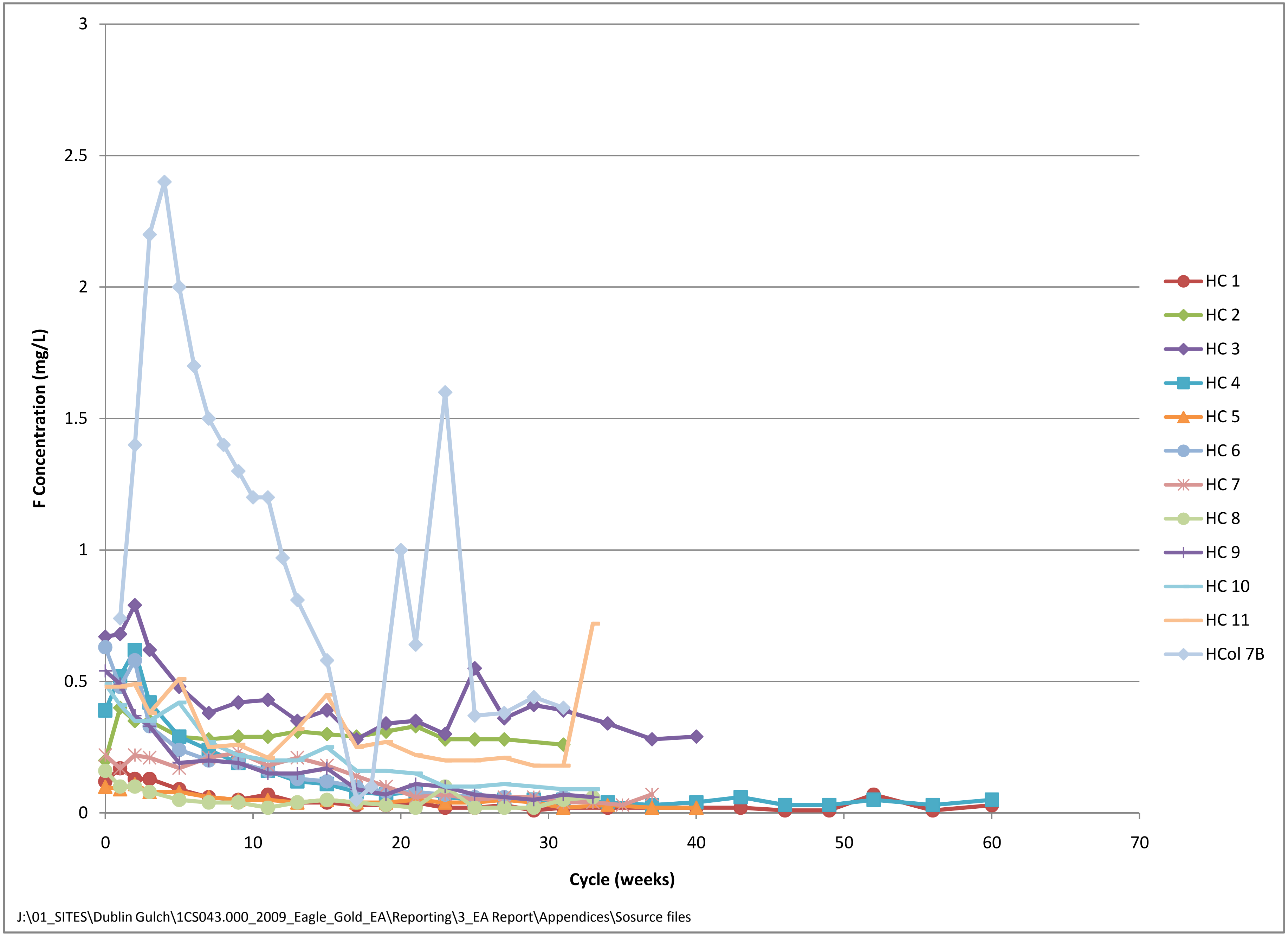
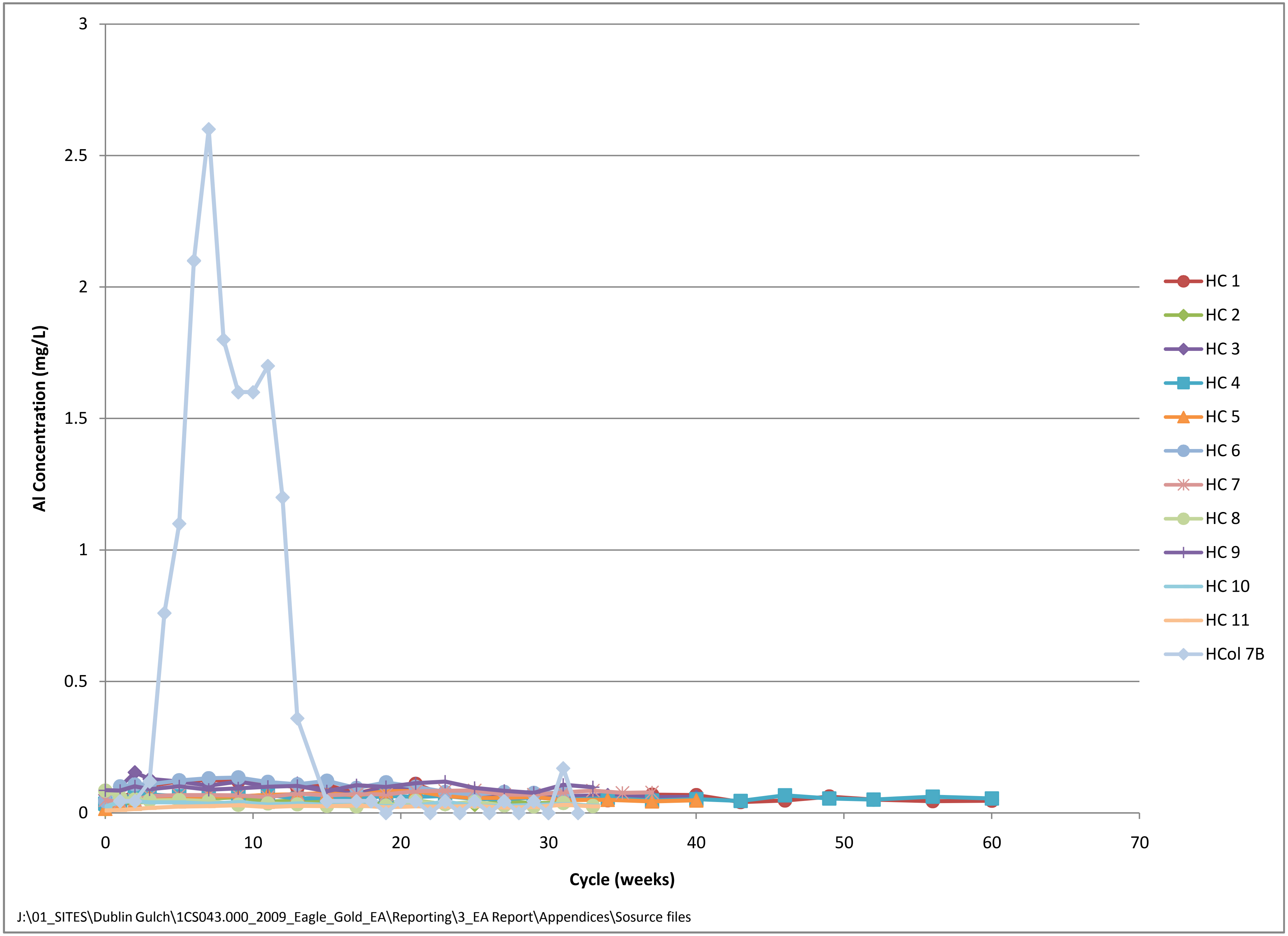
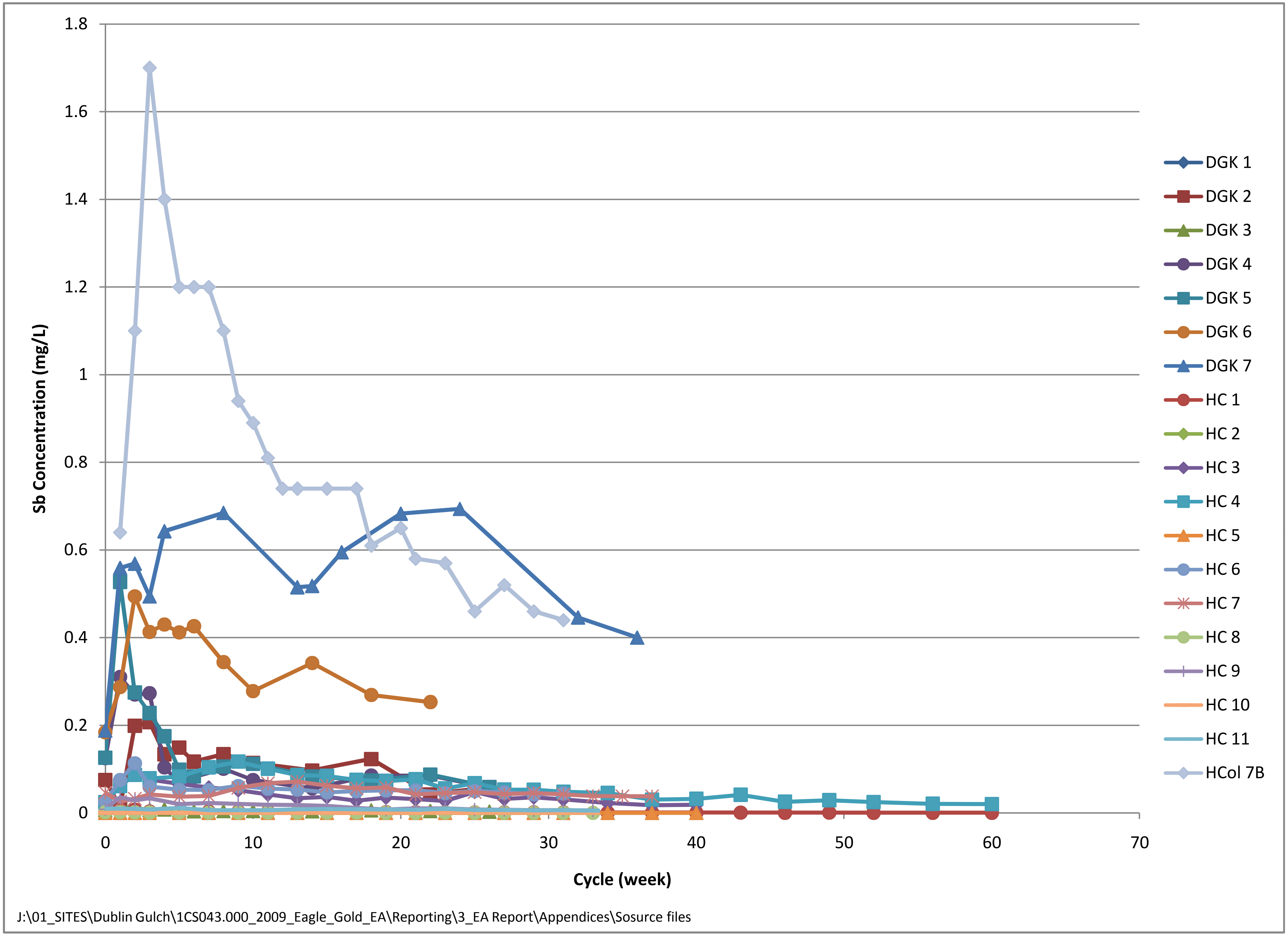
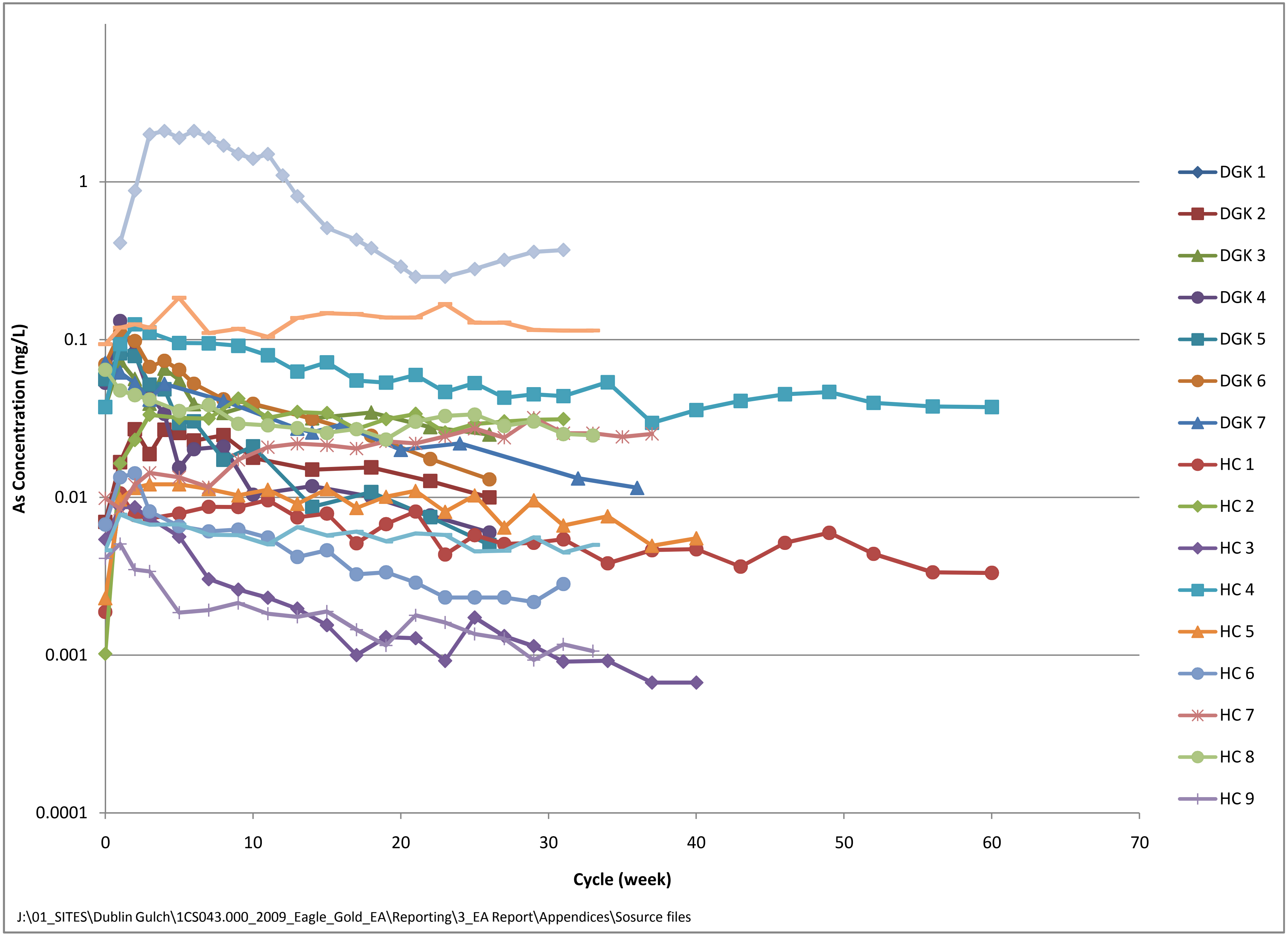

10000
1000
100
10
1
Sulphate (mg/L)
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files

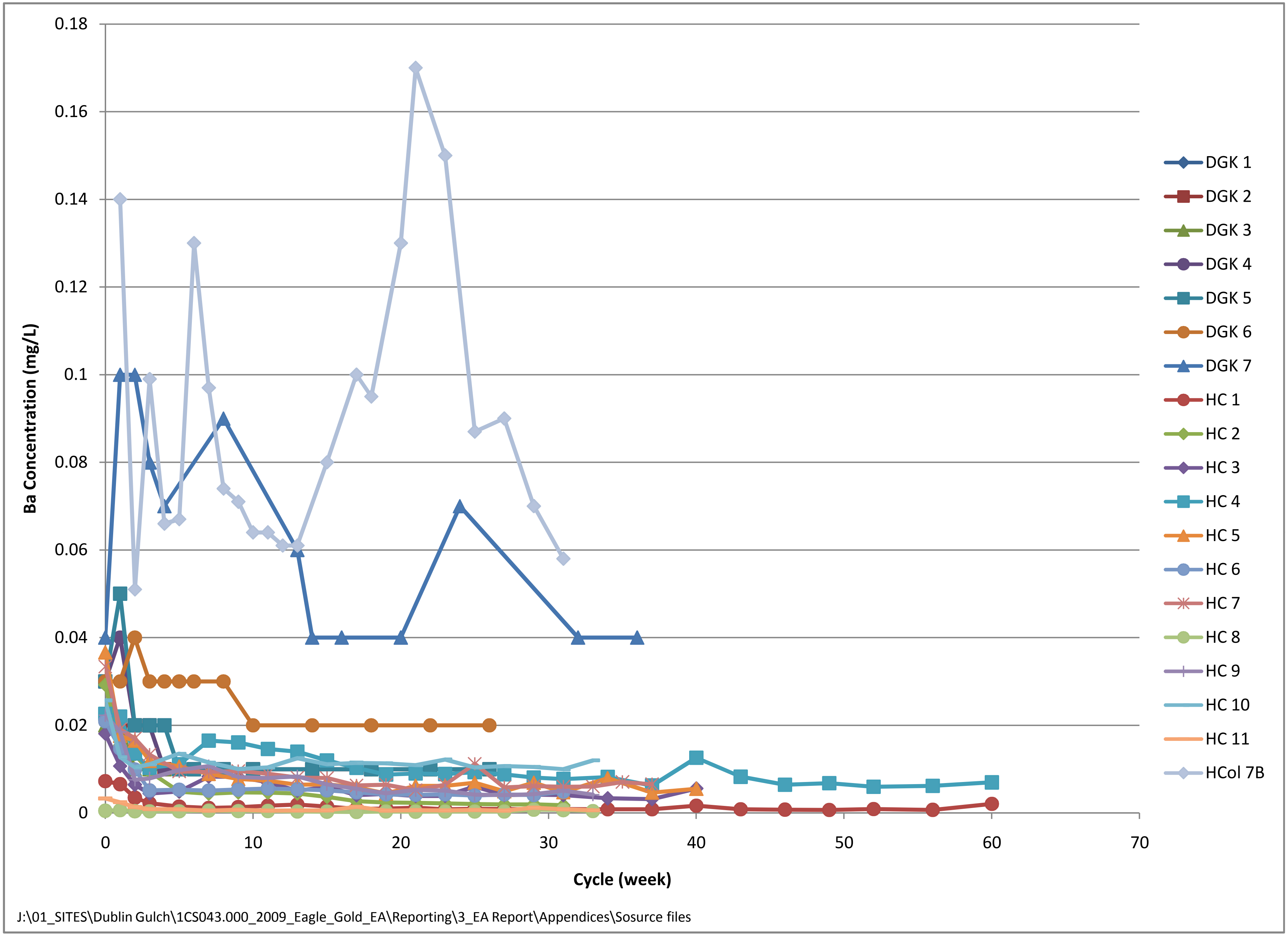

Cl Concentration (mg/L)
0
5
10
15
20
25
30
35
40
Cycle (weeks)
0
10
20
30
40
50
60
70
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files

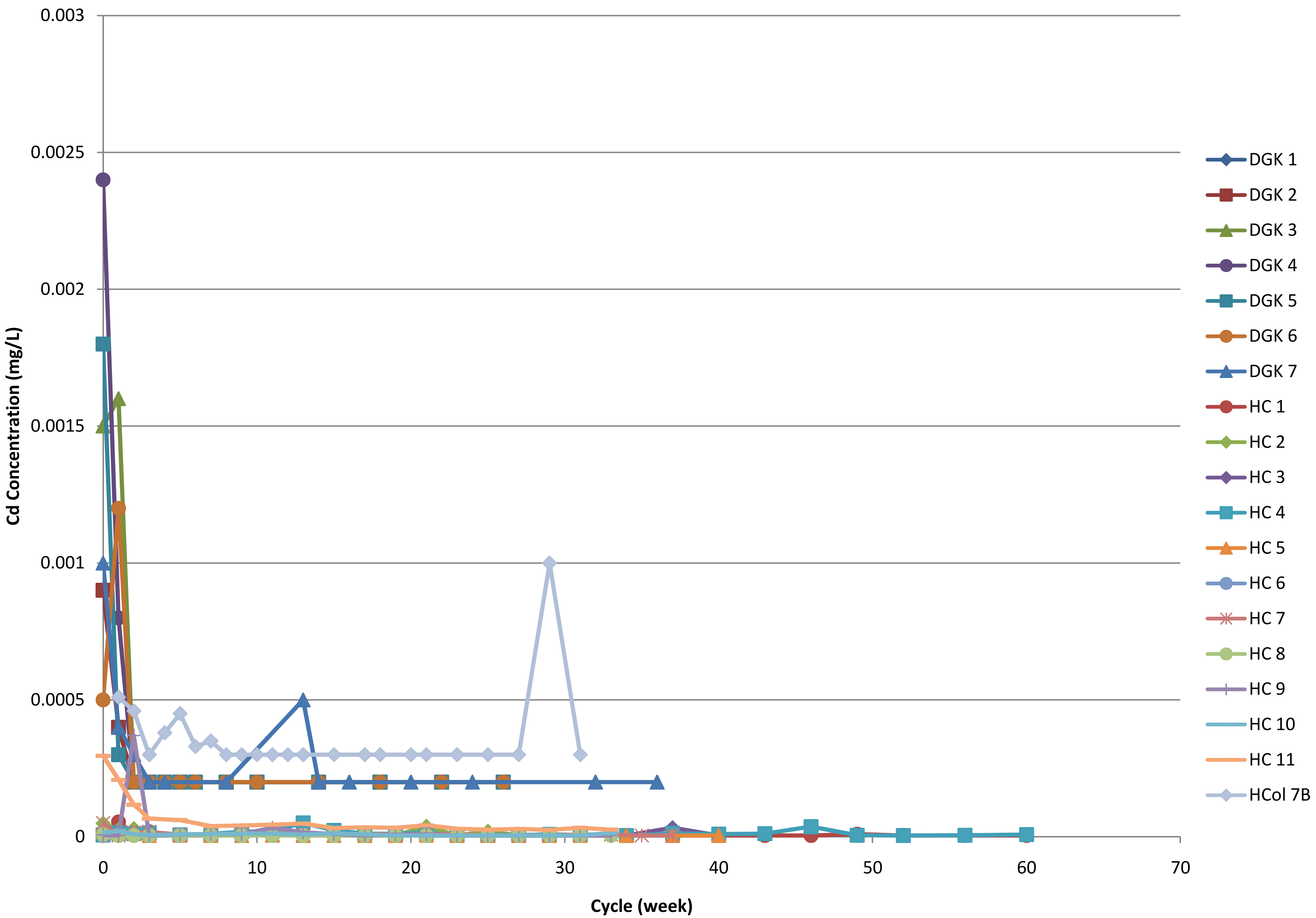

3
2.5
2
1.5
1
0.5
0
F Concentration (mg/L)
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


Al Concentration (mg/L)
3
2.5
2
1.5
1
0.5
0
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


Sb Concentration (mg/L)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


As Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Ba Concentration (mg/L)
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files



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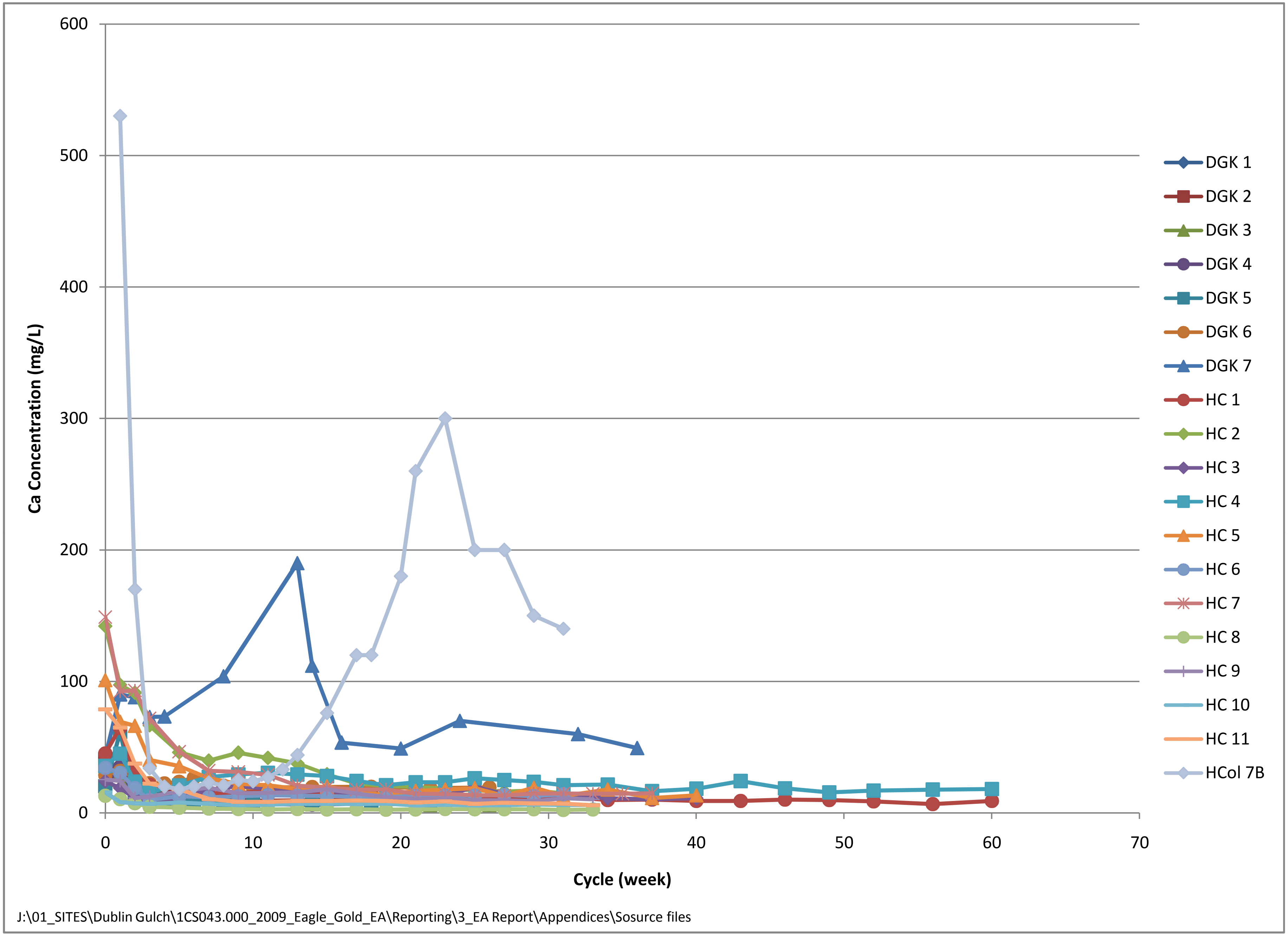
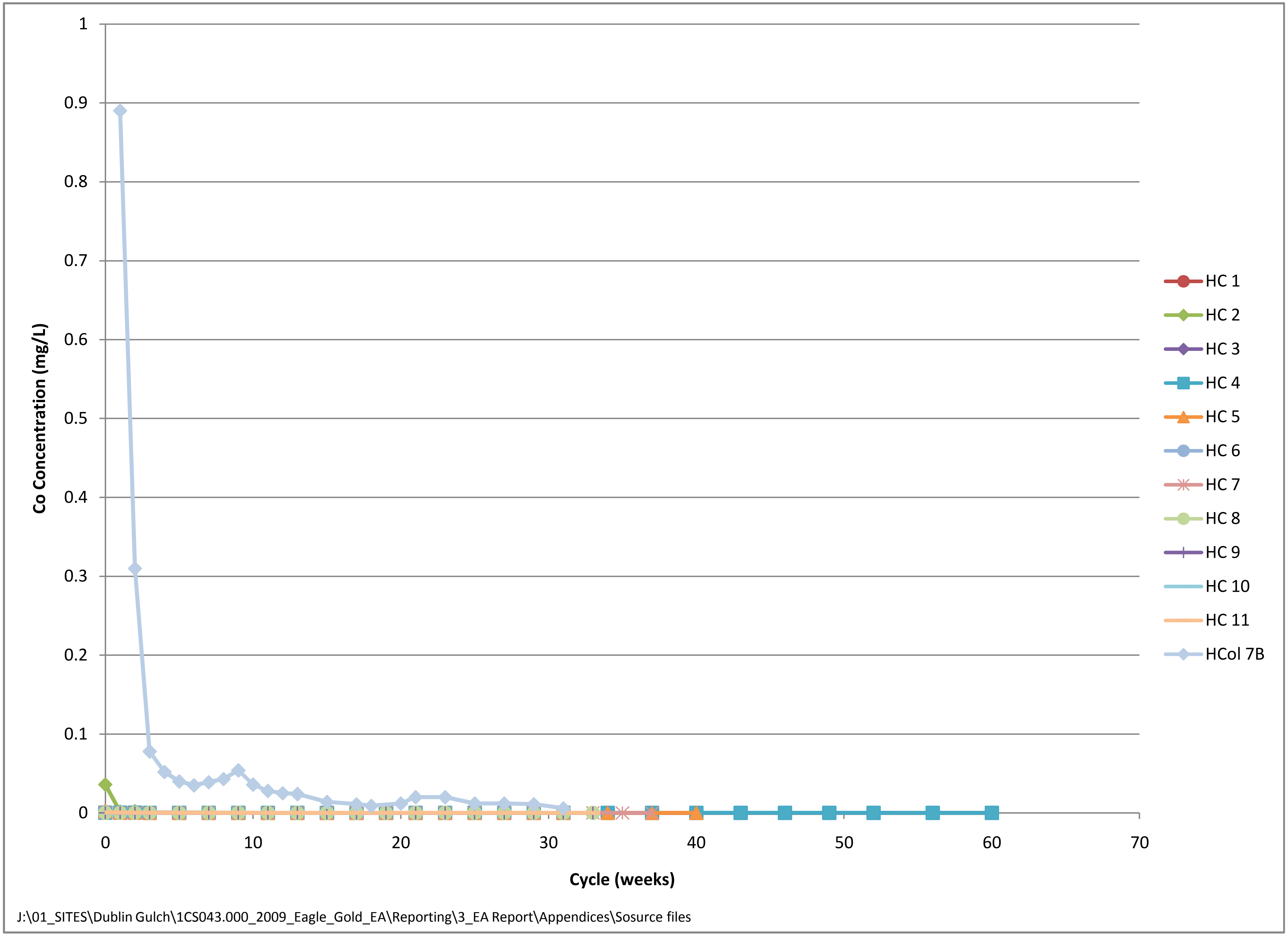
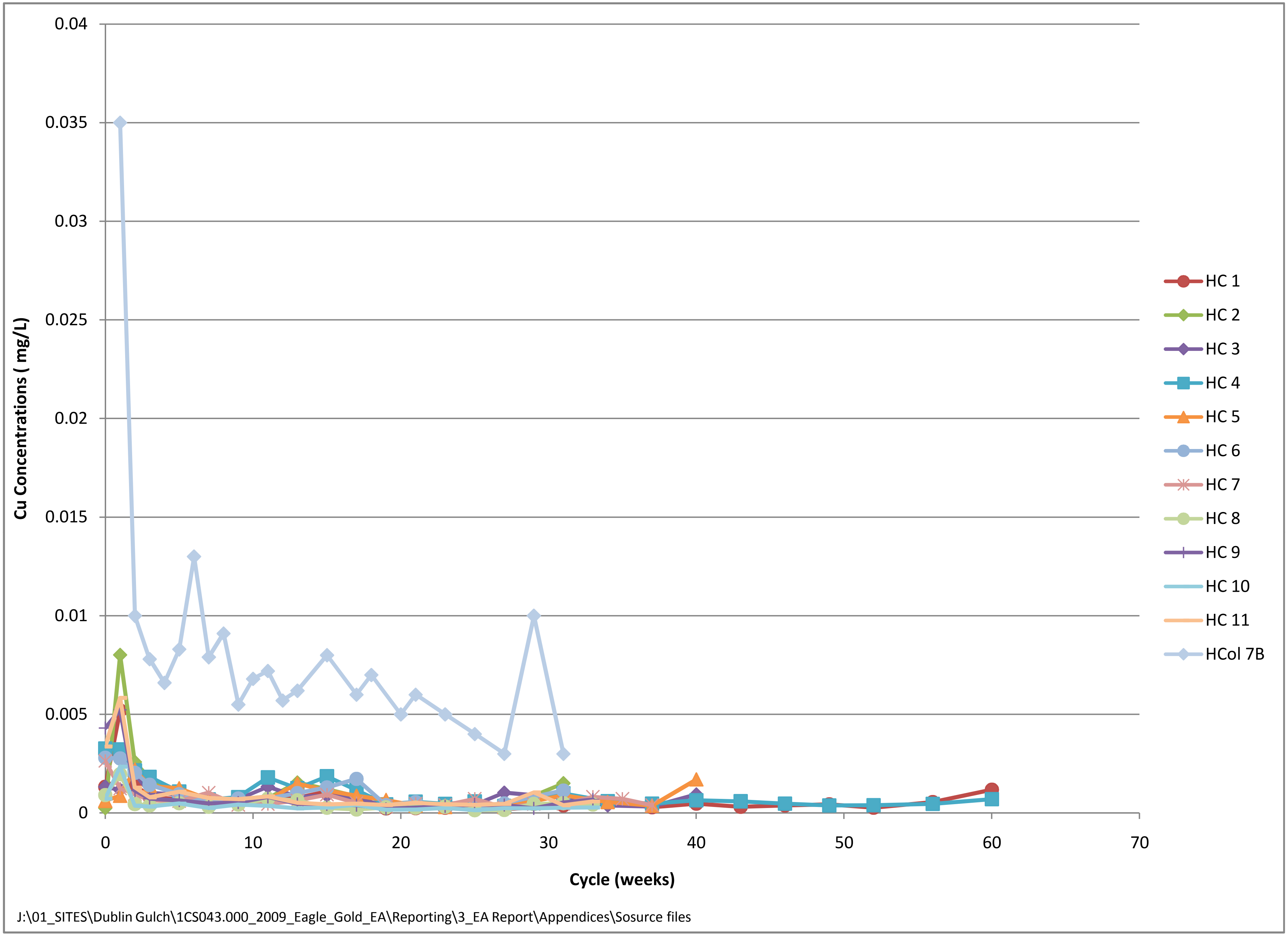
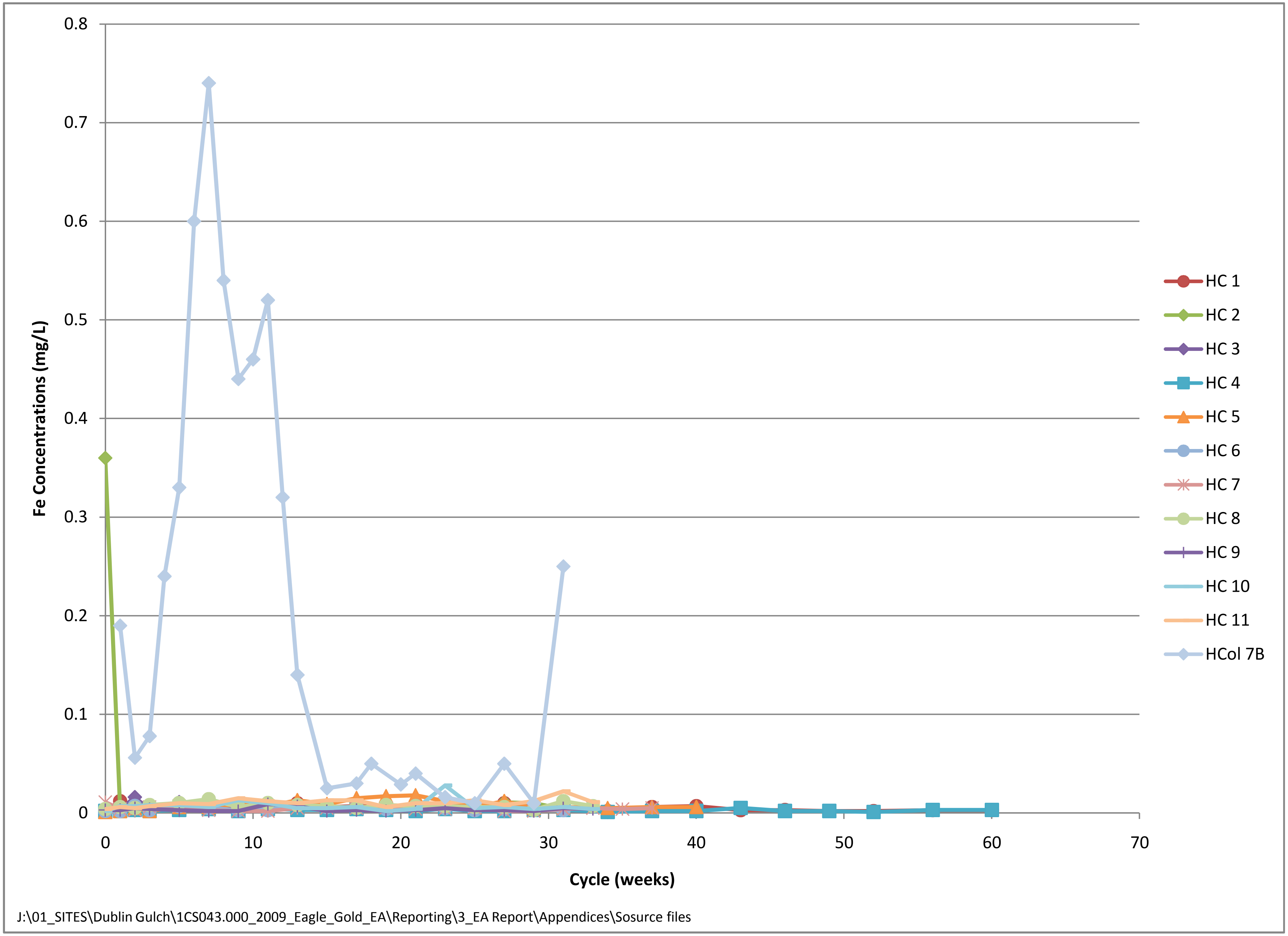
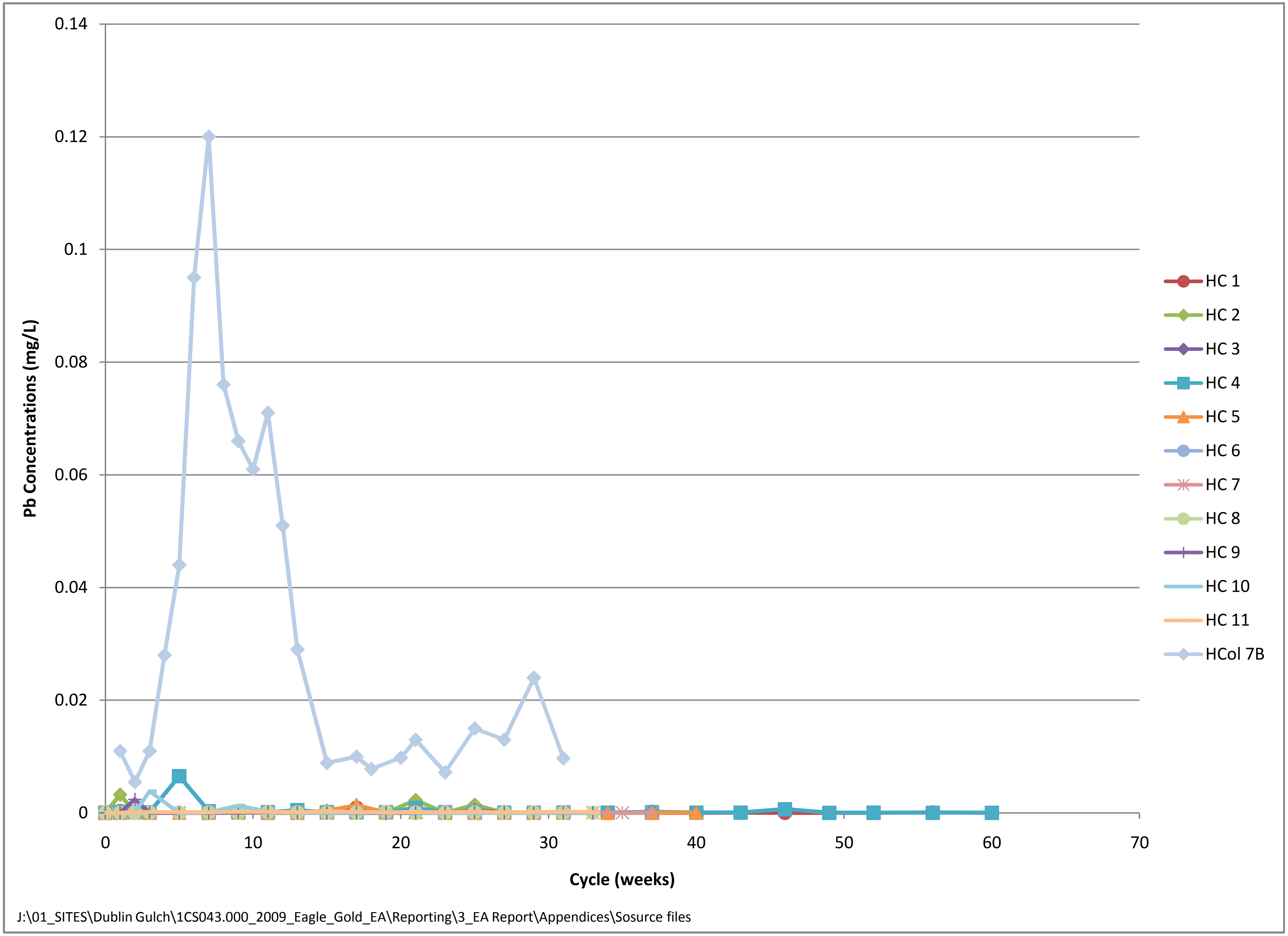
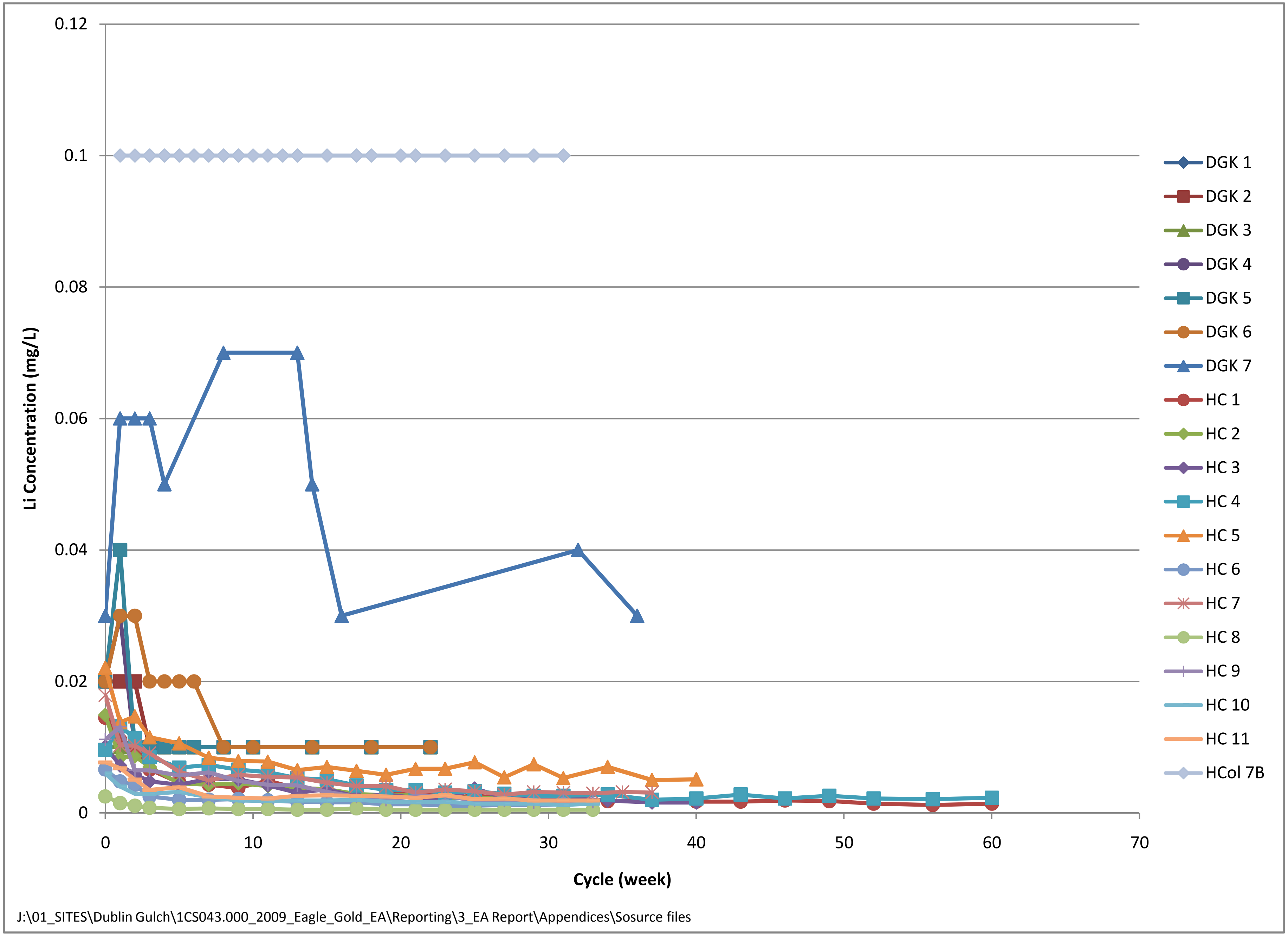

600
500
400
300
200
100
0
Ca Concentration (mg/L)
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


Co Concentration (mg/L)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


Cu Concentrations (mg/L)
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosurce files


Fe Concentrations (mg/L)
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosurce files


0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Pb Concentrations (mg/L)
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


0.12
0.1
0.08
0.06
0.04
0.02
0
Li Concentration (mg/L)
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
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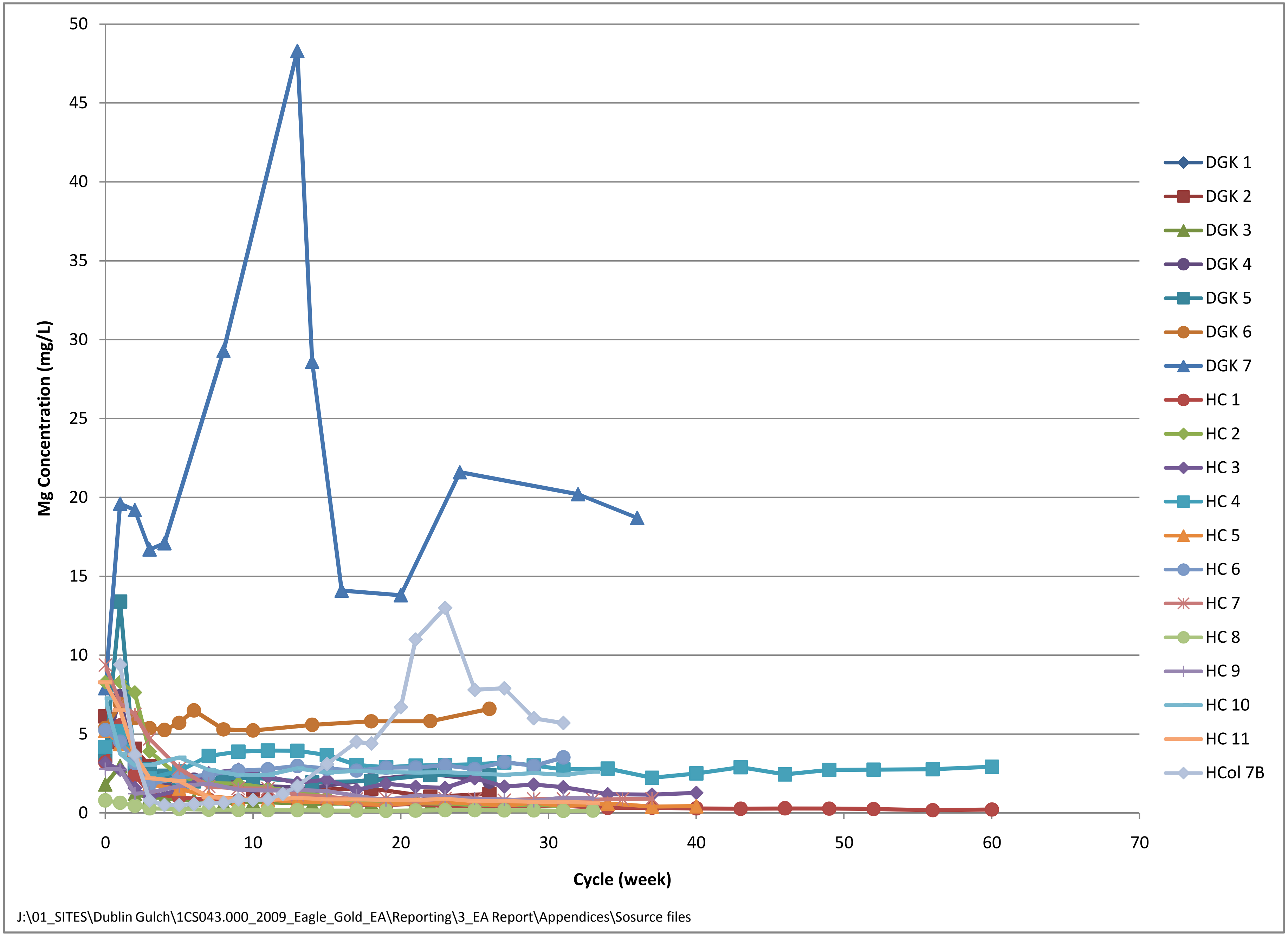
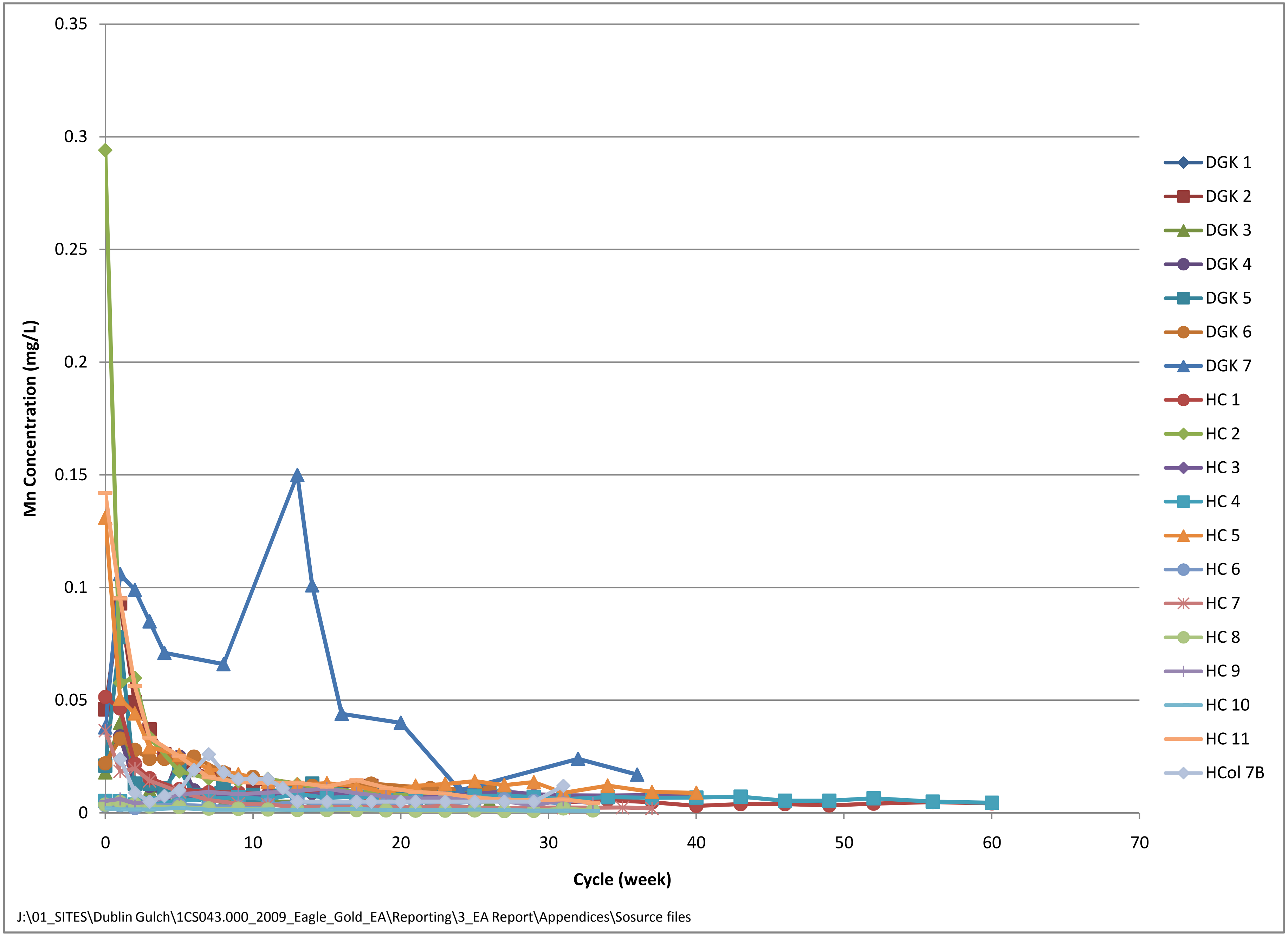
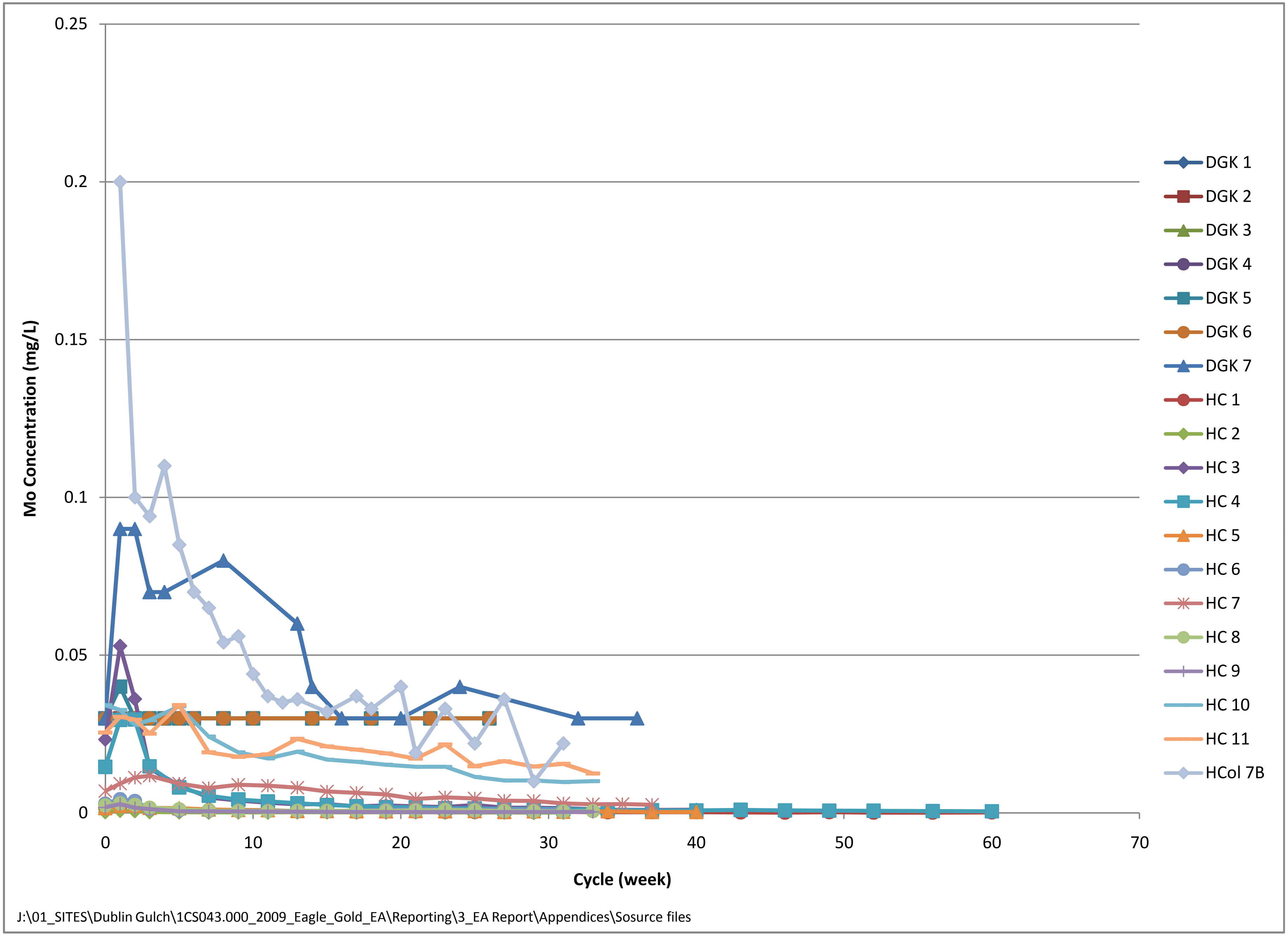
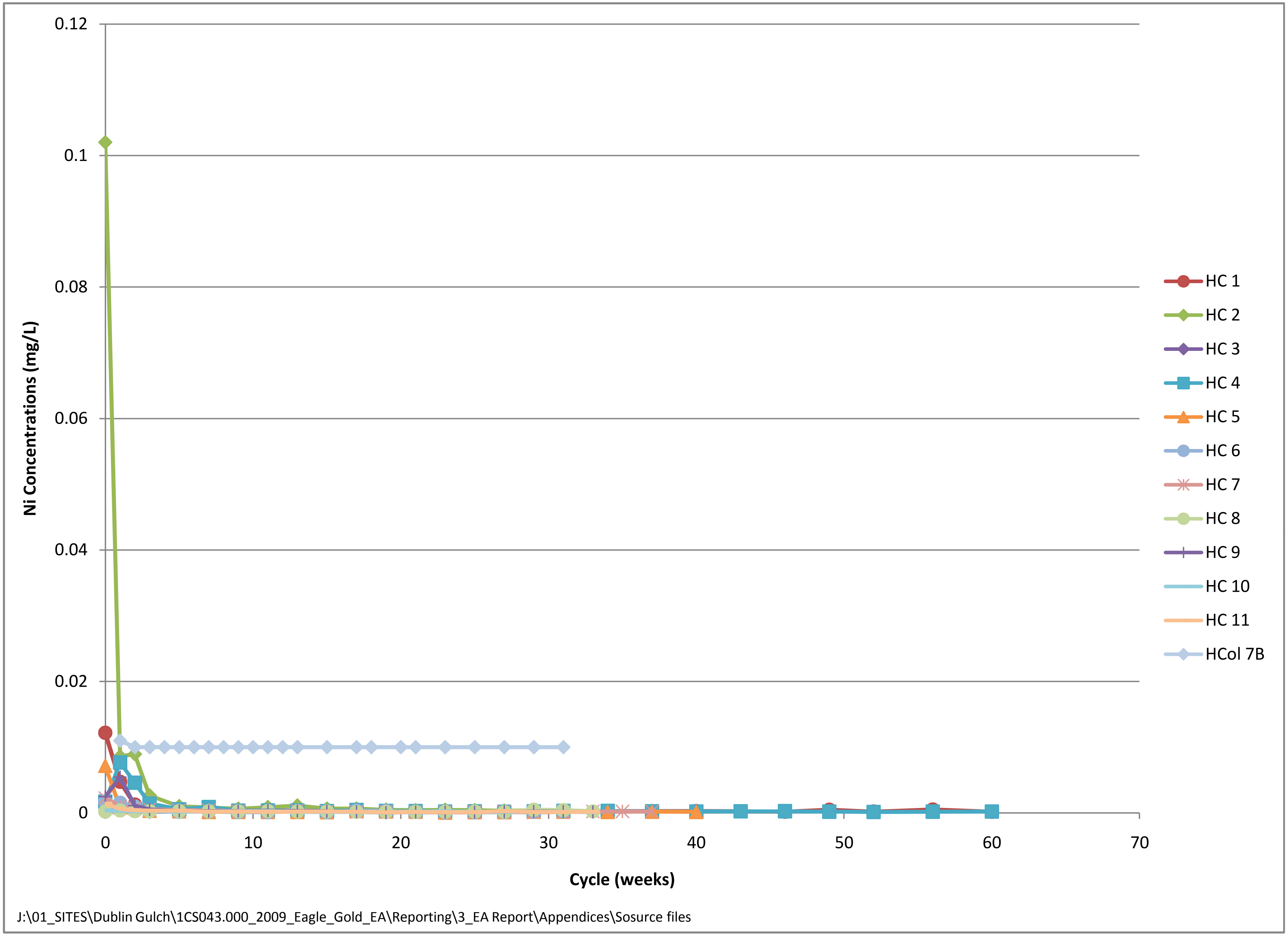
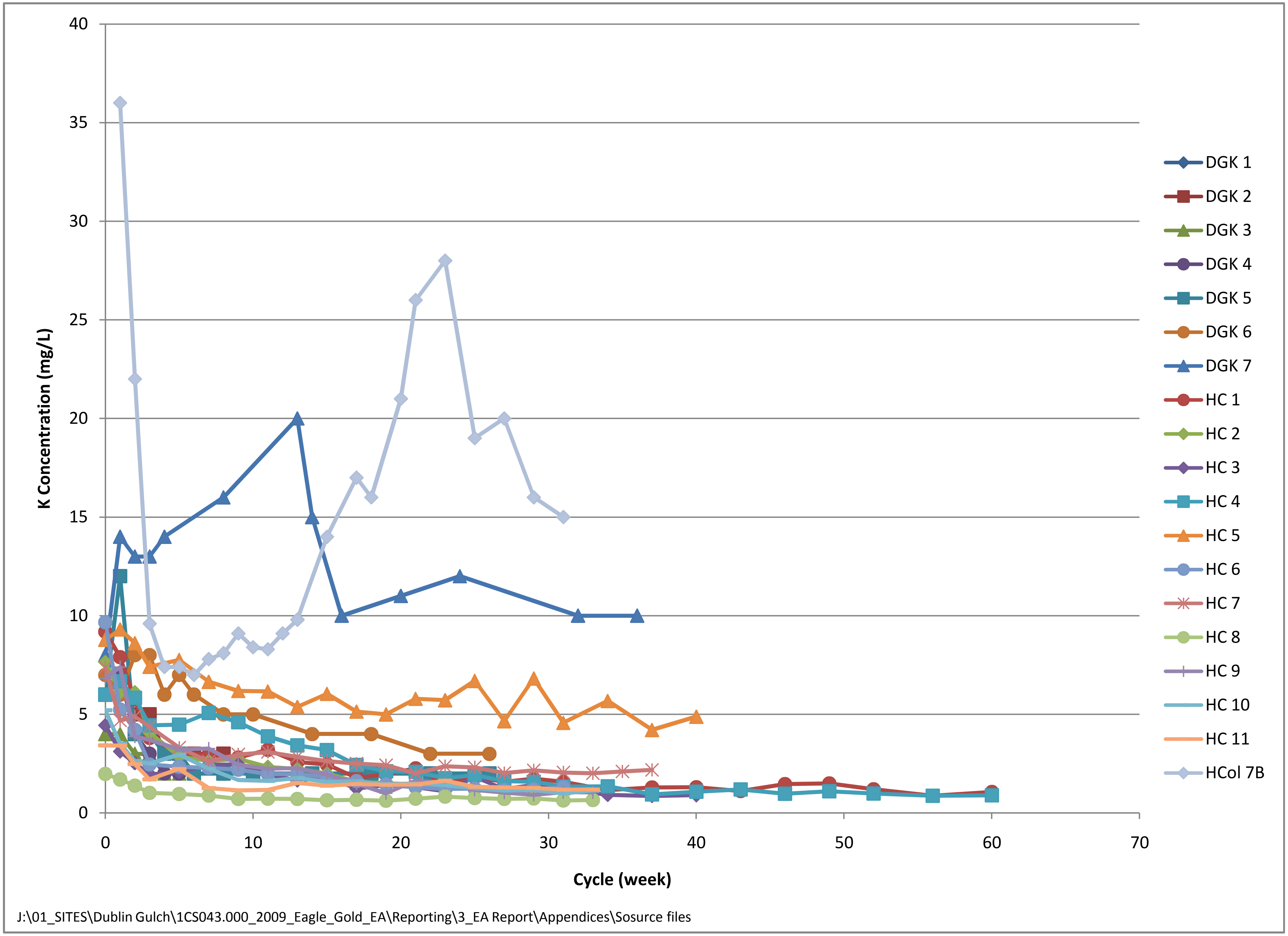

Mg Concentration (mg/L)
50
45
40
35
30
25
20
15
10
5
0
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Mn Concentration (mg/L)
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosurce files


0.25
0.2
0.15
0.1
0.05
0
Mo Concentration (mg/L)
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


0.12
0.1
0.08
0.06
0.04
0.02
0
Ni Concentrations (mg/L)
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


K Concentration (mg/L)
40
35
30
25
20
15
10
5
0
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
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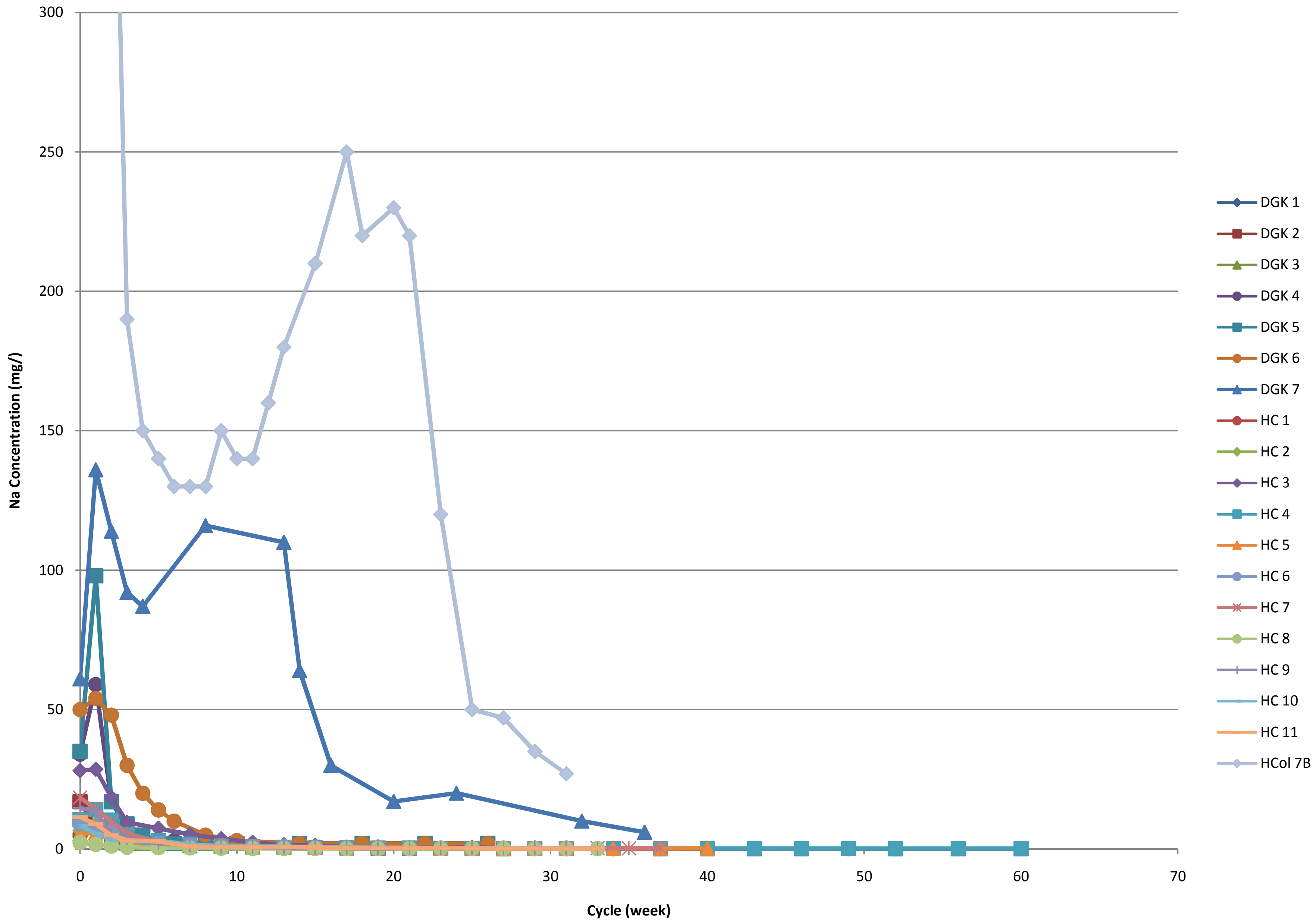

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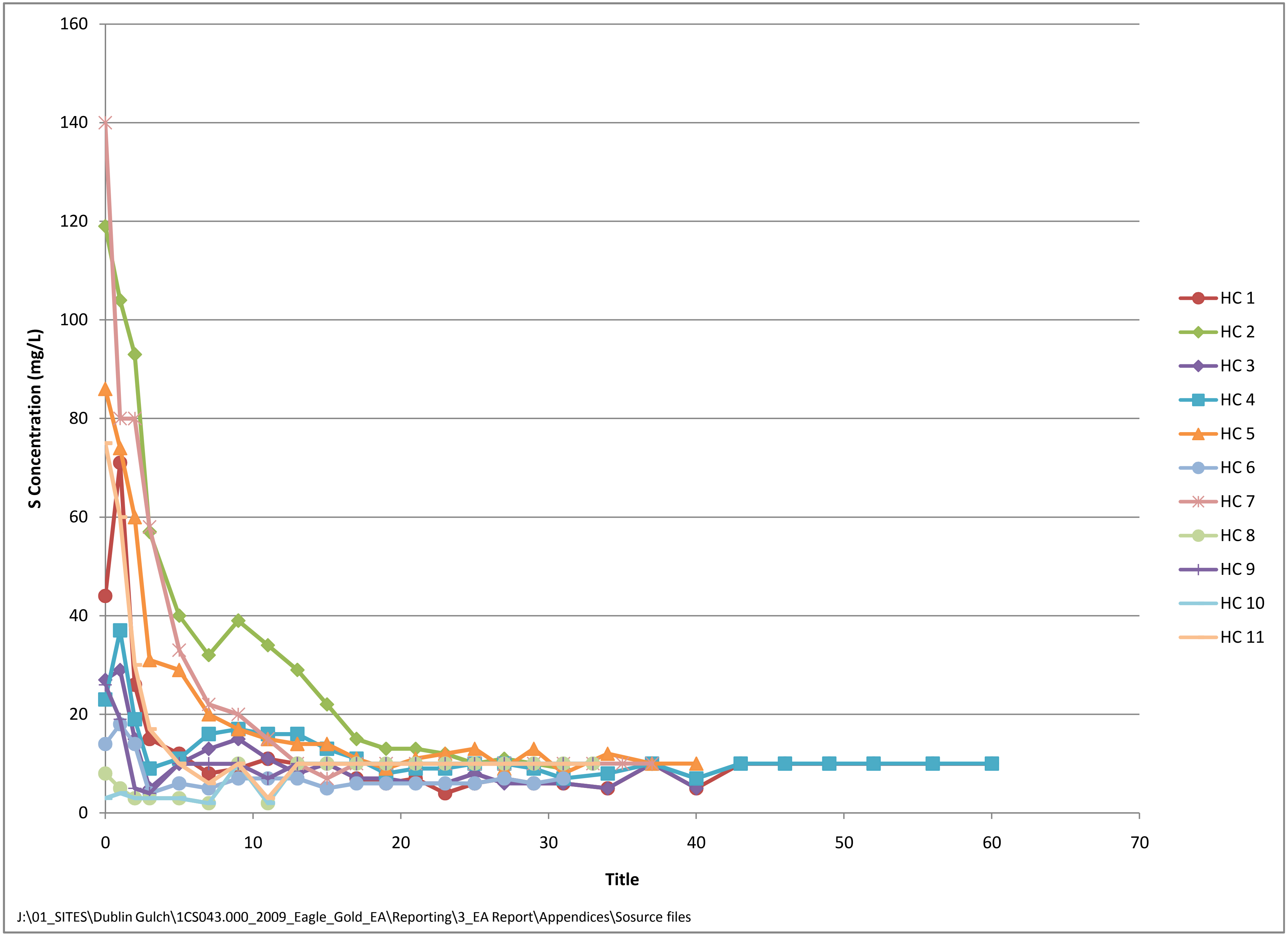
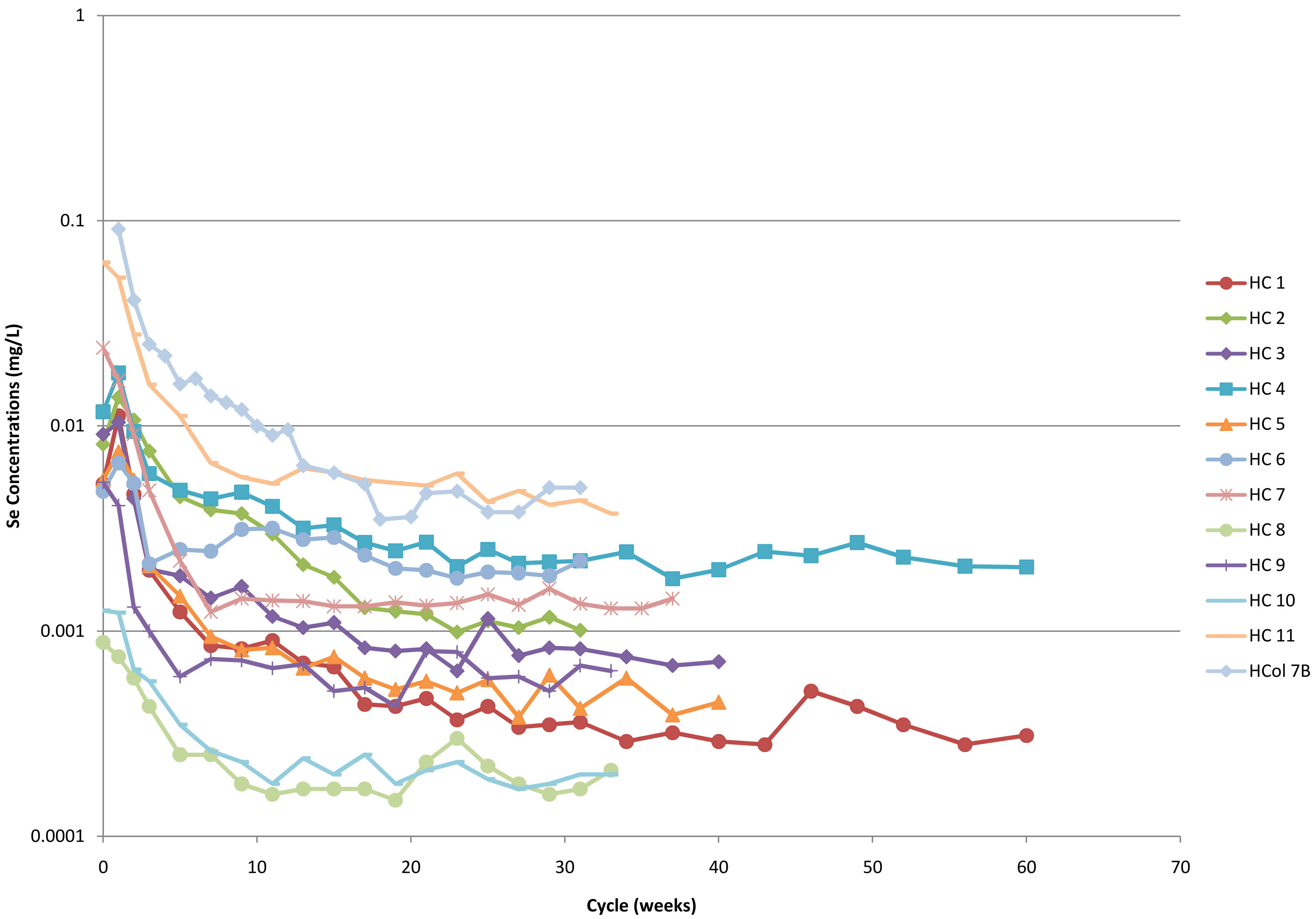

S Concentration (mg/L)
160
140
120
100
80
60
40
20
0
0
10
20
30
40
50
60
70
Title
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosurce files



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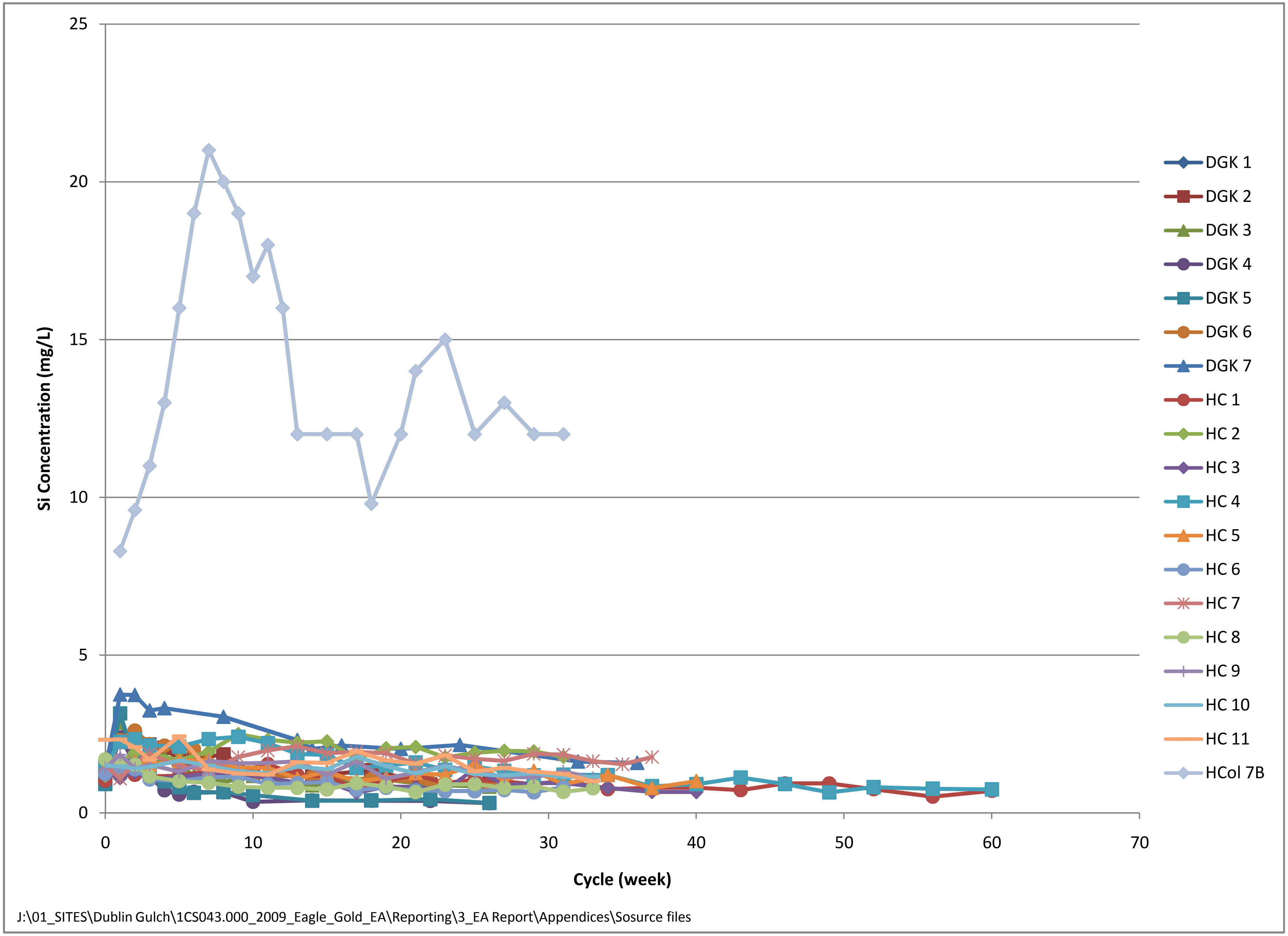
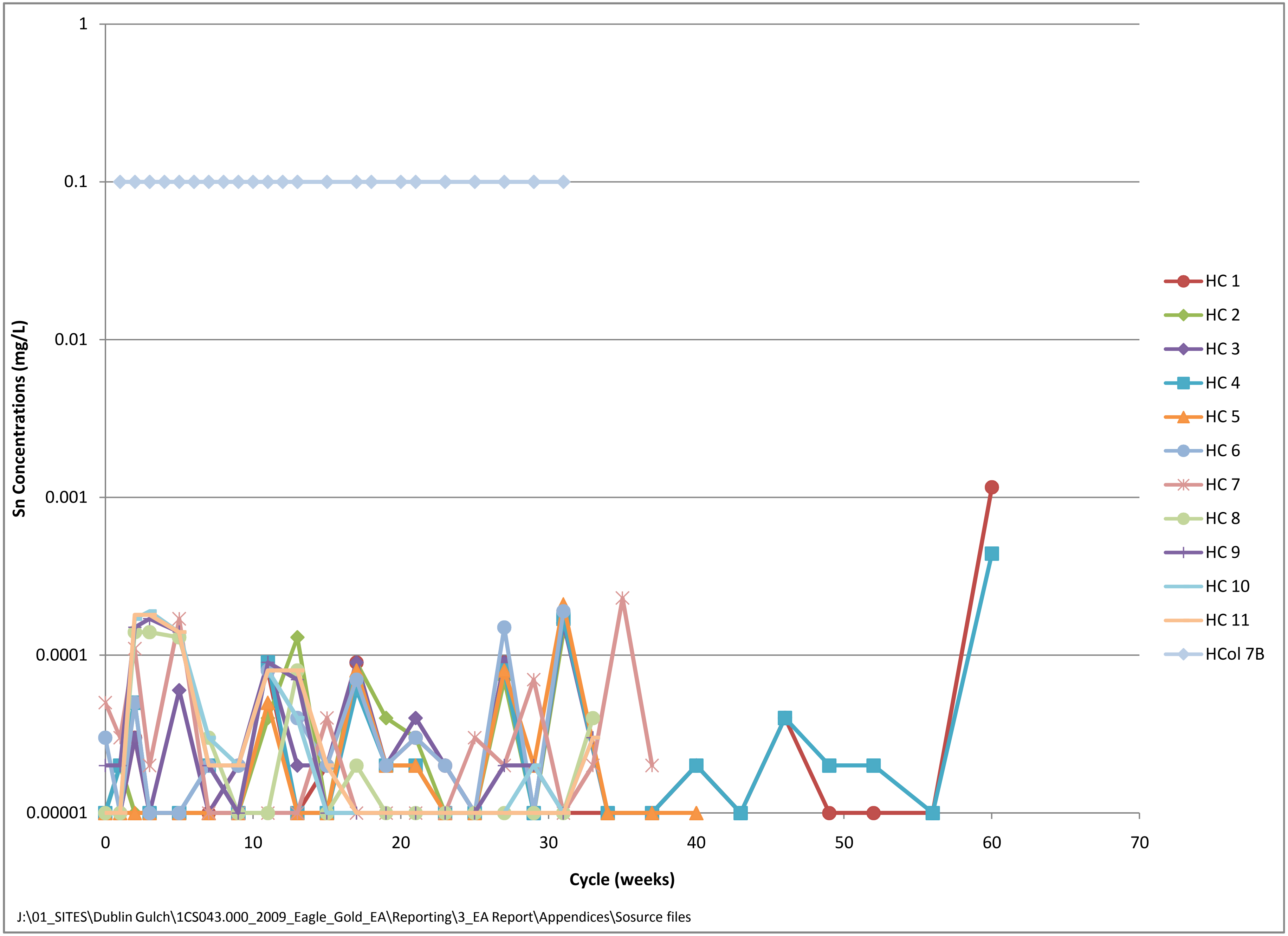
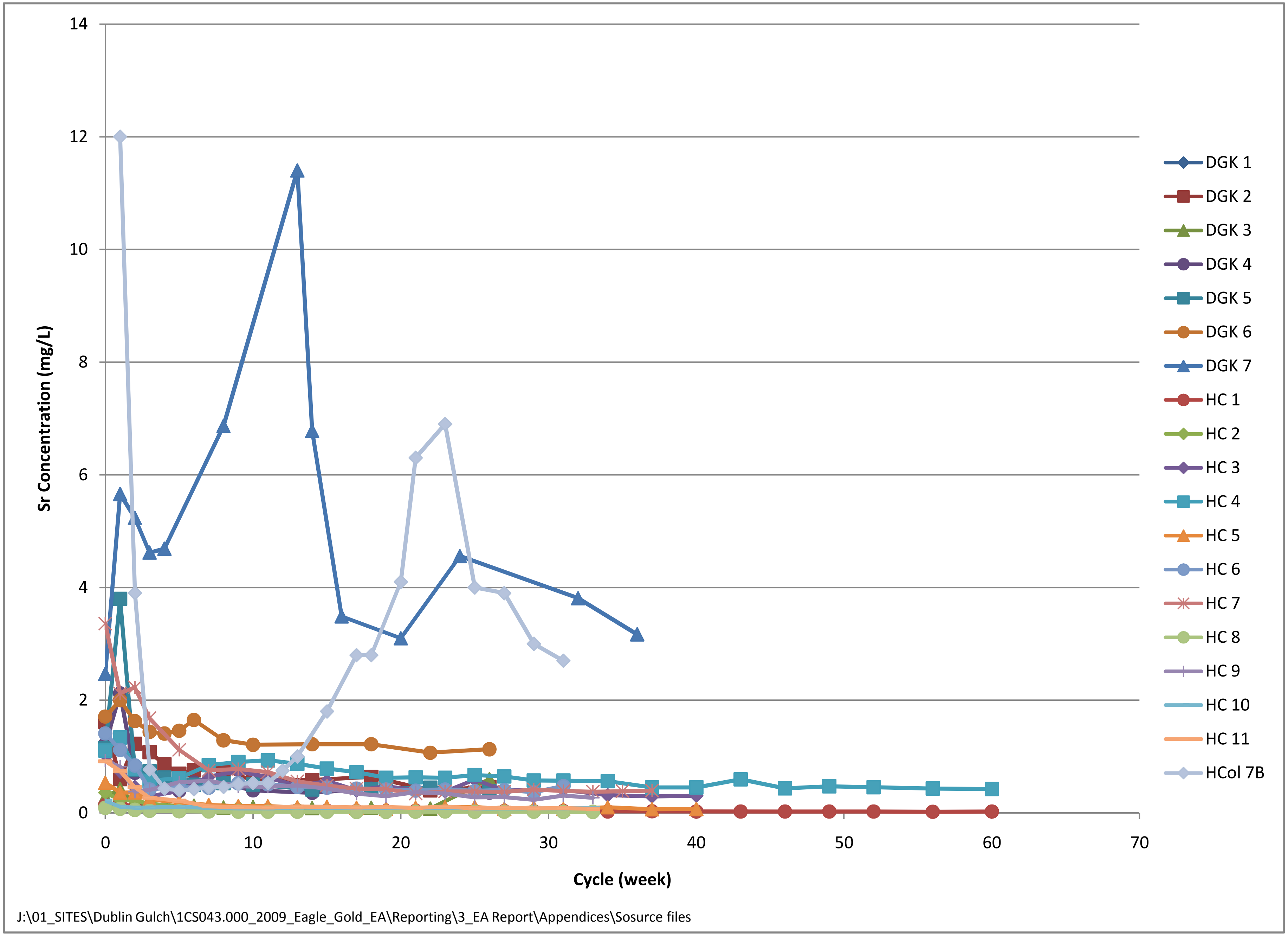
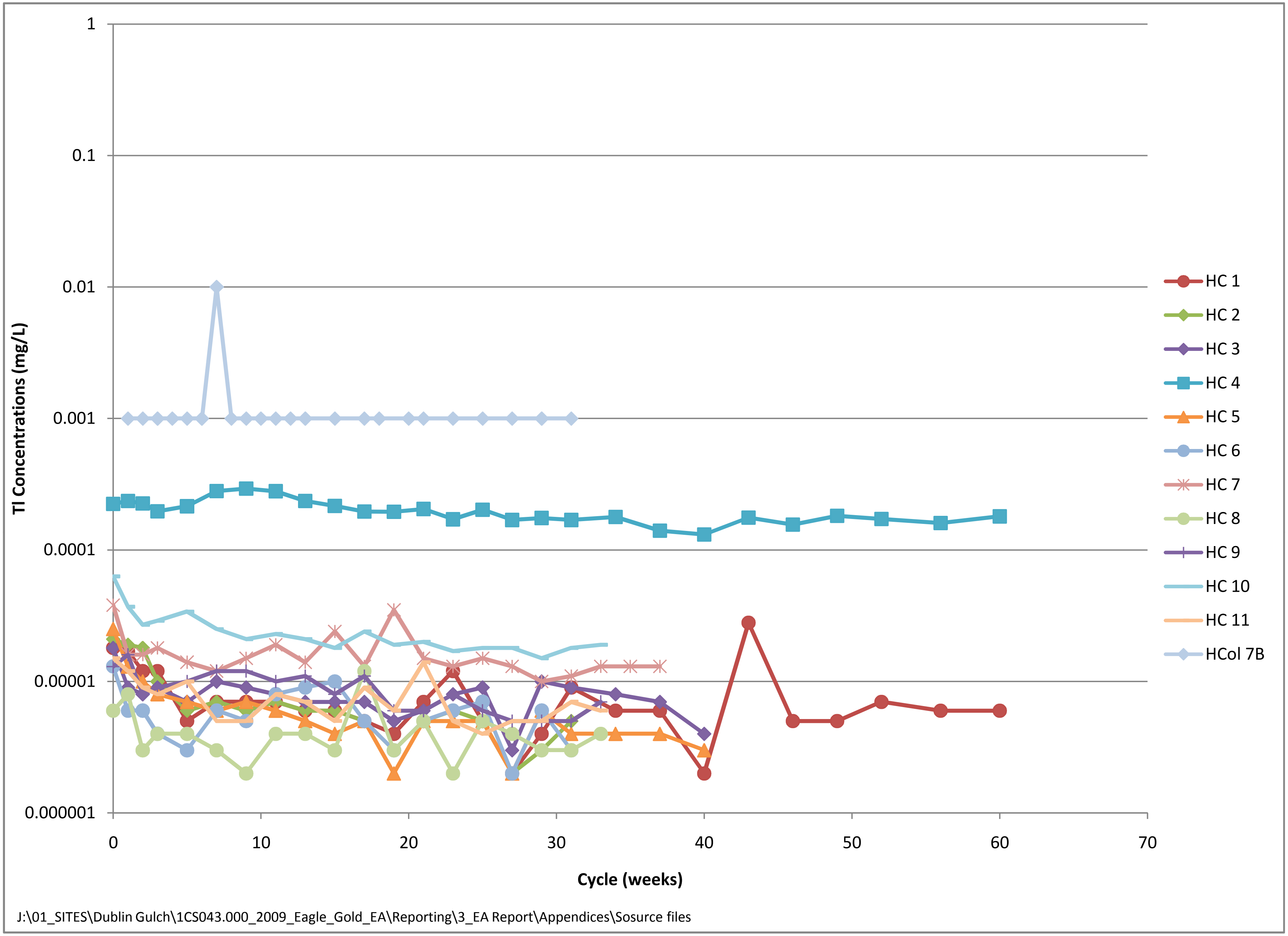
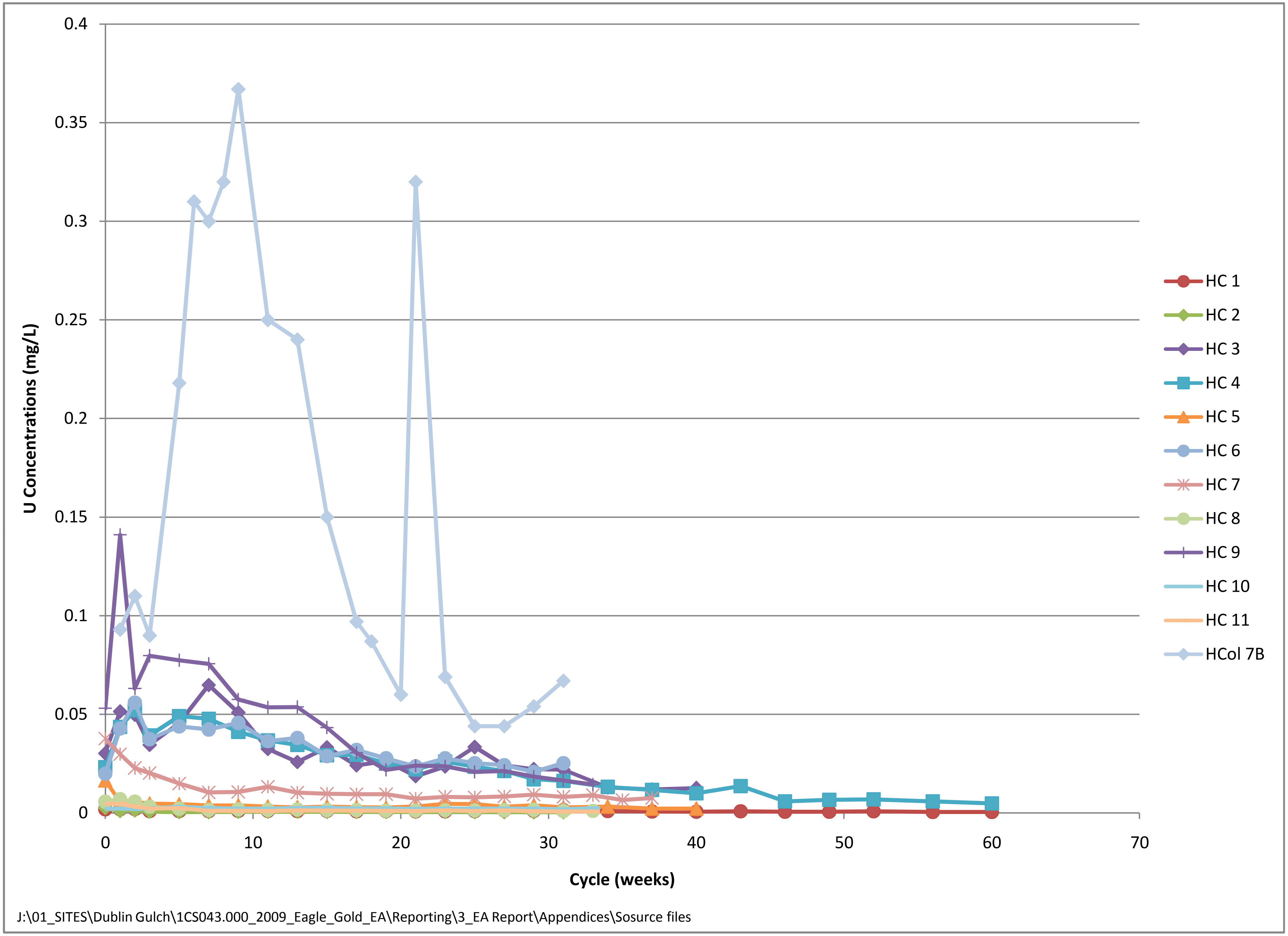
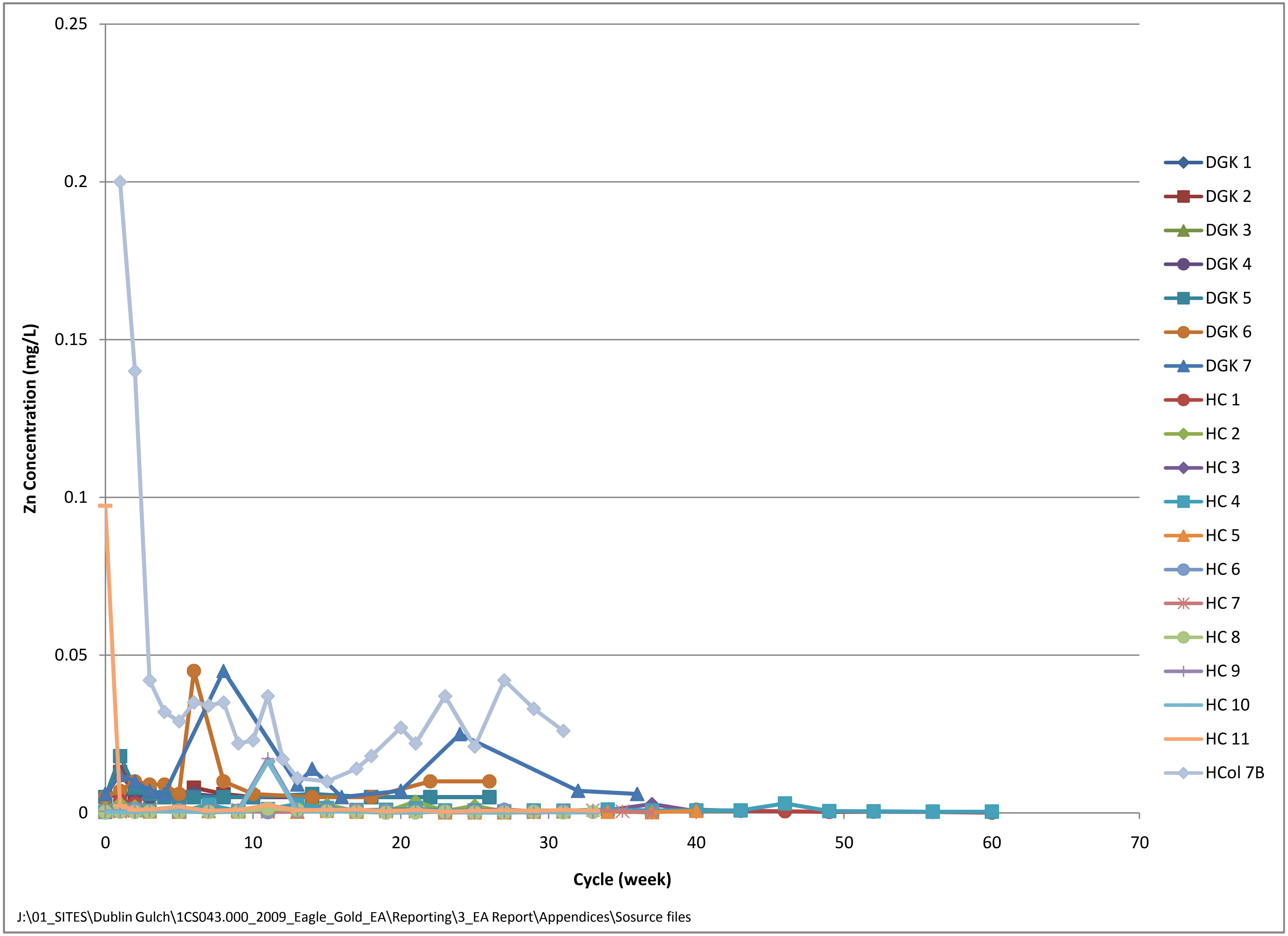

Si Concentration (mg/L)
25
20
15
10
5
0
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


Sn Concentrations (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosurce files


Sr Concentration (mg/L)
14
12
10
8
6
4
2
0
Cycle (week)
0
10
20
30
40
50
60
70
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


Tl Concentrations (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
0.000001
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


U Concentrations (mg/L)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
10
20
30
40
50
60
70
Cycle (weeks)
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


0.25
0.2
0.15
0.1
0.05
0
Zn Concentration (mg/L)
0
10
20
30
40
50
60
70
Cycle (week)
DGK 1
DGK 2
DGK 3
DGK 4
DGK 5
DGK 6
DGK 7
HC 1
HC 2
HC 3
HC 4
HC 5
HC 6
HC 7
HC 8
HC 9
HC 10
HC 11
HCol 7B
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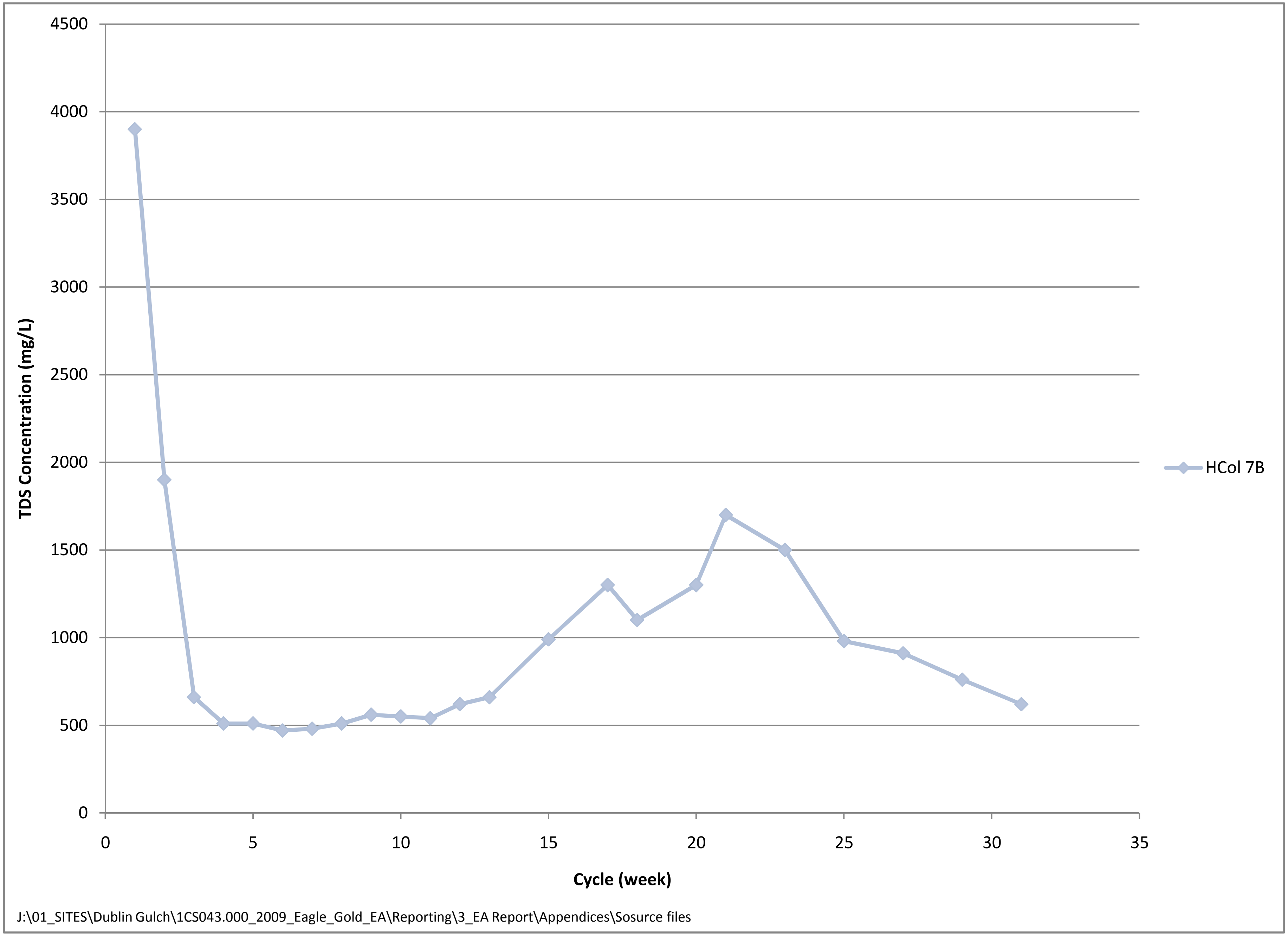
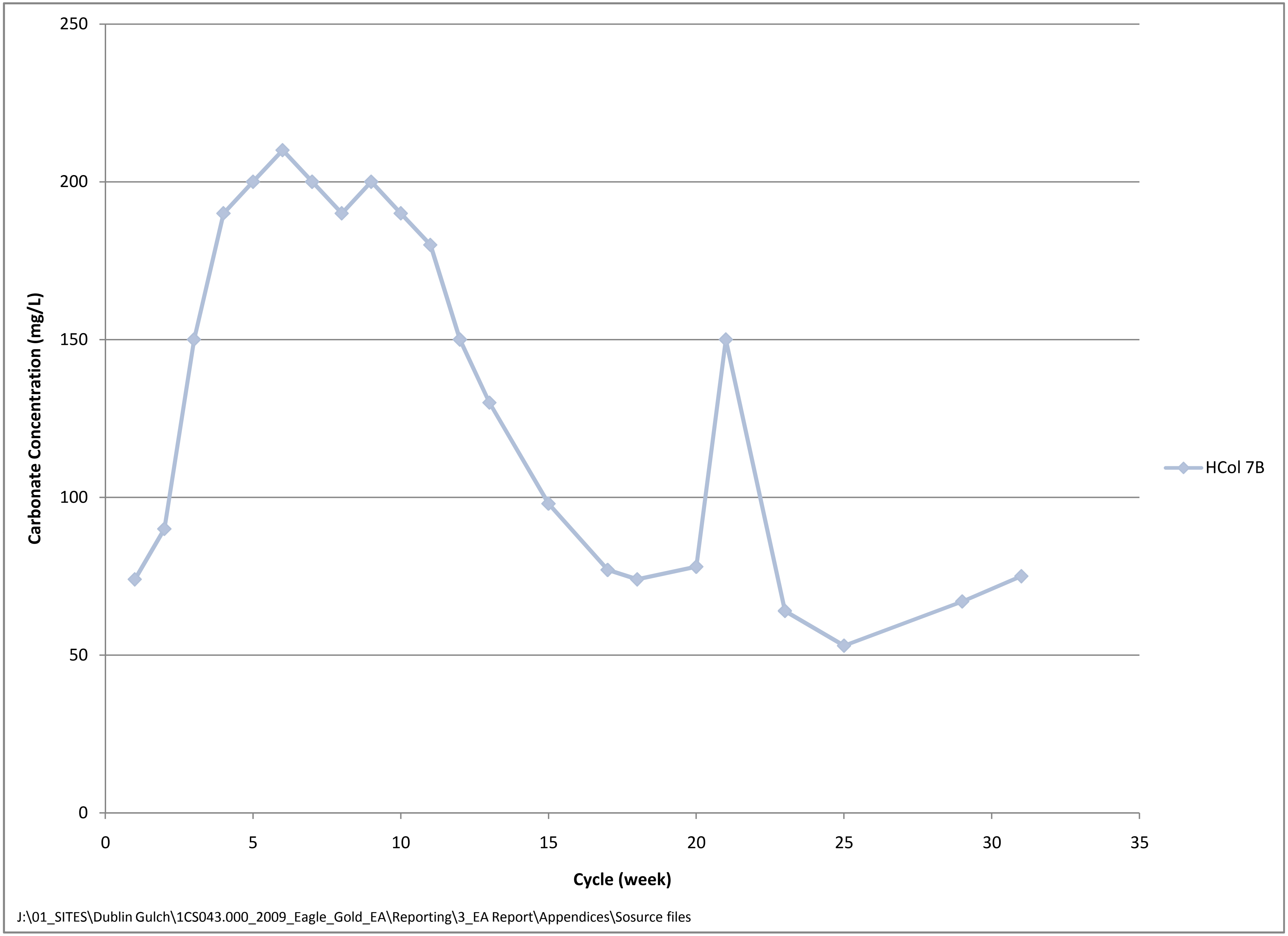
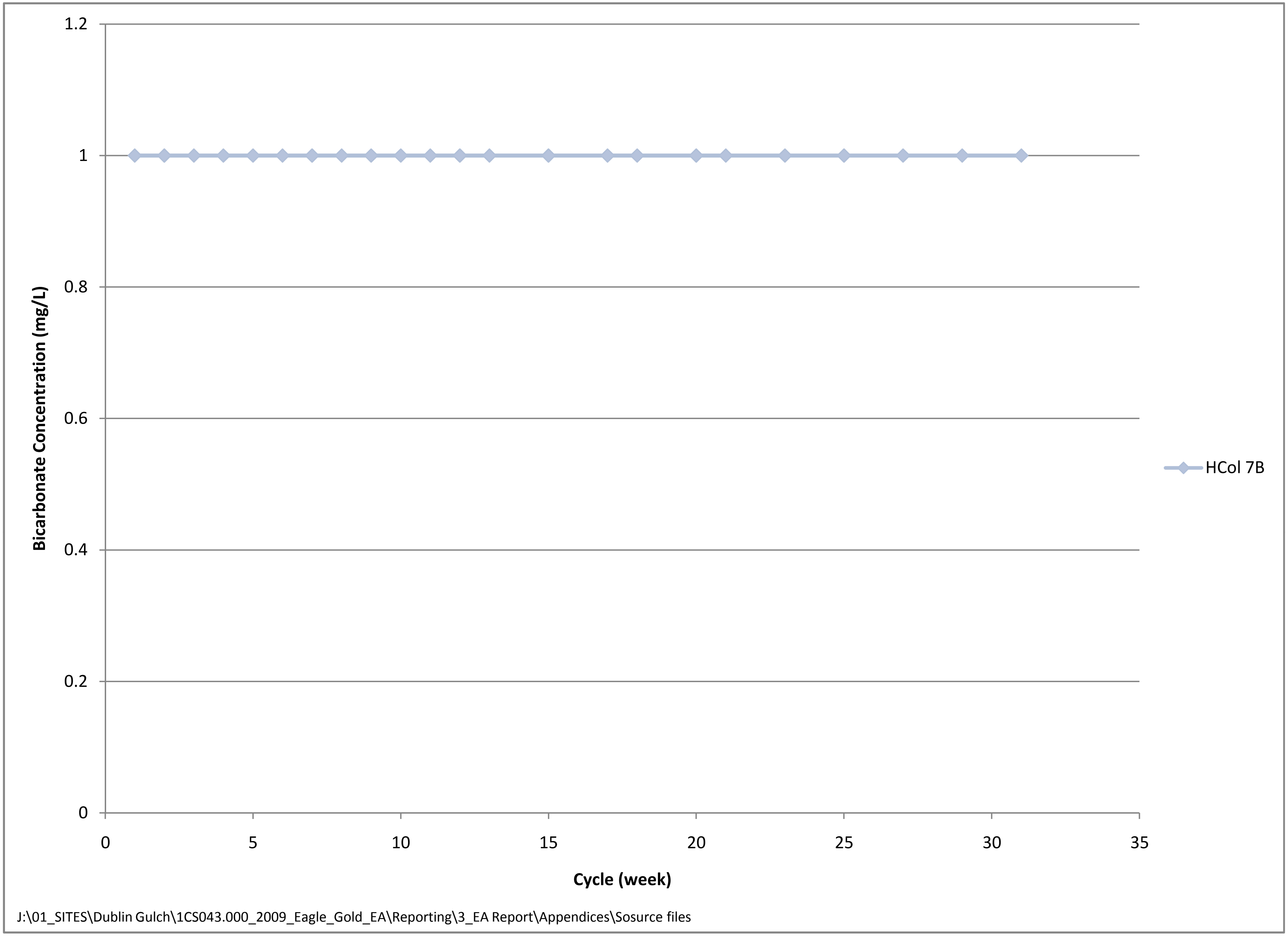
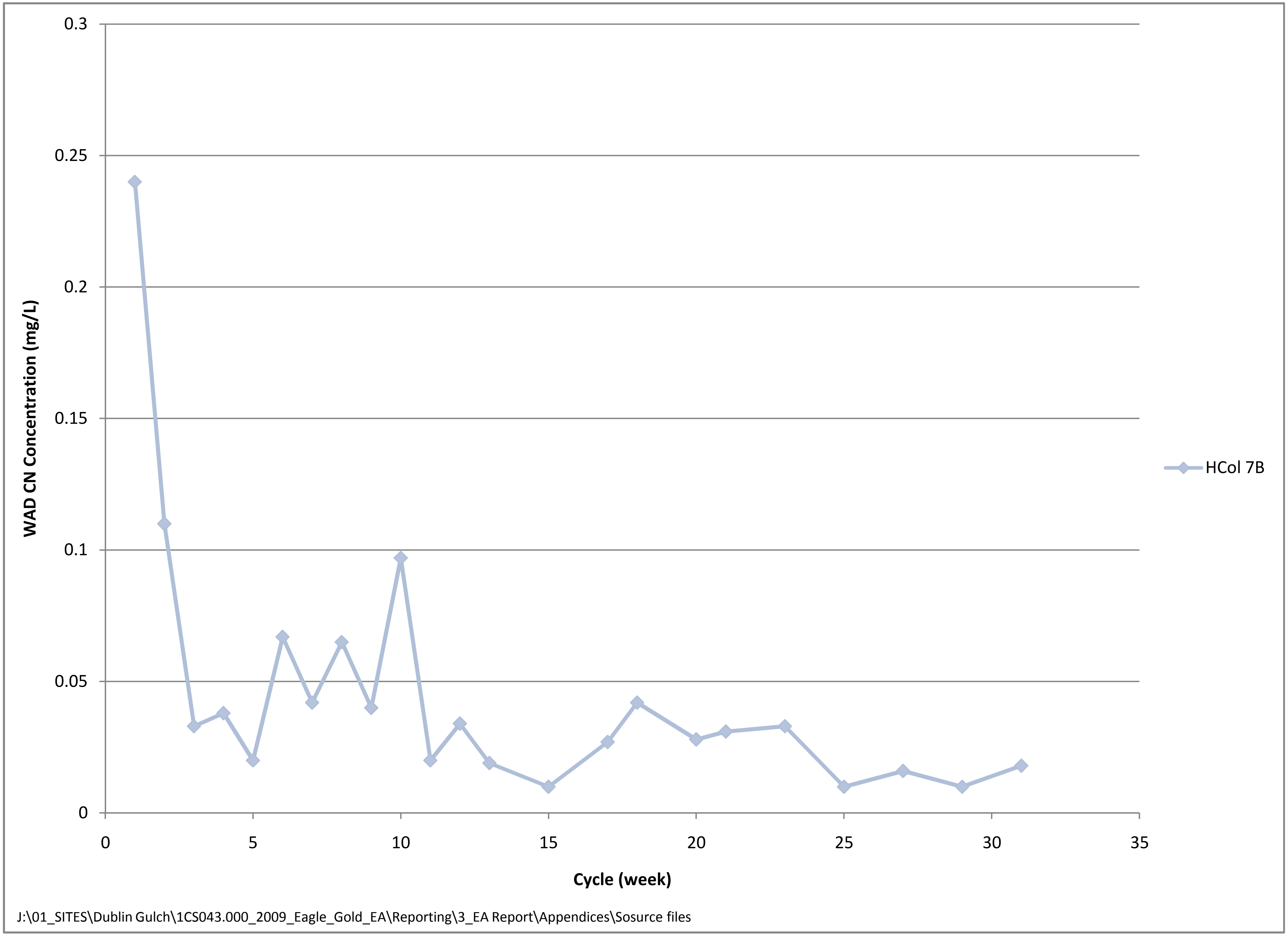

4500
4000
3500
3000
2500
2000
1500
1000
500
0
TDS Concentration (mg/L)
0
5
10
15
20
25
30
35
Cycle (week)
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


250
200
150
100
50
0
Carbonate Concentration (mg/L)
0
5
10
15
20
25
30
35
Cycle (week)
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


1.2
1
0.8
0.6
0.4
0.2
0
Bicarbonate Concentration (mg/L)
0
5
10
15
20
25
30
35
Cycle (week)
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosurce files


0.3
0.25
0.2
0.15
0.1
0.05
0
WAD CN Concentration (mg/L)
0
5
10
15
20
25
30
35
Cycle (week)
HCol 7B
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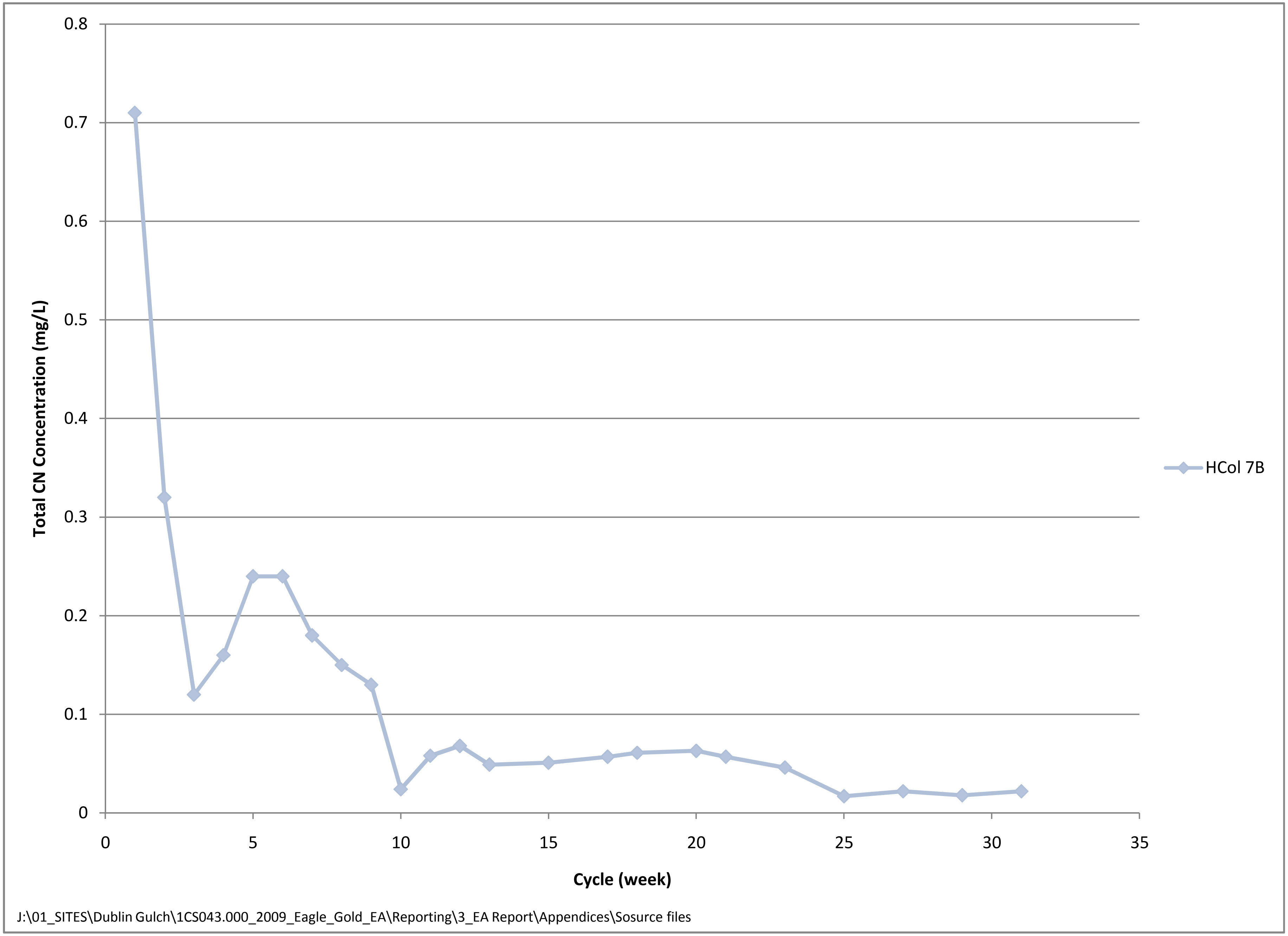
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0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Total CN Concentration (mg/L)
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5
10
15
20
25
30
35
Cycle (week)
HCol 7B
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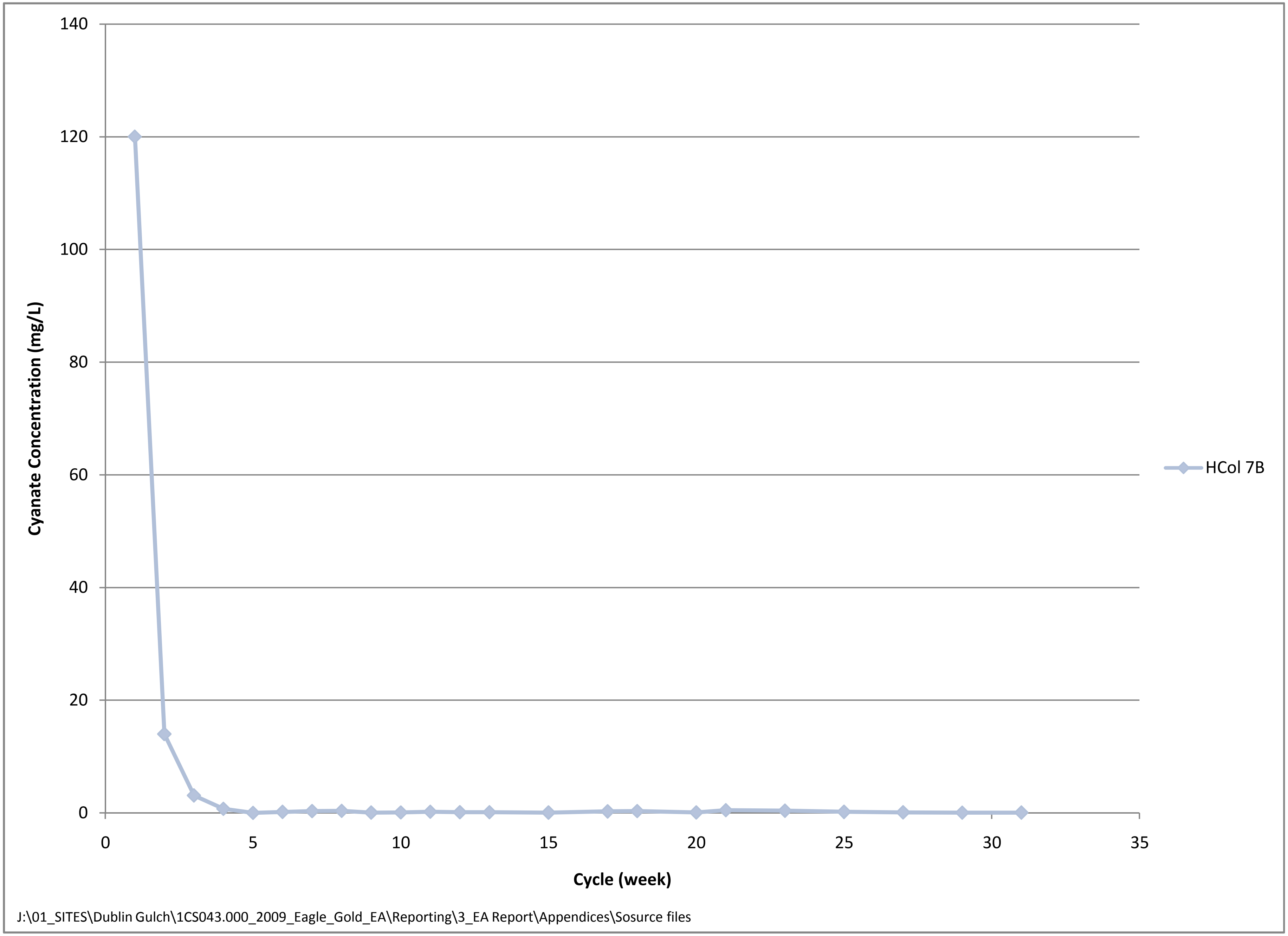

140
120
100
80
60
40
20
0
Cyanate Concentration (mg/L)
0
5
10
15
20
25
30
35
Cycle (week)
HCol 7B
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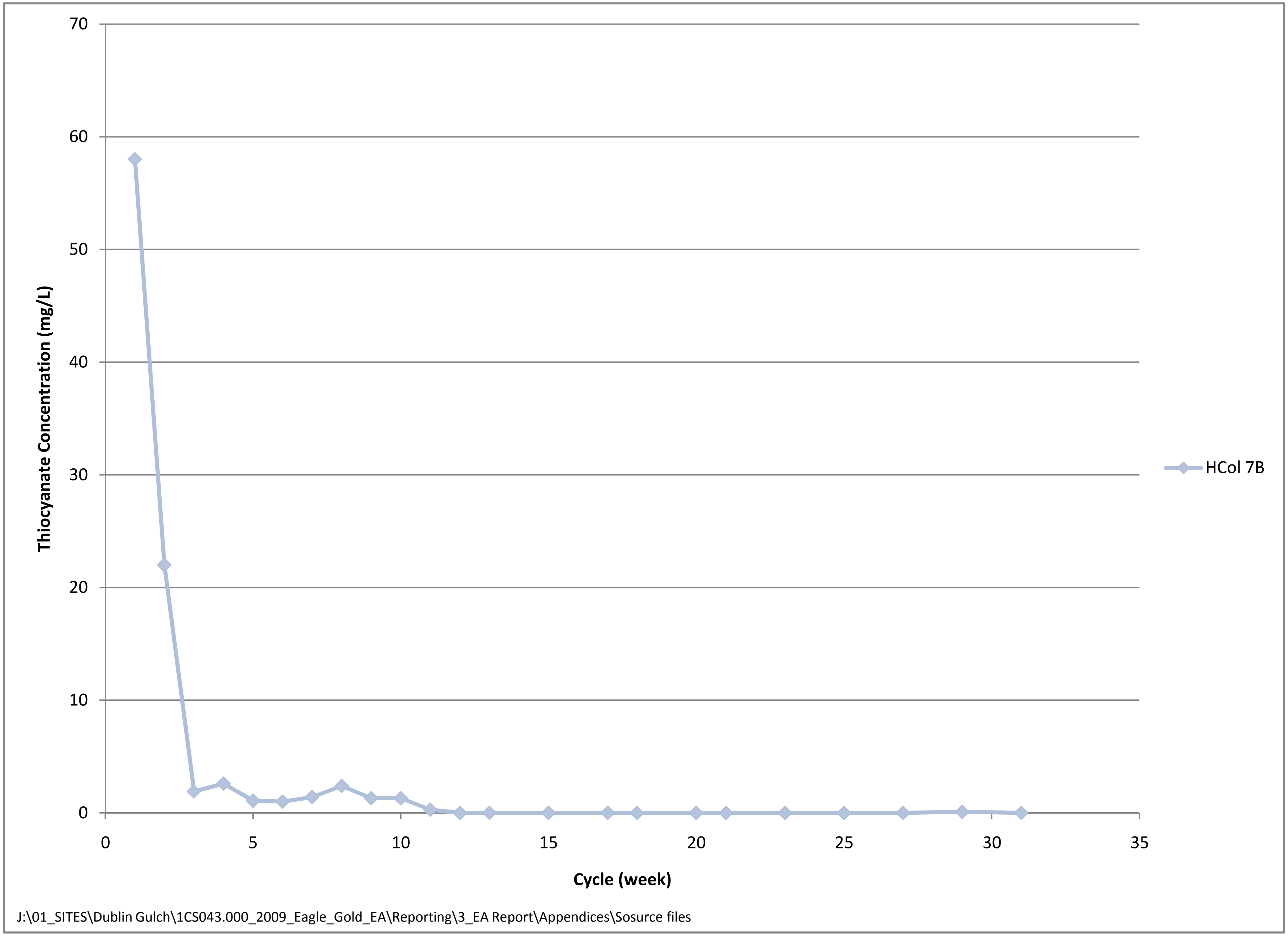
70
60
50
40
30
20
10
0
Thiocyanate Concentration (mg/L)
0
5
10
15
20
25
30
35
Cycle (week)
HCol 7B
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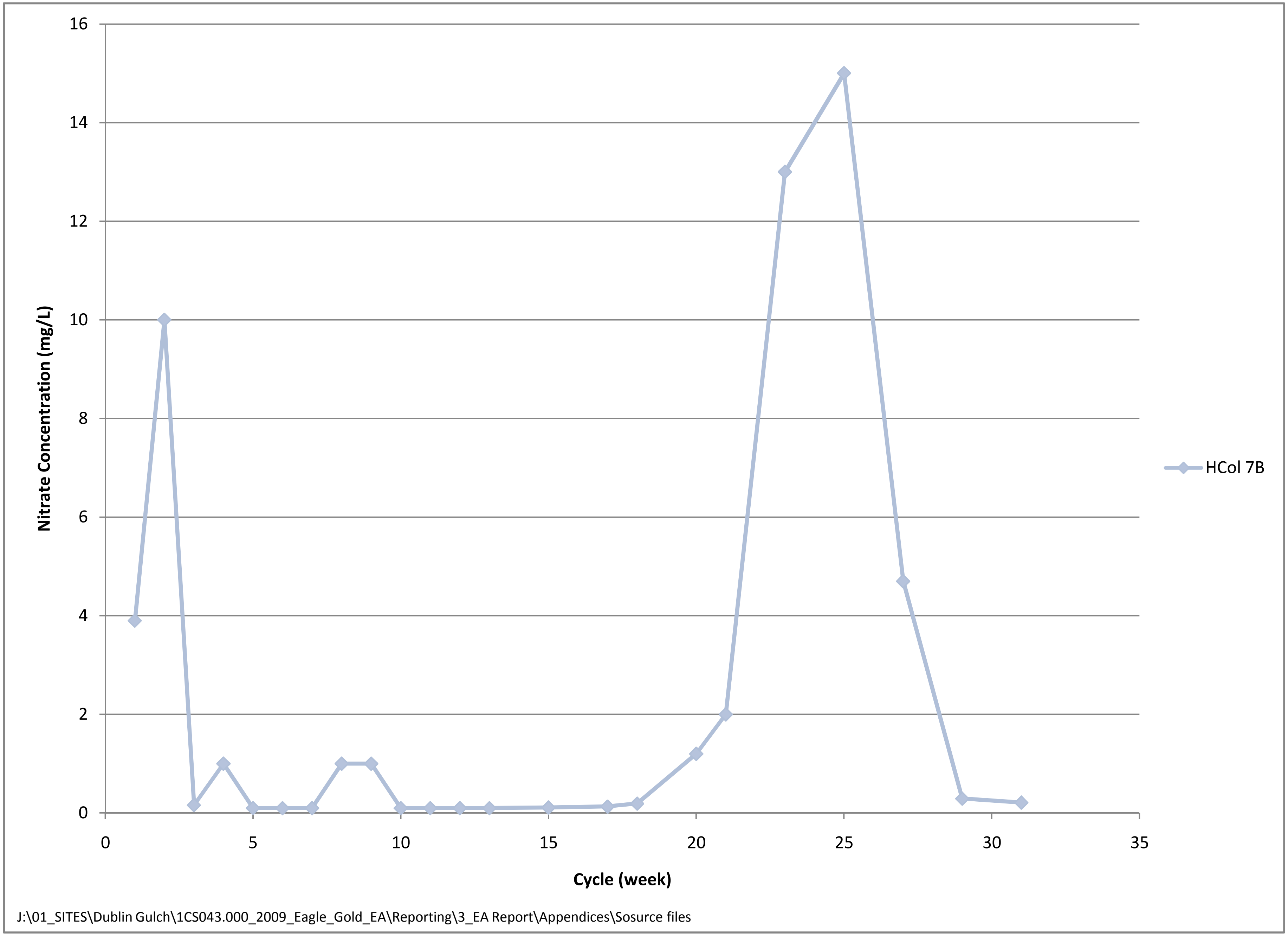
16
14
12
10
8
6
4
2
0
Nitrate Concentration (mg/L)
0
5
10
15
20
25
30
35
Cycle (week)
HCol 7B
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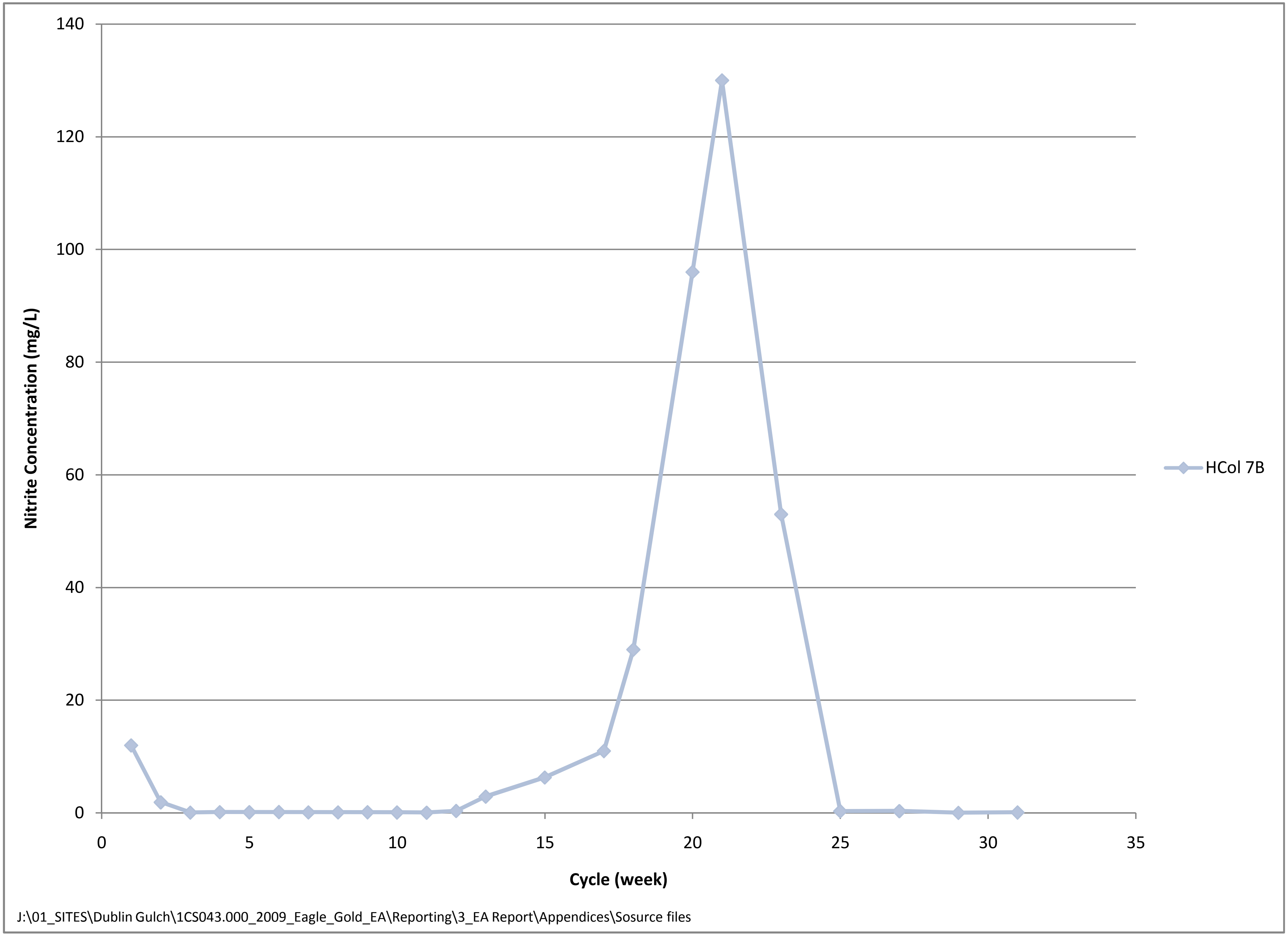
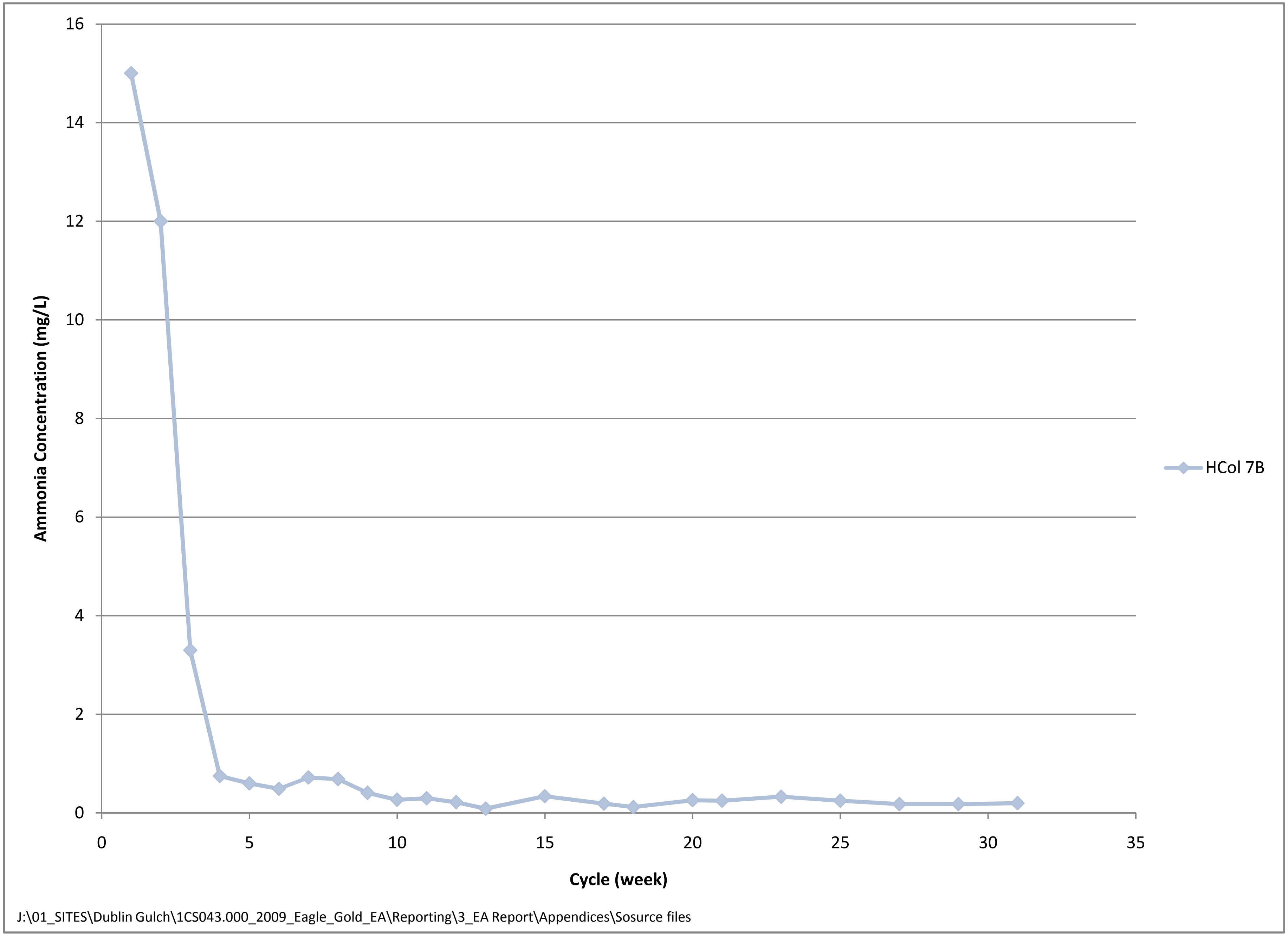
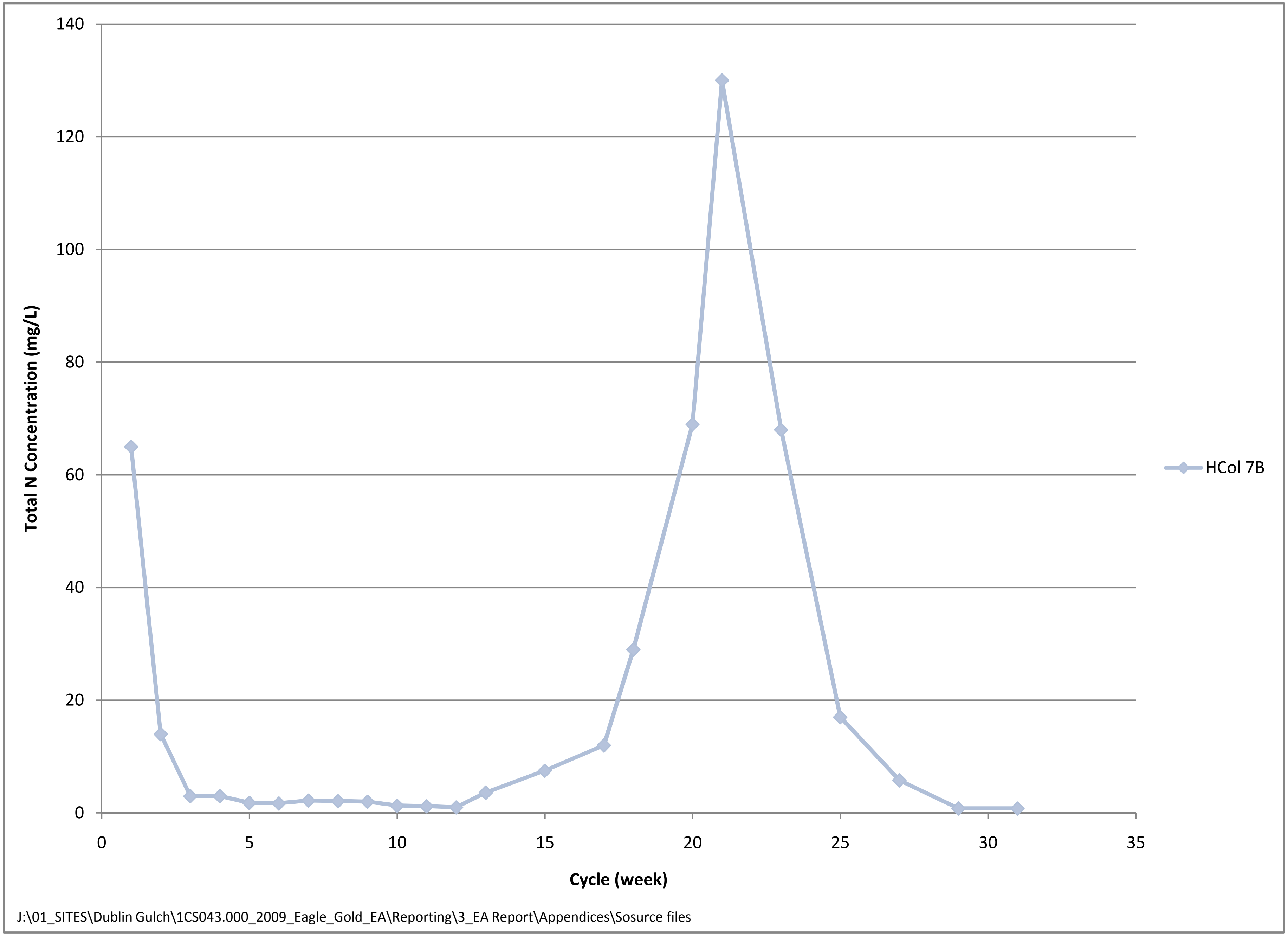

Nitrite Concentration (mg/L)
140
120
100
80
60
40
20
0
0
5
10
15
20
25
30
35
Cycle (week)
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files


16
14
12
10
8
6
4
2
0
Ammonia Concentration (mg/L)
0
5
10
15
20
25
30
35
Cycle (week)
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosurce files


140
120
100
80
60
40
20
0
Total N Concentration (mg/L)
0
5
10
15
20
25
30
35
Cycle (week)
HCol 7B
J:\01_SITES\Dublin Gulch\1CS043.000_2009_Eagle_Gold_EA\Reporting\3_EA Report\Appendices\Sosource files

Appendix I: Source Term Prediction Equations

Source Term Prediction Equations

The steps used in the predictions of source term water quality included the following:

Step 1: Determine the release rates from humidity cell test program for each of the main material types.

$$R = (C \times I)/M$$

Where:

R = metal leach rate as observed by humidity cell testing (in mg/kg/wk)
C = steady state concentration measured in the humidity cell leachate (mg/L)
I = water added to the cell (L/wk)
M = mass of sample in the cell (kg)

An independent release rate (R) was calculated for each of the main material types (metasediment, granodiorite A,B and C, and ore composite). Where more than one humidity cell for a given material type was available the values were averaged.

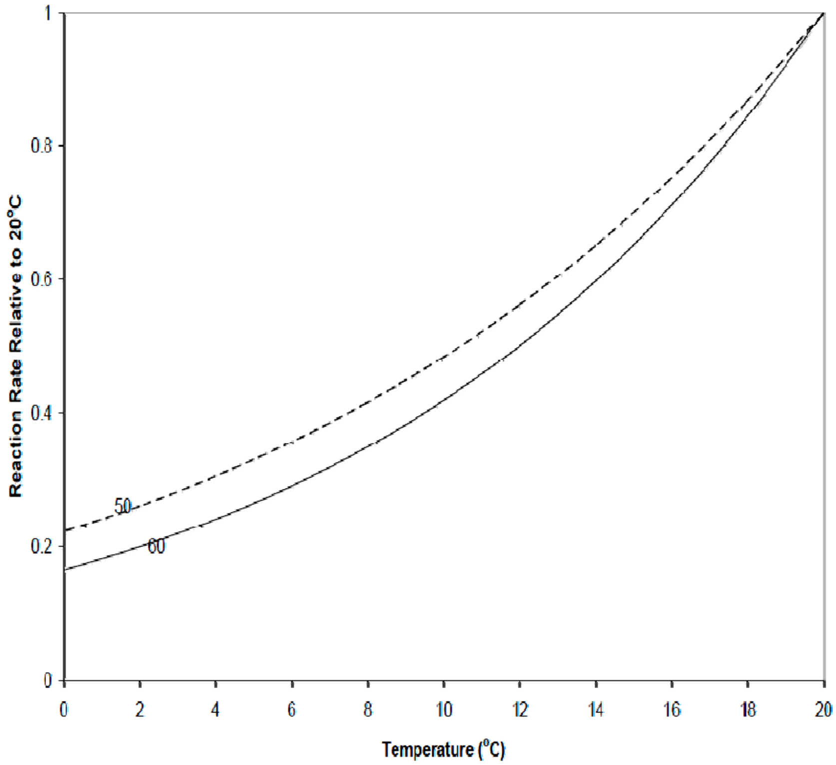
Step 2: Correct the release rates for field temperatures, field grain size distributions, field flow path development and anticipated composition of each source.

$$M_{adj} = R \times k_T \times k_{gs} \times k_{rm} \times k_f$$

Where:

M_{adj} = the adjusted metal leach mass (in mg/wk)
R_i = metal leach rate as observed by humidity cell testing (in mg/kg/wk)
k_T = adjustment factor to correct for temperature effects (unitless)
K_{gs} = adjustment factor to correct for grain size effects (unitless)
K_{rm} = adjustment factor to correct for rock mass and material mixtures (in kg)
k_f = adjustment factor to correct for flow path development, or degree of flushing (unitless)

The adjustment factor to correct for temperature considers that the humidity cells are operated at a temperature of approximately 20^{o}C, whereas annual average temperatures at the site for the data on record indicate values between approximately 2^{o}C and -5^{o}C. Lower temperatures tend to slow the rate of chemical oxidation as described by the Arrhenius equation and illustrated in the graphic below showing the decrease in oxidation rate predicted by the Arrhenius equation for pyrite activation energies of 50 and 60 KJ/mol. An adjustment factor of 0.2 was used for the Eagle Gold Project which corresponds to an average annual temperature of approximately 2^{o}C which is considered conservative for this site.



(source: MEND, 2005)

The adjustment factor for grain size considers that the proportion of the material in the field in the particle size range of approximately 2mm and finer is considered to be the most reactive due to the significantly larger surface area and resulting reactivity (Price, 1997). Humidity cells are typically conducted on that portion of a sample passing the ¼" or <6.3mm. Correction factors used for the Eagle Gold Project were estimated based on particle size distributions information provided by Fairbanks Gold Mining Inc on run-of-mine samples from the Fort Knox project for the waste scenarios, and on the planned crush size for the heap leach facility.

The adjustment factor to correct for rock mass and material mixtures accounts for the estimated proportion of each material type in each facility. This information was provided by Scott Wilson and Associates.

The adjustment factor to correct for flow path development, or degree of flushing and accounts for the mass of material in a given facility, or proportion of rock that is likely to be in contact with infiltrating water.

Step 3: Calculate the annual average concentration from each source

$$C_{adj} = (M_{adj} / Q) \times 52$$

Where:

C_{adj} = the adjusted unequilibrated field concentration (in mg/L)
M_{adj} = the adjusted metal leach rate (in mg/wk)
Q = flows in contact with leachable rock (in L/wk)

Flow estimates for contact water were provided by Stantec. Values used in this evaluation were for the "average years" hydrologic scenario, using annual values for selected time steps.

Step 4: Adjust for any mineralogical solubility limits, and

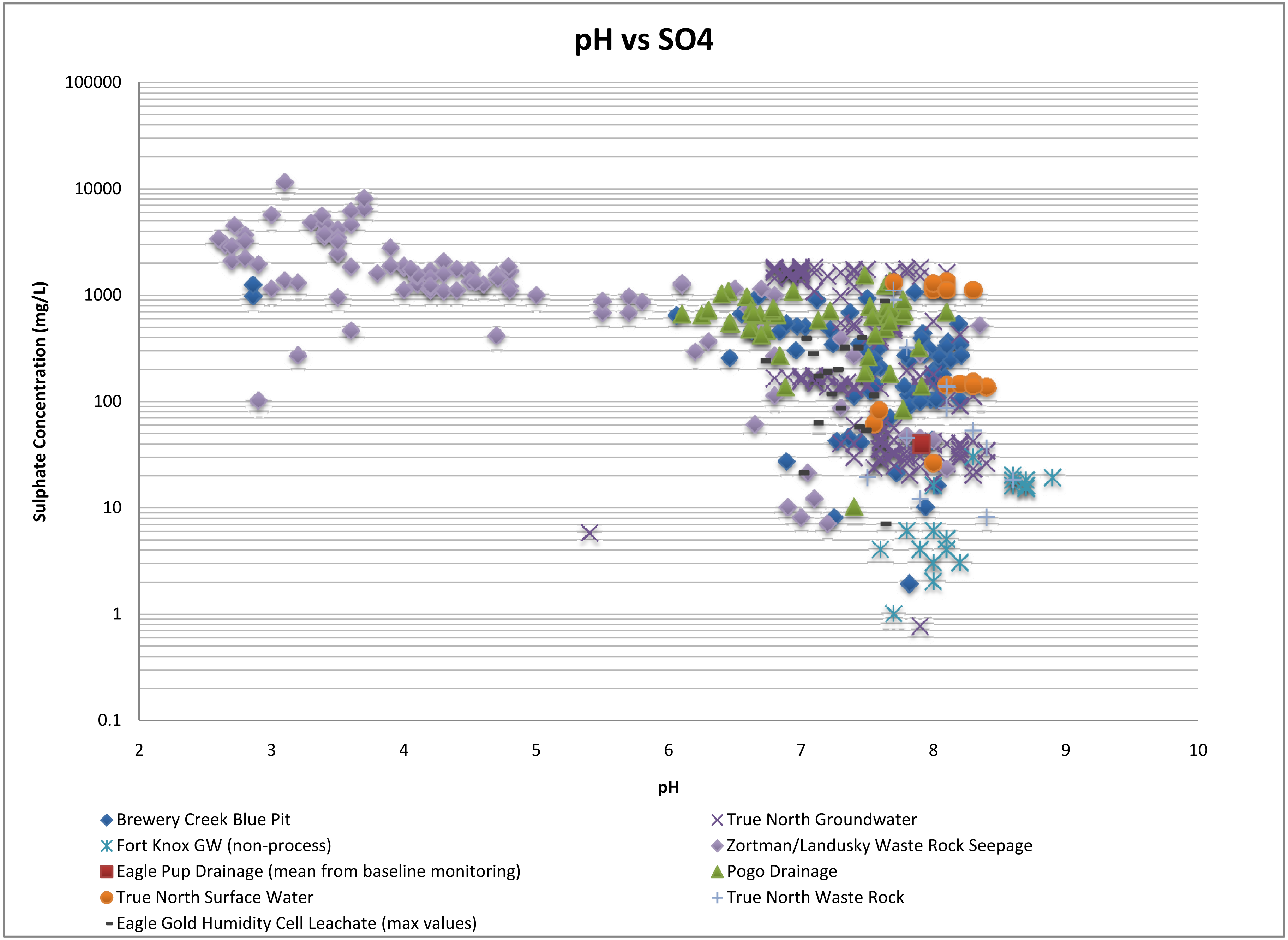
The United States Geological Survey (USGS) computer speciation program PHREEQC coupled with the U.S. EPA thermodynamic database MINTEQA2 was used to determine whether the concentrations of the contact water would exceed solubility constraints.

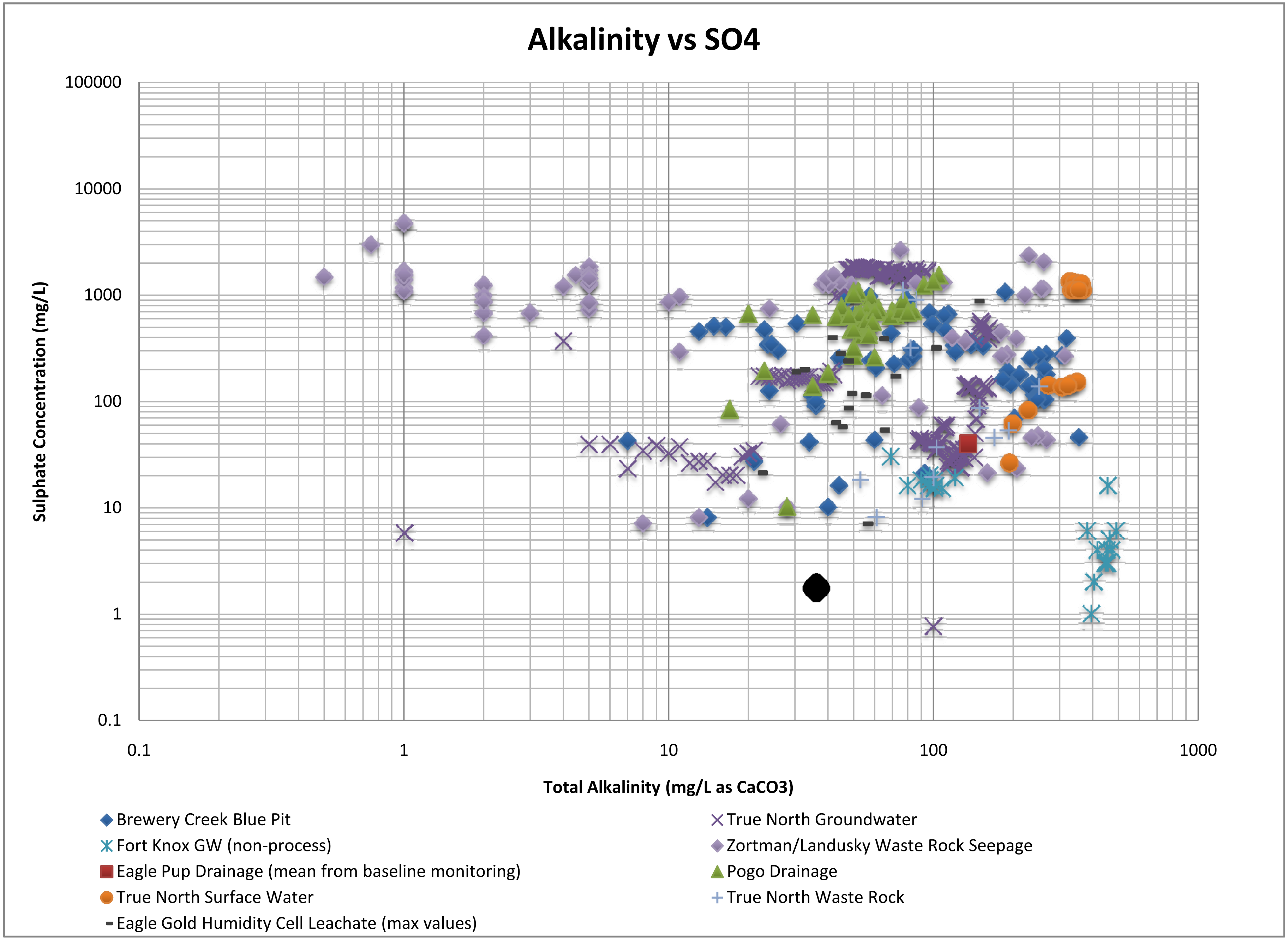
Step 5: Compare to analog dataset.

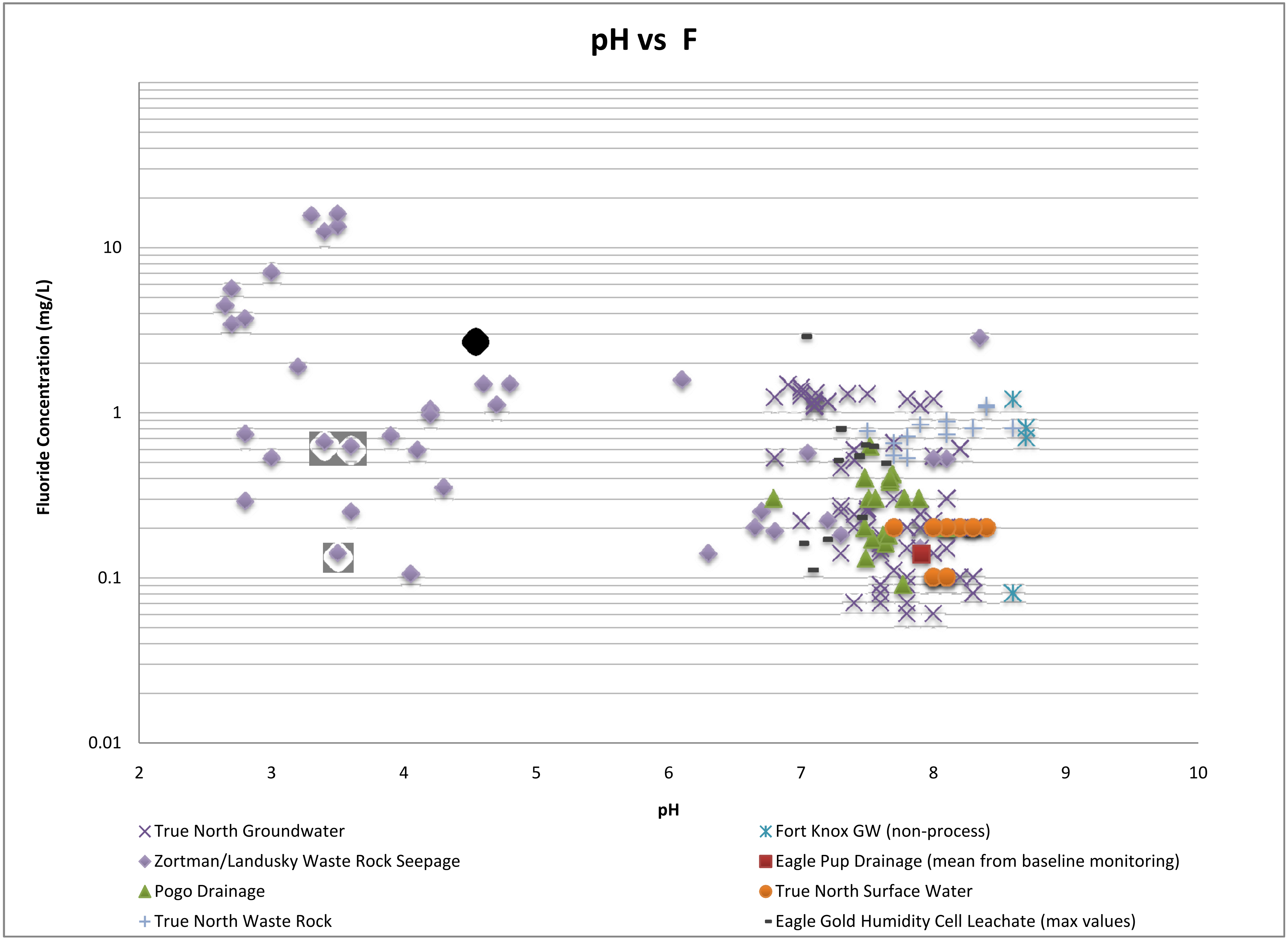
An analog dataset was developed as a basis for comparison of predicted source term concentrations with particular relevance for those parameters that were often below detection limits in the humidity cell data and therefore artificially increased in the scale-up calculations. Details of the analog dataset and the upper bounds selected on that basis are provided in Appendices I and J.

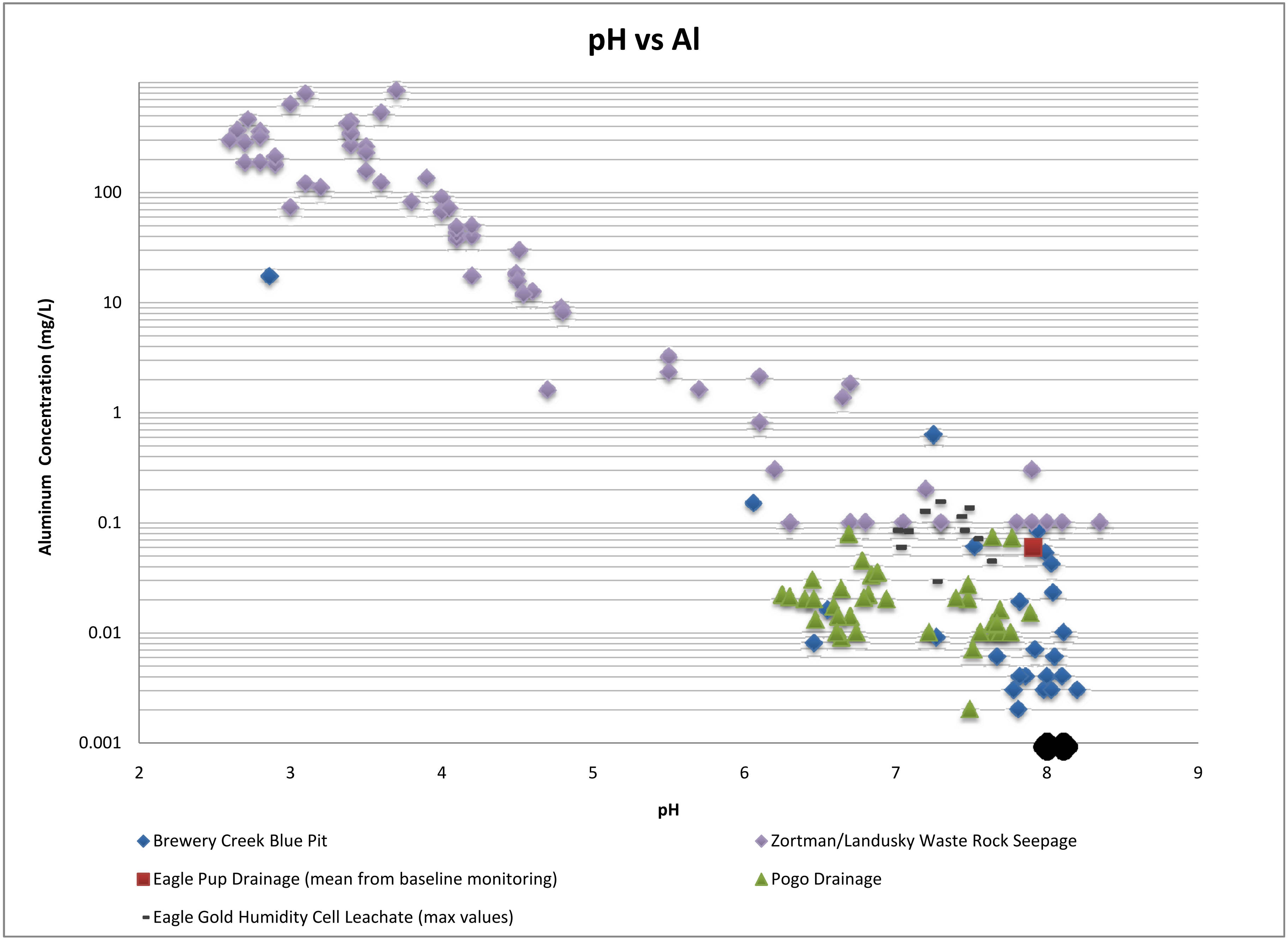
Appendix J: Data Set for Waste Rock & Pit Wall Analogs

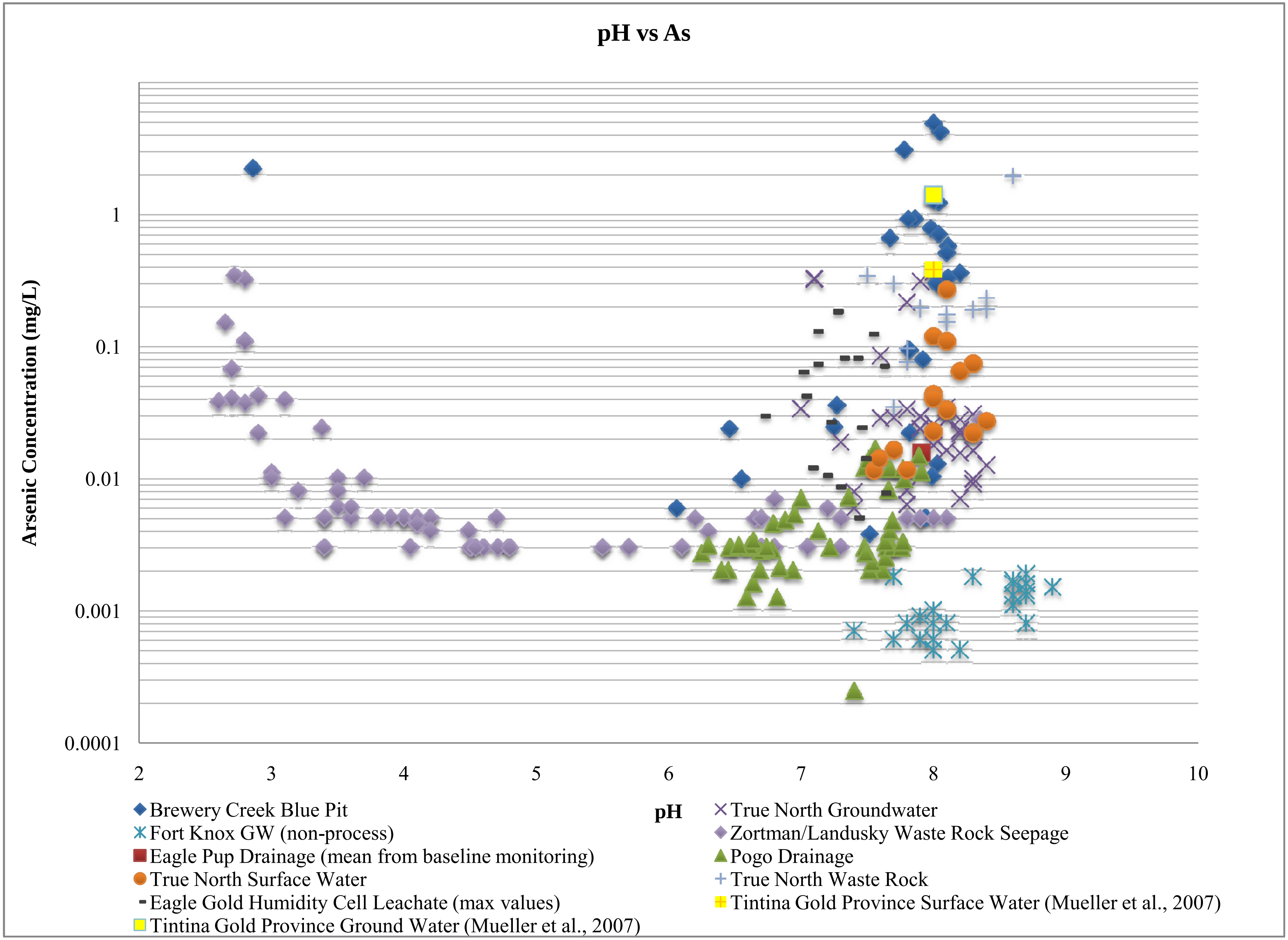
Parameter	Upper Bound		General Comments and Rationale
in mg/L	Value	Source	
pH	7 to 8.5	HCs	strong pH data in HC testwork to support a pH limit to the upper bounds selected from analog sites, i.e. to exclude acidic solutions
SO4	1820	True North (GW)	The highest concentration from the buffered analog sites is 1820 mg/L from True North (GW), surface water, with likely less residence time is likely lower, perhaps best approximated by Pogo max of 1520 mg/L
Alkalinity (as mg CaCO3/L)	355	True North surface water	Fort Knox values are from groundwater which likely has more residence time and typically has higher alkalinity values than surface water. The Brewery Creek analog and True North surface waters were typically around 300 and may be more appropriate (not conservative to go for highest value necessarily)
F	2.87	Eagle Gold Humidity Cell Leachates	True North max in GW is 1.5 mg/L, Fort Knows had values up to ~ 1.2 mg/L and Pogo was slightly lower with max of 0.6 mg/L. Highest humidity cell leachate is greater than the analog values
Cl	159	Brewery Creek	Most analog sites had very low Cl (10 or so mg/L), but Pogo had a max of 132 mg/L and Brewery Creek had a max of 159 mg/L (excluding two values ~ 5000 that appear in error).
P	0.78	Brewery Creek	Often values were below detection, True North had values up to 0.52 mg/L, Pogo values were slightly lower (up to 0.21 mg/L as PO4).
Al	0.6	Brewery Creek	Data from Zortman/Landusky is excluded since low pH conditions influenced the concentrations of Al even in buffered solutions from this site, there were likely colloidal Al levels higher than would be expected at sites where pH values were consistently near neutral. Solids chemistry for Al not known from Brewery Creek, but given the geology, it could be similar to Eagle Gold.
As	1.4	Mueller et al and Brewery Creek Monitoring	Brewery Creek solids chemistry indicated median values dependent on lithology (highest in the quartz monzonite units) ranged from 29 to 586 ppm As, 90th percentiles were up to 2829 ppm As (SRK, 1994). Sediment geochemistry from the Tintina Gold Province as in Mueller et al (2007) had a median of 1670 ppm. Eagle Gold solids characterization suggests median values depending on lithology (highest in granodiorite), from ~ 70 ppm to 170 ppm, with the max value being 4100 ppm (SRK, in progress). The mineralized stockpile at Pogo had median As content of 199 ppm in the solids (max of 361 ppm) and may be a more appropriate analog for Eagle Gold.
Ag	0.002	Pogo	Data set fairly weak due to many below detection readings, Brewery Creek maximum is 0.03 mg/L but next highest is 0.00019 so suspect unit error on max value, Fort Knox is 0.01 mg/L but few detects and average is 0.0043, Pogo is 0.002 mg/L and True North is 0.04 mg/L, but again max value appears anomolously high compared to other detects and a unit error on entry is expected. All the maximum values appear anamolous, i.e. are spikes within their respective datasets other than perhaps Pogo in which there was variability but a few samples within an order of magnitude from the max.
B	0.05	Pogo	Data set fairly weak, many sites this isn't reported and many values below detection readings, Brewery Creek maximum is 0.02 mg/L, Pogo is 0.05 mg/L
Ba	1.78	Brewery Creek	Most sites reported Ba near or less than 0.2 mg/L, Brewery Creek had a max value of 1.78 mg/L
Bi	0.008	True North	Data set fairly weak, many sites this isn't reported and most values below detection readings, Brewery Creek & Pogo all <DL, Fort Knox all but 3 <DL, max is 0.2 mg/L (could be in error), True North most <DL, max 0.008 mg/L.
Ca	1060	Pogo	Pogo drainage max up to 1060 mg/L, supported by a number just below this value, most other analog sites had Ca values less than 350 mg/L
Cd	0.005	Pogo, BC	Solids chemistry for Cd at Pogo not available. Pogo is the only analog site within the buffered pH range with Cd concentrations above the humidity cell leachate max values.
Cr	0.032	True North	Data set fairly weak, many values below detection readings, Brewery Creek maximum is 0.0098 mg/L, Pogo is 0.016 mg/L, Fort Knox is 0.002 mg/L and True North is 0.032 (GW) and 0.007 (SW) mg/L
Cu	0.07	Brewery Creek	Most values in the near neutral pH range for analog sites are below 0.02 mg/L, with the exception of one from Brewery Creek up to 0.07 mg/L, since the max value from the HCs was ~ 0.02 mg/L, upper bound chosen as 0.07.
Fe	6.4	True North (SW)	A lot of variablility in the analog sites for Fe concentration, Pogo and Brewery Creek (with a few exceptions) was generally <0.1 mg/L, True North surface water values have a max of 6.4 mg/L and the Groundwater is as high as 11.4 mg/L. This could very likely be higher as an influence of reducing conditions in GW, therefore the upper bound was selected from the surface water data
Hg	0.0001	Pogo, BC	Most values well below this, other than for Zortman/Landusky which had a higher detection limit and acidic pH values
K	21.7	Fort Knox	Most sites report K values less than 10 mg/L, Brewery Creek max is 8 mg/L, True North max is 10.1 mg/L and Fort Knox max is 21.7 mg/L
Li	0.018	Brewery Creek	Most sites don't report this parameter. Brewery Creek max is 0.018 mg/L
Mg	374	Pogo	Brewery Creek and True North have lower Mg, with max values of 52.5 mg/L and 63.9 mg/L respectively (though the TN GW is slightly higher), Fort Knox and Pogo have higher Mg, maximum values of 236 and 374 mg/L respectively.
Mn	4.6	Pogo	Most analog sites have values of Mn in the few mg/L. Brewery Creek max is 4.18 mg/L, Fort Knox is 2.2 mg/L, Pogo is 4.6 mg/L and True North is <1
Na	38.3	Fort Knox	Pogo has values typically in the few hundred mg/L, which seems unusual (possibly Caustic soda influence?), more typical is what is reported for max values at Brewery Creek with 5 mg/L, Fort Knox with 38.3 ng/L and True North with 22.3 mg/L.
Mo	0.09	Eagle Gold Humidity Cell Leachates	Analog sites all below the maximum value from the humidity cell leachates. Brewery Creek maximum value was close (0.08 mg/L).
Ni	1.28	Brewery Creek	Many analog sites don't report or have values below detection. The max for Pogo is 0.116 mg/L and Fort Knox is 0.03 mg/L. Brewery Creek is 1.28 mg/L
Pb	0.075	Brewery Creek	Most values well below 0.01 mg/L, max value from Brewery Creek 0.075 mg/L, Pogo max value ~ 0.04 mg/L, max from humidity cell leachates ~0.0065 mg/L. Solids data for Pb not available for Brewery Creek or Pogo.
Si	33.8	Brewery Creek	Most values from analog sites typically <10 mg/L, Brewery Creek max value is 33.8 mg/L
Se	0.0627	Eagle Gold Humidity Cell Leachates	Highest value from near neutral analog sites is from Pogo with value of ~ 0.04 mg/L, Zortman/Landusky report value up to 1.4 mg/L but at a low pH (3.7). The Eagle Gold humidity cell program provided a maximum value of 0.0627 mg/L. This value agrees fairly well with the adjusted Se as based on SO4:Se ratios
Sb	1.4	Brewery Creek	Solids chemistry for True North indicates average Sb of 164 ppm in the waste and 1324 ppm in the ore (from dnr-aba.xls file), solids data for Brewery Creek indicates median Sb values varying by lithology from 4 ppm to 87 ppm. Eagle Gold static characterization indicates significantly lower averages (from 1 to 4 ppm, max of 114 ppm), suggesting that Brewery Creek would be the better analog than True North
Sn	0.0002	Brewery Creek	Data set fairly weak, many sites this isn't reported and many values below detection readings, Brewery Creek maximum is 0.0002 mg/L
Tl	0.0016	Brewery Creek	Not reported at many sites, and often less than detection. Brewery Creek max value is 0.0016 mg/L, Pogo max value is 0.0014 mg/L.
Ti	0.002	Brewery Creek	Only reported at Brewery Creek, nearly always less than detection (0.001), when detected, max value is 0.002 mg/L
U	0.141	Eagle Gold Humidity Cell Leachates	Eagle Gold humidity cell leachate higher than any of the analog sites, Pogo max was 0.05 mg/L.
V	0.015	Eagle Pup drainage	Often this parameter is not reported, the max value from Brewery Creek is 0.006 mg/L, from Pogo is 0.00158 mg/L and the Eagle Pup drainage is 0.015 mg/L (median)
Zn	1.8	Pogo	Pogo max is 1.8 mg/L, but most values, including those from Brewery Creek are much lower (with the exception of one sample with acidic pH), typically less than 0.2 mg/L
NO3-N	40.9	Brewery Creek	This can be highly variable, Brewery Creek max is 40.9 and seems to be typical for blast affected rock, True North values were up to 2.9 mg/L, Pogo values were up to 1070 mg/L(?) and weren't included in this assessment

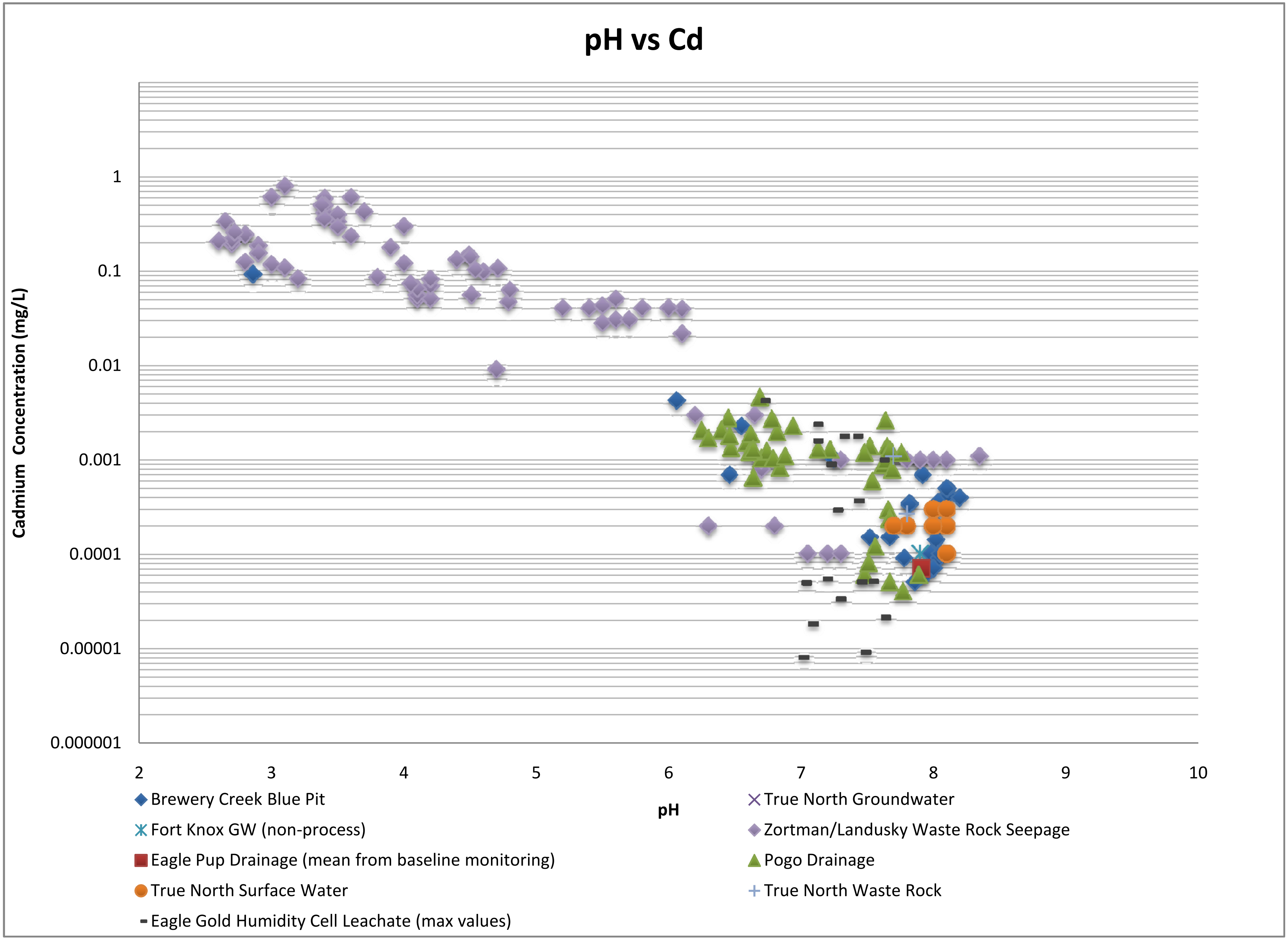

pH vs SO4
100000
10000
1000
100
10
1
0.1
Sulphate Concentration (mg/L)
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

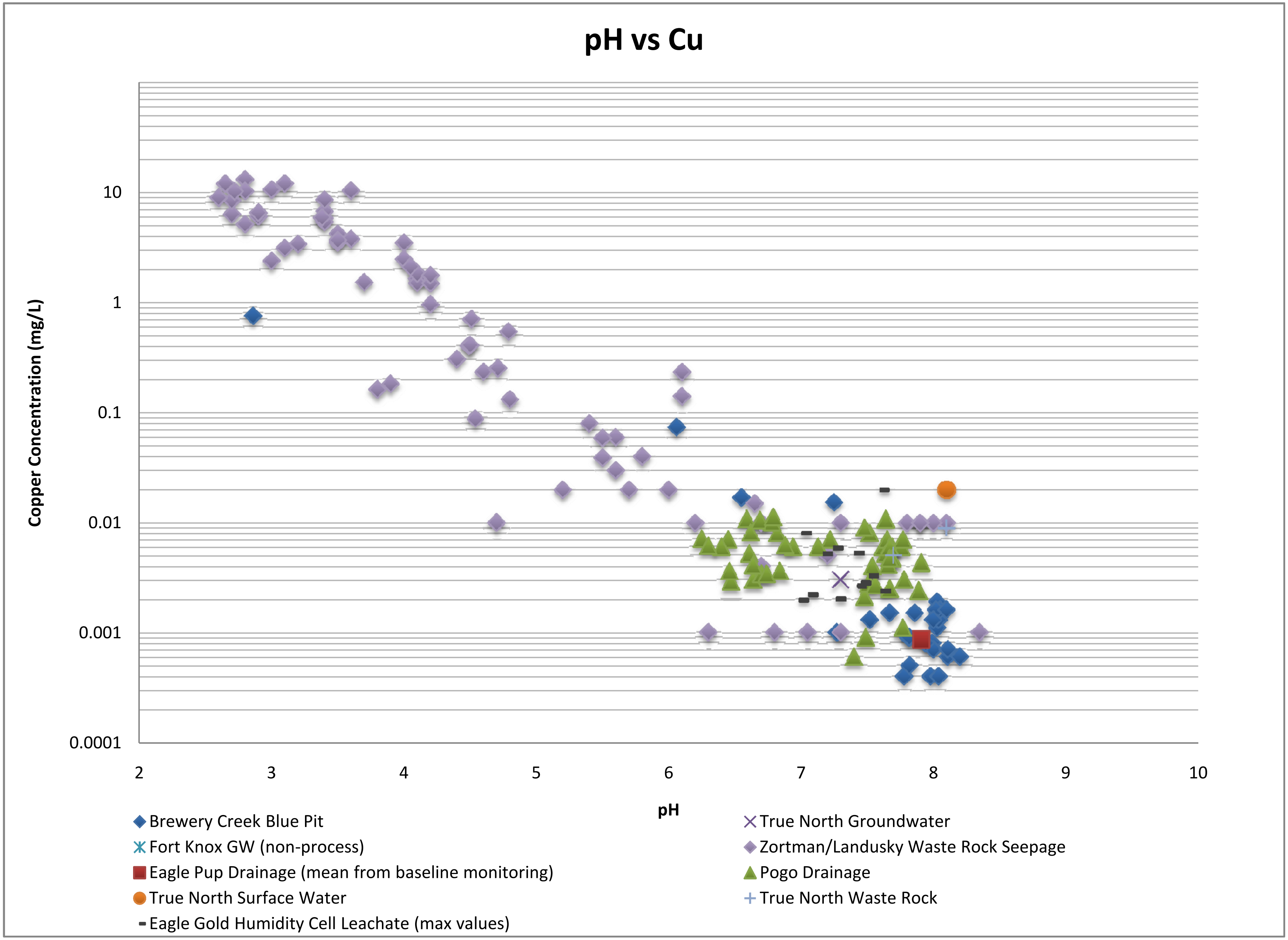

Alkalinity vs SO4
Sulphate Concentration (mg/L)
100000
10000
1000
100
10
1
0.1
0.1
1
10
100
1000
Total Alkalinity (mg/L as CaCO3)
Brewery Creek Blue Pit
True North Groundwater
Fort Knox GW (non-process)
Zortman/Landusky Waste Rock Seepage
Eagle Pup Drainage (mean from baseline monitoring)
Pogo Drainage
True North Surface Water
True North Waste Rock
Eagle Gold Humidity Cell Leachate (max values)

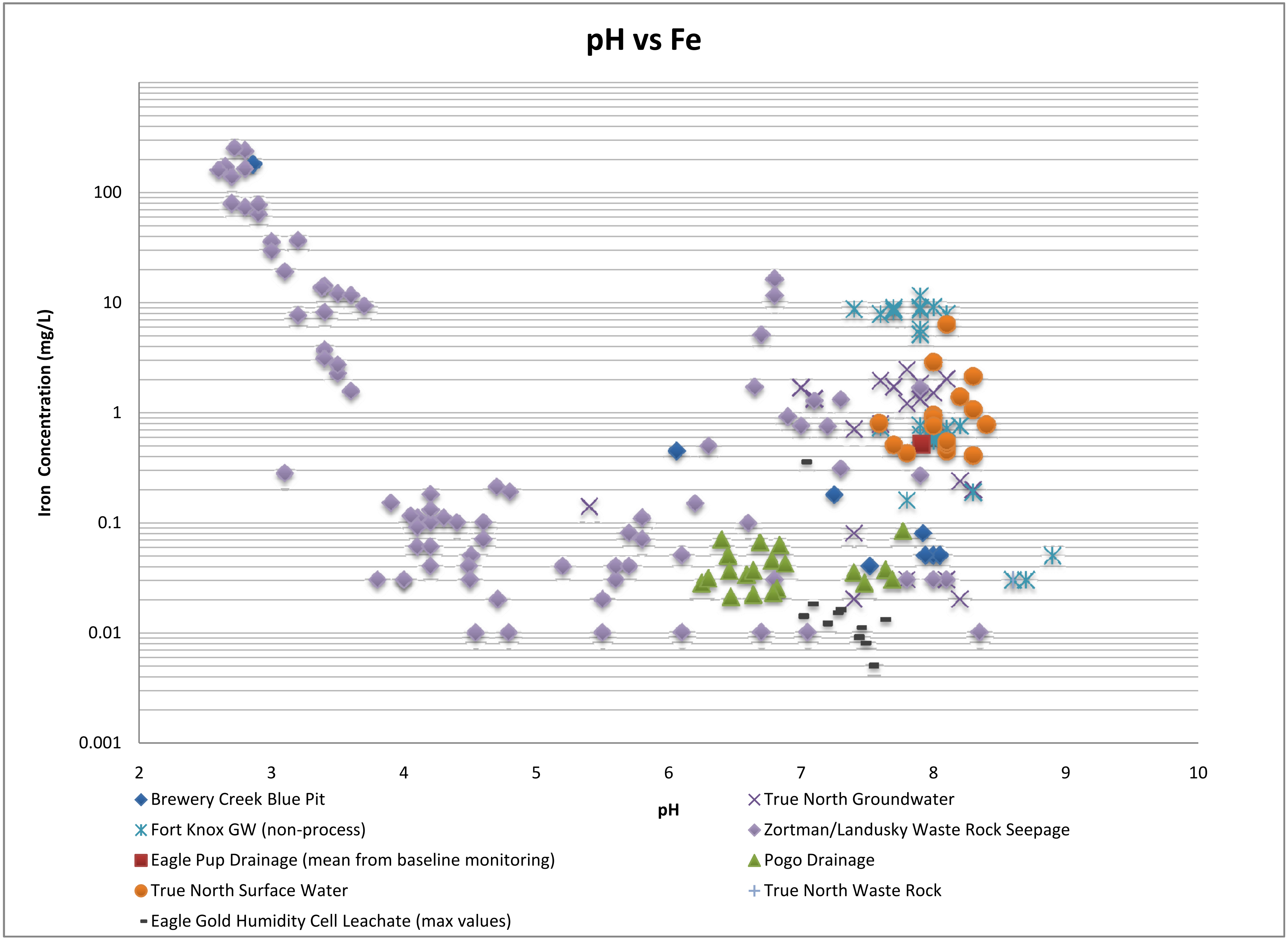

pH vs F
Fluoride Concentration (mg/L)
10
1
0.1
0.01
2
3
4
5
6
7
8
9
10
pH
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)

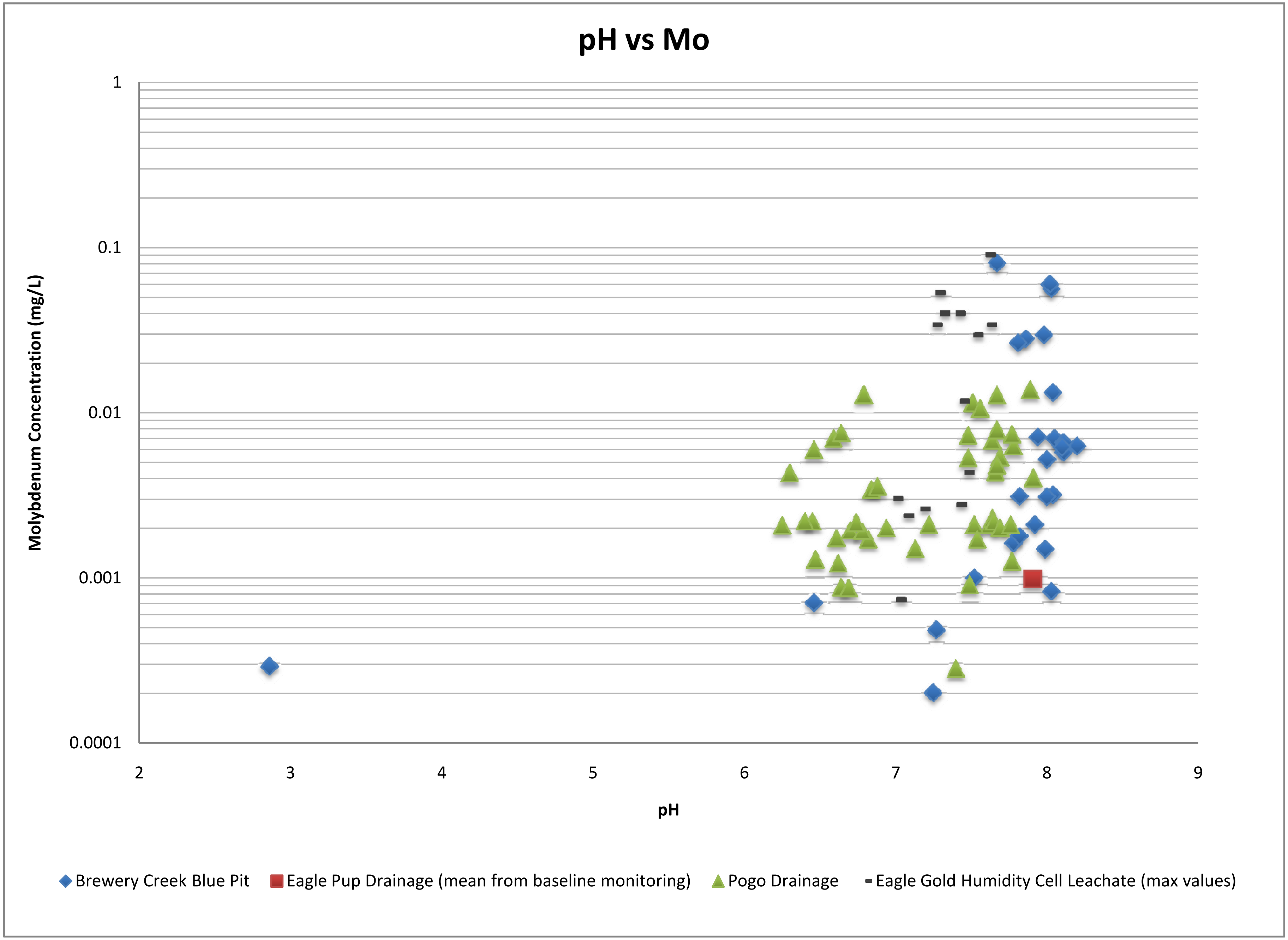

pH vs Al
Aluminum Concentration (mg/L)
100
10
1
0.1
0.01
0.001
2
3
4
5
6
7
8
9
pH
Brewery Creek Blue Pit
Zortman/Landusky Waste Rock Seepage
Eagle Pup Drainage (mean from baseline monitoring)
Pogo Drainage
Eagle Gold Humidity Cell Leachate (max values)

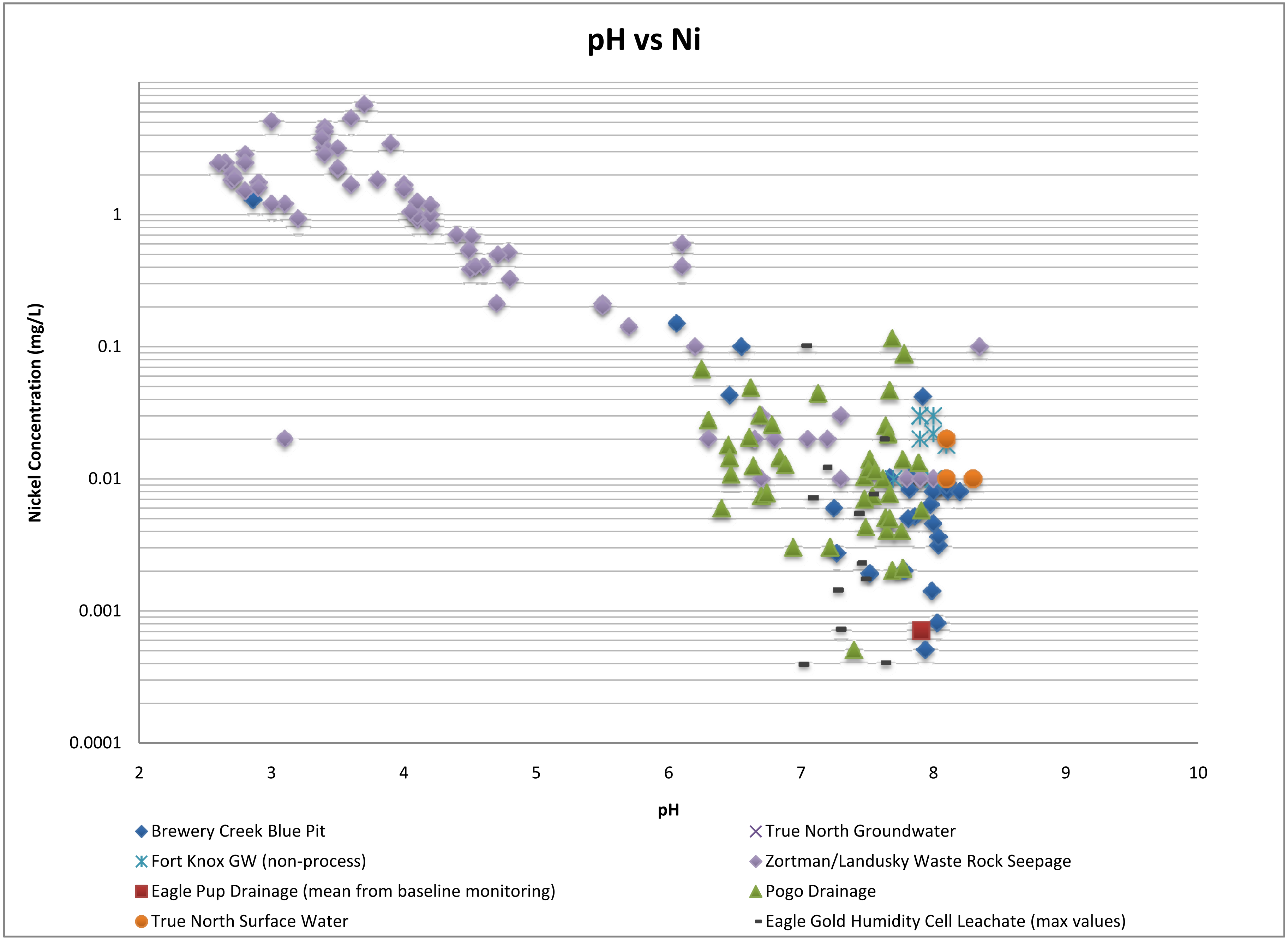

pH vs As
Arsenic Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
Tintina Gold Province Ground Water (Mueller et al., 2007)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock
Tintina Gold Province Surface Water (Mueller et al., 2007)

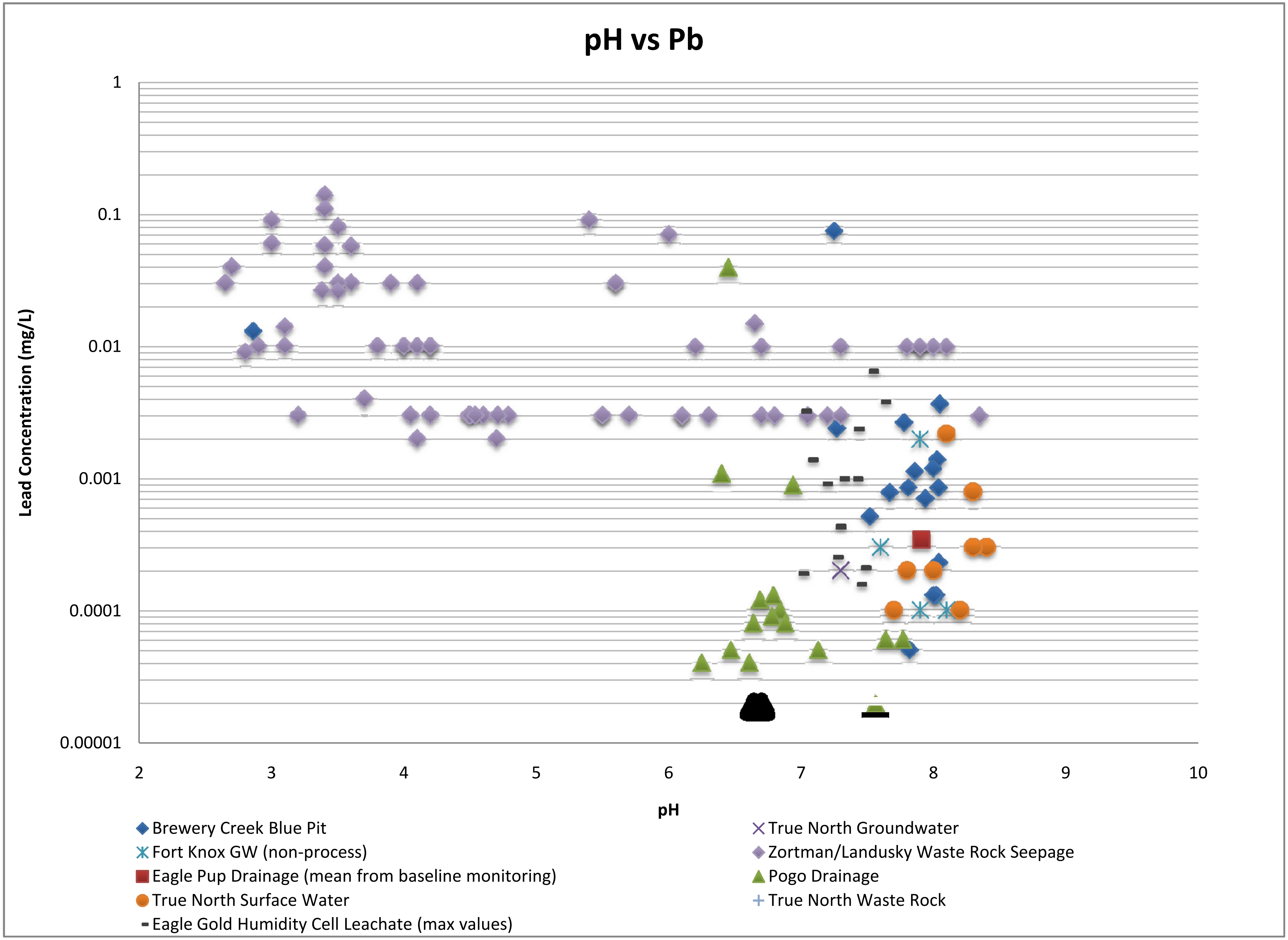

pH vs Cd
Cadmium Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
0.000001
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

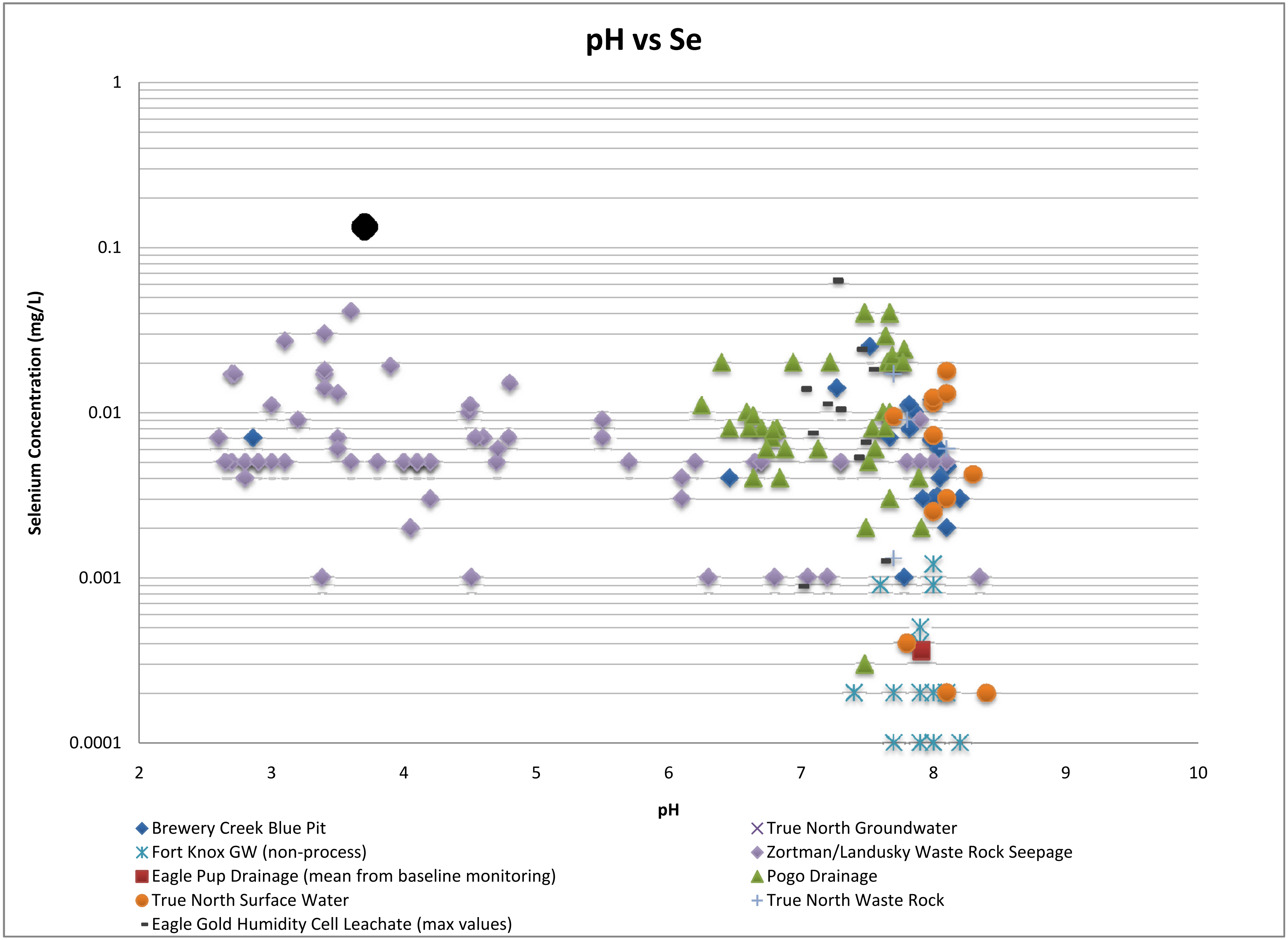

pH vs Cu
Copper Concentration (mg/L)
10
1
0.1
0.01
0.001
0.0001
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

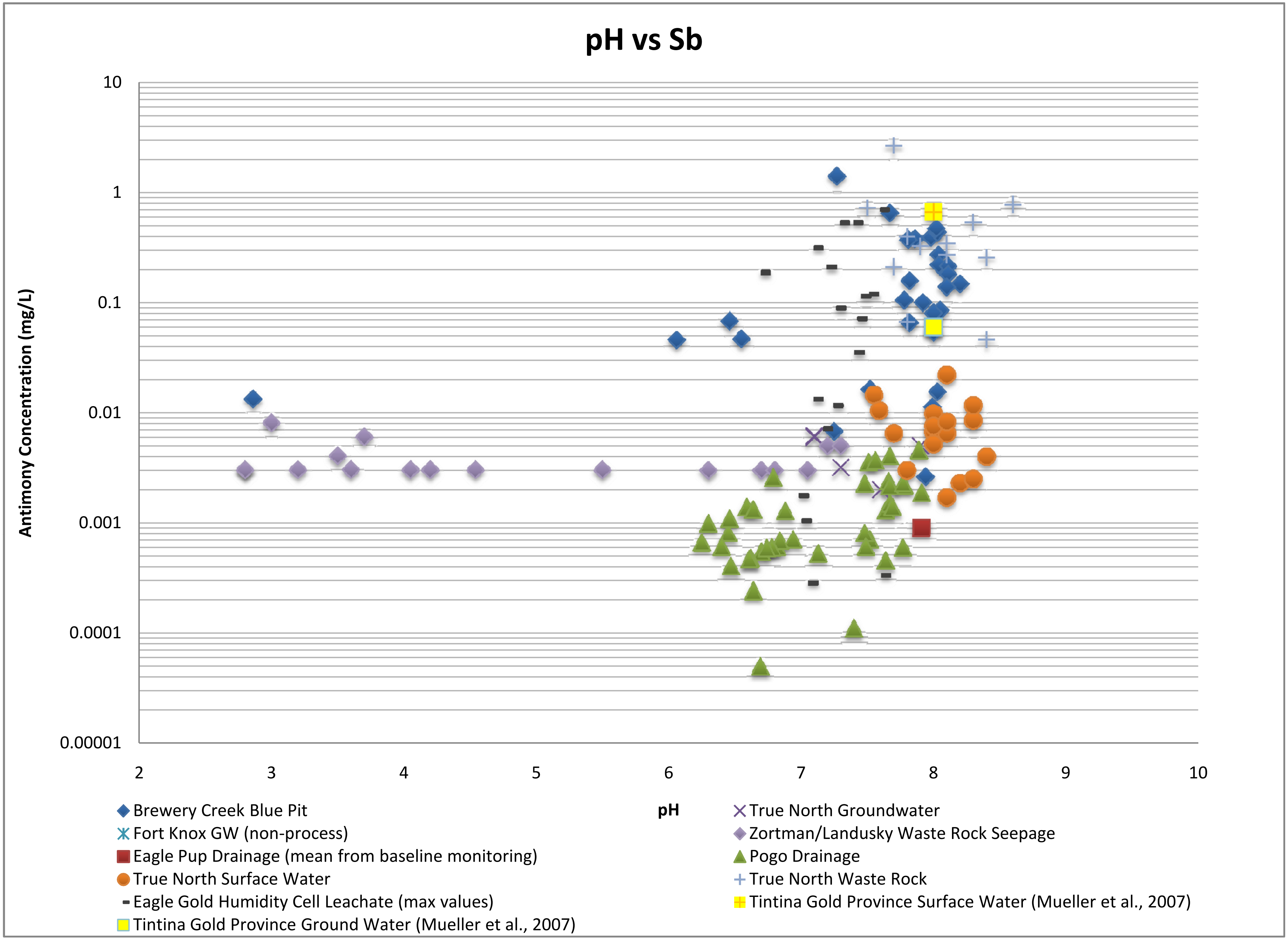

pH vs Fe
Iron Concentration (mg/L)
100
10
1
0.1
0.01
0.001
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

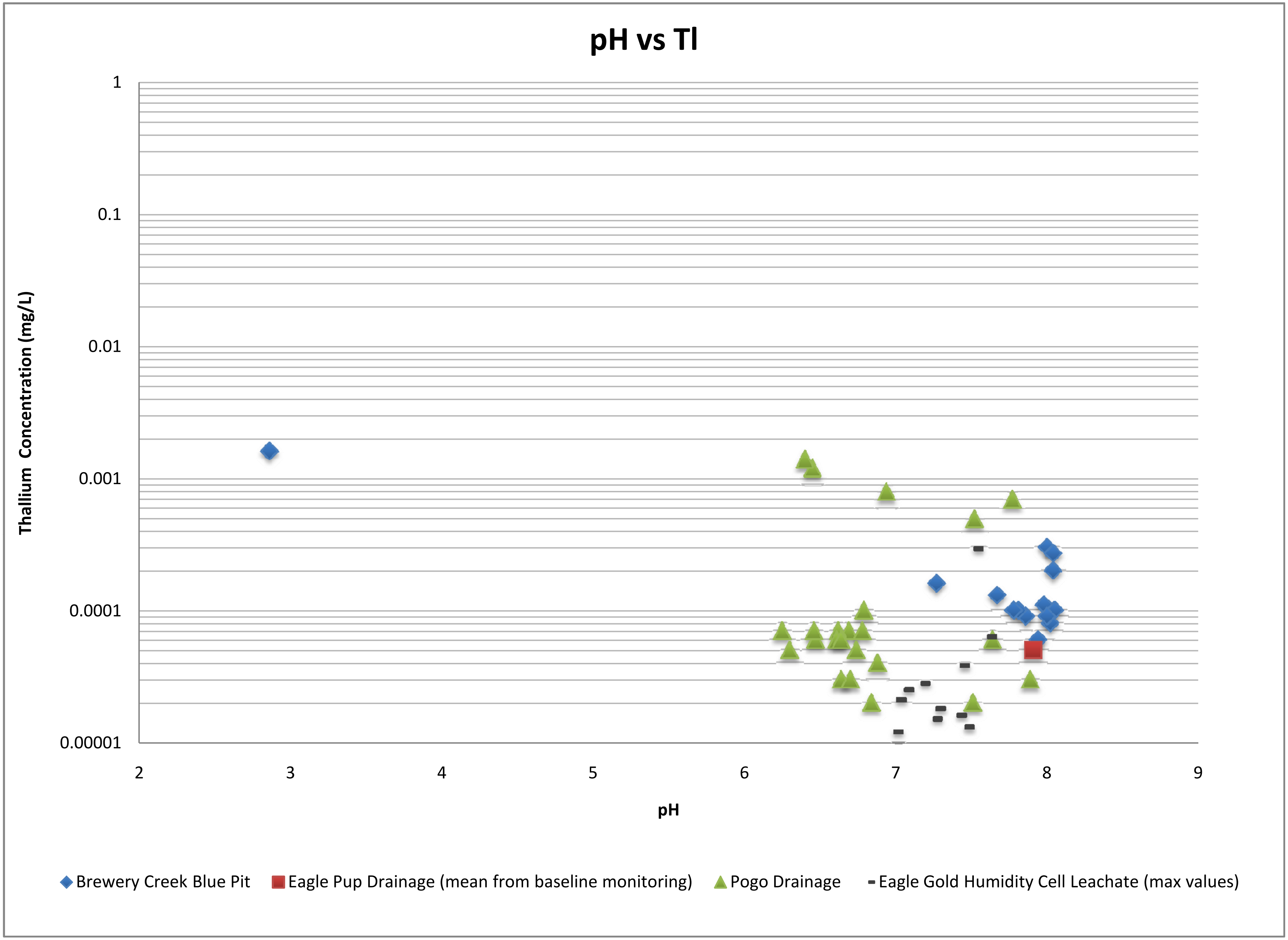

pH vs Mo
1
0.1
0.01
0.001
0.0001
Molybdenum Concentration (mg/L)
2
3
4
5
6
7
8
9
pH
Brewery Creek Blue Pit
Eagle Pup Drainage (mean from baseline monitoring)
Pogo Drainage
Eagle Gold Humidity Cell Leachate (max values)

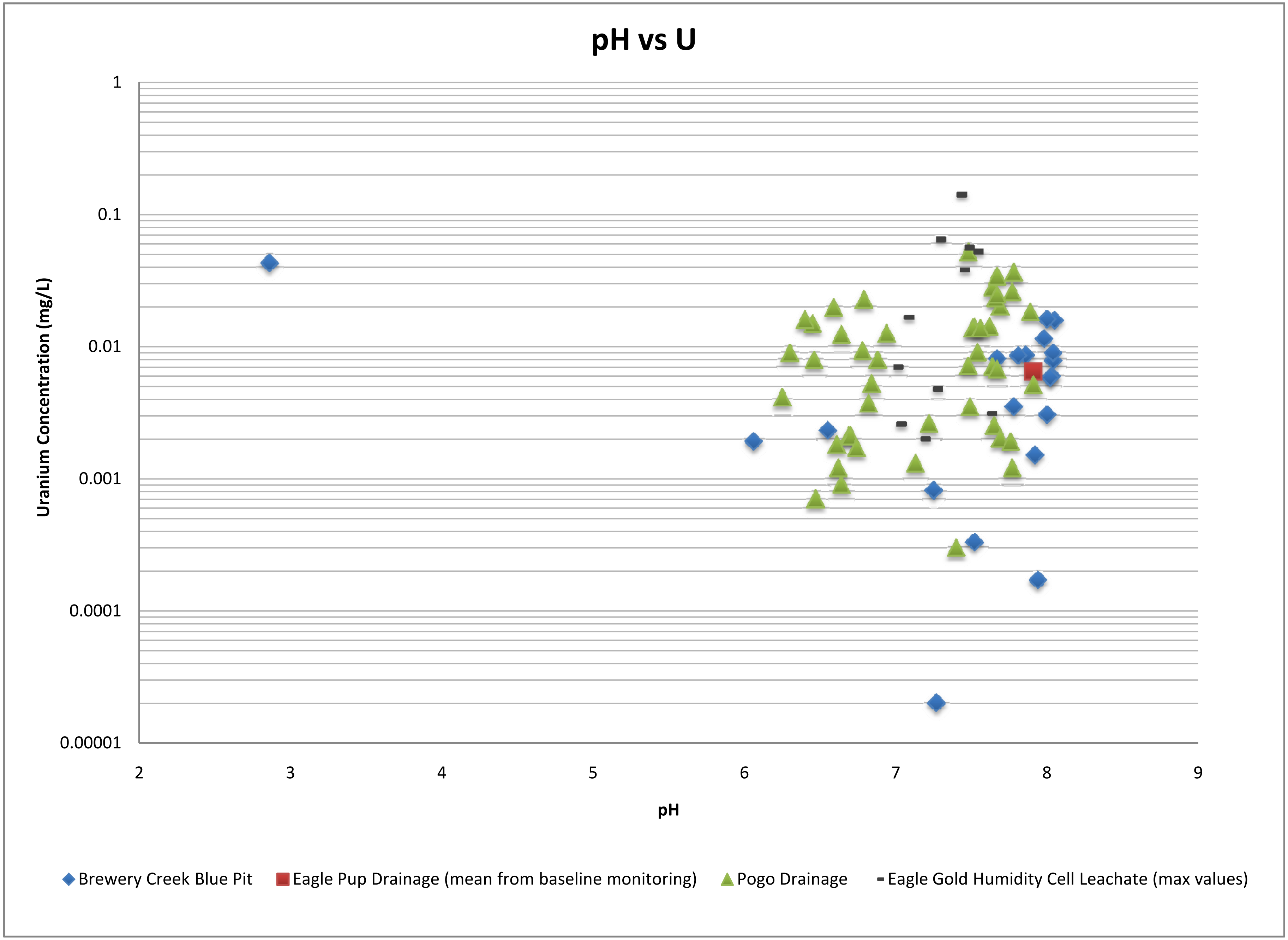

pH vs Ni
Nickel Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
Eagle Gold Humidity Cell Leachate (max values)

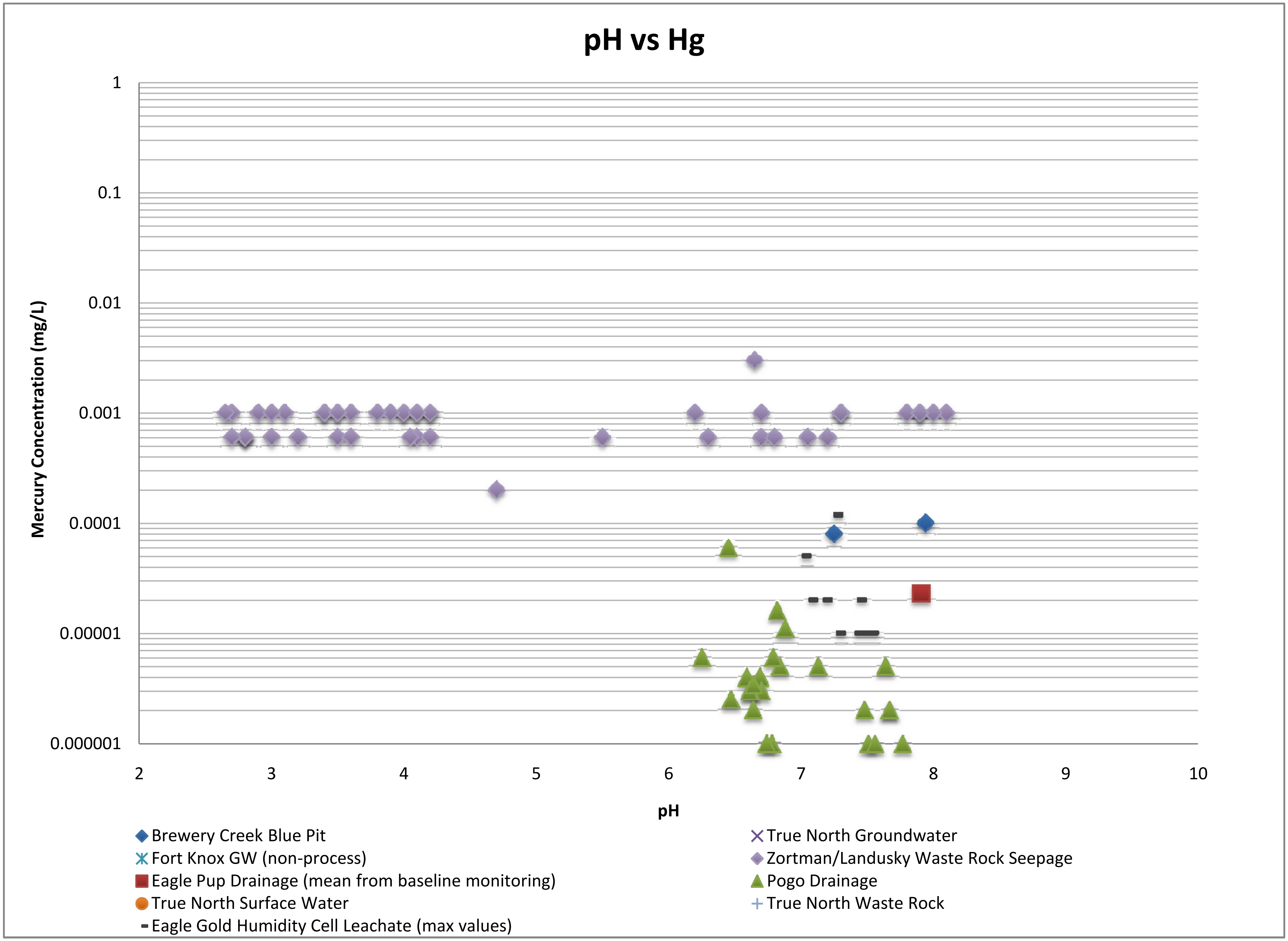

pH vs Pb
Lead Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

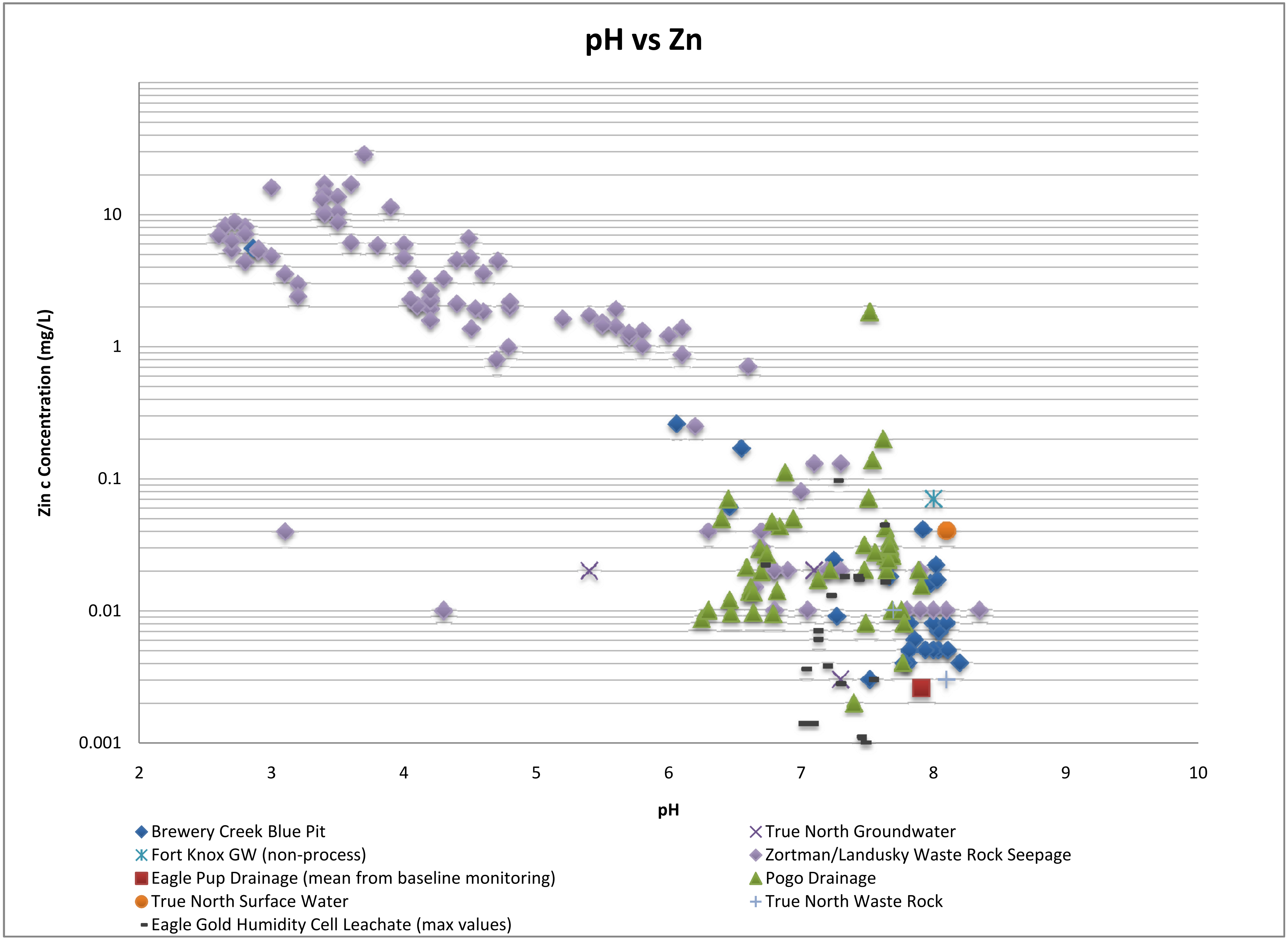

pH vs Se
Selenium Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

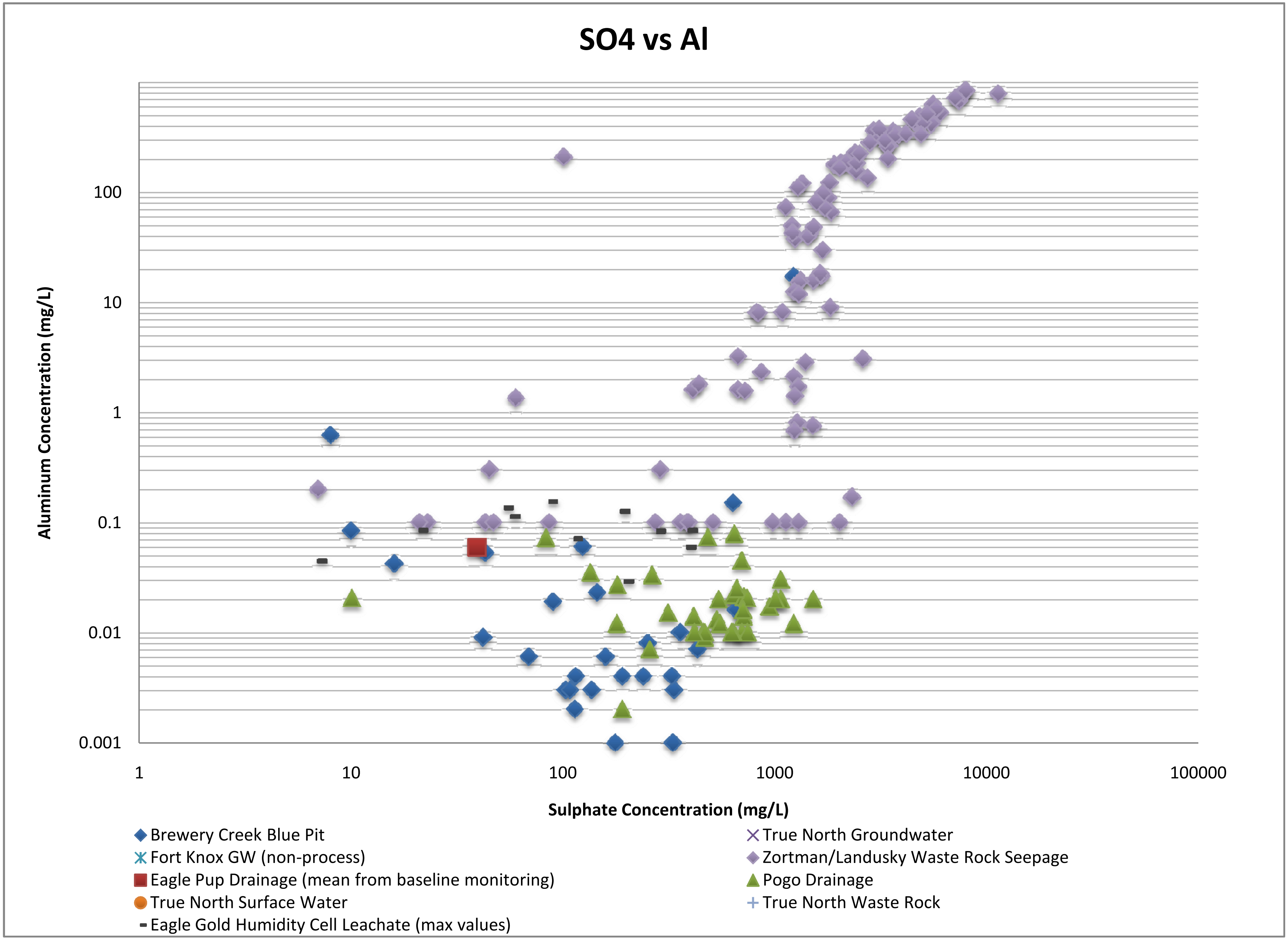

pH vs Sb
Antimony Concentration (mg/L)
10
1
0.1
0.01
0.001
0.0001
0.00001
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
Tintina Gold Province Ground Water (Mueller et al., 2007)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock
Tintina Gold Province Surface Water (Mueller et al., 2007)

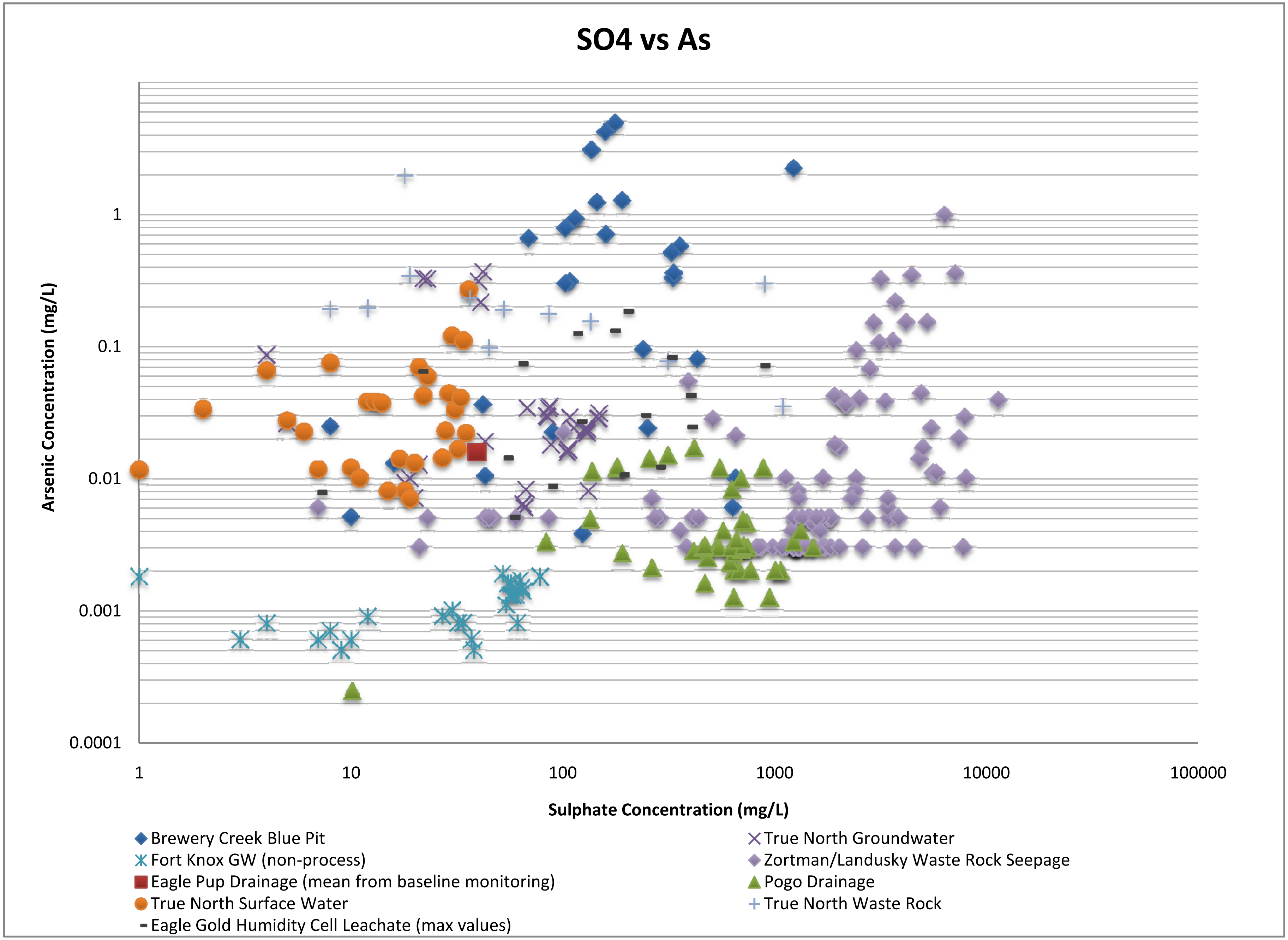

pH vs Tl
Thallium Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
2
3
4
5
6
7
8
9
pH
Brewery Creek Blue Pit
Eagle Pup Drainage (mean from baseline monitoring)
Pogo Drainage
Eagle Gold Humidity Cell Leachate (max values)

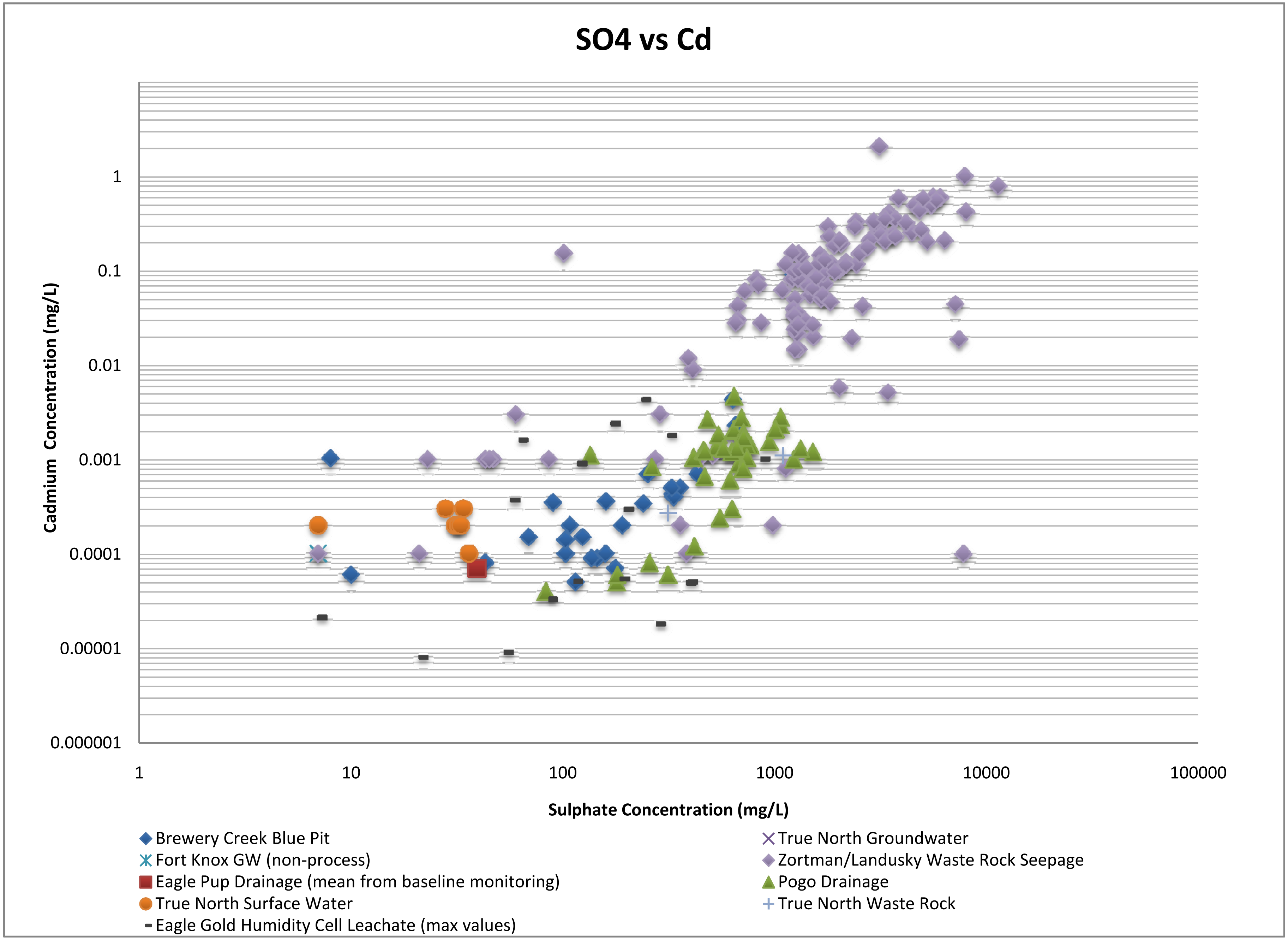

pH vs U
Uranium Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
2
3
4
5
6
7
8
9
pH
Brewery Creek Blue Pit
Eagle Pup Drainage (mean from baseline monitoring)
Pogo Drainage
Eagle Gold Humidity Cell Leachate (max values)

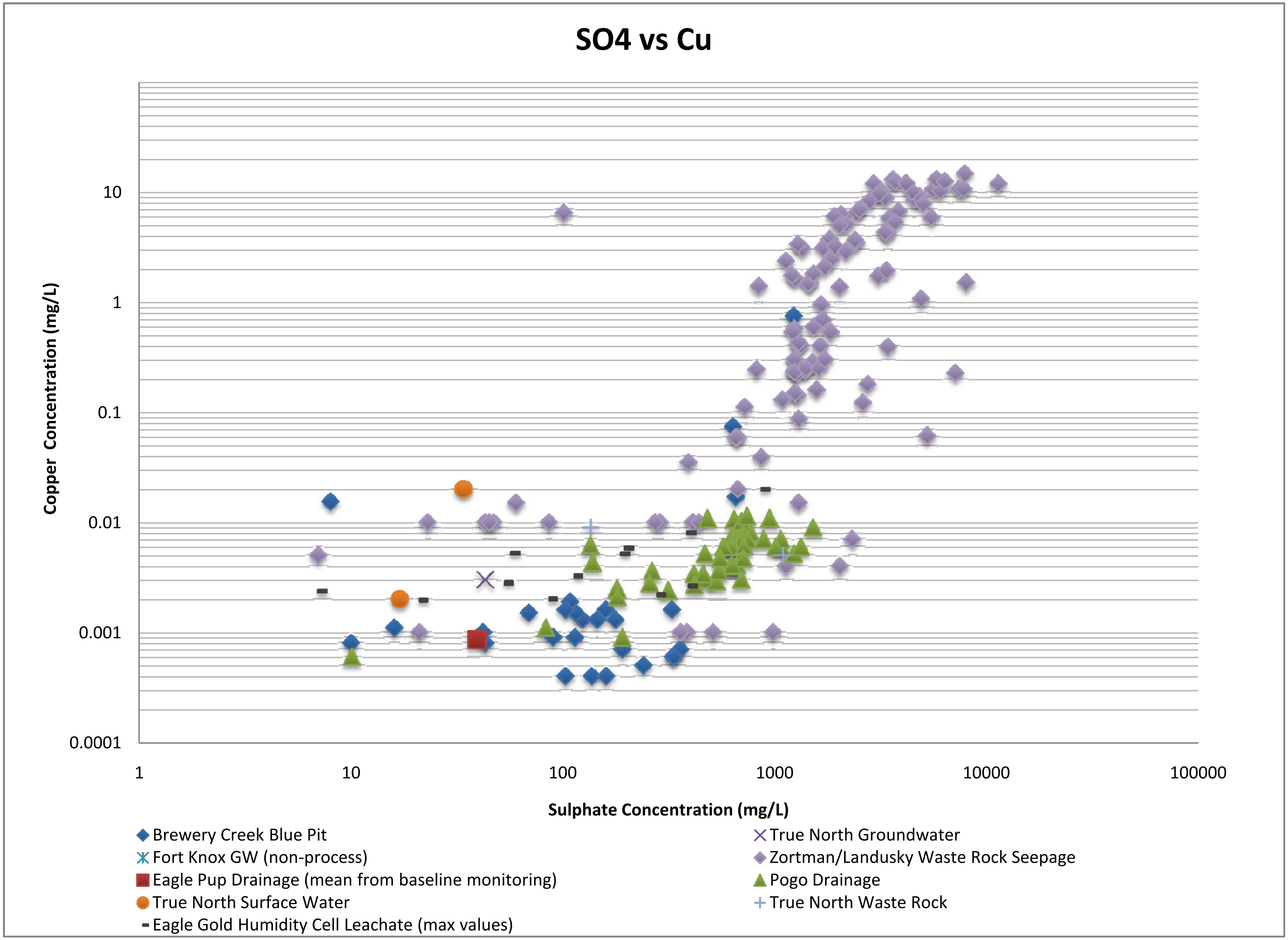

pH vs Hg
Mercury Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
0.000001
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

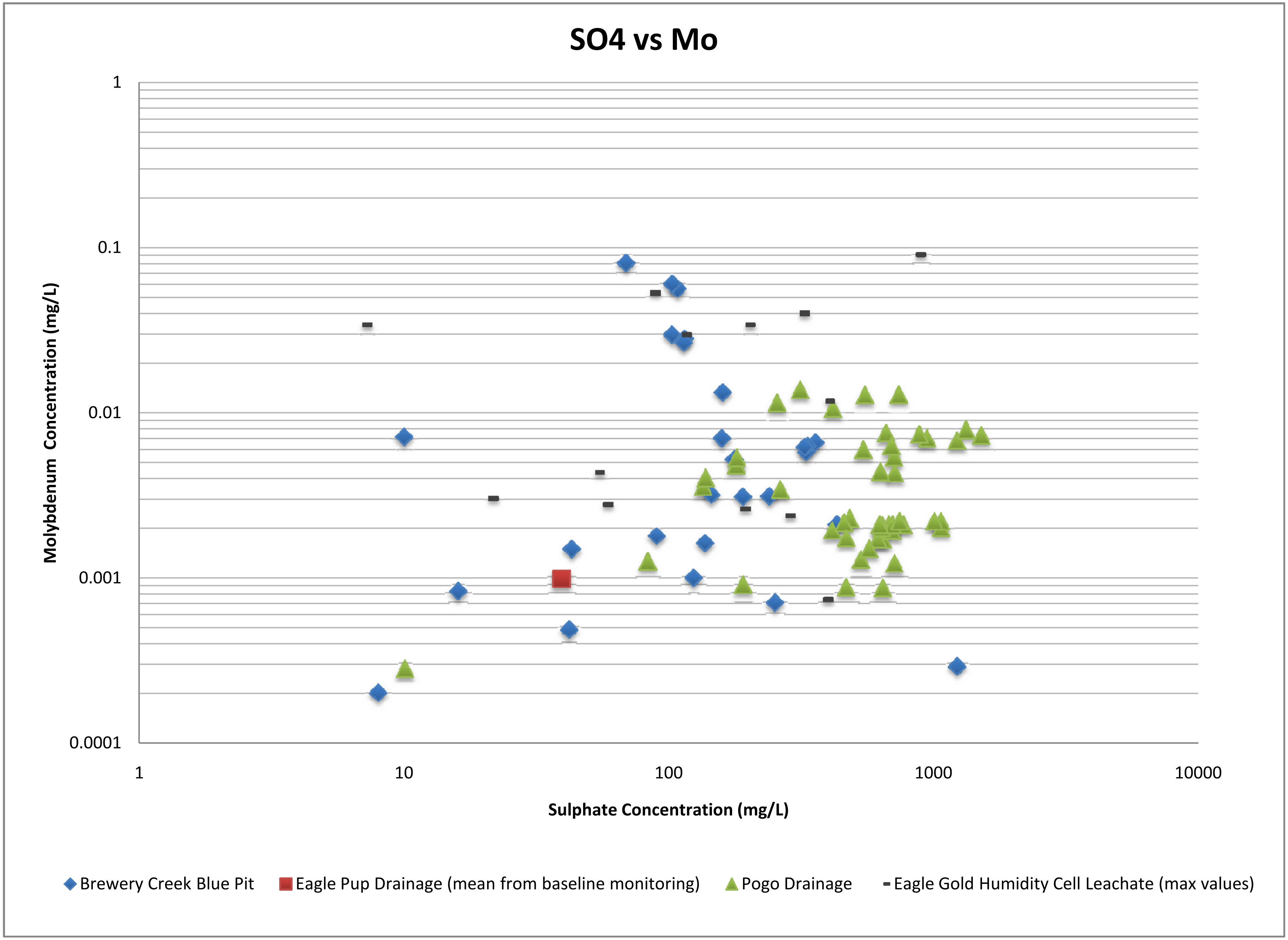

pH vs Zn
Zin c Concentration (mg/L)
10
1
0.1
0.01
0.001
2
3
4
5
6
7
8
9
10
pH
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

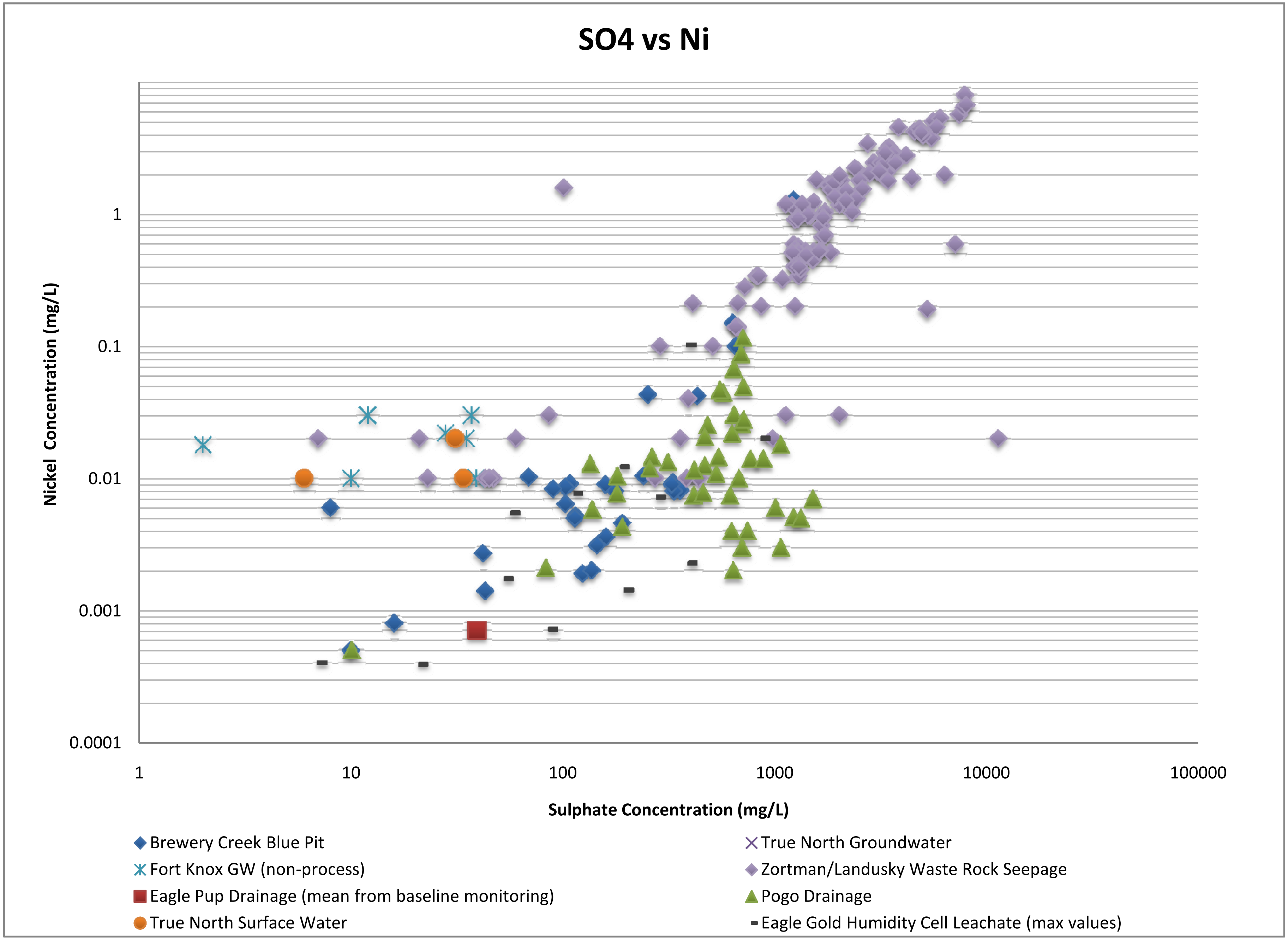

SO4 vs Al
Aluminum Concentration (mg/L)
100
10
1
0.1
0.01
0.001
1
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

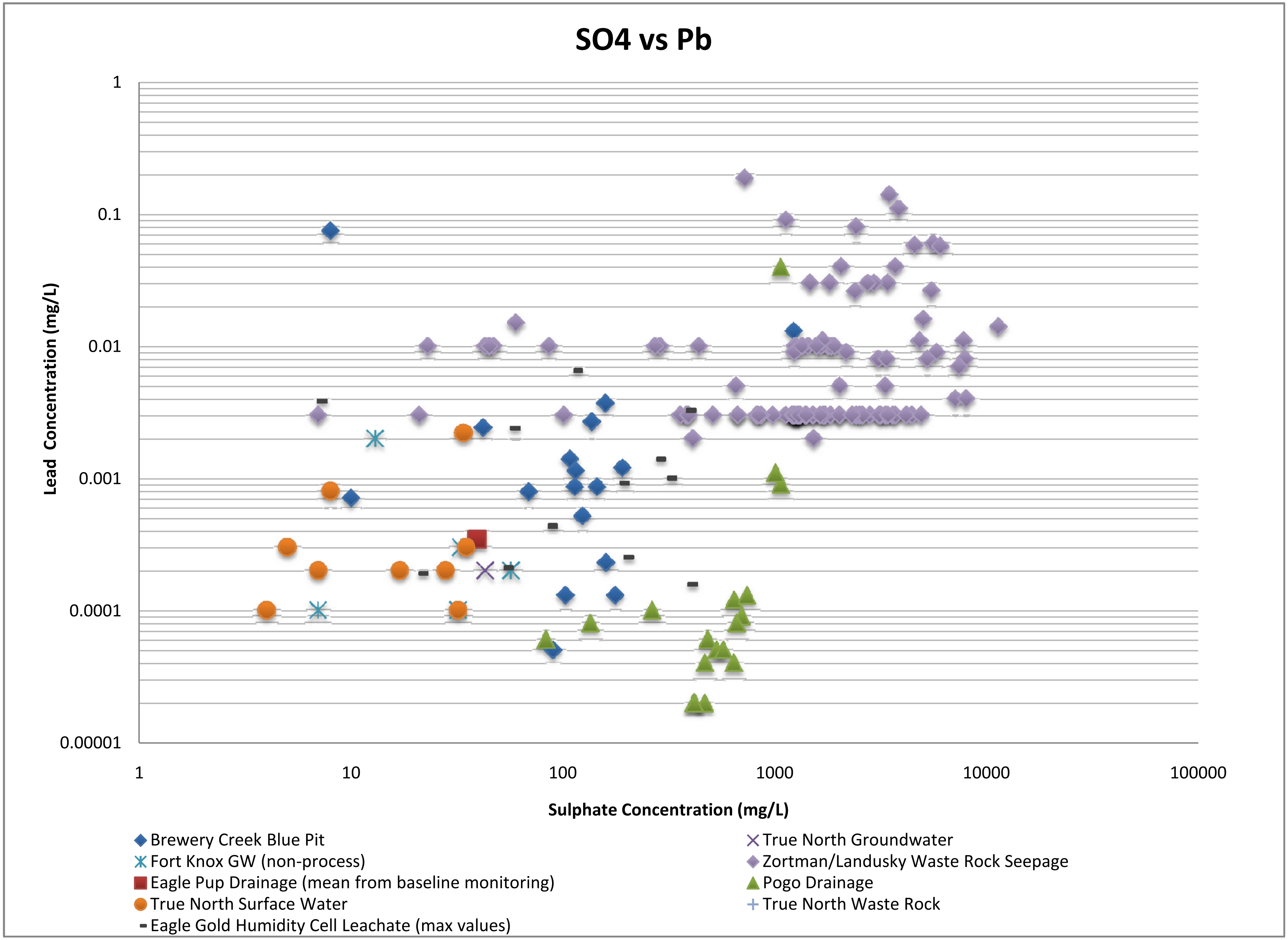

SO4 vs As
Arsenic Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
1
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

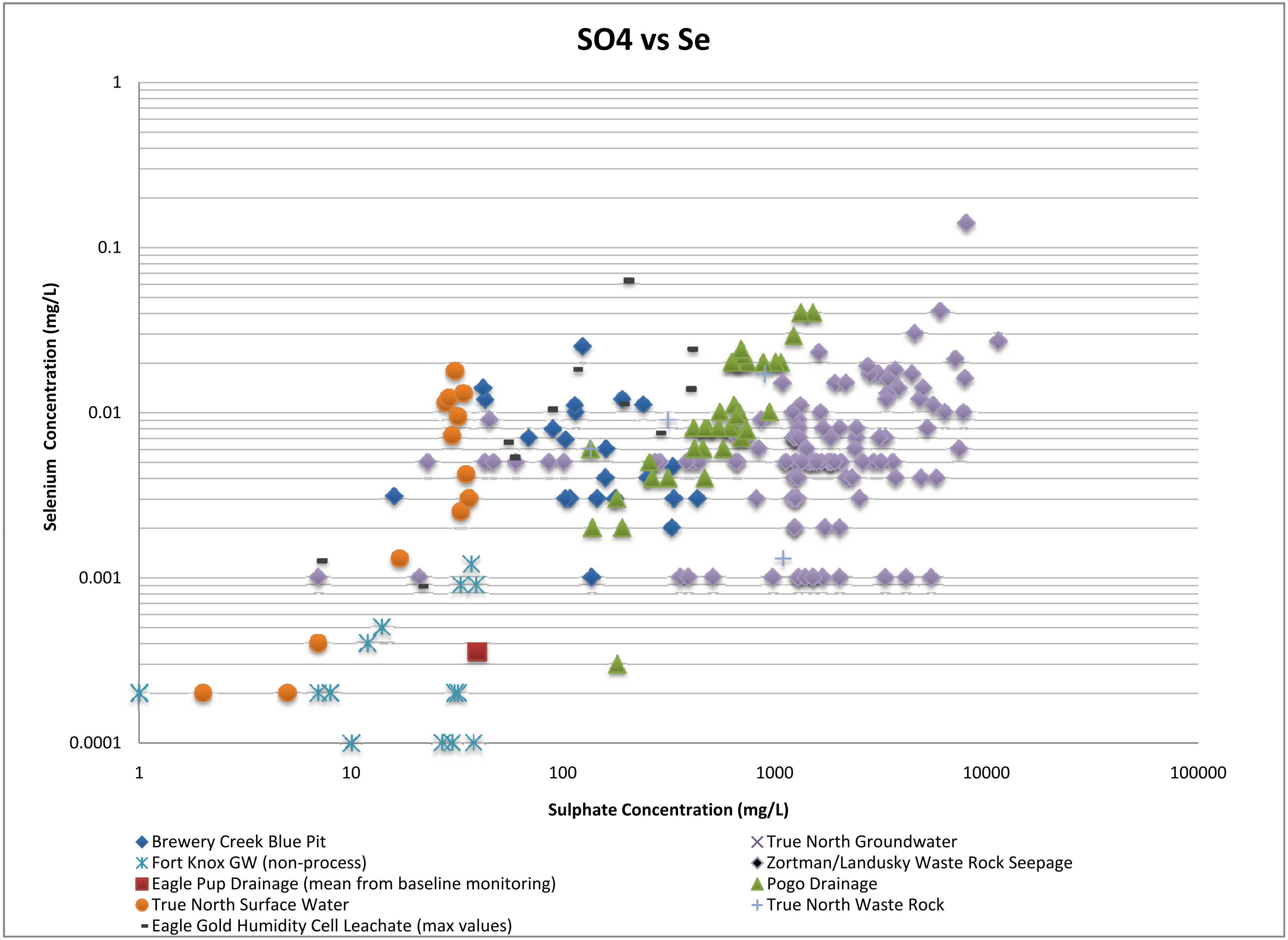

SO4 vs Cd
Cadmium Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
0.000001
1
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

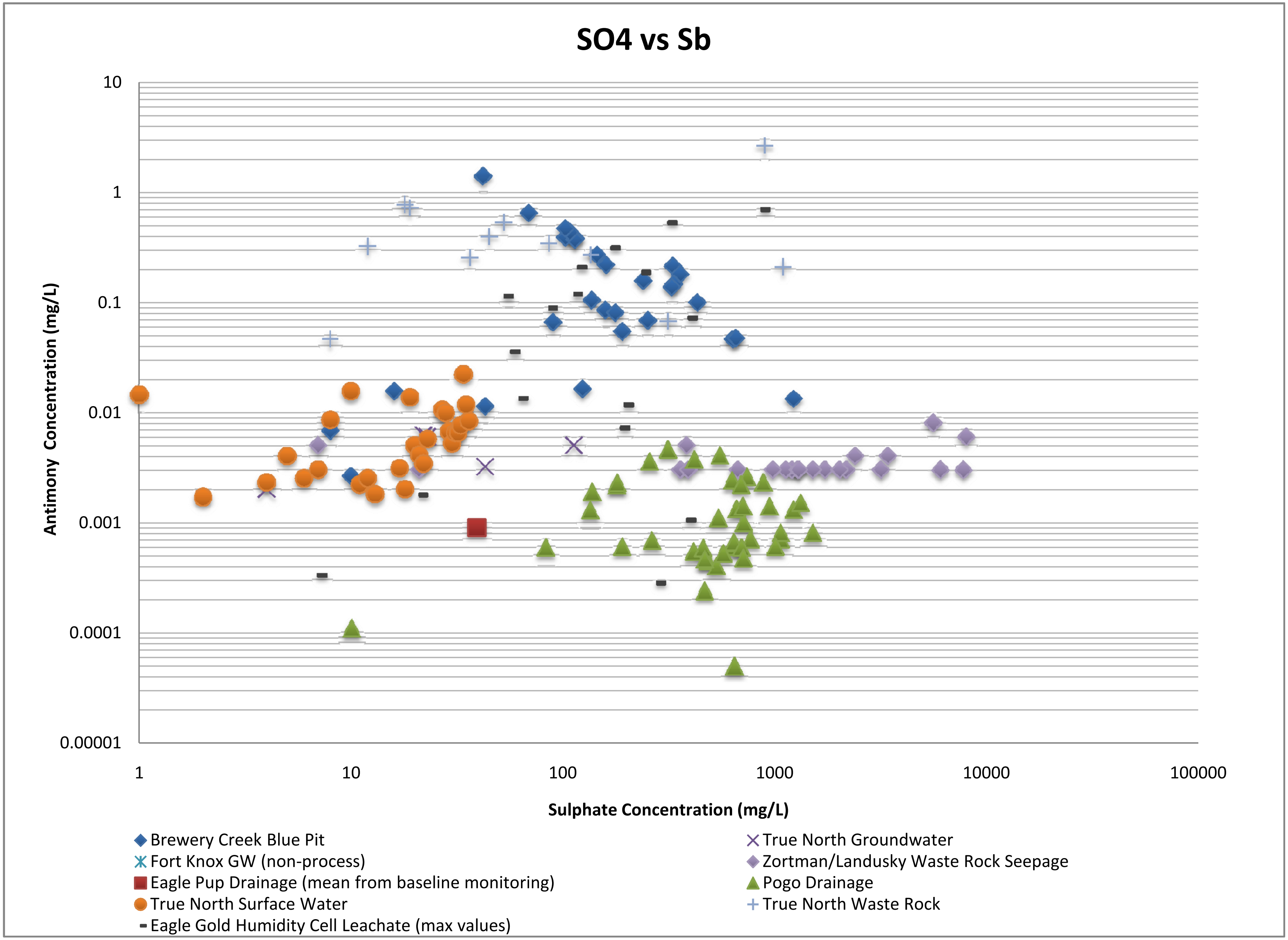

SO4 vs Cu
Copper Concentration (mg/L)
10
1
0.1
0.01
0.001
0.0001
1
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

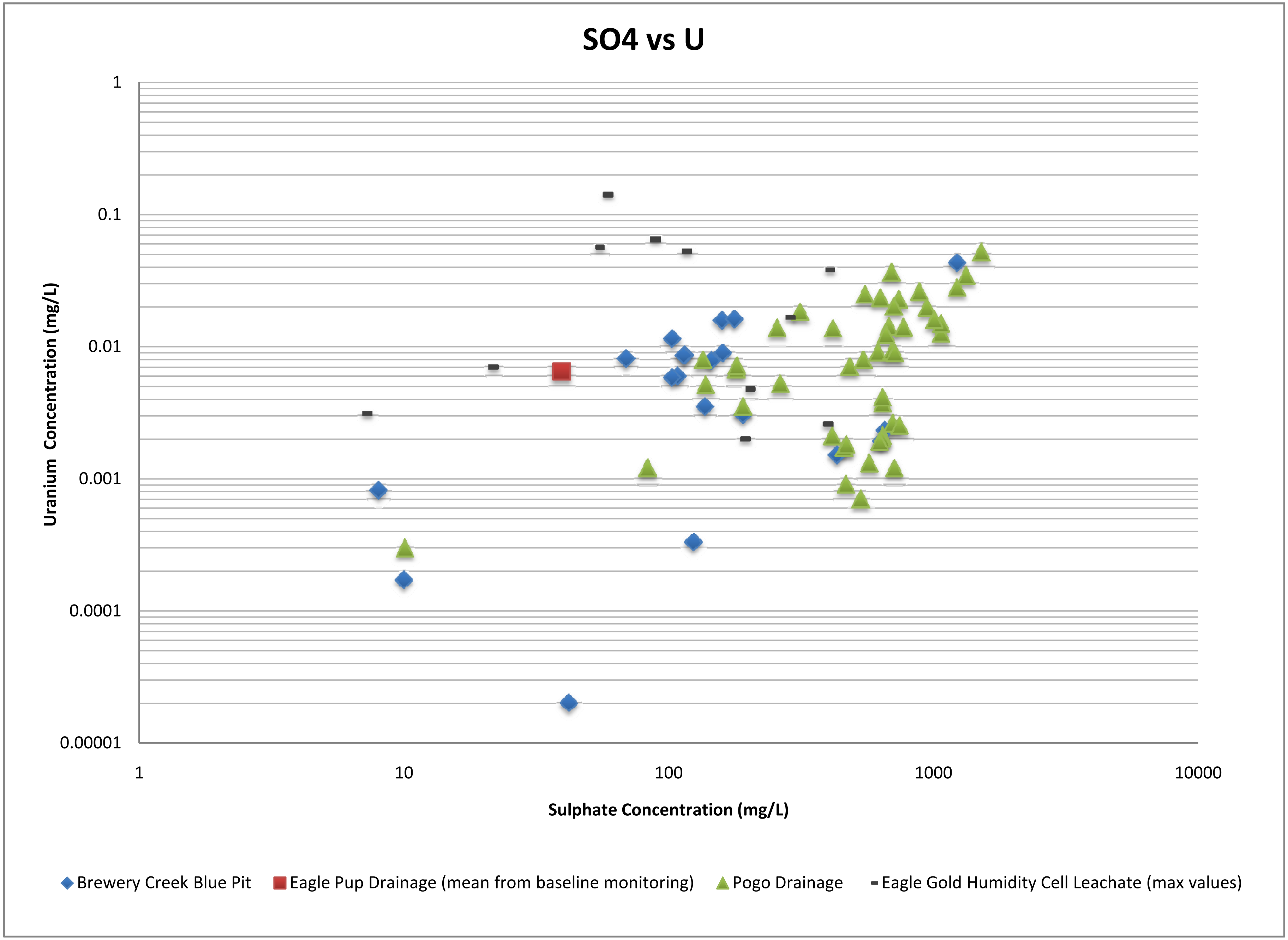

SO4 vs Mo
Molybdenum Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
1
10
100
1000
10000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Eagle Pup Drainage (mean from baseline monitoring)
Pogo Drainage
Eagle Gold Humidity Cell Leachate (max values)

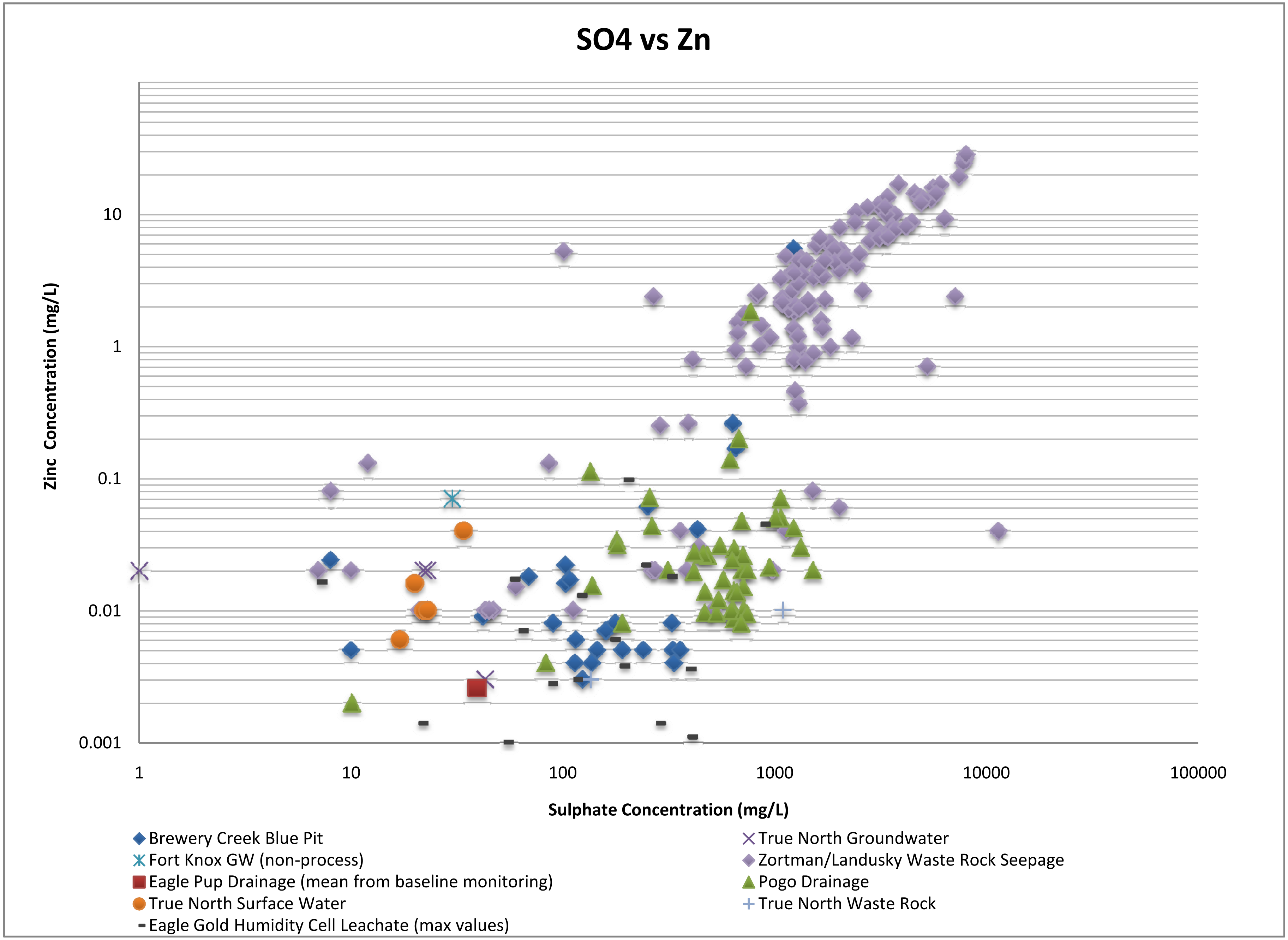

SO4 vs Ni
Nickel Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
1
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
Eagle Gold Humidity Cell Leachate (max values)


SO4 vs Pb
Lead Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
1
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock


SO4 vs Se
1
0.1
0.01
0.001
0.0001
Selenium Concentration (mg/L)
1
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock


SO4 vs Sb
Antimony Concentration (mg/L)
10
1
0.1
0.01
0.001
0.0001
0.00001
1
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock


SO4 vs U
Uranium Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
1
10
100
1000
10000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Eagle Pup Drainage (mean from baseline monitoring)
Pogo Drainage
Eagle Gold Humidity Cell Leachate (max values)


SO4 vs Zn
Zinc Concentration (mg/L)
10
1
0.1
0.01
0.001
1
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Creek Blue Pit
Fort Knox GW (non-process)
Eagle Pup Drainage (mean from baseline monitoring)
True North Surface Water
Eagle Gold Humidity Cell Leachate (max values)
True North Groundwater
Zortman/Landusky Waste Rock Seepage
Pogo Drainage
True North Waste Rock

Appendix K: Data Set for Heap Leach Facility Analogs

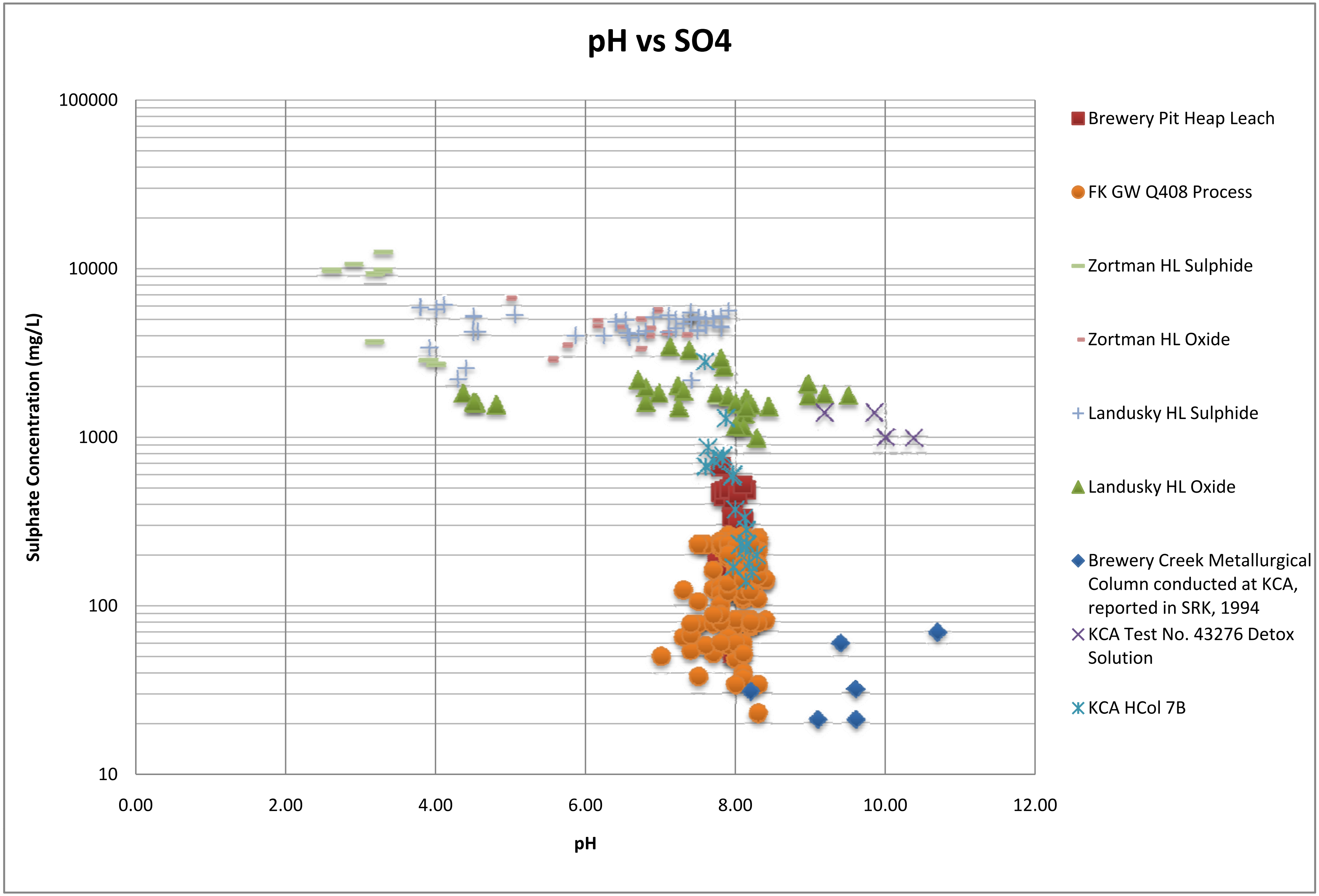
Parameter in mg/L	Upper Bound Value	Upper Bound Source	General Comments and Rationale
pH	8	Hcol 7B	strong pH data in KCA testwork to support a pH limit to the upper bounds selected from analog sites, i.e. to exclude acidic solutions
SO4	3443	Landusky Oxide HL	The upper bound of the Landusky Oxide HL, which corresponds relatively well with the maximum from the KCA Hcol 7B (2800 mg/L), the only values from analog sites that were higher generally included ore with higher sulphide contents
F	5.6	Landusky Oxide HL	Highest value in the anticipated pH range, though it is noted that F was known to be elevated in the Landusky mine, often in complex with elevated Al. This might suggest a very conservative upper bound for Eagle Gold, not reported in the Brewery Creek or Fort Knox datasets.
As	6	Brewery Creek Metallurgical Column	The metallurgical column for Brewery Creek reported a maximum of 6 mg/L As (SRK, 1994), though it is noted that the highest value from the heap leach monitoring in the data available from Brewery Creek was 0.7 mg/L. The KCA HCol 7B has a maximum value of 2.1 mg/L that came down an order of magnitude in subsequent leaches. This value is likely very conservative, perhaps by an order of magnitude.
Ca	343	Landusky Oxide HL	Maximum value for Brewery Creek is 308 mg/L, for the KCA pregnant solutions is 260 mg/L, the Fort Knox process water is 153 mg/L and the HCol 7B (other than initial flush of 530) is 300 mg/L
Cd	0.031	Landusky Oxide HL	The maximum from the Landusky Oxide HL is 0.031 whereas the maximum from the KCA pregnant solutions is 0.02 mg/L. Data for the HCol 7B show lower values (up to 0.005 mg/L) and values from Brewery Creek and Fort Knox are on the order of 0.001 mg/L.
Cu	0.468	Landusky Oxide HL	Most values in the near neutral pH range are in the range of 0.01 (Brewery Creek) to 0.03 (Fort Knox). Landusky Oxide HL had higher values and could indicate contributions from localized higher sulphide material in theheap as has been hypothesized. At higher pH, values up to approximately 9 mg/L are seen, the HCol 7B reports the highest value of 0.035 mg/L.
Fe	21.4	Landusky Oxide HL	Brewery Creek HLF maximum is 8.29 mg/L, Fort Knox is 5.78 mg/L, the KCA pregnant solutions were 2.6 and the HCol 7B maximum is 0.74 mg/L. All of which are higher than is being predicted and could be elevated in analogs if in CN complexes.
Hg	0.0071	Landusky Oxide HL	Most values well below this, Brewery Creek is 0.0001, Fort Knox is 0.0004, KCA pregnant solutions is 0.0023 and the Hcol 7B is 0.000075. Hg could be elevated as a CN complex and over time decrease.
Mg	135	Landusky Oxide HL	Maximum concentrations for Mg are quite variable. Brewery Creek max is 62 mg/L, Fort Knox max is 24 mg/L, the KCA pregnant solutions were consistently <DL and HCol 7B max is 9.4 mg/L
Mn	1.386*	Landusky Oxide HL	Maximum value for Brewery Creek is 0.362 mg/L, for Fort Knox is 0.688 mg/L, the KCA pregnant solution max is 0.019 mg/L and the Hcol 7B maximum is 0.024 mg/L.
Na	1988	Landusky Oxide HL	Sodium concentrations are dependent on process solution chemistry and not necessarily applicable to analog assessments. Values varied between analogs from 511 mg/L max at Brewery Creek, 55.6 at Fort Knox, 770 mg/L in the KCA column pregnant solutions and 720 max in the HCol 7B. Values as demonstrated in the HCol 7B decline with time after operations.
Mo	0.2	HCol 7B	Molybdenum was not reported at Fort Knox or Zortman/Landusky, at Brewery Creek the max value is 0.0387 mg/L and in the process solution from the KCA column the max value is 0.25 mg/L. With rinsing and pH values near neutral, values will likely be lowered to values < 0.1 mg/L
Ni	0.91	Landusky Oxide HL	Brewery Creek and Fort Knox have lower maximums (0.02 and 0.06 respectively), the pregnant solutions in KCA column were 0.1 mg/L but Hcol 7B maximum is lower at 0.011 mg/L. Ni was a known parameter of concern at Landusky and is not anticipated to be the same at Eagle Gold unless as a CN complex, therefore this upper bound is likely conservative.
Pb	0.120	HCol 7B	Most values are low and there is large variability in the analog set; Landusky max is 0.07 mg/L, Brewery Creek max is 0.015 mg/L and Fort Knox max is 0.0015 mg/L.
Se	0.345	Landusky Oxide HL	Higher values are reported for the more sulphidic heap leach facilities at Zortman and Landusky, but for the oxide heaps values are lower. Brewery Creek max is 0.193 mg/L, though Fort Knox is 0.0047 mg/L, the KCA column pregnant solutions max is 0.09 mg/L and the max from the HCol 7B is 0.091 mg/L.
Sb	1.7	HCol 7B	Antimony values at Landusky and Fort Knox are lower (0.009 and 0.0188 mg/L respectively), but max in the Brewery Creek data set is similar (1.49 mg/L). Concentrations in the pregnant solutions were lower, but increasing with time to a max of 0.099 mg/L.
Tl	0.009	Landusky Oxide HL	Not reported at many sites, and often less than detection. Brewery Creek max value is 0.00032 mg/L and the HCol 7B max is 0.00019 mg/L.
U	0.367	HCol 7B	Uranium is often not reported. Maximum values in the Brewery Creek dataset is 0.0246 mg/L.
Zn	14.9	Landusky Oxide HL	Zinc concentrations are highly variable among sites. Brewery Creek data max is 0.0629 mg/L, Fort Knox data max is 2.95 mg/L, the KCA column pregnant solutions are up to 8.8 mg/L and the HCol 7B max is 0.2 mg/L.

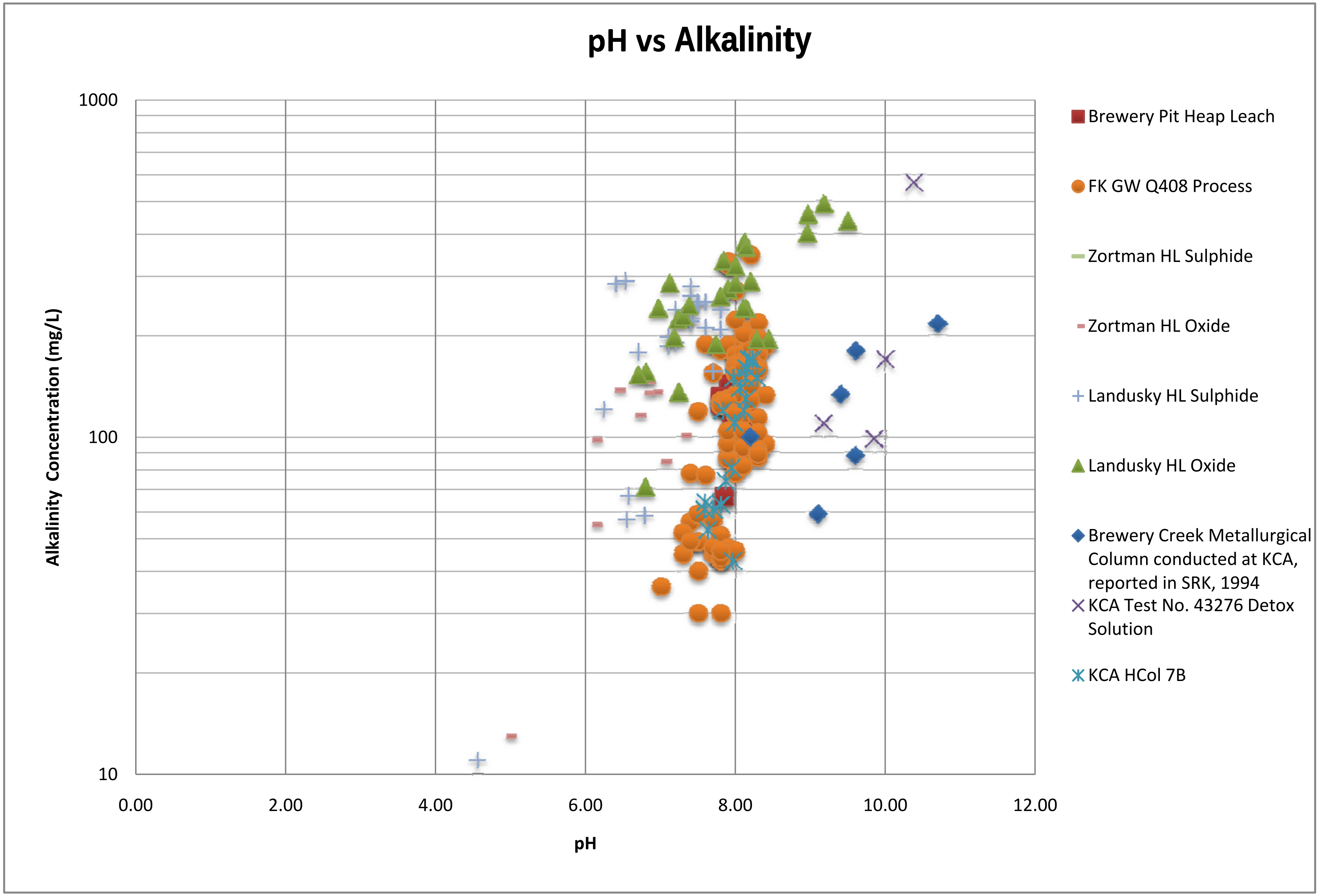
Notes

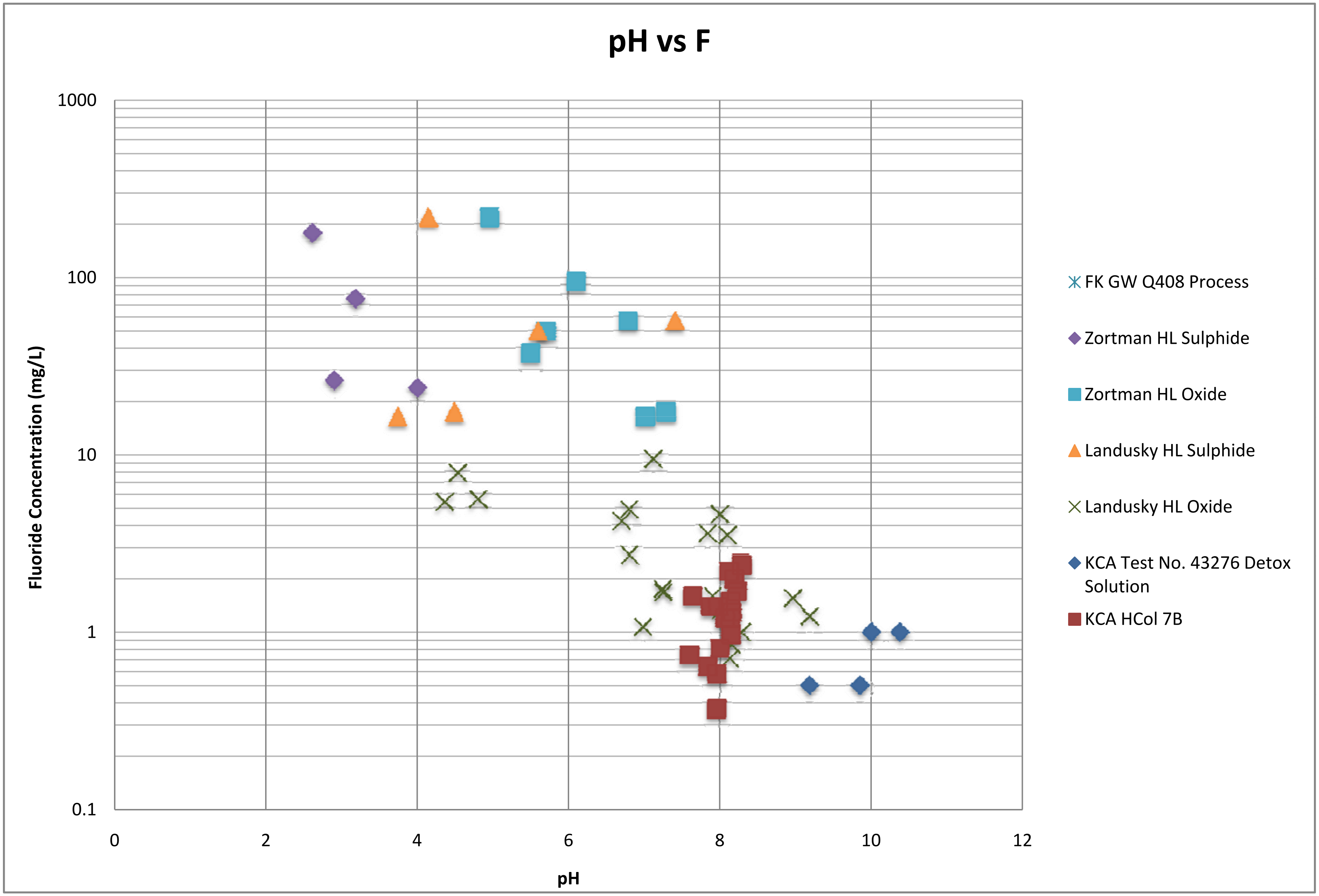
* unit conversion error expected, data corrected for this assessment

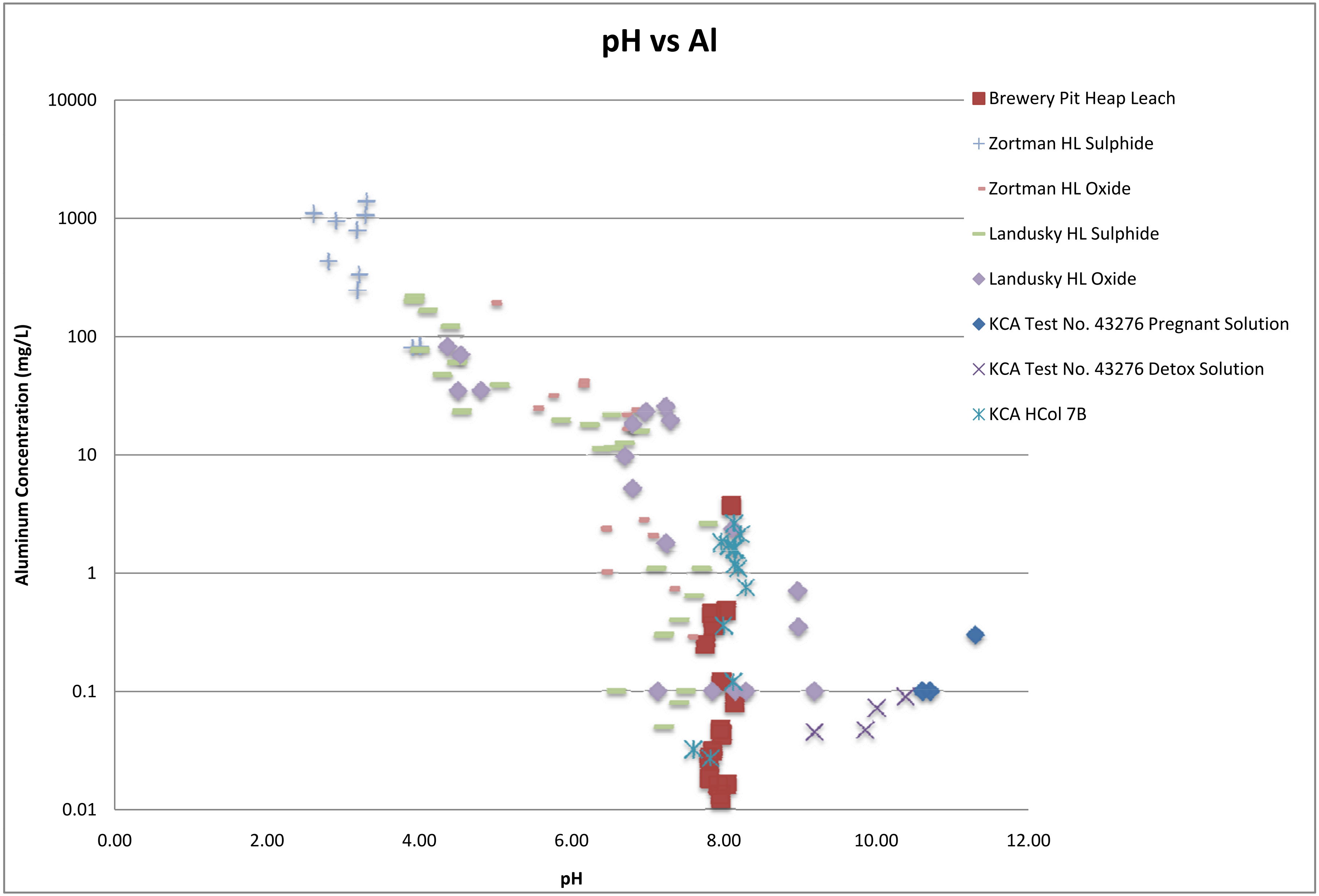
** only values from 1998 onwards were considered to represent rinsing/closure period

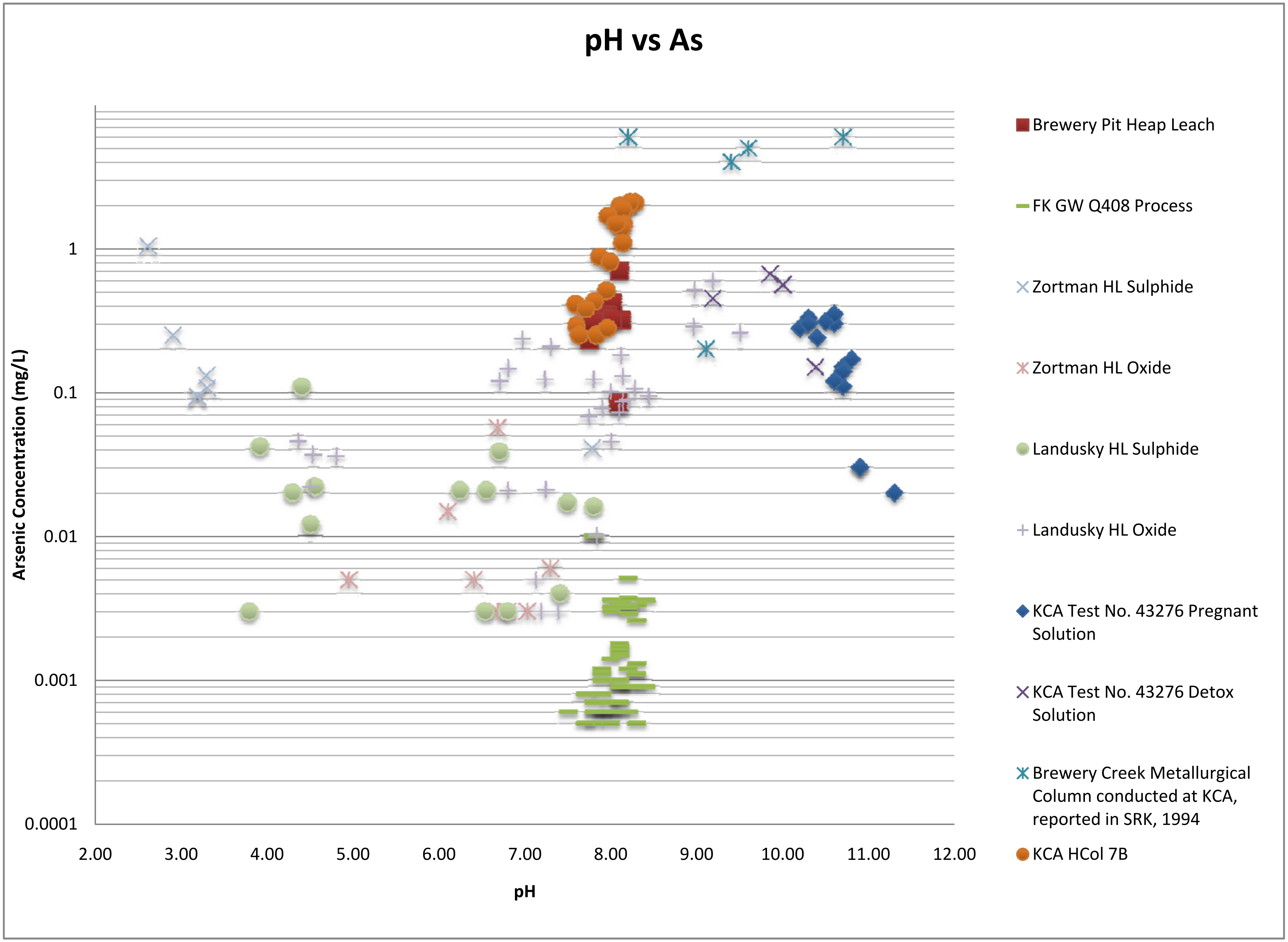
While the process chemistry from the KCA data is presented and considered, it was not used for upper bound selections as it represents process waters

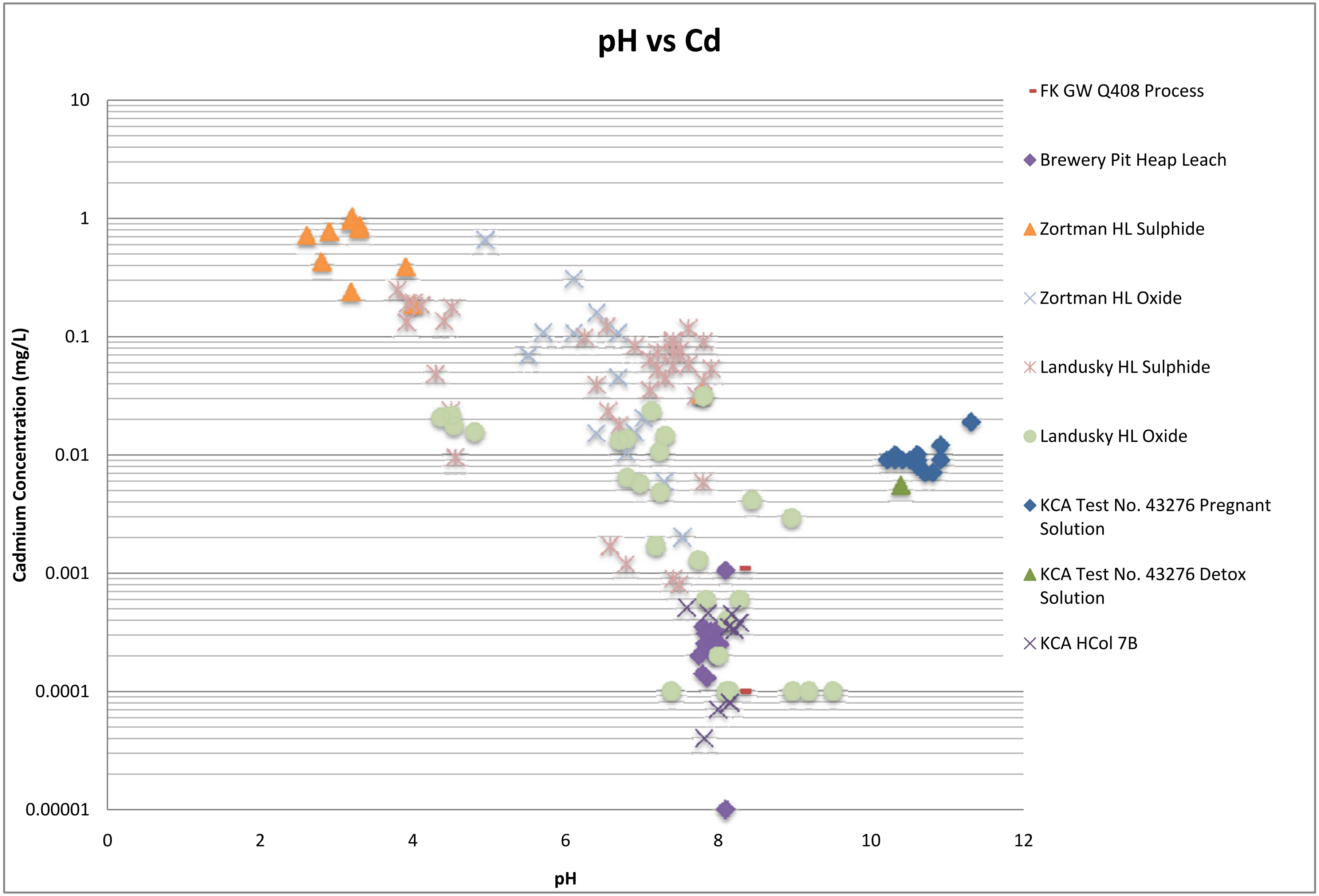

pH vs SO4
Sulphate Concentration (mg/L)
100000
10000
1000
100
10
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Brewery Pit Heap Leach
FK GW Q408 Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
Brewery Creek Metallurgical Column conducted at KCA, reported in SRK, 1994
KCA Test No. 43276 Detox Solution
KCA HCol 7B

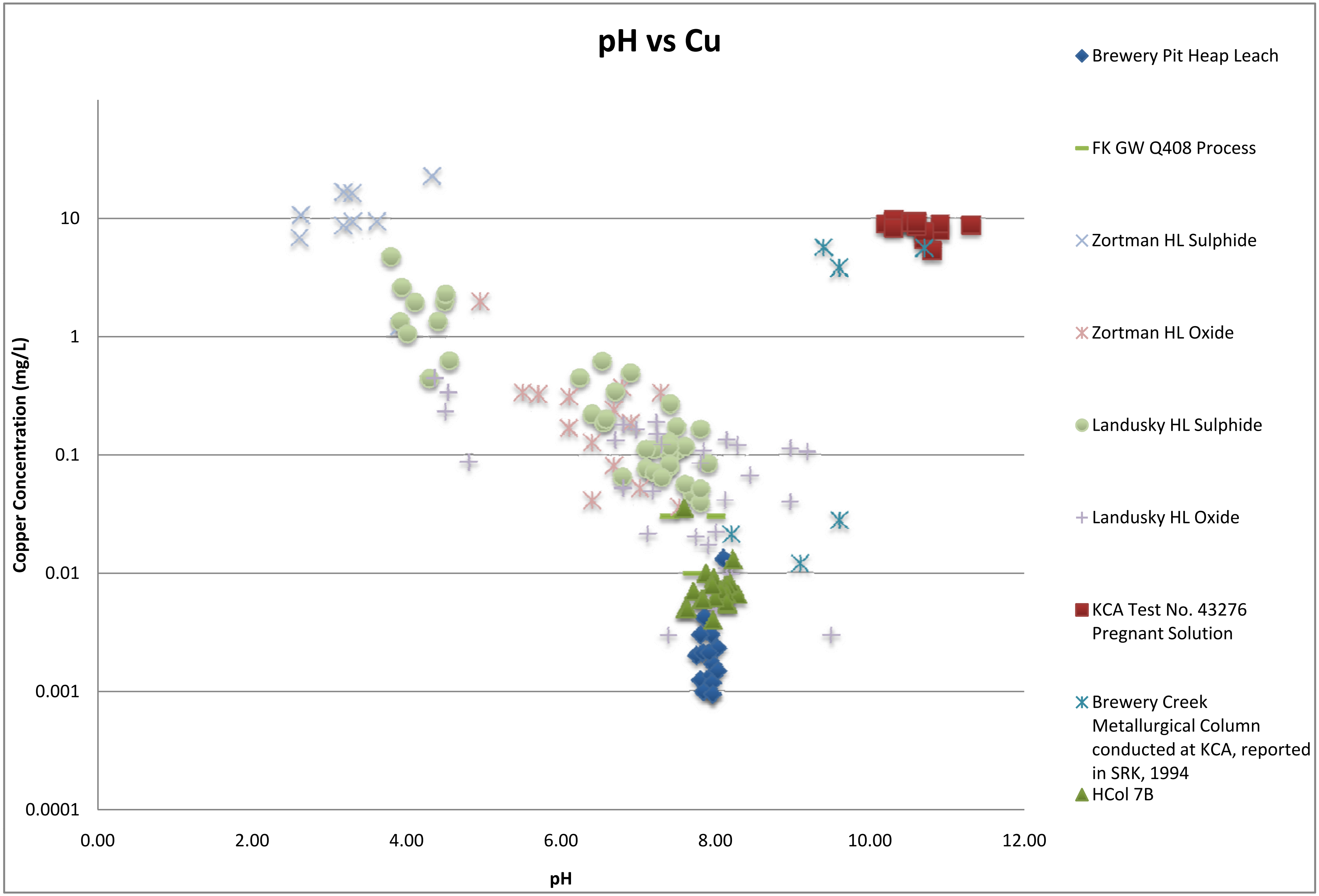

pH vs Alkalinity
Alkalinity Concentration (mg/L)
1000
100
10
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Brewery Pit Heap Leach
FK GW Q408 Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
Brewery Creek Metallurgical Column conducted at KCA, reported in SRK, 1994
KCA Test No. 43276 Detox Solution
KCA HCol 7B

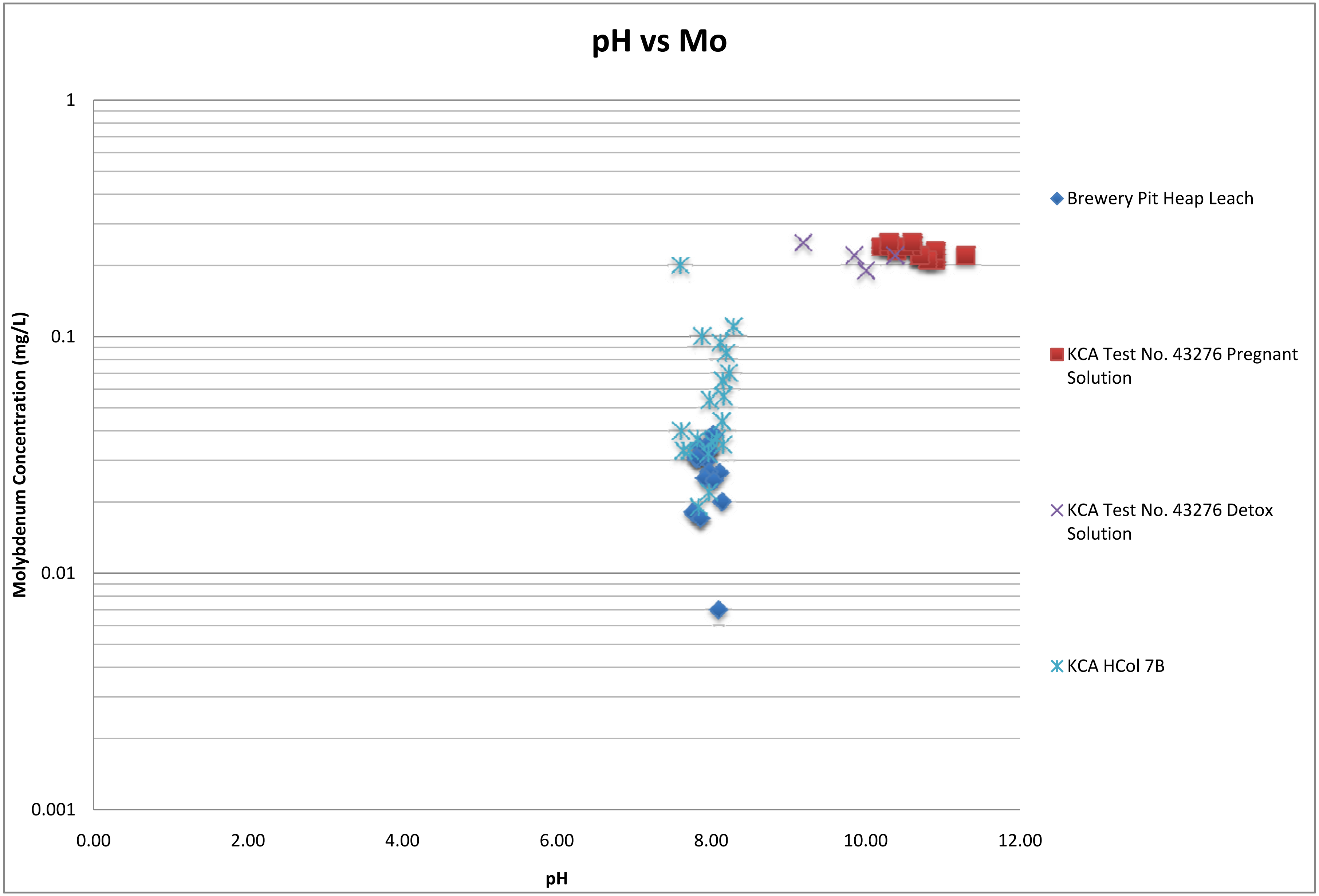

pH vs F
1000
100
10
1
0.1
Fluoride Concentration (mg/L)
0
2
4
6
8
10
12
pH
FK GW Q408 Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Detox Solution
KCA HCol 7B

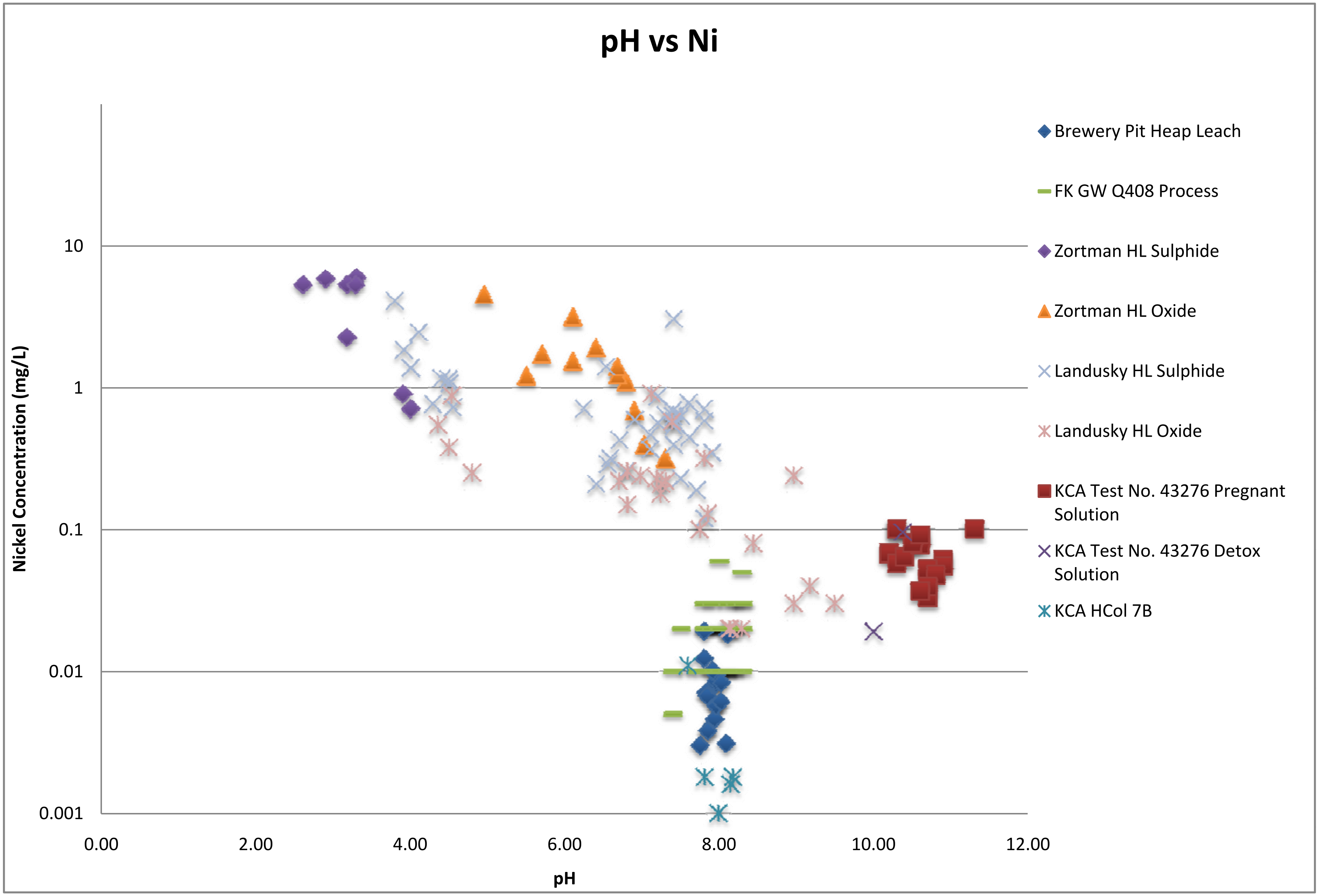

pH vs Al
10000
1000
100
10
1
0.1
0.01
Aluminum Concentration (mg/L)
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Brewery Pit Heap Leach
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Pregnant Solution
KCA Test No. 43276 Detox Solution
KCA HCol 7B

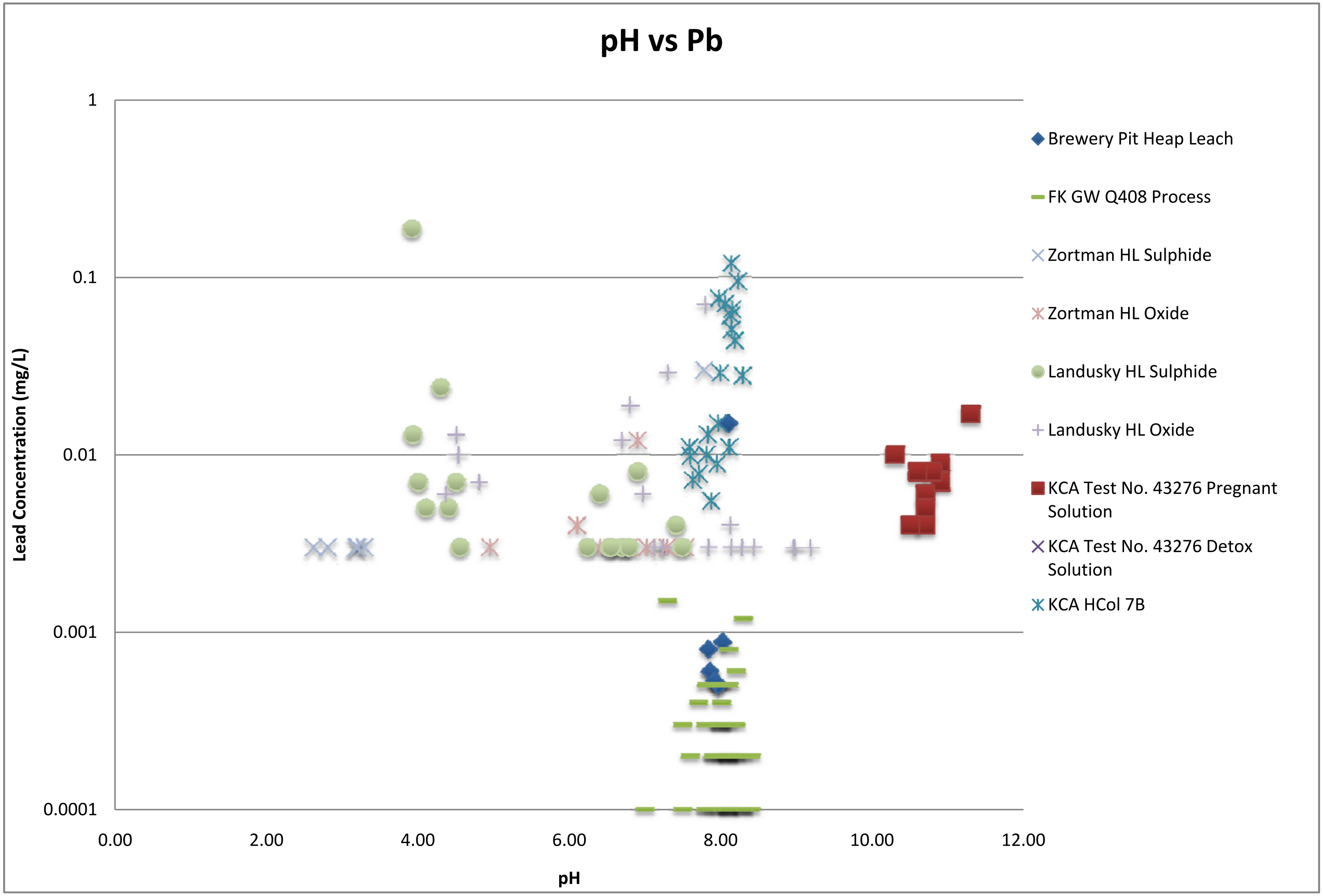

pH vs As
Arsenic Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
12.00
pH
Brewery Pit Heap Leach
FK GW Q408 Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Pregnant Solution
KCA Test No. 43276 Detox Solution
Brewery Creek Metallurgical Column conducted at KCA, reported in SRK, 1994
KCA HCol 7B

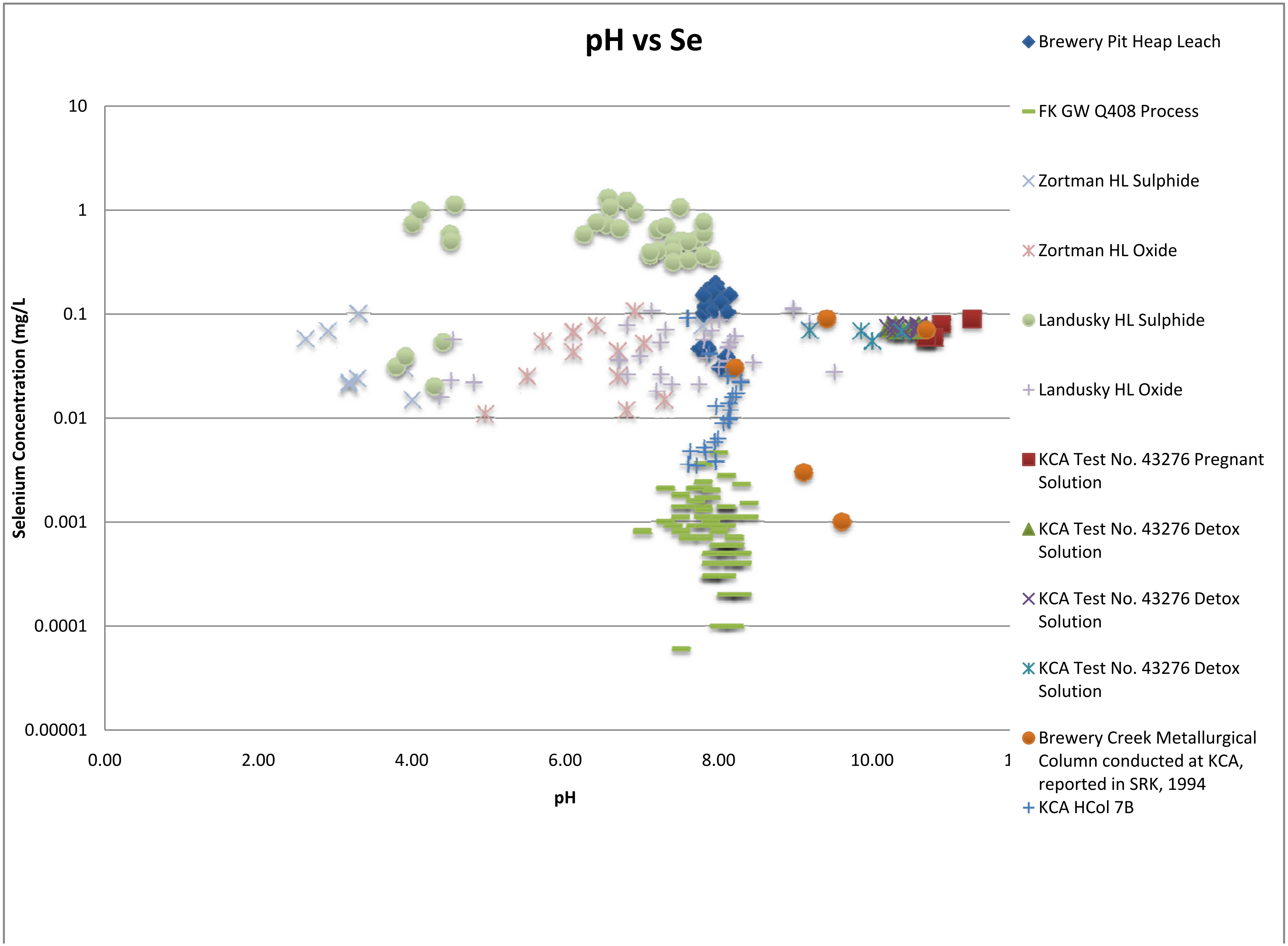

pH vs Cd
Cadmium Concentration (mg/L)
10
1
0.1
0.01
0.001
0.0001
0.00001
0
2
4
6
8
10
12
pH
FK GW Q408 Process
Brewery Pit Heap Leach
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Pregnant Solution
KCA Test No. 43276 Detox Solution
KCA HCol 7B

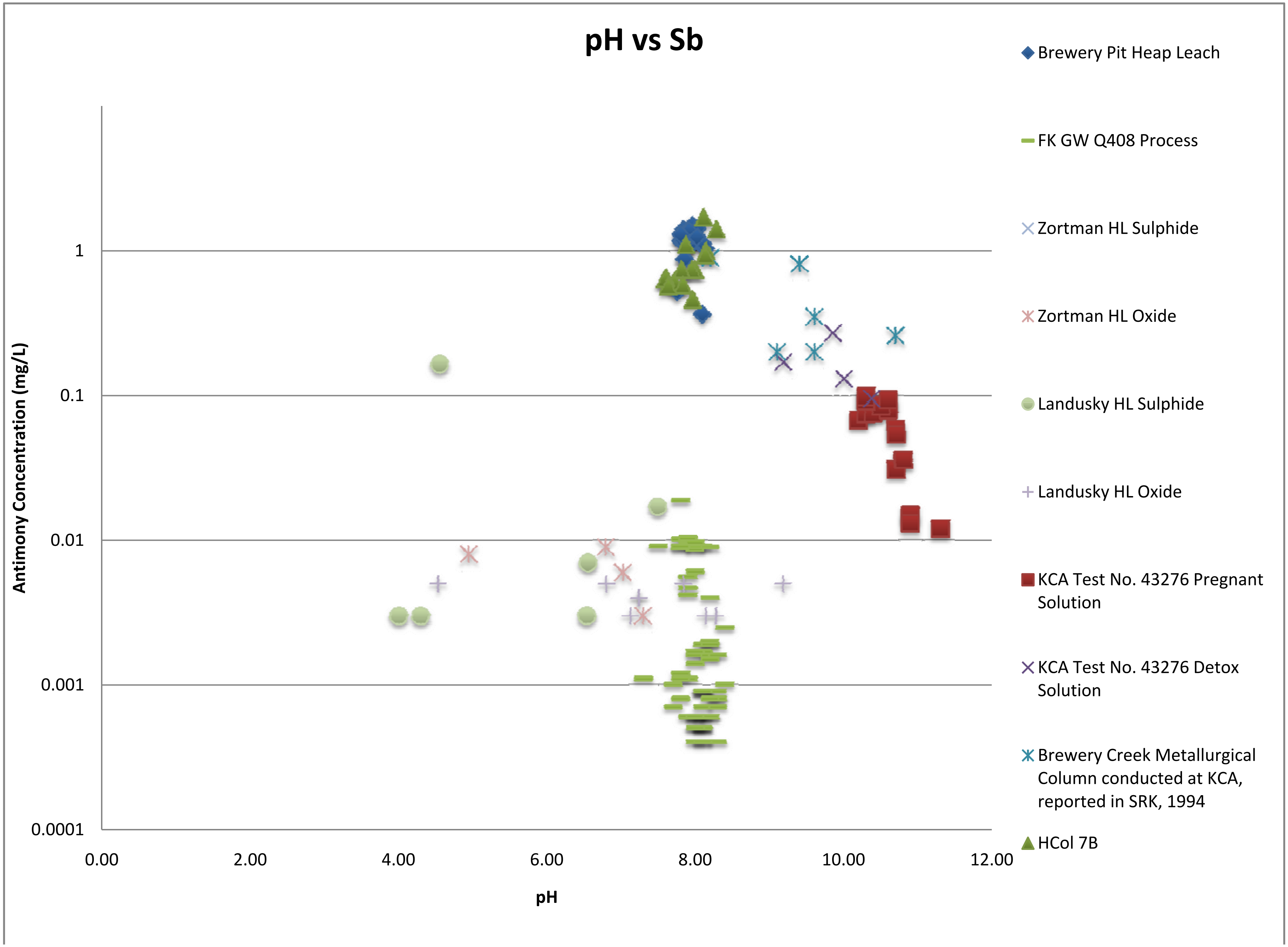

pH vs Cu
Copper Concentration (mg/L)
10
1
0.1
0.01
0.001
0.0001
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Brewery Pit Heap Leach
FK GW Q408 Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Pregnant Solution
Brewery Creek Metallurgical Column conducted at KCA, reported in SRK, 1994
HCol 7B

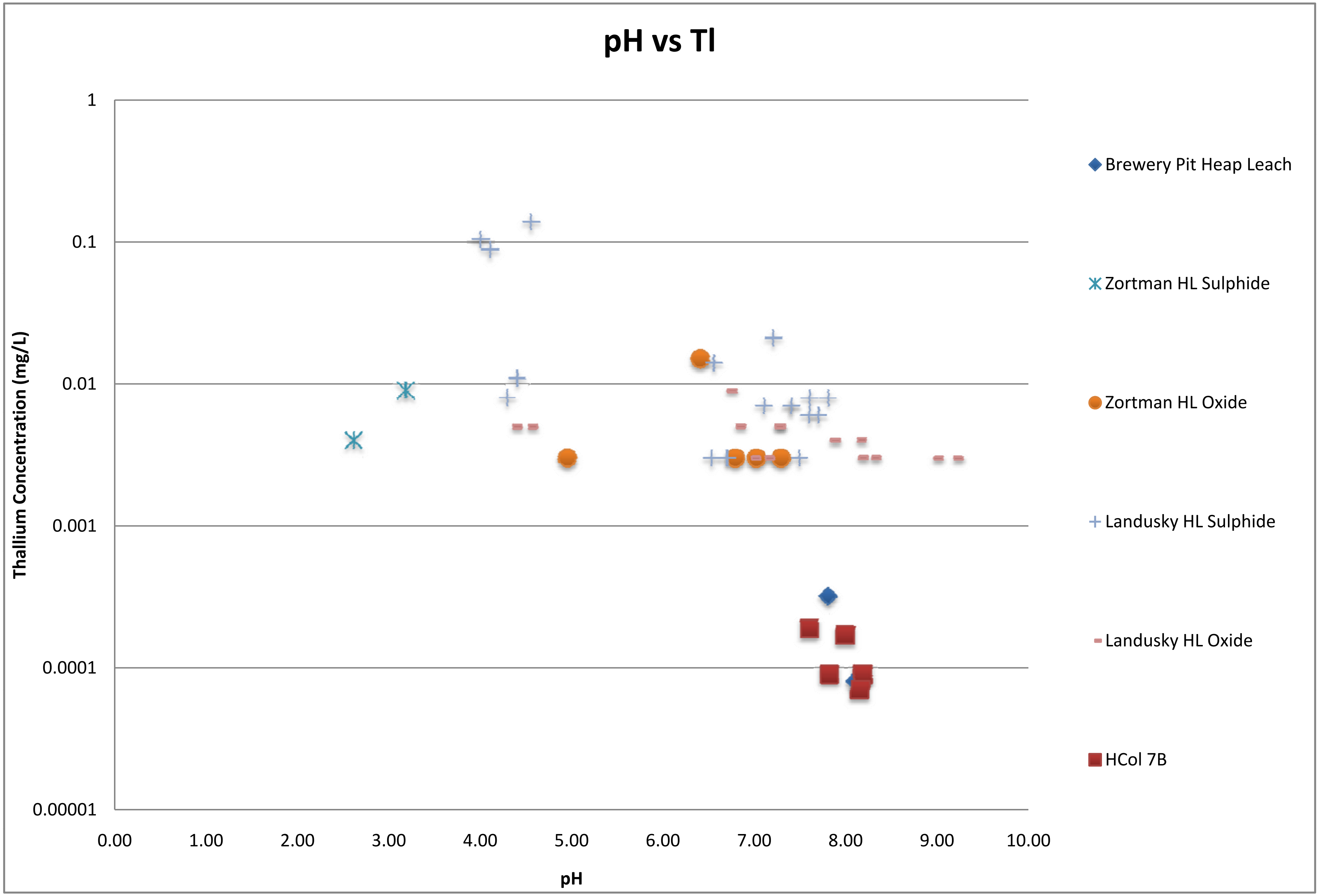

pH vs Mo
1
0.1
0.01
0.001
Molybdenum Concentration (mg/L)
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Brewery Pit Heap Leach
KCA Test No. 43276 Pregnant Solution
KCA Test No. 43276 Detox Solution
KCA HCol 7B

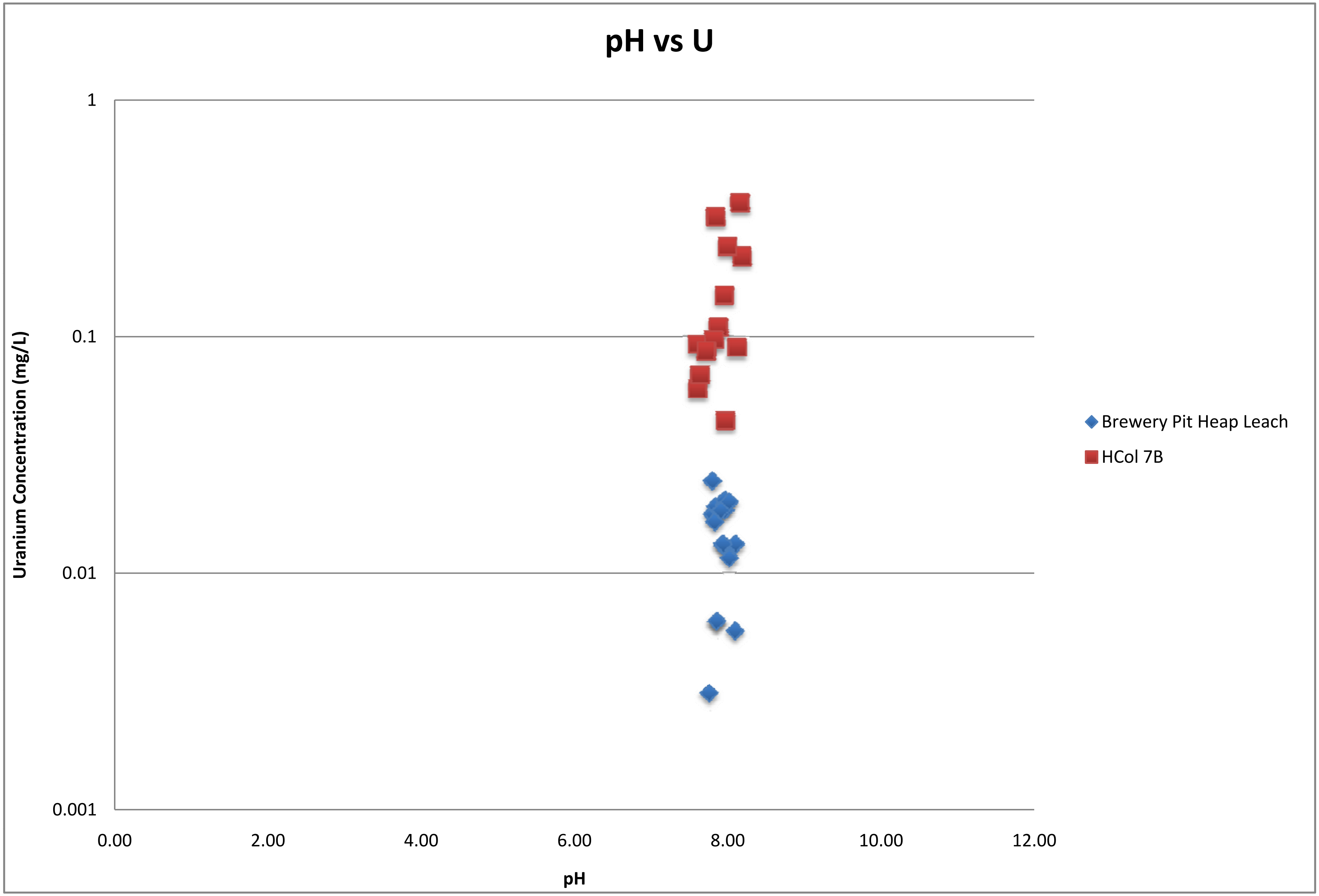

pH vs Ni
Nickel Concentration (mg/L)
10
1
0.1
0.01
0.001
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Brewery Pit Heap Leach
FK GW Q408 Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Pregnant Solution
KCA Test No. 43276 Detox Solution
KCA HCol 7B

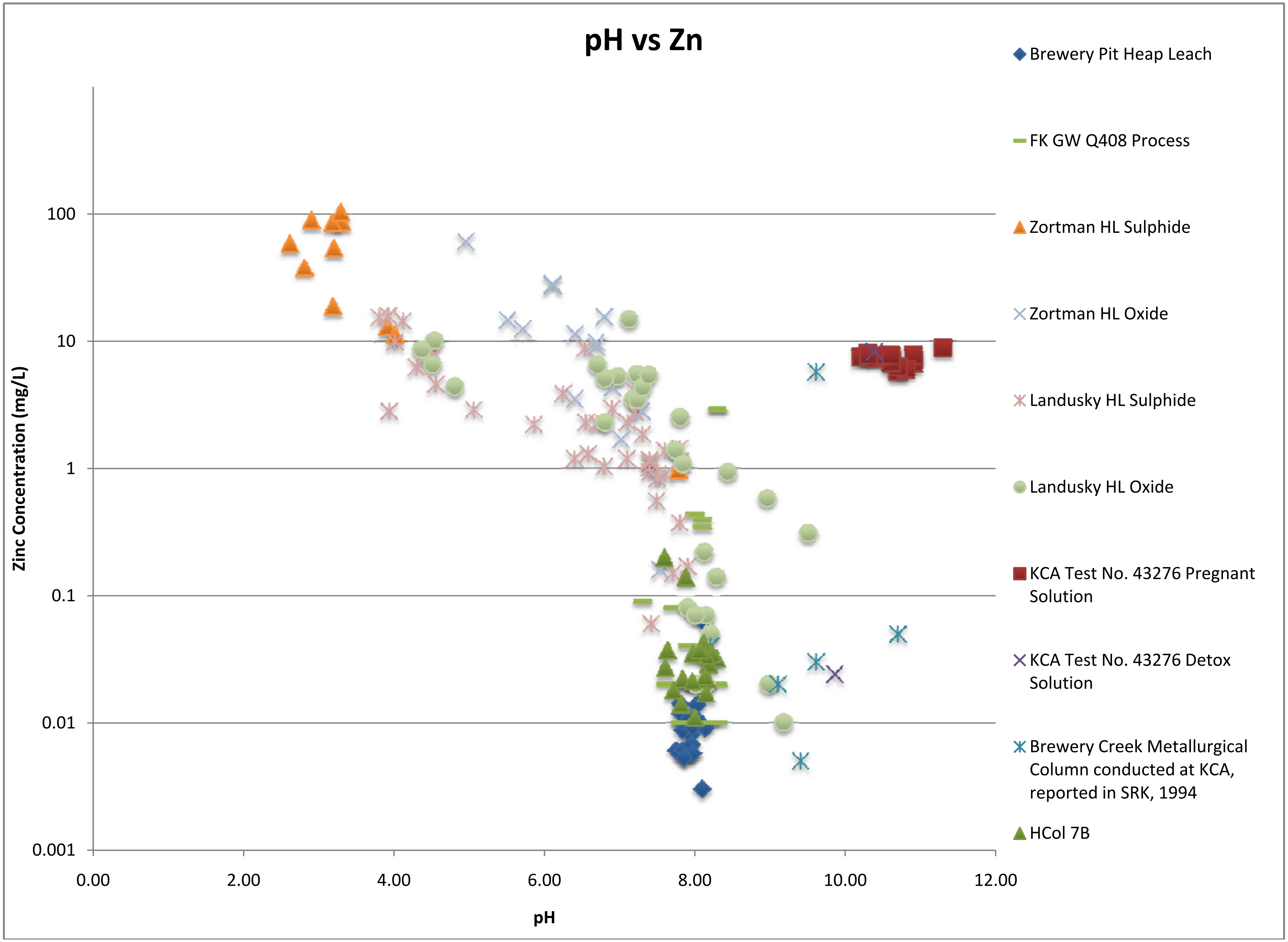

pH vs Pb
1
0.1
0.01
0.001
0.0001
Lead Concentration (mg/L)
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Brewery Pit Heap Leach
FK GW Q408 Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Pregnant Solution
KCA Test No. 43276 Detox Solution
KCA HCol 7B

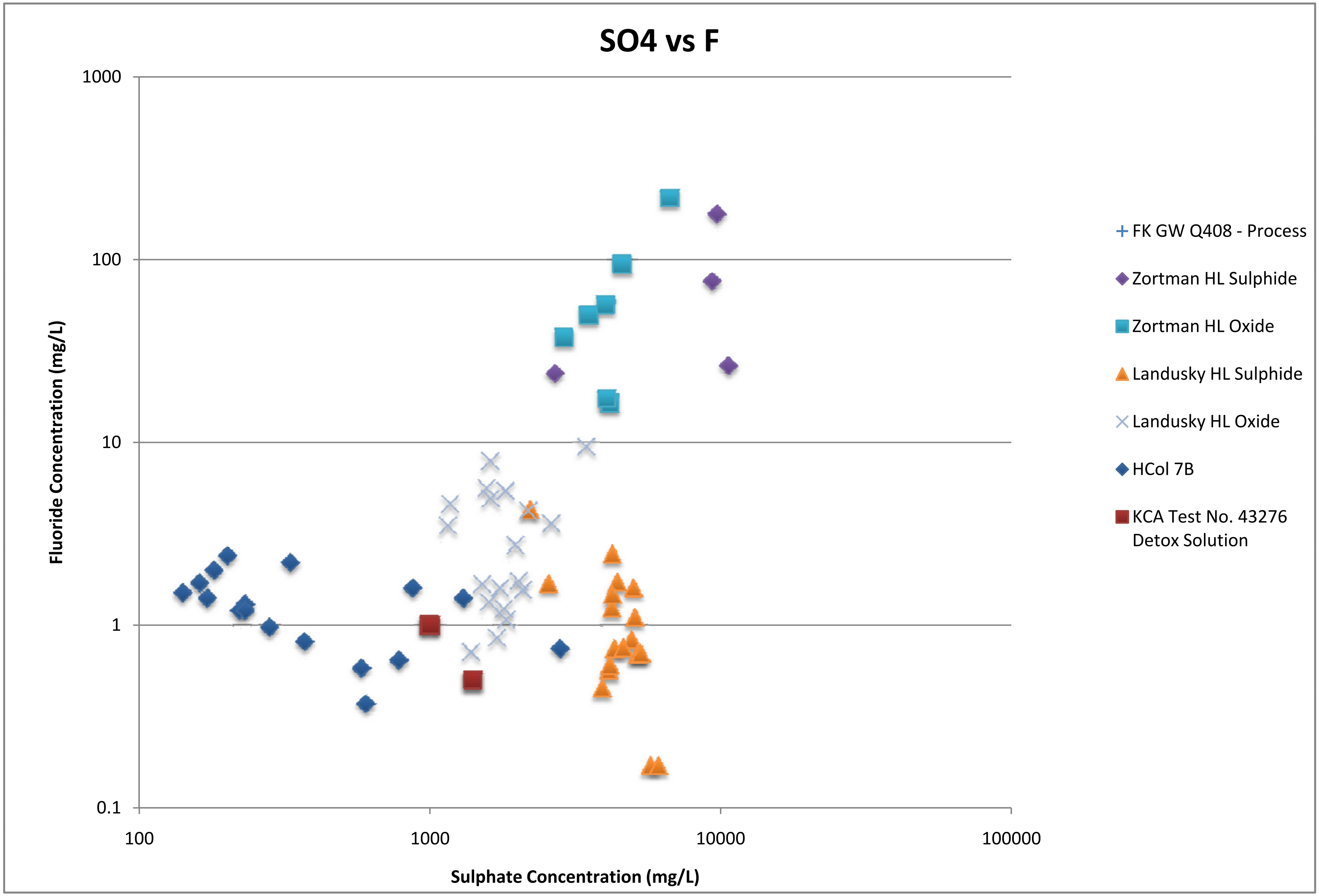

pH vs Se
10
1
0.1
0.01
0.001
0.0001
0.00001
Selenium Concentration (mg/L
0.00
2.00
4.00
6.00
8.00
10.00
pH
Brewery Pit Heap Leach
FK GW Q408 Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Pregnant Solution
KCA Test No. 43276 Detox Solution
KCA Test No. 43276 Detox Solution
KCA Test No. 43276 Detox Solution
Brewery Creek Metallurgical Column conducted at KCA, reported in SRK, 1994
KCA HCol 7B

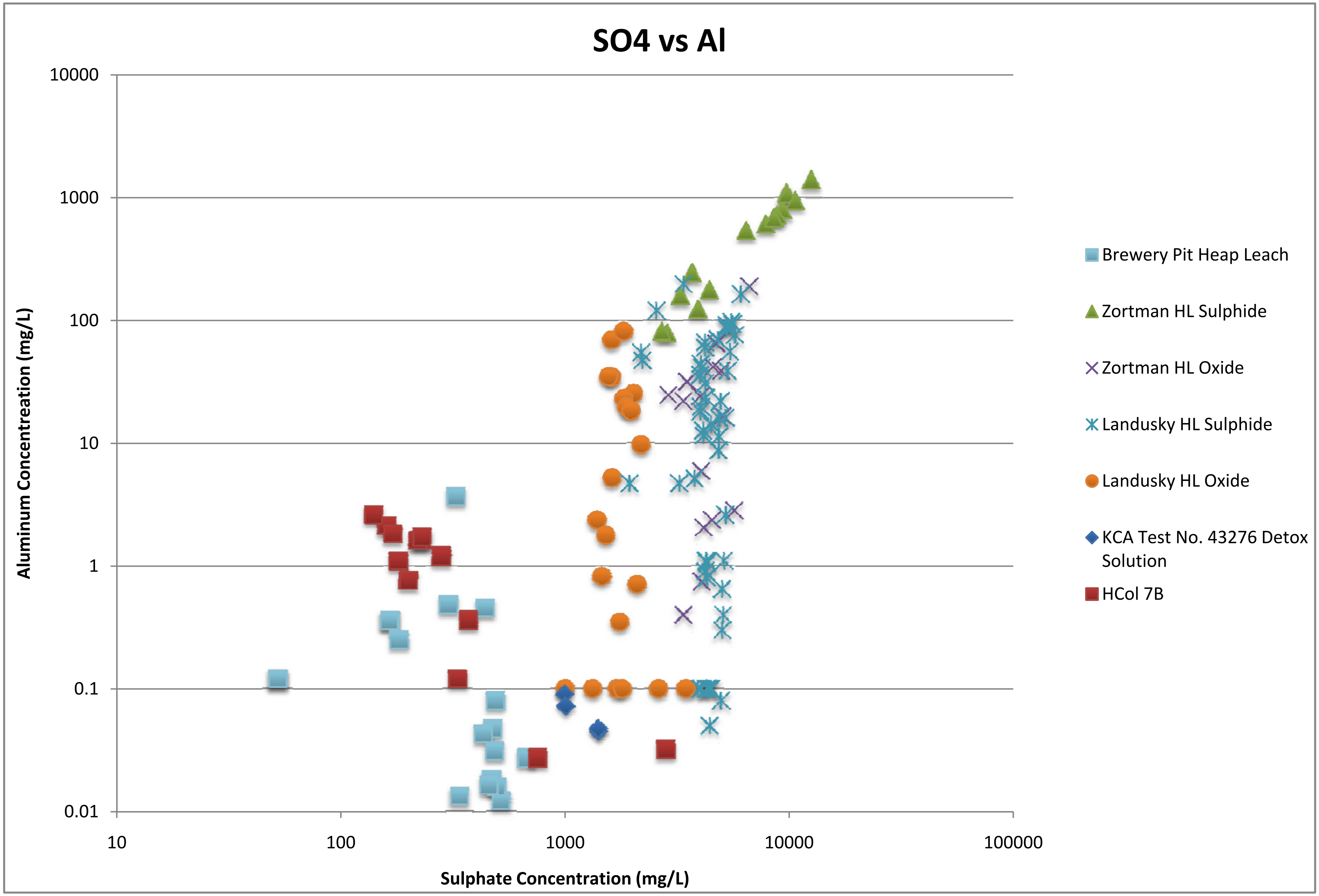

pH vs Sb
Antimony Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Brewery Pit Heap Leach
FK GW Q408 Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Pregnant Solution
KCA Test No. 43276 Detox Solution
Brewery Creek Metallurgical Column conducted at KCA, reported in SRK, 1994
HCol 7B

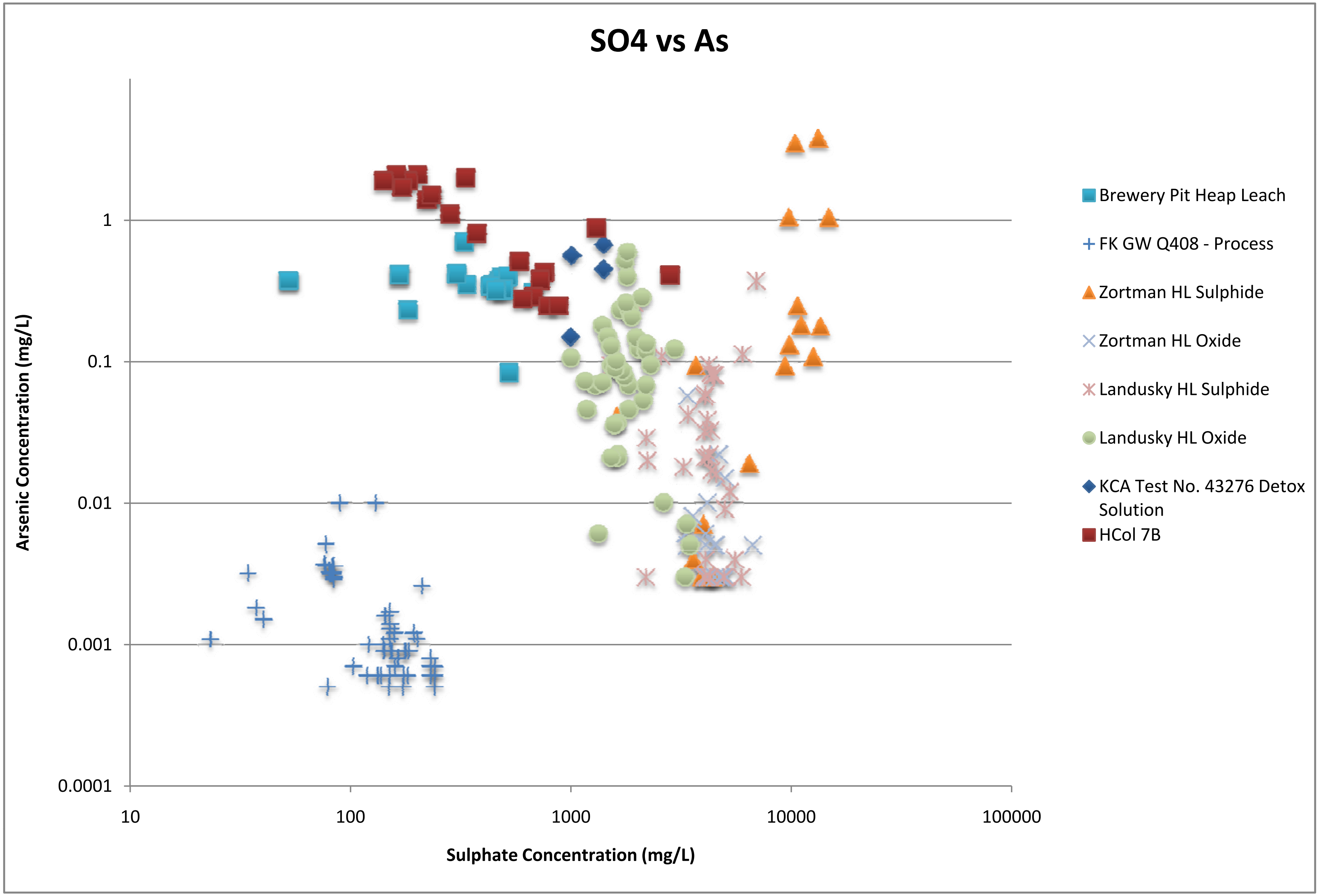

pH vs Tl
Thallium Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
0.00001
0.00
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
pH
Brewery Pit Heap Leach
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
HCol 7B

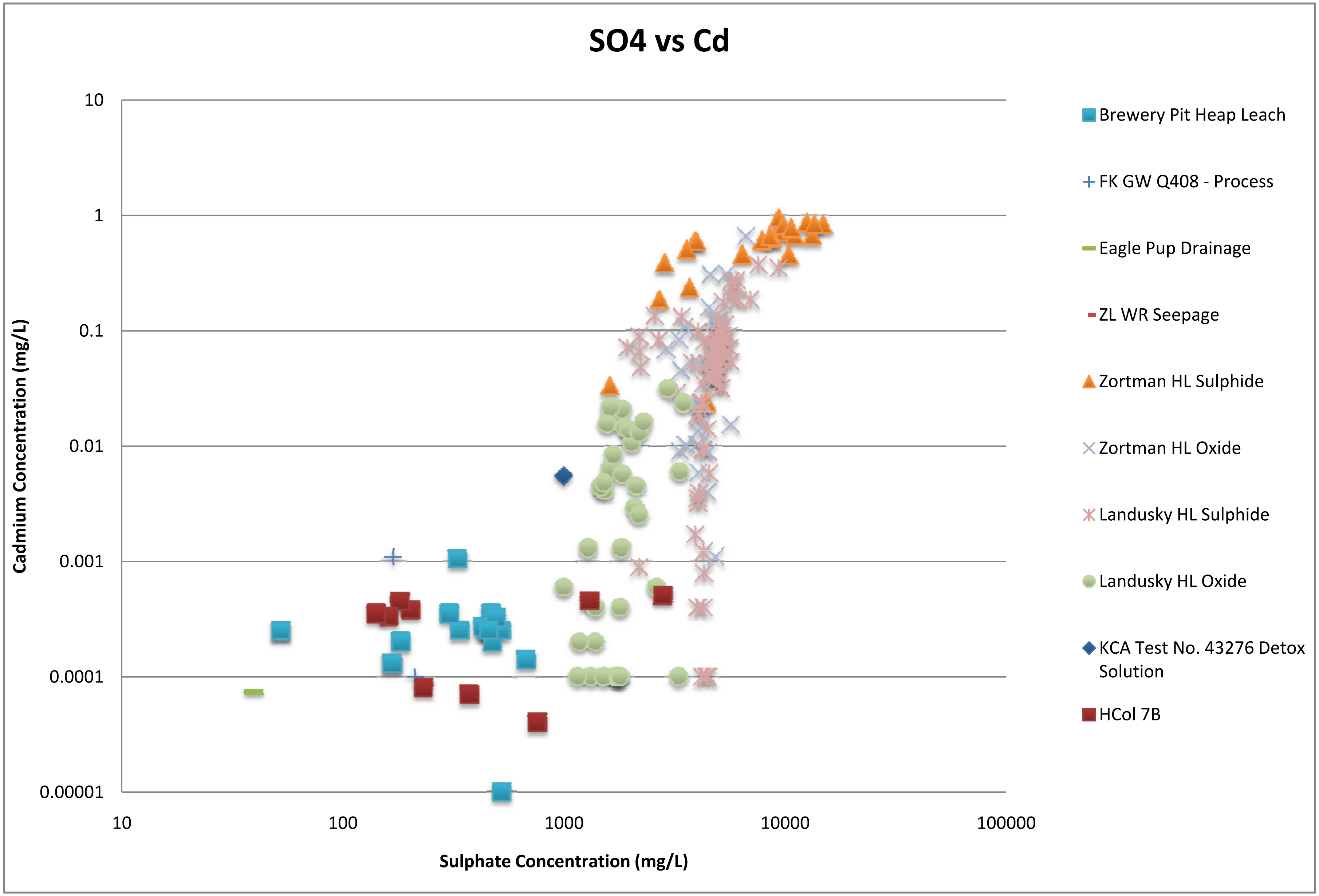

pH vs U
Uranium Concentration (mg/L)
1
0.1
0.01
0.001
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Brewery Pit Heap Leach
HCol 7B

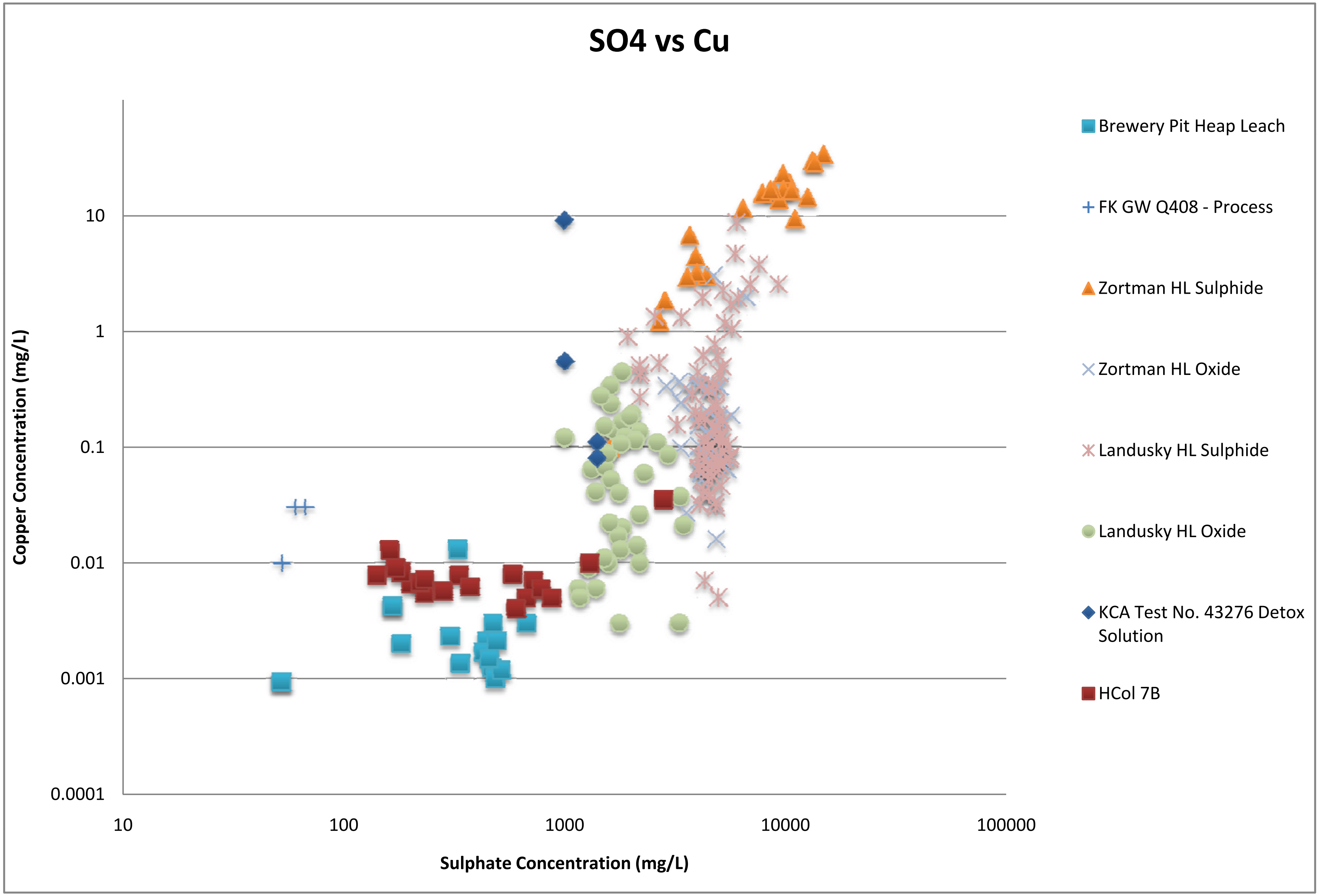

pH vs Zn
Zinc Concentration (mg/L)
100
10
1
0.1
0.01
0.001
0.00
2.00
4.00
6.00
8.00
10.00
12.00
pH
Brewery Pit Heap Leach
FK GW Q408 Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Pregnant Solution
KCA Test No. 43276 Detox Solution
Brewery Creek Metallurgical Column conducted at KCA, reported in SRK, 1994
HCol 7B

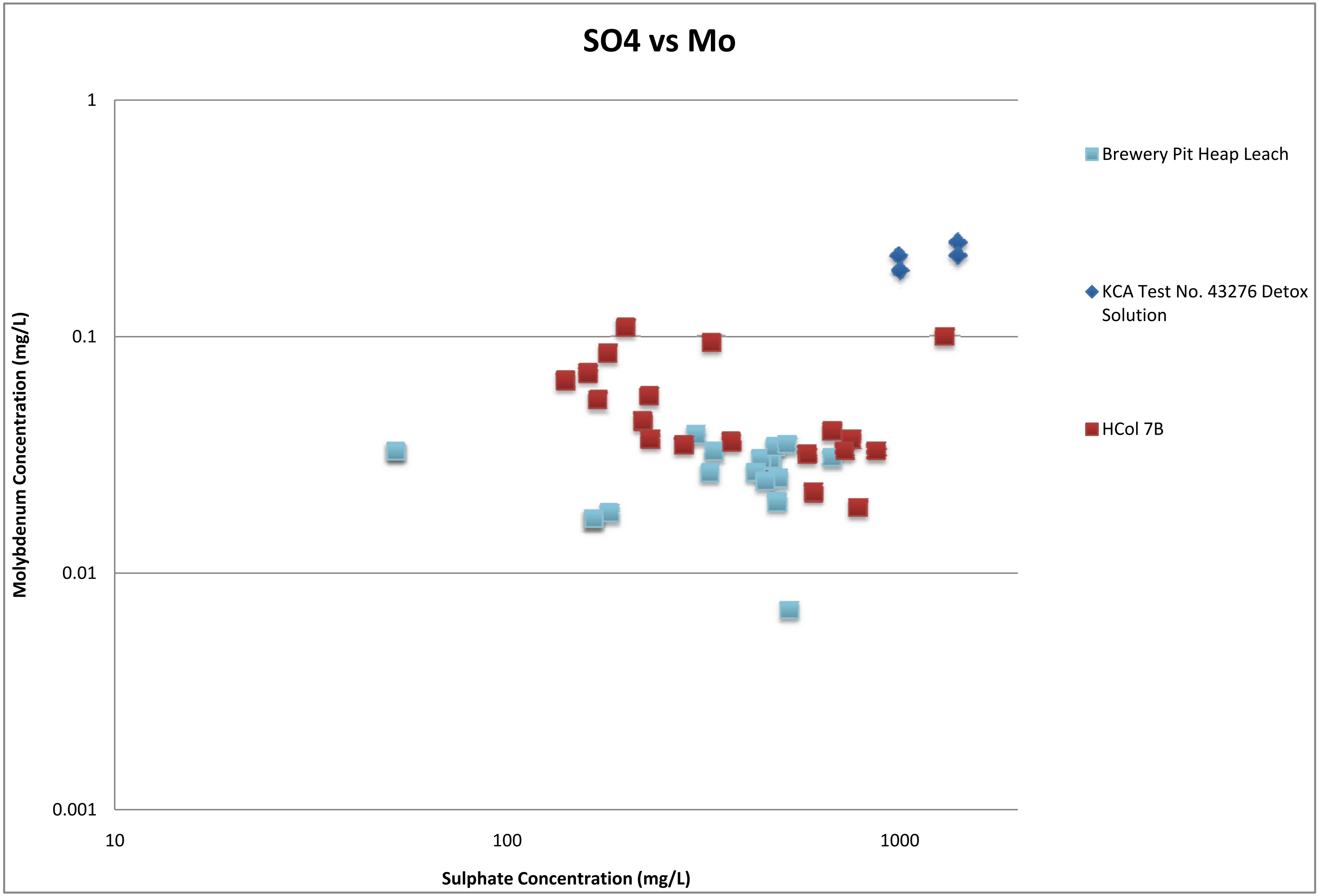

SO4 vs F
1000
100
10
1
0.1
100
1000
10000
100000
Fluoride Concentration (mg/L)
Sulphate Concentration (mg/L)
FK GW Q408 - Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
HCol 7B
KCA Test No. 43276 Detox Solution

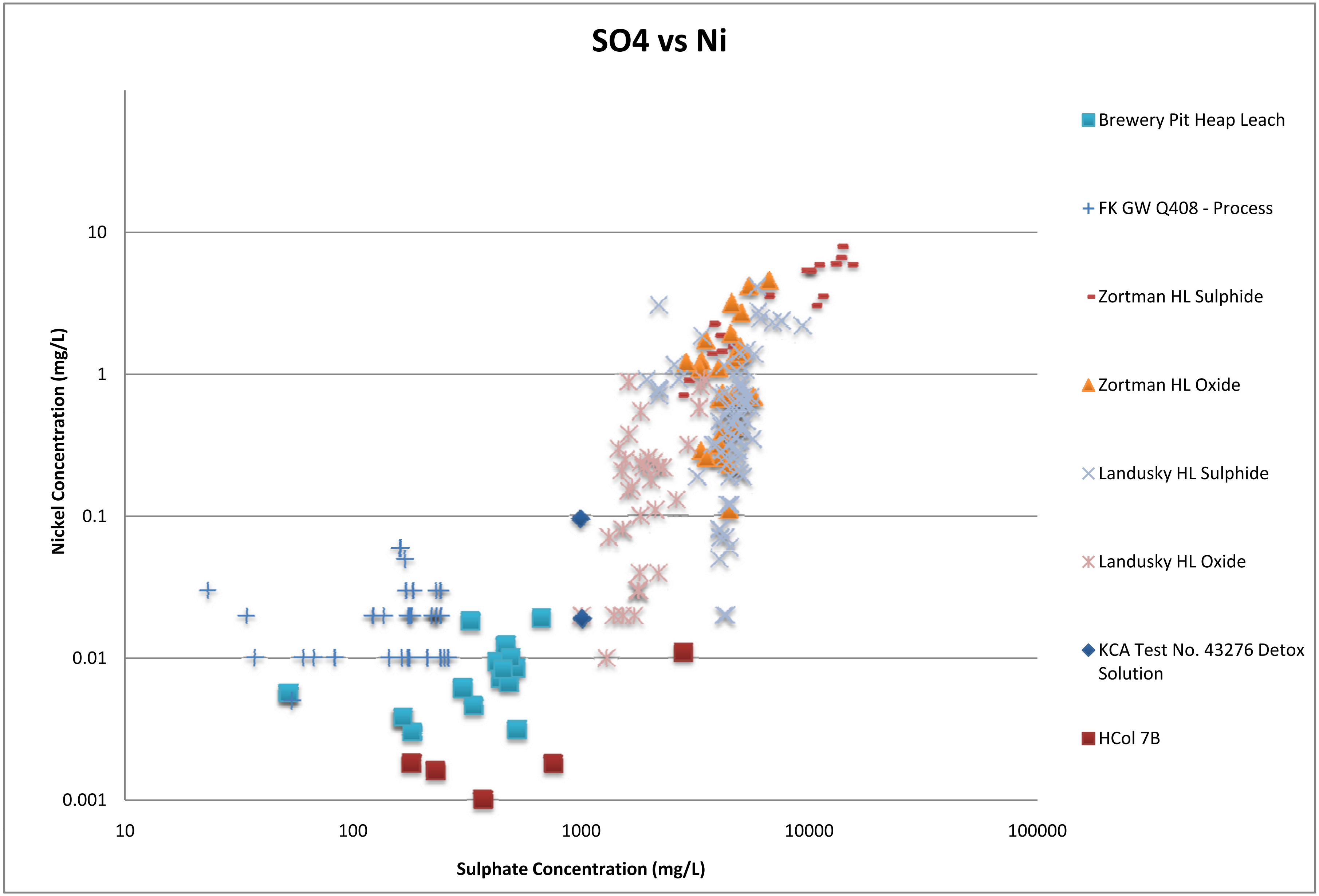

SO4 vs Al
Aluminum Concentreation (mg/L)
10000
1000
100
10
1
0.1
0.01
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Detox Solution
HCol 7B

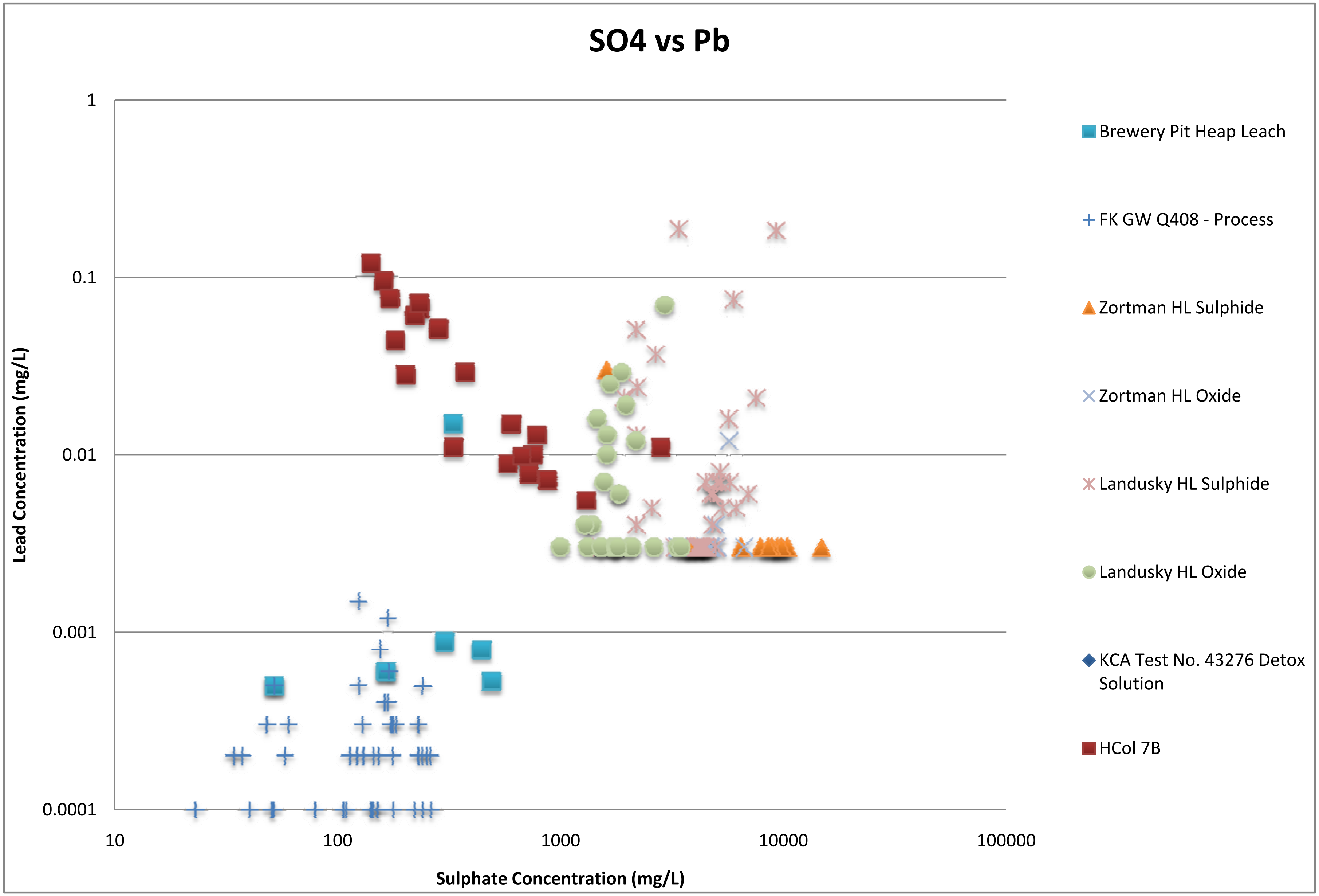

SO4 vs As
Arsenic Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
FK GW Q408 - Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Detox Solution
HCol 7B

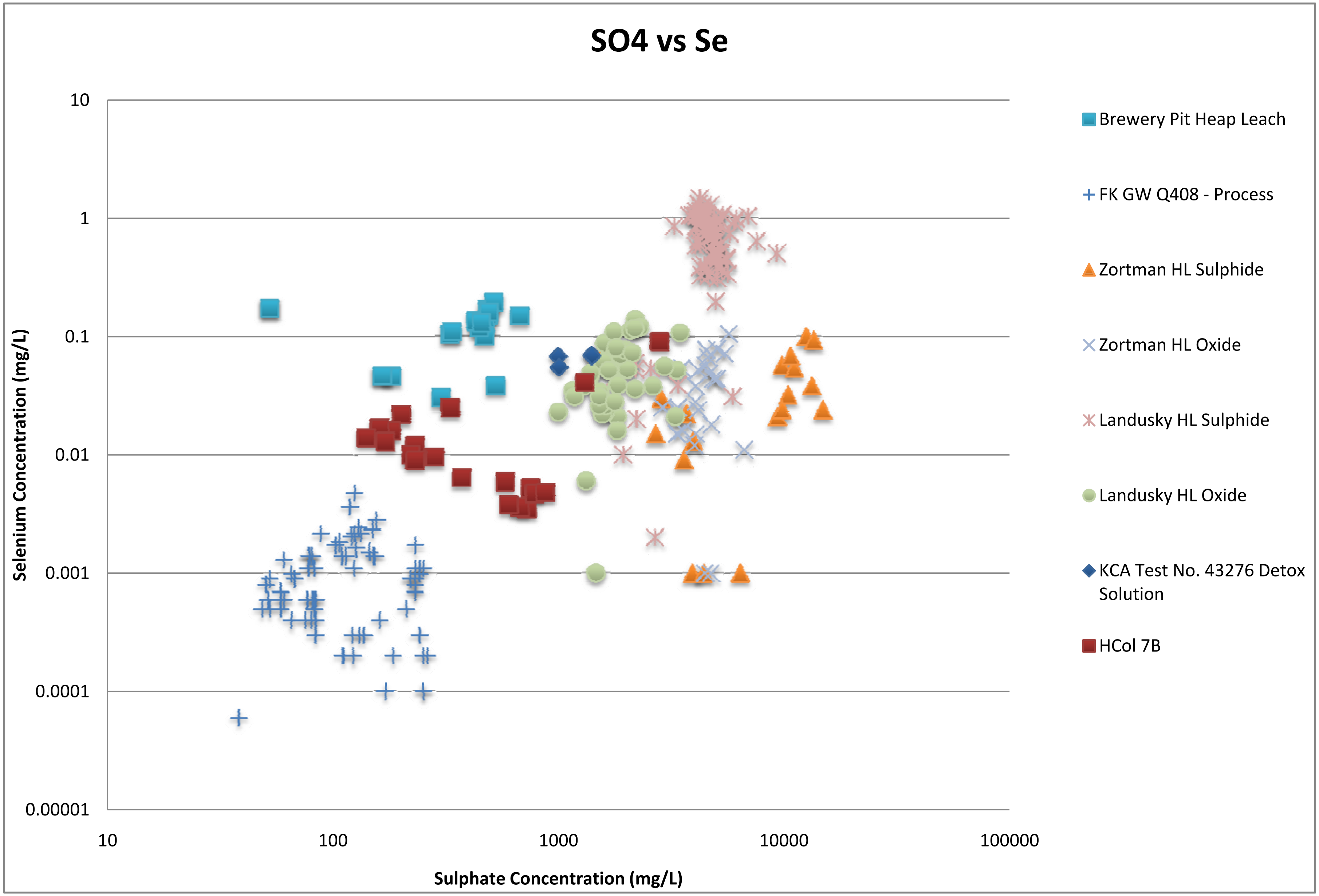

SO4 vs Cd
Cadmium Concentration (mg/L)
10
1
0.1
0.01
0.001
0.0001
0.00001
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
FK GW Q408 - Process
Eagle Pup Drainage
ZL WR Seepage
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Detox Solution
HCol 7B


SO4 vs Cu
Copper Concentration (mg/L)
10
1
0.1
0.01
0.001
0.0001
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
FK GW Q408 - Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Detox Solution
HCol 7B

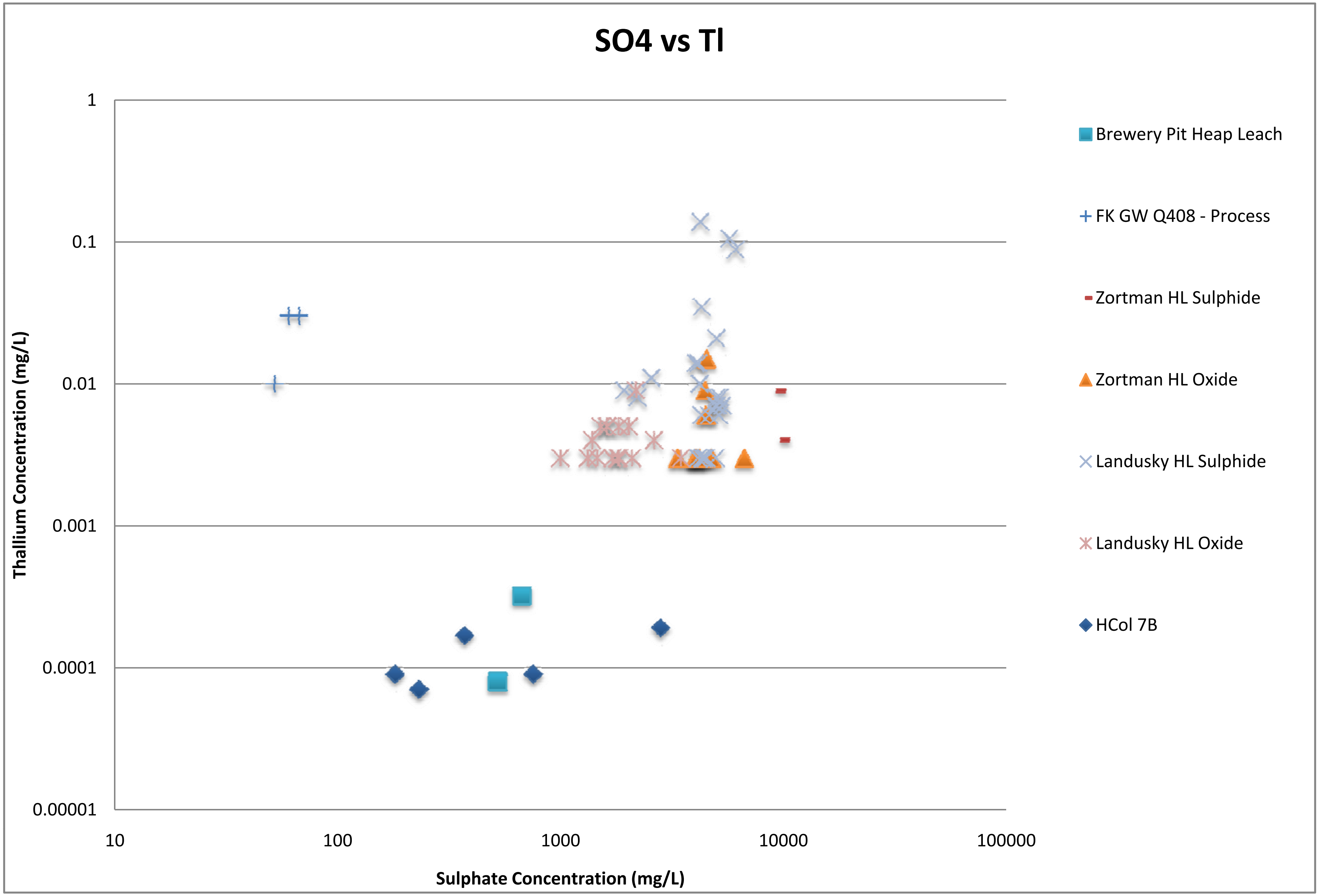

SO4 vs Mo
Molybdenum Concentration (mg/L)
1
0.1
0.01
0.001
10
100
1000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
KCA Test No. 43276 Detox Solution
HCol 7B

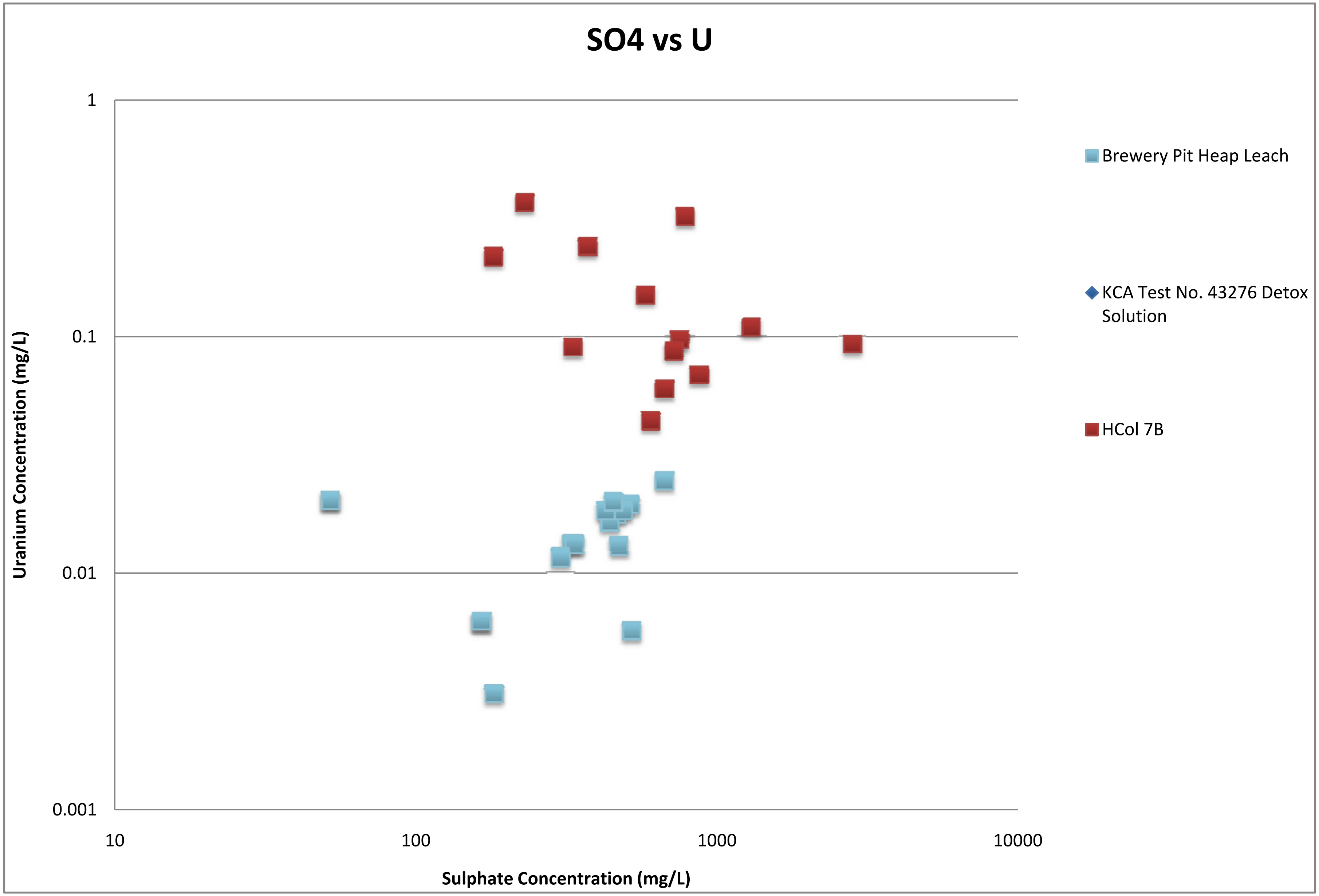

SO4 vs Ni
Nickel Concentration (mg/L)
10
1
0.1
0.01
0.001
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
FK GW Q408 - Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Detox Solution
HCol 7B

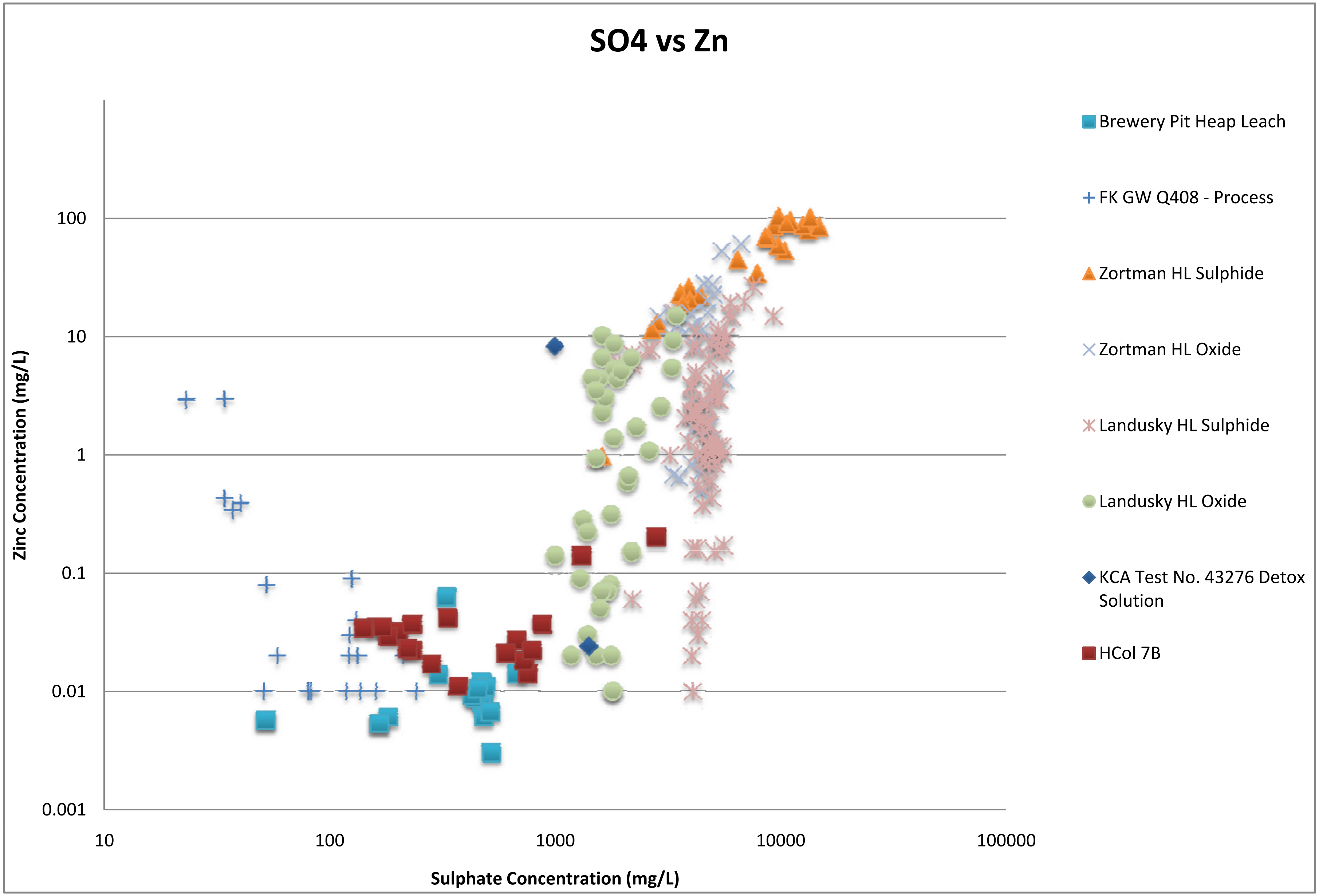

SO4 vs Pb
Lead Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
FK GW Q408 - Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Detox Solution
HCol 7B


SO4 vs Se
10
1
0.1
0.01
0.001
0.0001
0.00001
Selenium Concentration (mg/L)
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
FK GW Q408 - Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Detox Solution
HCol 7B


SO4 vs Sb
Antimony Concentration (mg/L)
1
0.1
0.01
0.001
0.0001
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
FK GW Q408 - Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Detox Solution
HCol 7B


SO4 vs Tl
1
0.1
0.01
0.001
0.0001
0.00001
Thallium Concentration (mg/L)
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
FK GW Q408 - Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
HCol 7B


SO4 vs U
1
0.1
0.01
0.001
10
100
1000
10000
Uranium Concentration (mg/L)
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
KCA Test No. 43276 Detox Solution
HCol 7B


SO4 vs Zn
Zinc Concentration (mg/L)
100
10
1
0.1
0.01
0.001
10
100
1000
10000
100000
Sulphate Concentration (mg/L)
Brewery Pit Heap Leach
FK GW Q408 - Process
Zortman HL Sulphide
Zortman HL Oxide
Landusky HL Sulphide
Landusky HL Oxide
KCA Test No. 43276 Detox Solution
HCol 7B