BIOLOGICAL AND SEDIMENT MONITORING PROGRAM

AT

ROSE AND ANVIL CREEKS, FARO, Y.T.
2008

Submitted to:
DELOITTE & TOUCHE INC

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January 2009

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LETTER OF TRANSMITTAL

January 12, 2009

Doug Sedgwick
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P.O. Box 400 Stn. Commerce Court
Toronto, ON
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Dear Doug:

Re: **Biological and Sediment Monitoring Programs at Rose and Anvil Creeks, Faro, YT, 2008**

We are pleased to submit herewith, the above report covering the environmental monitoring programs as stipulated in Water Licence Number QZ03-059. The above monitoring programs were completed in the summer of 2008 at the Faro Mine Site property and the receiving waters.

Water and stream sediment chemistry was generally of good quality for the support of freshwater aquatic life. Healthy communities of benthic invertebrates were present at each site.

Should you have any questions or comments on the report, please do not hesitate to contact the undersigned.

Sincerely,

Bonnie Burns
Laberge Environmental Services

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1.0 BACKGROUND

On August 16, 1994, Anvil Range Mining Corporation (Anvil) was officially assigned Licence Number IN89-001, which was originally issued to Curragh Resources Inc, by the Yukon Territory Water Board. On December 21, 1996, mining temporarily ceased but the mill continued to operate until March 1997. In late August 1997, mining resumed with milling commencing in October, however both operations shut down in late January 1998. Low metal prices (zinc and lead) and financial difficulties experienced by Anvil indicated that this closure had the potential to be long term. An amended water licence, number QZ95-003 was issued to Anvil on January 30, 1998. In April 1998, Deloitte and Touche Inc became the interim receivers for the Faro Mine property, operations and assets. They have also acted as caretakers of the site bearing responsibility for the requirements under the water licence. On March 30, 2004, Deloitte and Touche Inc was issued licence QZ03-059 to continue care and maintenance of the site and to conduct and/or manage additional studies and plans, for another five years.

To comply with Part G, Section 64, of the current licence a biological and sediment monitoring program is to be undertaken every two years on the Rose Creek system. The Licence states that three replicate samples of benthic macro-invertebrate fauna are to be collected from seven sites located on Rose and Anvil Creeks. These benthic organisms are to be identified, enumerated and the data evaluated. Stream sediment and water samples are to be collected concurrently.

Deloitte & Touche Inc contracted Laberge Environmental Services (LES) to conduct the final biological and sediment monitoring surveys under Licence QZ03-059. This report contains all data collected during the 2008 program. Some comparisons with past monitoring programs have been included.

2.0 STUDY AREA

The Faro mine site is located approximately 20 road kilometres north of the Town of Faro at approximately 62° 20' N and 133° 25' W (Figure 1).

The study area lies within the ecoregion Yukon Plateau - North. The mean annual temperature for this region is approximately –5°C with a summer mean of 10.5°C and a winter mean of -20°C. Northern boreal forests exist at elevations up to 1500 m asl. White and black spruce form the most common forest types with aspen and balsam poplar occupying disturbed areas. (Yukon Ecoregions Working Group, 2006).

The biological monitoring sites are established on Rose and Anvil Creeks at the following locations (Figure 1):

R1 Upstream of the confluence of the North Fork of Rose Creek and downstream of the dewatered freshwater reservoir.

R2 In the mixing zone downstream of the intersection of the Rose Creek diversion canal and the outlet of the tailings pond, just downstream of X-14.

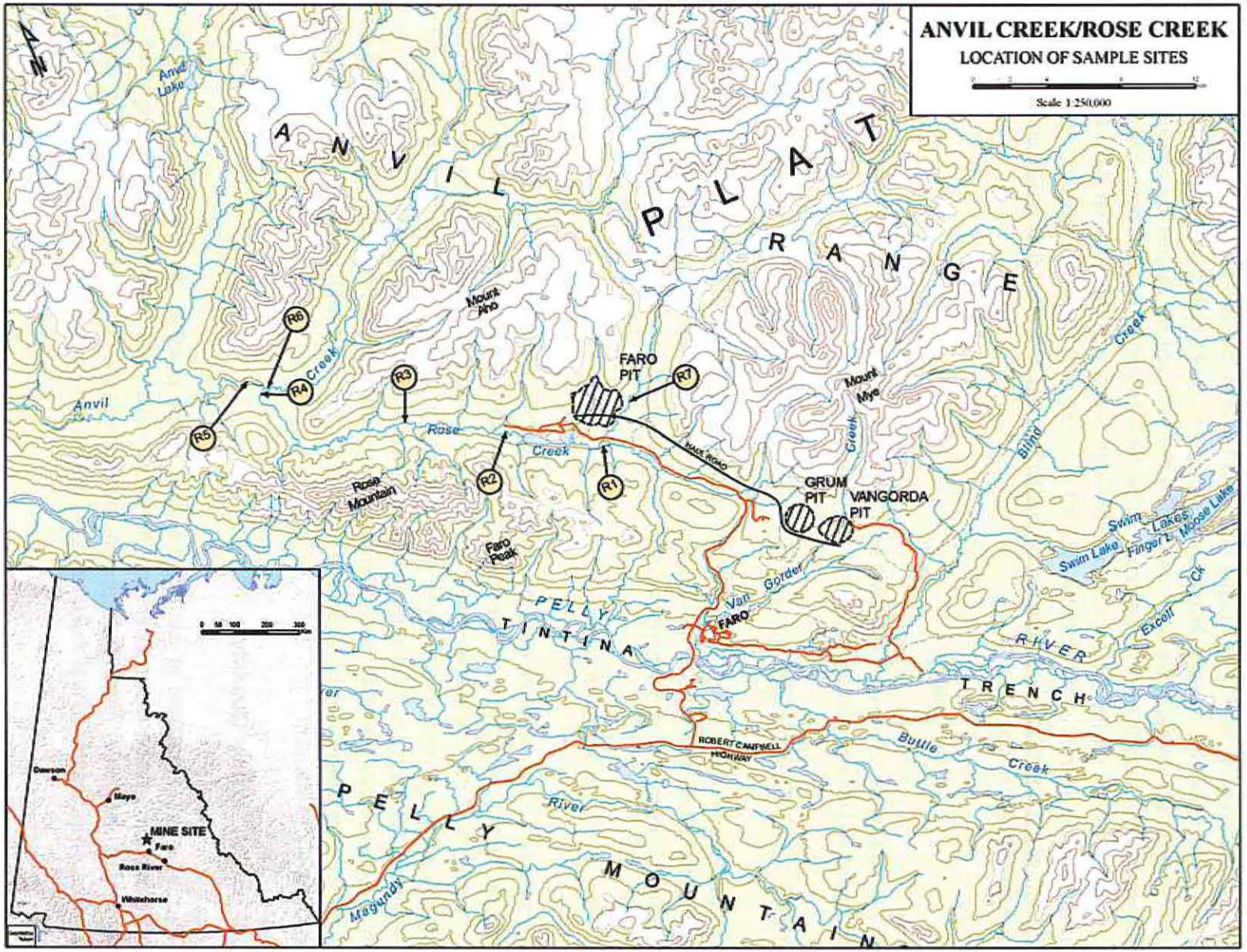
R3 Rose Creek approximately half way between the tailings pond outlet and Anvil Cr.

R4 Rose Creek just upstream of Anvil Creek.

R5 Anvil Creek approximately 200 metres downstream of Rose Creek.

R6 Anvil Creek immediately upstream of Rose Creek.

R7 North Fork of Rose Creek upstream of the confluence with the Faro Creek diversion.


ANVIL CREEK/ROSE CREEK
LOCATION OF SAMPLE SITES
Scale 1:250,000
N
ANVIL PLATEAU
RANGE
Anvil Lake
Mount Aho
Anvil
Creek
R6
R4
R5
R3
Rose
Creek
Rose Mountain
R2
R1
FARO PIT
R7
HAUL ROAD
Mount Mye
Creek
Blind
Creek
GRUM PIT
VANGORDA PIT
Faro Peak
Swim Lakes
Swim Lake
Finger L.
Moose Lake
Van Gorder
FARO
PELLY TINTINA TROUGH
RIVER
Excelf Ck
ROBERT CAMPBELL HIGHWAY
Buttle Creek
Pelly River
Magundy
PELLY MOUNTAINS
Dawson
Mayo
MINE SITE
Faro
Ross River
Whitehorse

3.0 METHODS

The 2008 biological monitoring program consisted of an initial field survey conducted on July 21st to 23rd , to install the benthic invertebrate samplers and to collect water quality samples. The benthic invertebrate samplers at R1 and R2 were retrieved on August 25th. Water quality and stream sediment samples were collected at this time as well. Helicopter access was required for the sites situated on the lower mainstem of Rose Creek and the sites on Anvil Creek. Due to extreme weather events, a helicopter was not available until the following week. The samplers at the remaining five sites were retrieved on September 4th, and water quality and stream sediment samples were also collected.

3.1 Water Quality

Water quality samples were collected in a fast flowing section of the stream, upstream of the sediment and benthic sampler locations.

3.1.1 Field Measurements

In-situ measurements were taken at each site during both surveys. Conductivity and temperature were determined with a 3301 WTW conductivity meter. Dissolved oxygen readings and pH were obtained using an Orion 4 Star portable DO and pH meter. General site observations were made.

3.1.2 Chemical Analyses

All sample bottles were supplied by Maxxam Analytics Inc of Burnaby, B.C. At each site, the sample bottles were rinsed three times with the sample water prior to filling. Samples were collected in a one-litre plastic bottles for sulphate, alkalinity, total hardness, and nonfilterable residue analyses. Ammonia samples were collected in 120 mL plastic bottles and preserved with sulphuric acid. Samples to be analyzed for total metals and dissolved metals were collected in 120 mL plastic bottles. The total metals samples were preserved with nitric acid. The dissolved metals samples were filtered in the field prior to preservation with nitric acid. Samples were kept cool prior to shipment to Maxxam.

3.2 Water Quantity

Discharge was measured at each of the sites, where possible, on both visits. An area with a uniform cross section was chosen and the velocity and depth were measured using a AA Price velocity meter. Ten or more readings were taken across the profile of the stream. Total discharge was calculated as the sum of these individual discharges (area x velocity).

3.3 Stream Sediment Sampling

Triplicate stream sediment samples were collected from each site in August or September. Sample sites were selected from areas of deposition along the stream bank, generally characterized by the finest grain size evident at the site. Samples were collected with a stainless steel trowel and placed in ziplock type bags.

At the lab, the samples were dried and passed through a 100 mesh (0.15 mm) stainless steel sieve. The portion passing through the sieve was run through an ICP scan for the determination of total metal concentrations.

3.4 Benthic Invertebrate Sampling

3.4.1 Field Collection

Substrate samplers were used for benthic invertebrate sampling. The basket samplers were cylindrical in shape, measured 26 cm long with a diameter of 17 cm, and were constructed of galvanized wire with a one centimetre mesh. Each substrate sampler was filled with washed indigenous gravels collected from the stream bed or the bank at each sample site. The surface area provided by this 'artificial substrate' was approximately 6000 $\pm$ 1000 cm^2 (Baker 1979).

Three rock filled samplers were submerged in riffle areas of the stream at each site in July. These samplers were left to colonize for five weeks (R1 and R2) or six weeks (R3 to R7). The substrate samplers were retrieved by placing a screened bucket with a 300 micron mesh, downstream and under the basket. On shore the basket was opened in the bucket. Individual rocks were then carefully washed in the screened bucket to remove and collect all invertebrates from that sample. The detritus and benthic invertebrates remaining in the bucket were placed in a one litre nalgene bottle and preserved with 10% formalin. These samples were sent to Cordillera Consulting, Summerland, B.C. for sorting, enumeration and identification.

3.4.2 Laboratory Analysis

At the Cordillera Consulting laboratory, each sample was elutriated to remove sand or gravel. The elutriate was examined for molluscs or trichopteran cases which were removed if found. The remaining organic material was washed through two nested sieves (2 mm on top of 300 microns). The contents of the two sieves were sorted and identified separately. If numbers of invertebrates appeared to be high (> 400) the sample was split by surface area within a 300 micron sieve. The fractions were subsampled to achieve a total of more than 325 organisms from the sample.

There were several samples with a large proportion of filamentous algae which could not be subsampled with the above method because even distribution of the sample was not achievable. In these cases the whole sample was rinsed, pressed to a point where no water was dripping and then weighed. A subsample was removed by weight using scissors. This subsample was sorted and subsequent subsamples were removed until 325 organisms had been removed from the whole. The portion of the sample that was eventually analyzed is indicated in each column of Appendix C.

Ten percent of the sorted debris was resorted to test sorting efficiency. The sorting efficiency was found to be >95%.

4.0 RESULTS AND DISCUSSION

The Faro region experienced a very wet summer season in 2008. Consequently, water levels at all sites were very high in July when the benthic samplers were installed, and flows were even greater when they were retrieved in August and September (see photos in Appendix A). This created difficulty and challenges in acquiring sediment samples and in retrieving some of the benthic samplers. These issues will be discussed in detail in the relevant sections below.

4.1 Water Quality

Water quality samples were collected at each of the sites on both visits during the summer of 2008. The analytical results are presented in Appendix B.

Part 3 of Schedule B of the water licence specifically requests the analysis of total hardness, alkalinity, sulphate, suspended solids, ammonia, and total and dissolved copper, iron, lead and zinc. The results for these parameters and the in-situ data are presented in Table 1, with discussion per parameter presented below.

4.1.1 Temperature

The temperature values reflected the cool summer season, ranging from 3.7°C at R6 on September 4th, to 7.1°C at R2 on July 21st.

4.1.2 Conductivity and Total Hardness

Calcium and magnesium are considered to be the primary contributors to hardness but other cations such as strontium, barium, manganese, iron and aluminum also contribute to total hardness. All sites were soft to medium soft during the July sampling. Waters were hard at R3, R4, R5 and R6 during September. Conductivity, which is a measure of the ionic constituents in water, had a similar trend to total hardness with lower values in the upstream sites and considerably higher values in the downstream sites.

4.1.3 pH and Alkalinity

All pH values were near neutral to slightly alkaline ranging from 7.04 to 8.6. Alkalinity is a measure of the buffering capacity of natural waters against changes in pH relating to the carbonate system. Alkalinity values were fairly consistent throughout each watershed. Sites on Anvil Creek had slightly higher alkalinity concentrations than the sites on Rose Creek.

4.1.4 Dissolved Oxygen

All sites were well aerated.

TABLE 1

WATER QUALITY DATA, 2008

Sample Site	R1		R2		R3		R4		R5		R6		R7	
Date, 2008	Jul-22	Aug-25	Jul-21	Aug-25	Jul-22	Sep-04	Jul-22	Sep-04	Jul-22	Sep-04	Jul-22	Sep-04	Jul-22	Sep-04
*Flow, m^3/sec			7.583										3.018	
Temp °C	6.1	6.0	7.1	6.3	6.2	5.5	5.6	4.4	5.0	3.9	4.9	3.7	5.2	4.8
Total Dissolved Solids (in-situ)	75	---	138	---	139	158	132	154	136	141	135	134	79	78
Conductivity														
uS/cm (in-situ)	130.7	---	228	---	228	277	216	270	223	247	221	235	129.6	136.7
uS/cm (lab)	---	100	---	170	---	290	---	280	---	260	---	260	---	150
pH (in-situ)	7.91	7.96	8.26	8.08	8.00	8.40	7.95	8.40	8.24	8.70	8.25	8.50	7.99	8.60
pH (lab)	7.8	7.8	7.90	7.9	7.9	8.1	7.9	8.2	8.1	8.3	8.1	8.3	7.8	8.1
D.O. (mg/L)	---	10.7	10.5	10.4	---	10.6	---	10.7	---	10.9	---	11.2	---	9.9
D.O. (%)	---	100	98.7	97.2	---	97	---	94.4	---	94.5	---	96.7	---	89.9
Alkalinity mg/L as CaCO3	56	44	71	59	70	80	72	81	97	110	99	110	58	62.0
Sulphate	9.4	8.1	48	23	43.0	50	41.0	44	20.0	22.0	17.0	19.0	6.9	7.2
Ammonia	<0.01	<0.005	0.01	<0.005	0.03	0.03	<0.01	0.03	<0.01	0.04	<0.01	<0.01	<0.01	0.04
NFR	1	18	2	45	1	1	5	4	5	4	5	3	3	2
Copper - total	0.00110	**0.00212**	0.00095	**0.00313**	0.00093	0.00086	0.00125	0.00127	0.00108	0.00090	0.00097	0.00083	0.00073	0.00073
- dissolved	0.00106	0.00150	0.00114	0.00153	0.00110	0.00076	0.00110	0.00102	0.00096	0.00075	0.00085	0.00070	0.00072	0.00062
Iron - total	0.091	**0.578**	0.149	**0.954**	0.126	0.14	0.14	0.154	0.133	0.136	0.125	0.124	0.114	0.105
- dissolved	0.059	0.127	0.102	0.121	0.086	0.094	0.063	0.071	0.053	0.067	0.048	0.066	0.059	0.072
Lead - total	0.00085	**0.00469**	0.00043	**0.00433**	0.00043	0.00037	0.00061	0.00049	0.00016	0.00012	0.00009	0.00005	0.00009	0.00009
- dissolved	0.00031	0.00065	0.00032	0.00033	0.00022	0.00014	0.00016	0.00013	0.00007	0.00002	0.00009	0.00001	0.00003	0.00007
Zinc - total	0.0195	**0.0369**	0.0162	**0.0318**	0.0135	0.0171	0.0111	0.0140	0.0017	0.0022	0.0008	0.0006	0.0008	0.0012
- dissolved	0.0190	0.0254	0.0172	0.0136	0.0139	0.0166	0.0098	0.0141	0.0016	0.0018	0.0007	0.0006	0.0006	0.0012
Total Hardness mg/L as CaC03	63.8	51.2	110	82.2	107	142	110	135	116	131	115	129	63.6	70.3

NOTES: All units in mg/L unless otherwise indicated. Values in **bold** indicate the CCME guideline has been exceeded.

* Due to extremely high water levels, discharge could only be safely measured at R2 and R7 during July.

4.1.5 Sulphate

Sulphate concentrations were low in the upper Rose Creek sites and in Anvil Creek. Concentrations were higher at the Rose Creek sites downstream of the tailings facility. Sulphate concentrations normally vary from 10 to 80 mg/L in surface waters (CCREM, 1987) and all reported concentrations fell within this range.

4.1.6 Ammonia

Ammonia was detected at all sites on at least one occasion, except at R1 and R6. The detected levels were significantly below the CCME recommended guideline of 0.7 mg/L NH_3.

4.1.7 Non Filterable Residue (NFR)

All waters were clear except on August 25th, 2008. Due to persistent rainfall over previous days, flows were very high and turbid (Photo #3). Only the land accessed sites R1 and R2 were sampled on August 25th. The remaining sites are accessed by helicopter and due to weather conditions, the sites could not be completed until the following week. The creeks had stabilized by this time and the waters were clear once again, although water levels continued to be high.

4.1.8 Total and Dissolved Metals

The values in bold in Table 1 indicate that the CCME (1999) guideline for the protection of freshwater aquatic life was exceeded for that parameter in that sample. The toxicity of some metals varies with the hardness of the sample waters (Table 2). Generally, toxicity of several metals to freshwater aquatic organisms increases as the hardness of the water decreases.

TABLE 2
CCME RECOMMENDED GUIDELINES FOR THE PROTECTION OF FRESHWATER AQUATIC LIFE

HARDNESS as $CaCO_3$ mg/L	COPPER mg/L	LEAD mg/L	IRON mg/L	ZINC mg/L
0 - 60 soft	0.002	0.001	0.3	0.03
60 - 120 medium soft	0.002	0.002	0.3	0.03
120 - 180 hard	0.003	0.004	0.3	0.03
>180 very hard	0.004	0.007	0.3	0.03

All of the examined metals in Table 1 met the applicable CCME guidelines in all samples with the exception of the total metals samples collected on August 25th at R1 and R2. As discussed previously, total suspended solids were high on this day. All of the dissolved metals samples however, did meet the guidelines.

The above metal concentrations have been discussed in relation to the CCME guidelines. It is important to note that the limits as set out under the current Water Licence issued by the Yukon Territory Water Board, apply to the discharge point and there is no obligation to meet the CCME criteria in the receiving waters at this time.

4.1.9 Quality Assurance / Quality Control

Blind duplicate samples were collected at R7 during the September sampling period and were sent to the lab as an analytical check. A review of the data in Appendix B shows good correlation for all parameters tested.

4.2 Water Quantity

Due to abnormally high waters at all the sites during the study period, discharge measurements could only be safely conducted at R2 and R7 in July. Continuous water level recorders are situated at X-14, just upstream of R2, and at R7. The hydrographs (Figures 2 and 3) show that discharge peaked at both sites in mid summer, rather than during freshet. Rose Creek as measured at X-14 peaked on July 15th at 22:30 with an estimated discharge of 36.9 m^3/sec. The north fork of Rose Creek as measured at R7 peaked on July 15th at 16:30 with an estimated discharge of 10.8 m^3/sec. Very high flows were also documented at both sites in June and in August due to severe rainfall events.

4.3 Stream Sediments

Triplicate stream sediment samples were collected from all sites during August or September. The analytical report is presented in Appendix C. Due to the high water experienced at all of the sites it was difficult obtaining deposited fines. This was especially true at R1, where fines are not readily available in this high velocity reach. Sediment samples were collected from a small depression adjacent and connected to Rose Creek just upstream of R1. The results of the metals analyses were extremely high here and are not representative of concentrations ordinarily documented at R1. It is suspected that the area sampled is usually separated from Rose Creek and represents sediment that may have been deposited long ago. The source of this contaminated sediment is unknown. For the purposes of this report, the values for the sediment at R1 have not been included in any of the following summary tables or discussion.

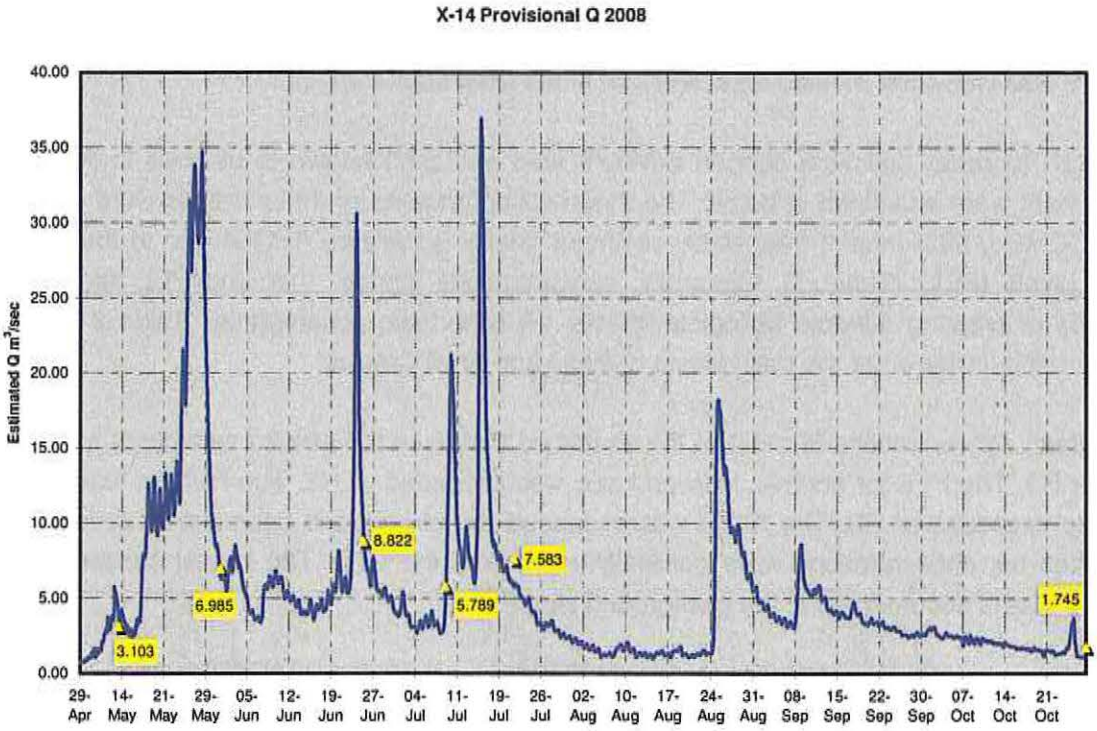


Figure 2 Hydrograph for X-14 from late April '08 to mid October '08.

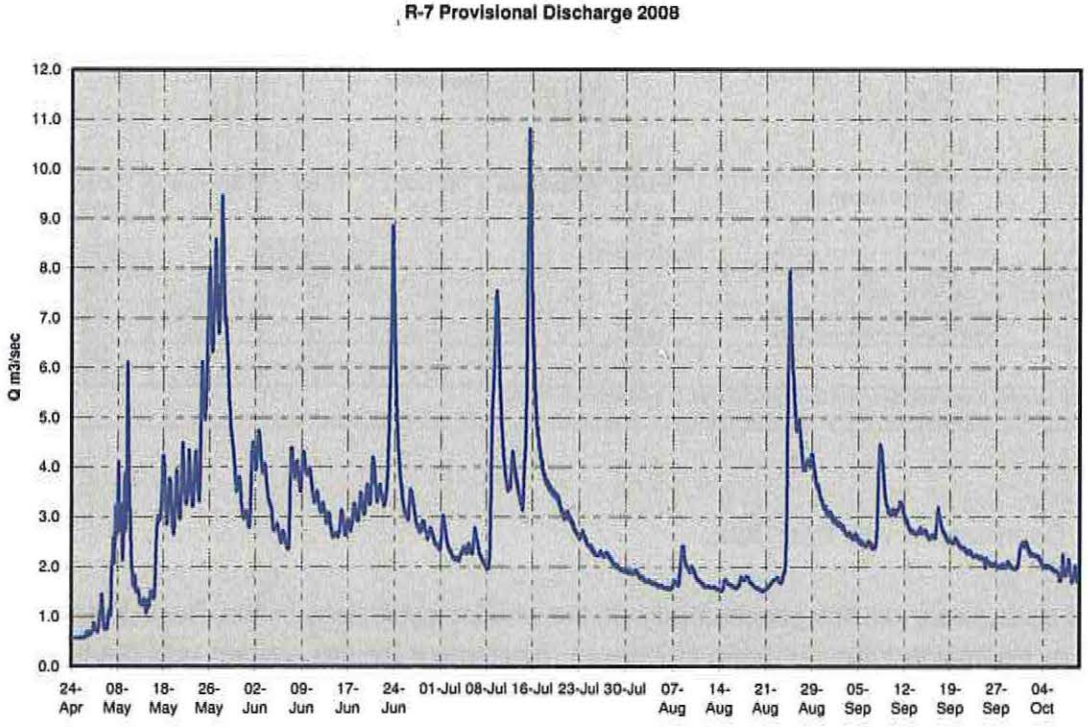


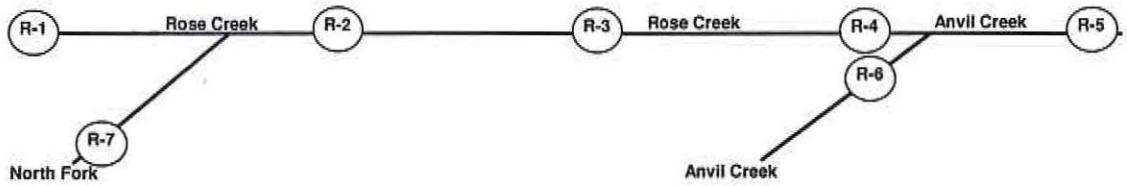
Figure 3 Hydrograph for R-7 from late April '08 to early October '08.

The metal analyses for the other sites were averaged and the standard deviation was calculated to determine the spread of metal concentrations at each site. A few metals, especially those with high concentrations, showed some variability. Of the 30 metals analyzed, the concentration of selenium was below the method detection limit in the examined samples.

Six metals (arsenic, cadmium copper, mercury, lead and zinc) known to be toxic to the aquatic environment were examined in detail. The mean concentrations of these metals were compared to the CCME (1999) interim freshwater sediment quality guidelines (ISQG) and to the probable effects levels (PEL) (Table 3). Generally, concentrations greater than the PEL have a 50% incidence of creating adverse biological effects. A schematic accompanies Table 3 indicating where the tributaries enter the main stems of Rose and Anvil Creeks.

The highest concentrations of most of the examined metals in the stream sediments occurred at R2 or at R3. The PEL for arsenic, lead and zinc was exceeded at R2. The PEL for lead and zinc was also exceeded at R3. The ISQG was exceeded for arsenic and cadmium at several of the other sites but concentrations were generally well below the PEL. The lowest concentration of each metal was documented at the background site, R7.

TABLE 3 STREAM SEDIMENT METAL CONCENTRATIONS (ug/g), AUGUST OR SEPTEMBER 2008



Site #	Station Description	Arsenic ug/g	Cadmium ug/g	Copper ug/g	Lead ug/g	Mercury ug/g	Zinc ug/g
R-7	North Fork of Rose Creek	5.23	0.23	12.8	10	<0.05	56
R-2	Rose Creek d/s tailings ponds	**18.37**	**0.76**	**47.3**	**160**	0.15	**369**
R-3	Rose Creek midway between R-2 and R-4	**16.77**	**0.68**	**49.2**	**202**	0.17	**424**
R-4	Rose Creek just u/s of Anvil Creek	**10.63**	0.37	26.4	**64**	0.06	**184**
R-6	Anvil Creek just u/s Rose Creek	**6.70**	0.57	23.7	10	<0.05	80
R-5	Anvil Creek d/s of Rose Creek	**10.93**	**0.83**	34.1	19	<0.05	154
ISQG		5.9	0.6	35.7	35.0	0.2	123
PEL		17.0	3.5	197.0	91.3	0.486	315

Note: ISQG = Interim freshwater Sediment Quality Guidelines, in **bold** where exceeded.
PEL = Probable Effects Level (>50% of adverse effects occur above this level), shaded and in **bold** where exceeded.

4.3.1 Comparisons with Past Data

Limited data exists on the geochemistry of the stream sediments in the Rose Creek system. Metals in sediments have not been a licensed requirement for this system until the issuance of Licence # QZ03-059 in March 2004. In 1996, stream sediment samples were voluntarily collected and analyzed for metals during the Rose Creek biological monitoring program (Burns, 1997).

Environment Canada conducted environmental impact surveys downstream of the tailings impoundment in 1983 (Godin and Osler, 1985) and in 1973 (Hoos and Holman, 1973). Table 4 shows comparisons of selected metal concentrations for all the study periods. All data represents the mean of triplicate samples (N=3) except in 1983 which is the average of two sets of triplicate samples collected in July and August (N=6). Arsenic was not one of the six metals analyzed in 1973. The detection limit for cadmium was very high in 1973 and this set of data has been excluded. Each parameter has also been graphed (Figures 4 to 7) and includes either the PEL or the ISQG, which ever is more meaningful for that data set.

In March of 1975, a tailings spill released 245,000 cubic metres of tailings slurry into Rose Creek (Godin and Osler, 1985). The 1983 data for arsenic and lead was consistently high at the downstream sites (R2, R3 and R4), and are the highest documented to date. Concentrations of zinc were also elevated in 1983 at R2 and R3. These elevated levels could represent lingering effects from the tailings spill of 1975 (Godin and Osler, 1985).

Concentrations of arsenic and lead have decreased significantly at the downstream sites (R2, R3 and R4) since 1983. It appears that arsenic concentrations have leveled off and are now similar to the concentrations at the background sites. Lead levels continue to display a downward trend. Lead concentrations at the background sites R6 and R7 are extremely low. The level of cadmium tends to be relatively stable at each site although concentrations at R4 do show some fluctuation. Zinc concentrations generally peaked in 1983 at the sites where sampled. Levels have generally been much lower at the upstream sites (R1, R6 and R7) than at the potentially impacted sites.

Metals in sediments are difficult to interpret because levels can vary widely as a function of natural mineralization of local soils within a given watershed. Based on the current data set, it appears that concentrations of various metals have been decreasing since 1983. Concentrations of the selected metals at R5 are very similar to those at the upstream site R1. Lead levels however have frequently been greater at R1 than at R5.

4.4 Benthic Invertebrates

Four phyla were found in Rose and Anvil Creeks; Arthropoda, Annelida, Mollusca and Nematoda. A total of 48,077 organisms representing 89 different taxonomic groups were identified within these three phyla. These data are presented in Appendix D.

4.4.1 Abundance and Taxonomic Richness

The number of organisms for the triplicates at each site was summed to give a total abundance value for that site. Populations ranged from 2,033 individuals at R5 (Anvil Creek downstream Rose Creek) to 16,340 individuals at R7 (North Fork Rose Creek).

TABLE 4

COMPARISONS OF METAL CONCENTRATIONS IN SEDIMENTS, 1973, 1983, 1996, 2004, 2006 AND 2008

	Arsenic (ppm)						Cadmium (ppm)						Lead (ppm)						Zinc (ppm)					
	1973	1983	1996	2004	2006	2008	1973	1983	1996	2004	2006	2008	1973	1983	1996	2004	2006	2008	1973	1983	1996	2004	2006	2008
R1		15	6	12	<10			0.8	0.6	0.7	<0.05		280	124	74	125	23		270	260	221	203	131	
R2		86	32	20	24	18		1.2	1.6	1.3	1.2	0.8	83	775	310	207	179	160	180	918	617	482	694	369
R3		104	31	16	15	17		1.1	1.0	0.8	0.8	0.7	280	681	244	165	143	202	440	996	581	376	464	424
R4		51	32	14	16	11		1.1	2.1	0.7	1.0	0.4		585	267	153	120	64		885	908	293	470	184
R5			14	11	13	11			0.8	0.9	1.0	0.8			20	69	25	19			161	212	149	154
R6				12	11	7				0.6	1.0	0.6				11	15	10				66	109	80
R7				12	14	5				0.5	0.6	0.2				15	15	10				78	81.3	56

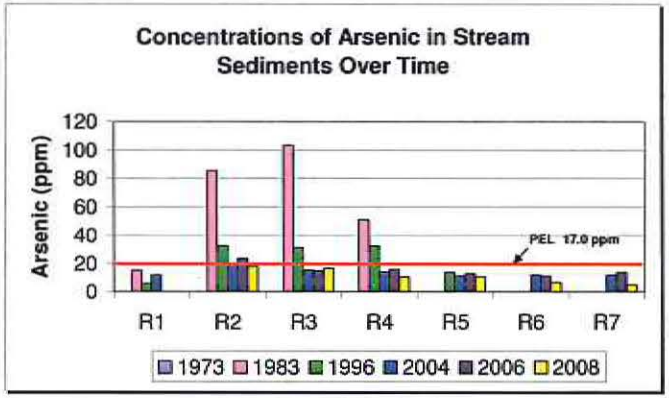


Figure 4 Concentrations of Arsenic in the Stream Sediments Over Time

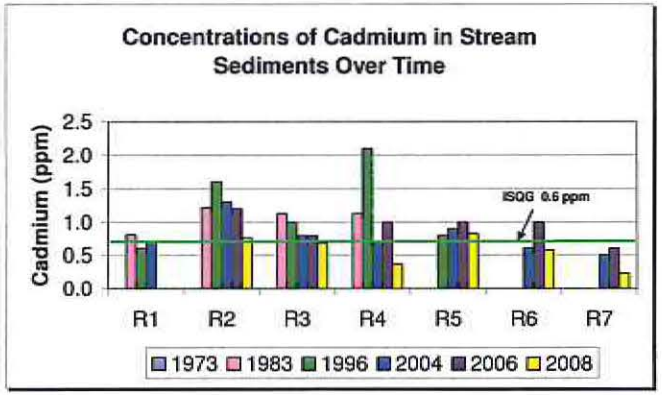


Figure 5 Concentrations of Cadmium in the Stream Sediments Over Time

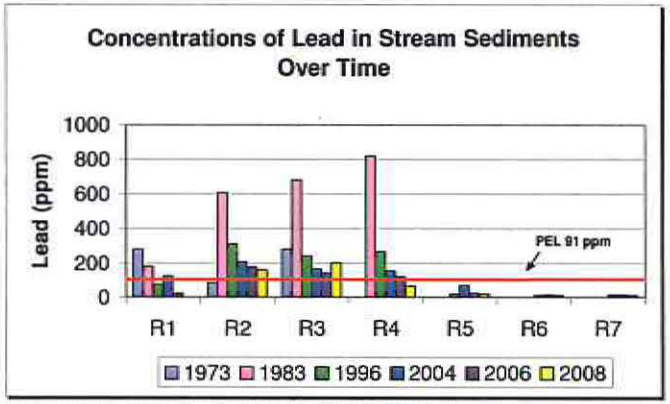


Figure 6 Concentrations of Lead in the Stream Sediments Over Time

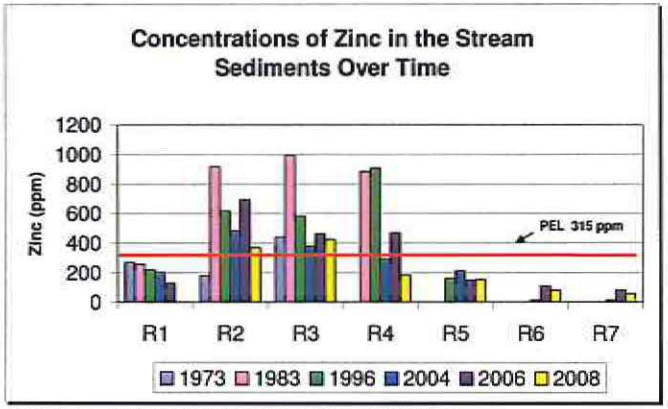


Figure 7 Concentrations of Zinc in the Stream Sediments Over Time

Taxonomic richness was determined for each site by enumerating all taxonomic groups identified from species to phylum, as a measure of community diversity. All communities were diverse with 38 different taxonomic groups identified at R1 to 54 identified at R2. To further characterize the taxonomic wealth of each community, the diversity was related to the population size using the formula: (Diversity – 1) divided by the natural log of the population. The community at R2 also had the highest richness index, and the trend to the diversity was similar for the other, with the notable exception of the community at R5. Here the diversity was the second lowest however when the population size is taken into consideration it actually has the third highest index.

Abundance and diversity were plotted and are displayed in Figure 8. To aid in interpretation, the stations were arranged on the X-axis to demonstrate where the tributaries, R7 and R6 enter the mainstem of Rose or Anvil Creek.

SITE	SITE DESCRIPTION	ABUNDANCE	DIVERSITY	TAXONOMIC RICHNESS INDEX
R1	Rose Creek upstream	5,077	38	4.3
R7	North Fork of Rose Creek	16,340	45	4.5
R2	Rose Creek d/s tailings ponds and diversion canal	5,136	54	6.2
R3	Rose Creek midway between R2 and R4	7,680	45	4.9
R4	Rose Creek just u/s of Anvil Creek	4,391	51	6.0
R6	Anvil Creek just u/s of Rose Creek	7,520	47	5.2
R5	Anvil Creek d/s of Rose Creek	2,033	43	5.5

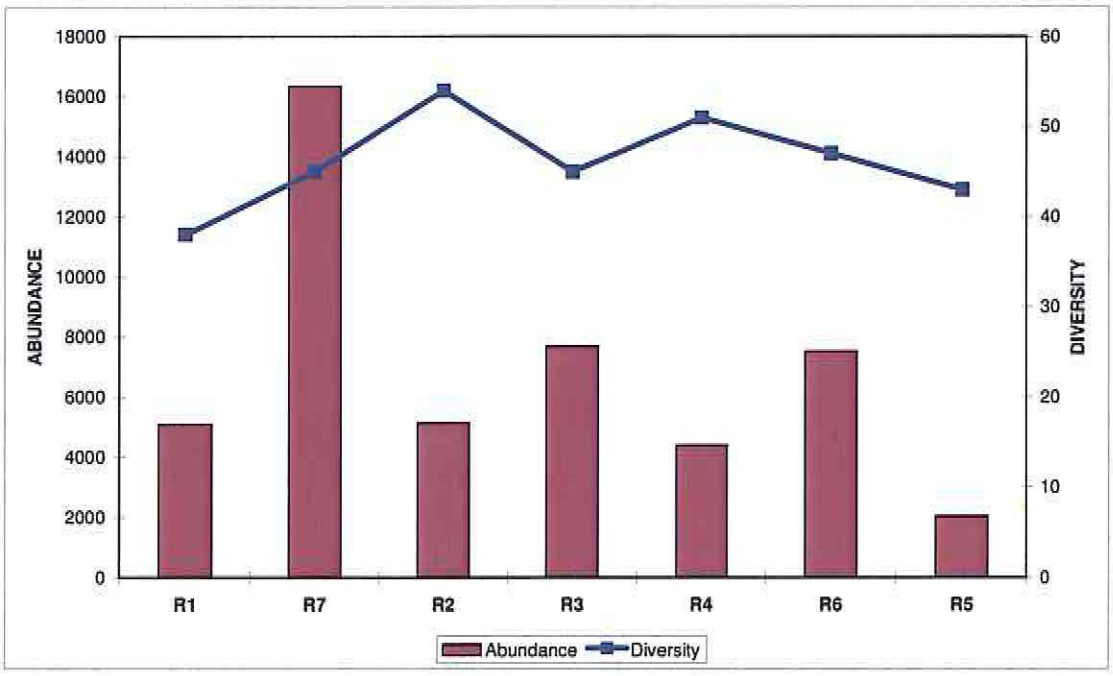


FIGURE 8 Abundance and Taxonomic Richness at Rose and Anvil Creeks, 2008

The community at the background site, R7, had the greatest population. Due to very high water levels in July the basket samplers were installed, for the first time, in the side channel which usually is dry or has shallow water (see Photo #2). The lowest population was recorded at R5. The high water level on Sept 4th created difficulties in retrieving the basket samplers from the deep water (approximately 70 cm) at this site. It is suspected that organisms may have been dislodged and lost from the baskets during the retrieval process.

The most diverse community occurred at R2. As this site is located in the area that potentially receives the greatest impacts from the tailings facility and combined seepages, the high number of different types of organisms residing here is encouraging. The community at the background site at R1 was the least diverse. The community consisted primarily of Diptera that formed 81.4% of the population, with low representation of the other taxa.

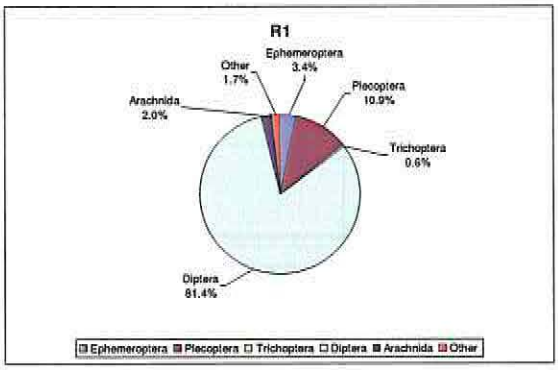
4.4.2 Distribution

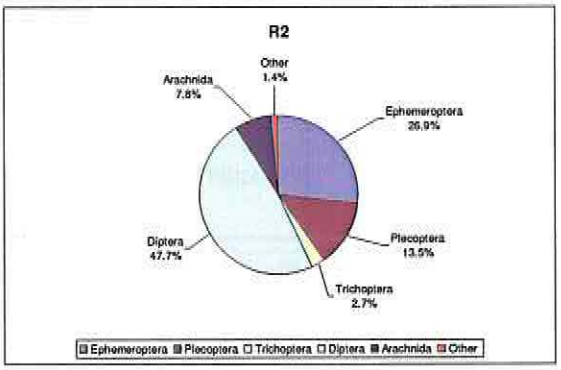
The composition of the benthos communities was calculated as a percentage of the major taxonomic orders present, with pie charts generated for each site (Figure 9). The grouping "Other" is made up of invertebrates from Nematoda, Copepoda, Gastropoda, Collembola, Lepidoptera, Hirudinea, Oligochaeta and/or Ostracoda. Based on the percentages, taxa were then classified with respect to their dominance within the community (Table 5).

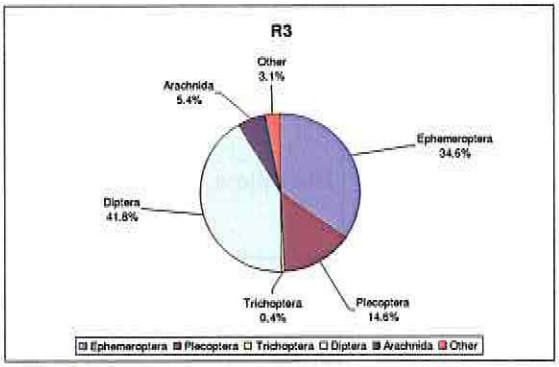
Diptera was the dominant or co-dominant order at all of the sites except at R4 where the community was dominated by Plecoptera and Ephemeroptera. Plecoptera also shared dominance at R6 and R7, and was subdominant at the other sites. Ephemeroptera shared dominance at R2, R3 and R6, and was subdominant or common at the remaining sites.

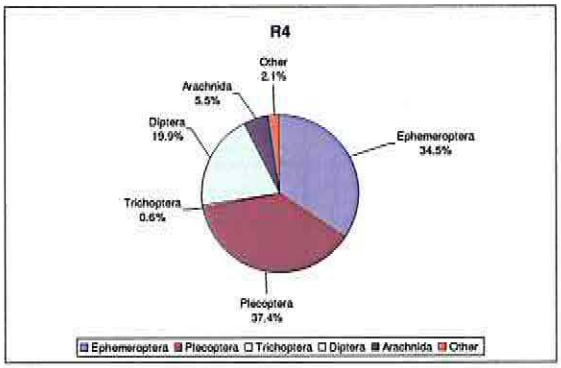
Arachnida, Trichoptera and 'Other' were rare or incidental.

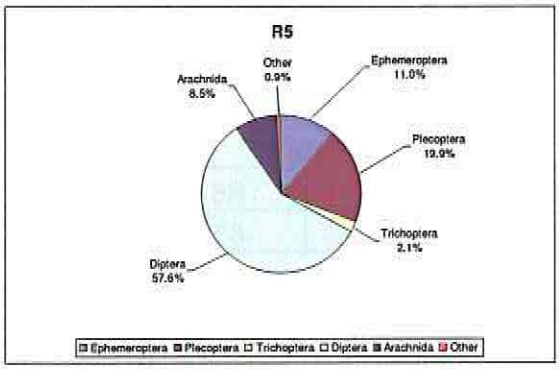
Figure 9 The Composition of the Benthic Invertebrate Community at Each Site, 2008

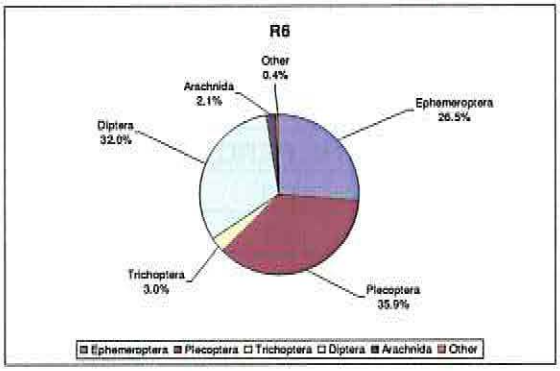


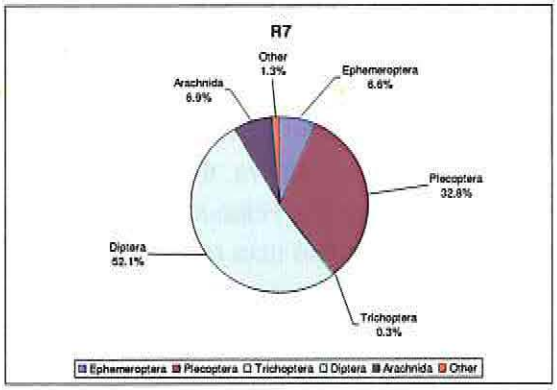












NOTE: Other includes one or more of the following taxonomic groups:
Nematoda
Ostracoda
Copepoda
Hirudinea
Gastropoda
Oligochaeta
Collembola
Lepidoptera

TABLE 5
TAXONOMIC DISTRIBUTION OF BENTHIC INVERTABRATES

SITE	DOMINANT (≥25%)	SUBDOMINANT (10% to 24.9%)	COMMON (1.0% to 9.9%)	RARE (0.1% to 0.9%)
R1	Diptera	Plecoptera	Ephemeroptera Arachnida Other	Trichoptera
R2	Diptera Ephemeroptera	Plecoptera	Arachnida Trichoptera Other	
R3	Diptera	Plecoptera	Arachnida Other	Trichoptera
R4	Plecoptera Ephemeroptera	Diptera	Arachnida Other	Trichoptera
R5	Diptera	Plecoptera Ephemeroptera	Arachnida Trichoptera	Other
R6	Plecoptera Diptera Ephemeroptera		Trichoptera Arachnida	Other
R7	Diptera Plecoptera		Arachnida Ephemeroptera Other	Trichoptera

The insect orders Ephemeroptera, Plecoptera and Trichoptera (EPT) are sensitive to most types of pollution (Rosenberg and Resh, 1993). To further characterize the communities, the proportion of EPT was calculated per site (Table 6).

TABLE 6	THE PERCENTAGE OF EPT AT EACH COMMUNITY						
Site	R1	R2	R3	R4	R5	R6	R7
% EPT	15	43	50	72	33	65	40

The community at R4 had the greatest proportion of EPT forming 72% of the population. Only 15% of the community at R1 were EPT members, and as mentioned previously, 81% of the population belonged to the order Diptera. The percentage of EPT at the other communities ranged from 33 to 65.

Lehmkuhl (1979) has identified several groups within these insect orders that have very low tolerance to chemical pollution. Eleven of these taxa (six taxa within Plecoptera, three taxa within Ephemeroptera and two taxa within Trichoptera) have been identified in the Rose and Anvil Creek study area. Table 7 summarizes the presence or absence of each of these taxa per site. Nine out of eleven taxa were present at R2 and R6, eight at R5, seven at R1 and R7, and 6 at R4. Although the community at R4 had the highest percentage of EPT, only six sensitive taxa were represented. This was likely related to habitat conditions rather than chemical pollution as the

water was of very good quality (Table 1). Due to high flows and increased velocities over the colonization period, the baskets at R4 were heavily impacted with sand and small gravels.

TABLE 7
Presence (+) and Absence (-) of Sensitive Taxa at Rose and Anvil Creeks

Sensitive Taxa	R1	R2	R3	R4	R5	R6	R7
Plecoptera							
Nemouridae	+	+	+	+	+	+	+
Perlodidae	+	+	+	+	+	+	+
Capniidae	+	+	+	+	+	+	+
Taeniopterigidae	+	+	-	-	+	+	+
Chloroperlidae	-	-	-	+	+	-	+
Perlidae	-	+	+	-	-	-	-
Ephemeroptera							
Epeorus	-	+	-	-	-	+	-
Ephemerellidae	+	+	+	+	+	+	+
Rithrogena	-	-	-	+	+	+	-
Trichoptera							
Brachycentriidae	+	+	+	-	+	+	-
Rhyacophilidae	+	+	+	-	-	+	+
Total # of sensitive taxa:	7	9	7	6	8	9	7

After Lehmkuhl (1979)

4.4.3 Comparisons with Past Data

Several studies to assess the health of ecosystems have been conducted using benthic macroinvertebrates (Rosenberg and Resh, 1993). Their abundance and taxonomic diversity respond to a wide range of impacts including sedimentation, organic loading and changes in chemical water quality. Using benthic invertebrates as biomonitoring tools offers many advantages for the following reasons; they are ubiquitous, they are abundant and easy to collect, there are a large number of species offering a spectrum of responses to environmental stress, they are generally sedentary and therefore are representative of local conditions, and they have long life cycles compared to other groups (i.e. periphyton). As such, benthic macroinvertebrates act as continuous monitors of the water they inhabit. Assessments are often based on taxa richness and the abundance of pollution sensitive insect orders.

Over the years various agencies and companies have collected benthic data from the Rose Creek system using various sampling methods at varying times of the open water season. Summaries of the past twenty years of Company (Anvil Range and Curragh Resources) monitoring data have been tabulated (Table 7). In each of these eleven surveys, artificial substrate samplers were used,

Table 8

Comparison of Benthic Data over a 20 Year Period

Site	Year	Total Abundance	Taxonomic Richness	Number of Sensitive Taxa	Dominant Taxa
R1	1988	128	24	6	Plecoptera & Ephemeroptera
	1990	1,373	21	6	Diptera & Ephemeroptera
	1992	1,141	27	7	Diptera
	1994	5,489	60	9	Ephemeroptera
	1996	1,629	57	8	Diptera
	1998	50,808	57	10	Diptera & Ephemeroptera
	2000	5,368	57	10	Diptera
	2002	9,988	60	8	Diptera
	2004	55,191	49	8	Diptera
	2006	16,685	57	10	Diptera
	2008	5,077	38	7	Diptera
R2	1988	115	24	6	Diptera
	1990	4,564	20	4	Annelida & Diptera
	1992	400	14	3	Diptera
	1994	920	47	8	Ephemeroptera & Diptera
	1996	991	37	9	Diptera & Ephemeroptera
	1998	1,945	47	8	Diptera & Ephemeroptera
	2000	6,611	48	7	Diptera & Ephemeroptera
	2002	11,639	54	8	Diptera & Oligochaeta
	2004	38,042	43	9	Diptera
	2006	1,596	53	10	Diptera & Plecoptera
	2008	5,136	54	9	Diptera & Ephemeroptera
R3	1988	32	8	1	Diptera
	1990	2,455	20	6	Annelida & Diptera
	1992	321	12	2	Diptera
	1994	54,875	49	9	Ephemeroptera & Plecoptera
	1996	144	25	7	Diptera
	1998	13,491	39	10	Diptera
	2000	18,929	42	7	Ephemeroptera
	2002	1,808	40	6	Oligochaeta & Diptera
	2004	30,826	41	11	Diptera & Ephemeroptera
	2006	3,282	48	9	Diptera
	2008	7,680	45	7	Diptera
R4	1988	116	15	2	Diptera
	1990	2,175	20	4	Diptera
	1992	312	14	1	Diptera
	1994	2,366	53	8	Ephemeroptera & Diptera
	1996	666	35	9	Ephemeroptera
	1998	8,148	48	10	Ephemeroptera & Diptera
	2000	N.D.	N.D.	N.D.	N.D.
	2002	4,430	52	9	Diptera
	2004	4,964	44	10	Diptera
	2006	4,252	51	10	Diptera & Ephemeroptera
	2008	4,391	51	6	Plecoptera & Ephemeroptera
R5	1988	425	22	7	Diptera & Plecoptera
	1990	3,470	25	7	Diptera
	1992	1,263	25	6	Diptera & Acarina
	1994	4,115	55	7	Diptera
	1996	2,726	43	9	Diptera
	1998	7,974	44	10	Diptera & Ephemeroptera
	2000	66,975	54	10	Diptera
	2002	15,088	45	8	Diptera
	2004	2,206	44	9	Diptera
	2006	1,768	38	7	Diptera
	2008	2,033	43	8	Diptera
R6	1988	N.D.	N.D.	N.D.	N.D.
	1990	3,477	25	8	Diptera
	1992	3,911	31	7	Diptera
	1994	15,431	46	7	Diptera & Ephemeroptera
	1996	2,741	45	8	Diptera
	1998	26,944	43	9	Diptera & Ephemeroptera
	2000	39,344	56	10	Diptera
	2002	1,232	36	6	Diptera
	2004	8,759	46	8	Diptera & Ephemeroptera
	2006	8,934	45	9	Diptera
	2008	7,520	47	9	Plecoptera, Diptera & Ephemeroptera
R7	1988	N.D.	N.D.	N.D.	N.D.
	1990	2,467	26	6	Diptera
	1992	1,053	22	4	Diptera
	1994	14,756	44	6	Diptera
	1996	7,029	45	8	Diptera
	1998	39,292	44	9	Diptera
	2000	4,574	40	8	Diptera
	2002	10,965	37	7	Diptera
	2004	32,380	44	9	Diptera
	2006	838	38	8	Diptera
	2008	16,340	45	7	Diptera & Plecoptera

N.D. = not done

the same sample site locations were employed and the sampling personnel were consistent. Benthic invertebrates were sorted and identified by the same taxonomist for all studies with the exception of 1992 (Limnotek Research) and 2008 (Cordillera Consulting). The methodology for splitting samples differed, with the 2008 method being more subjective and possibly less accurate than the method used in the previous studies. This could result in either an over or under estimation of the total number of organisms collected at each site in 2008. In 1992 the complete sample was examined and no splitting was done (Harder, 1992).

In addition, the physical quality of the habitat (riparian vegetation and stream substrate) at each of these sites has changed relatively little over the past twenty years. All sites have mineral substrates of varying particle sizes with very little organic (moss, algal) growth. Consequently, some temporal and spatial comparisons can appropriately be made.

Figure 10 shows the abundance at each site for the eleven surveys examined. Table 8 displays the specific data with some statistics. The populations of the benthic communities at each of the sites generally fluctuated significantly over the twenty years examined, with R4 showing the most stable population in terms of abundance. The highest population documented throughout the study period occurred at R5 where almost 67,000 individuals were collected in 2000. The lowest populations occurred in 1988 at R1 to R5. Note that R6 and R7 were not sampled until 1990. The overall lowest population consisted of a total of 32 individuals collected from R3 in 1988. The population at R3 has fluctuated considerably and had a maximum of almost 55,000 organisms collected in 1994.

Generally the communities have been diverse over time, with the greatest diversity occurring at R1. Taxonomic richness values were considerably lower from 1988 to 1992 including the background sites. All sites have been consistently more diverse since 1994.

The overall trend appears to be an increase in the number of sensitive taxa colonizing all of the sites over the twenty year period.

Diptera, alone or with one of the pollution sensitive orders, dominated the communities at most of the sites over time. Plecoptera shared dominance at R4, R6 and R7 for the first time in 2008.

Figure 10 Abundance of Benthic Invertebrates in Rose and Anvil Creeks over a Twenty Year Period

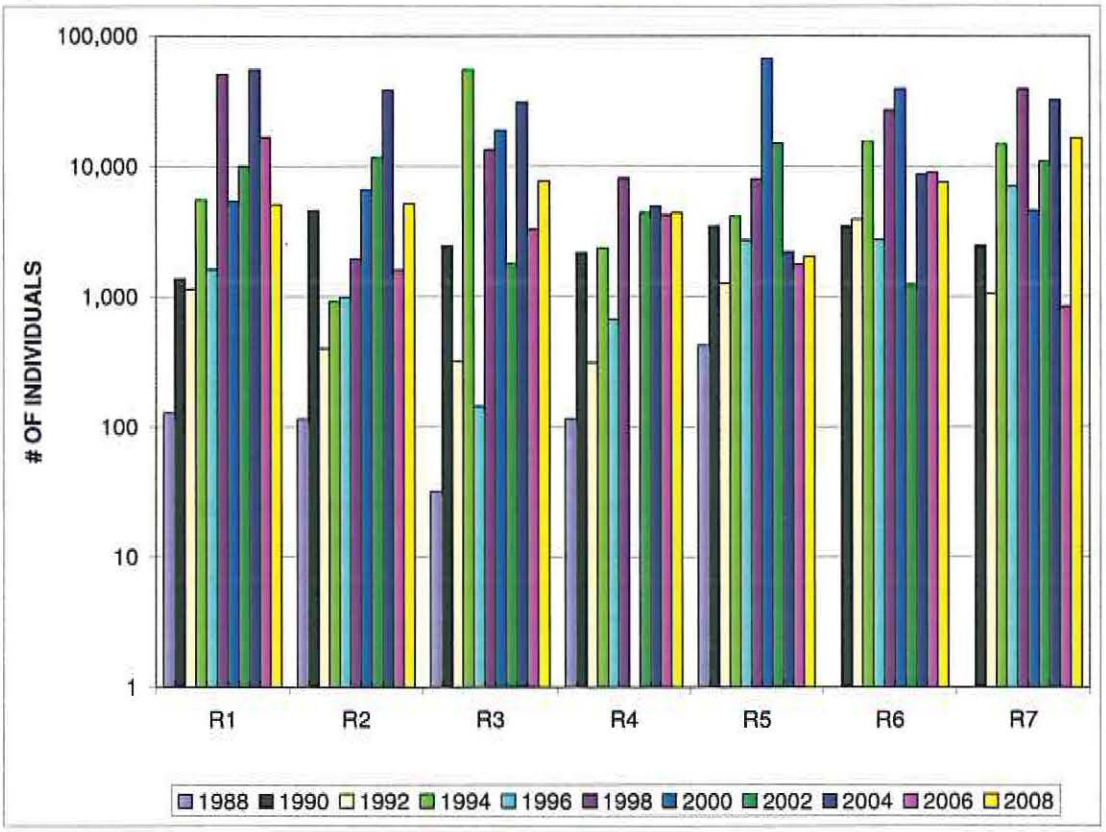


TABLE 9

ABUNDANCE WITH SOME STATISTICS COVERING A TWENTY YEAR PERIOD

	R1	R2	R3	R4	R5	R6	R7
1988	128	115	32	116	425	N.D.	N.D.
1990	1,373	4,564	2,455	2,175	3,470	3,477	2,467
1992	1,141	400	321	312	1,263	3,911	1,053
1994	5,489	920	54,875	2,366	4,115	15,431	14,756
1996	1,829	991	144	666	2,726	2,741	7,029
1998	50,808	1,945	13,491	8,148	7,974	26,944	39,292
2000	5,368	6,611	18,929		66,975	39,344	4,574
2002	9,988	11,639	1,808	4,430	15,088	1,232	10,985
2004	55,191	38,042	30,826	4,964	2,206	8,759	32,380
2006	16,685	1,596	3,282	4,252	1,768	8,934	838
2008	5,077	5,136	7,680	4,391	2,033	7,520	16,340
Mean	13,898	6,542	12,168	3,182	9,822	11,829	12,969
Standard Deviation	19,929	11,005	17,183	2,531	19,406	12,303	13,306
Maximum	55,191	38,042	54,875	8,148	66,975	39,344	39,292
Year of Maximum	2004	2004	1994	1998	2000	2000	1998
Minimum	128	115	32	116	425	1,232	838
Year of Minimum	1988	1988	1988	1988	1988	2002	2006

Note that due to high water in 2000 the baskets could not be retrieved at R4.

5.0 SUMMARY

Overall, the water samples collected at the sites in this study and analyzed for the selected parameters, indicated good water quality for the support of freshwater aquatic life. Due to rainfall events the water was turbid when samples were collected on August 25th, 2008. The CCME guidelines for copper, iron, lead and zinc were slightly exceeded at R1 and R2 in the total metals sample. The dissolved metals samples met the guidelines.

The highest concentration of metals in stream sediments occurred at R2 where several parameters exceeded the CCME probable effects levels. This has made no apparent effect on the benthic community dwelling here however, as the community was very diverse and a high number of pollution sensitive taxa were present. Concentrations downstream of R2 at R3 and R4 were high as well but supported robust healthy benthic communities.

The composition of the benthic communities was fairly similar at all sites with Diptera dominating or co-dominating most populations. There was also a large presence of Ephemeroptera and Plecoptera that shared dominance or were subdominant at most of the sites. The presence of numerous kinds of sensitive taxa indicates healthy habitats. Although R2 is located downstream of the tailings impoundments and is potentially the most impacted site in the study area (highest concentrations of metals in the stream sediments), nine out of the eleven chemically sensitive species identified in the study area were collected here. The presence of these types of insects found in areas where the substratum contains high levels of metals indicate that the metals examined at R2 are likely stable and are not bioavailable to the resident biota.

Based on data collected in 2008, and comparisons with historic data, it appears that effluent from the tailings system currently has minimal, if any, impact on the receiving environment.

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APPENDIX A

PHOTOGRAPHS, 2008



Photo #1: Very high water levels at R2 on July 21st, 2008.



Photo #2: Water levels were so high at R7 that the substrate samplers had to be installed in this side channel rather than in the main channel, July 22nd, 2008.



Photo #3: Flows were turbid and very high at the discharge monitoring site at X-14, just upstream of R2, on August 25th, 2008.



Photo #4: High water levels at R6, looking to the confluence with Rose Cr, September 4th, 2008.

APPENDIX B

WATER QUALITY DATA

JULY, AUGUST & SEPTEMBER 2008

Your Project #: FARO CLOSURE OFFICE
Your C.O.C. #: F112780

Attention: Bonnie Burns
LABERGE ENVIRONMENTAL SERVICES
WHITEHORSE
405 Ogilvie Street
PO Box 21072
Whitehorse, YT
CANADA Y1A 6P7

Report Date: 2008/08/01

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A837468
Received: 2008/07/25, 12:50

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	8	2008/07/28	2008/07/29	BRN SOP-00264 R2.0	Based on SM2320B
Hardness Total (calculated as CaCO3)	8	N/A	2008/08/01		
Hardness (calculated as CaCO3)	8	N/A	2008/08/01		
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	8	N/A	2008/08/01	BRN SOP-00206	Based on EPA 200.8
Elements by ICPMS Low Level (dissolved) (1)	8	N/A	2008/08/01	BRN SOP-00206	Based on EPA 200.8
Elements by ICPMS Low Level (total) (1)	8	2008/07/29	2008/08/01	BRN SOP-00206	Based on EPA 200.8
Na, K, Ca, Mg, S by CRC ICPMS (total)	8	2008/07/29	2008/08/01	BRN SOP-00206	Based on EPA 200.8
Ammonia-N	8	N/A	2008/07/30	BRN SOP-00232 R3.0	SM-4500 NH3 G
Filter and HNO3 Preserve for Metals	8	N/A	2008/07/29	BRN WI-00006 R1.0	Based on EPA 200.2
pH Water	8	N/A	2008/07/29	BRN SOP-00264 R2.0	Based on SM-4500H+B
Sulphate by Automated Colourimetry	8	N/A	2008/07/30	BRN-SOP 00243 R1.0	Based on EPA 375.4
Total Suspended Solids	8	N/A	2008/07/29	BRN SOP-00277 R2.0	Based on SM-2540 D

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) SCC/CAEAL

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

SUE REYNOLDS, BBY Customer Service
Email: sue.reynolds@maxxamanalytics.com
Phone# (604) 444-4808 Ext:235

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

Total cover pages: 1

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		K87867	K87868	K87869		
Sampling Date		2008/07/22 17:30	2008/07/21 16:00	2008/07/22 13:00		
COC Number		F112780	F112780	F112780		
	Units	**R-1-ROSE CR U/S**	**R-2-ROSE CR NEAR X-14**	**R-3-ROSE CR MIDWAY**	**RDL**	**QC Batch**
Preparation						
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	N/A	ONSITE
Misc. Inorganics						
Alkalinity (Total as CaCO3)	mg/L	56	71	70	0.5	2468070
Alkalinity (PP as CaCO3)	mg/L	<0.5	<0.5	<0.5	0.5	2468070
Bicarbonate (HCO3)	mg/L	69	86	86	0.5	2468070
Carbonate (CO3)	mg/L	<0.5	<0.5	<0.5	0.5	2468070
Hydroxide (OH)	mg/L	<0.5	<0.5	<0.5	0.5	2468070
Anions						
Dissolved Sulphate (SO4)	mg/L	9.4	48	43	0.5	2472977
Nutrients						
Ammonia (N)	mg/L	<0.01	0.01	0.03	0.01	2472862
Physical Properties						
pH	pH Units	7.8	7.9	7.9		2468031
Physical Properties						
Total Suspended Solids	mg/L	1	2	1	1	2468990

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		K87870	K87871	K87872		
Sampling Date		2008/07/22 10:30	2008/07/22 12:00	2008/07/22 11:30		
COC Number		F112780	F112780	F112780		
	Units	**R-4-ROSE CR**	**R-5-ANVIL CR D/S**	**R-6-ANVIL CR U/S**	**RDL**	**QC Batch**
Preparation						
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	N/A	ONSITE
Misc. Inorganics						
Alkalinity (Total as CaCO3)	mg/L	72	97	99	0.5	2468070
Alkalinity (PP as CaCO3)	mg/L	<0.5	<0.5	<0.5	0.5	2468070
Bicarbonate (HCO3)	mg/L	88	120	120	0.5	2468070
Carbonate (CO3)	mg/L	<0.5	<0.5	<0.5	0.5	2468070
Hydroxide (OH)	mg/L	<0.5	<0.5	<0.5	0.5	2468070
Anions						
Dissolved Sulphate (SO4)	mg/L	41	20	17	0.5	2472977
Nutrients						
Ammonia (N)	mg/L	<0.01	<0.01	<0.01	0.01	2472862
Physical Properties						
pH	pH Units	7.9	8.1	8.1		2468031
Physical Properties						
Total Suspended Solids	mg/L	5	5	5	1	2468990

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		K87873	K87874		
Sampling Date		2008/07/22 13:45	2008/07/22 16:45		
COC Number		F112780	F112780		
	Units	**R-7-NORTH FORK**	**X-2-NORTH FORK**	**RDL**	**QC Batch**
Preparation					
Filter and HNO3 Preservation	N/A	FIELD	FIELD	N/A	ONSITE
Misc. Inorganics					
Alkalinity (Total as CaCO3)	mg/L	58	55	0.5	2468070
Alkalinity (PP as CaCO3)	mg/L	<0.5	<0.5	0.5	2468070
Bicarbonate (HCO3)	mg/L	71	67	0.5	2468070
Carbonate (CO3)	mg/L	<0.5	<0.5	0.5	2468070
Hydroxide (OH)	mg/L	<0.5	<0.5	0.5	2468070
Anions					
Dissolved Sulphate (SO4)	mg/L	6.9	9.7	0.5	2472977
Nutrients					
Ammonia (N)	mg/L	<0.01	<0.01	0.01	2472862
Physical Properties					
pH	pH Units	7.8	7.8		2468031
Physical Properties					
Total Suspended Solids	mg/L	3	2	1	2468990

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		K87867	K87868	K87869		
Sampling Date		2008/07/22 17:30	2008/07/21 16:00	2008/07/22 13:00		
COC Number		F112780	F112780	F112780		
	Units	**R-1-ROSE CR U/S**	**R-2-ROSE CR NEAR X-14**	**R-3-ROSE CR MIDWAY**	**RDL**	**QC Batch**
Misc. Inorganics						
Dissolved Hardness (CaCO3)	mg/L	68.3	120	117	0.5	2468909
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	ug/L	23.8	20.6	19.9	0.2	2468861
Dissolved Antimony (Sb)	ug/L	0.08	0.10	0.11	0.02	2468861
Dissolved Arsenic (As)	ug/L	0.53	0.50	0.45	0.02	2468861
Dissolved Barium (Ba)	ug/L	34.6	37.5	36.6	0.02	2468861
Dissolved Beryllium (Be)	ug/L	<0.01	0.01	0.01	0.01	2468861
Dissolved Bismuth (Bi)	ug/L	<0.005	<0.005	<0.005	0.005	2468861
Dissolved Boron (B)	ug/L	<50	<50	<50	50	2468861
Dissolved Cadmium (Cd)	ug/L	0.021	0.024	0.019	0.005	2468861
Dissolved Chromium (Cr)	ug/L	0.2	0.2	0.2	0.1	2468861
Dissolved Cobalt (Co)	ug/L	0.047	0.505	0.344	0.005	2468861
Dissolved Copper (Cu)	ug/L	1.06	1.14	1.10	0.05	2468861
Dissolved Iron (Fe)	ug/L	59	102	86	1	2468861
Dissolved Lead (Pb)	ug/L	0.306	0.315	0.223	0.005	2468861
Dissolved Lithium (Li)	ug/L	2.0	3.1	3.0	0.5	2468861
Dissolved Manganese (Mn)	ug/L	13.2	424	298	0.05	2468861
Dissolved Molybdenum (Mo)	ug/L	0.36	0.40	0.38	0.05	2468861
Dissolved Nickel (Ni)	ug/L	0.66	1.72	1.44	0.02	2468861
Dissolved Selenium (Se)	ug/L	0.26	0.24	0.25	0.04	2468861
Dissolved Silicon (Si)	ug/L	4790	4120	4540	100	2468861
Dissolved Silver (Ag)	ug/L	<0.005	<0.005	<0.005	0.005	2468861
Dissolved Strontium (Sr)	ug/L	76.5	125	122	0.05	2468861
Dissolved Thallium (Tl)	ug/L	0.003	0.016	0.012	0.002	2468861
Dissolved Tin (Sn)	ug/L	<0.01	<0.01	<0.01	0.01	2468861
Dissolved Titanium (Ti)	ug/L	1.2	2.0	1.8	0.5	2468861
Dissolved Uranium (U)	ug/L	0.684	0.993	0.934	0.002	2468861
Dissolved Vanadium (V)	ug/L	0.7	0.8	0.7	0.2	2468861
Dissolved Zinc (Zn)	ug/L	19.0	17.2	13.9	0.1	2468861
Dissolved Zirconium (Zr)	ug/L	0.1	0.1	<0.1	0.1	2468861
Dissolved Calcium (Ca)	mg/L	20.1	35.7	35.1	0.05	2478613
Dissolved Magnesium (Mg)	mg/L	4.40	7.61	7.15	0.05	2478613

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		K87867	K87868	K87869		
Sampling Date		2008/07/22 17:30	2008/07/21 16:00	2008/07/22 13:00		
COC Number		F112780	F112780	F112780		
	Units	**R-1-ROSE CR U/S**	**R-2-ROSE CR NEAR X-14**	**R-3-ROSE CR MIDWAY**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.44	0.83	0.84	0.05	2478613
Dissolved Sodium (Na)	mg/L	1.57	2.62	2.53	0.05	2478613
Dissolved Sulphur (S)	mg/L	4	18	16	3	2478613

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		K87870	K87871	K87872		
Sampling Date		2008/07/22 10:30	2008/07/22 12:00	2008/07/22 11:30		
COC Number		F112780	F112780	F112780		
	Units	**R-4-ROSE CR**	**R-5-ANVIL CR D/S**	**R-6-ANVIL CR U/S**	**RDL**	**QC Batch**
Misc. Inorganics						
Dissolved Hardness (CaCO3)	mg/L	109	124	116	0.5	2468909
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	ug/L	16.9	21.6	21.4	0.2	2468861
Dissolved Antimony (Sb)	ug/L	0.10	0.11	0.13	0.02	2468861
Dissolved Arsenic (As)	ug/L	0.43	0.43	0.43	0.02	2468861
Dissolved Barium (Ba)	ug/L	47.9	51.6	52.7	0.02	2468861
Dissolved Beryllium (Be)	ug/L	<0.01	<0.01	<0.01	0.01	2468861
Dissolved Bismuth (Bi)	ug/L	<0.005	<0.005	<0.005	0.005	2468861
Dissolved Boron (B)	ug/L	<50	<50	<50	50	2468861
Dissolved Cadmium (Cd)	ug/L	0.021	0.014	0.014	0.005	2468861
Dissolved Chromium (Cr)	ug/L	0.2	0.2	0.2	0.1	2468861
Dissolved Cobalt (Co)	ug/L	0.168	0.045	0.031	0.005	2468861
Dissolved Copper (Cu)	ug/L	1.10	0.96	0.85	0.05	2468861
Dissolved Iron (Fe)	ug/L	63	53	48	1	2468861
Dissolved Lead (Pb)	ug/L	0.163	0.066	0.086	0.005	2468861
Dissolved Lithium (Li)	ug/L	2.6	1.4	1.3	0.5	2468861
Dissolved Manganese (Mn)	ug/L	176	20.8	7.06	0.05	2468861
Dissolved Molybdenum (Mo)	ug/L	0.45	0.81	0.87	0.05	2468861
Dissolved Nickel (Ni)	ug/L	1.21	0.66	0.56	0.02	2468861
Dissolved Selenium (Se)	ug/L	0.36	0.66	0.64	0.04	2468861
Dissolved Silicon (Si)	ug/L	4310	4180	3910	100	2468861
Dissolved Silver (Ag)	ug/L	0.005	<0.005	<0.005	0.005	2468861
Dissolved Strontium (Sr)	ug/L	113	91.9	88.9	0.05	2468861
Dissolved Thallium (Tl)	ug/L	0.009	0.003	<0.002	0.002	2468861
Dissolved Tin (Sn)	ug/L	<0.01	<0.01	<0.01	0.01	2468861
Dissolved Titanium (Ti)	ug/L	1.8	1.5	1.6	0.5	2468861
Dissolved Uranium (U)	ug/L	0.884	1.20	1.28	0.002	2468861
Dissolved Vanadium (V)	ug/L	0.6	0.5	0.4	0.2	2468861
Dissolved Zinc (Zn)	ug/L	9.8	1.6	0.7	0.1	2468861
Dissolved Zirconium (Zr)	ug/L	<0.1	<0.1	<0.1	0.1	2468861
Dissolved Calcium (Ca)	mg/L	32.6	34.6	32.5	0.05	2478613
Dissolved Magnesium (Mg)	mg/L	6.69	9.02	8.52	0.05	2478613

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		K87870	K87871	K87872		
Sampling Date		2008/07/22 10:30	2008/07/22 12:00	2008/07/22 11:30		
COC Number		F112780	F112780	F112780		
	Units	**R-4-ROSE CR**	**R-5-ANVIL CR D/S**	**R-6-ANVIL CR U/S**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.81	0.83	0.78	0.05	2478613
Dissolved Sodium (Na)	mg/L	2.18	1.51	1.35	0.05	2478613
Dissolved Sulphur (S)	mg/L	14	7	6	3	2478613

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		K87873	K87874		
Sampling Date		2008/07/22 13:45	2008/07/22 16:45		
COC Number		F112780	F112780		
	Units	**R-7-NORTH FORK**	**X-2-NORTH FORK**	**RDL**	**QC Batch**
Misc. Inorganics					
Dissolved Hardness (CaCO3)	mg/L	67.9	67.1	0.5	2468909
Dissolved Metals by ICPMS					
Dissolved Aluminum (Al)	ug/L	21.2	23.9	0.2	2468861
Dissolved Antimony (Sb)	ug/L	0.08	0.08	0.02	2468861
Dissolved Arsenic (As)	ug/L	0.55	0.49	0.02	2468861
Dissolved Barium (Ba)	ug/L	36.6	35.7	0.02	2468861
Dissolved Beryllium (Be)	ug/L	<0.01	0.01	0.01	2468861
Dissolved Bismuth (Bi)	ug/L	<0.005	<0.005	0.005	2468861
Dissolved Boron (B)	ug/L	<50	<50	50	2468861
Dissolved Cadmium (Cd)	ug/L	0.007	0.022	0.005	2468861
Dissolved Chromium (Cr)	ug/L	0.2	0.2	0.1	2468861
Dissolved Cobalt (Co)	ug/L	0.031	0.049	0.005	2468861
Dissolved Copper (Cu)	ug/L	0.72	1.17	0.05	2468861
Dissolved Iron (Fe)	ug/L	59	61	1	2468861
Dissolved Lead (Pb)	ug/L	0.028	0.350	0.005	2468861
Dissolved Lithium (Li)	ug/L	1.8	2.1	0.5	2468861
Dissolved Manganese (Mn)	ug/L	11.1	15.6	0.05	2468861
Dissolved Molybdenum (Mo)	ug/L	0.38	0.35	0.05	2468861
Dissolved Nickel (Ni)	ug/L	0.39	0.66	0.02	2468861
Dissolved Selenium (Se)	ug/L	0.28	0.23	0.04	2468861
Dissolved Silicon (Si)	ug/L	4400	4710	100	2468861
Dissolved Silver (Ag)	ug/L	<0.005	<0.005	0.005	2468861
Dissolved Strontium (Sr)	ug/L	71.0	75.8	0.05	2468861
Dissolved Thallium (Tl)	ug/L	<0.002	0.003	0.002	2468861
Dissolved Tin (Sn)	ug/L	<0.01	<0.01	0.01	2468861
Dissolved Titanium (Ti)	ug/L	1.4	1.6	0.5	2468861
Dissolved Uranium (U)	ug/L	0.661	0.674	0.002	2468861
Dissolved Vanadium (V)	ug/L	0.6	0.8	0.2	2468861
Dissolved Zinc (Zn)	ug/L	0.6	22.1	0.1	2468861
Dissolved Zirconium (Zr)	ug/L	<0.1	0.1	0.1	2468861
Dissolved Calcium (Ca)	mg/L	20.2	19.8	0.05	2478613
Dissolved Magnesium (Mg)	mg/L	4.26	4.30	0.05	2478613

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		K87873	K87874		
Sampling Date		2008/07/22 13:45	2008/07/22 16:45		
COC Number		F112780	F112780		
	Units	**R-7-NORTH FORK**	**X-2-NORTH FORK**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.37	0.46	0.05	2478613
Dissolved Sodium (Na)	mg/L	1.44	1.56	0.05	2478613
Dissolved Sulphur (S)	mg/L	<3	4	3	2478613

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		K87867	K87868	K87869		
Sampling Date		2008/07/22 17:30	2008/07/21 16:00	2008/07/22 13:00		
COC Number		F112780	F112780	F112780		
	Units	**R-1-ROSE CR U/S**	**R-2-ROSE CR NEAR X-14**	**R-3-ROSE CR MIDWAY**	**RDL**	**QC Batch**
Calculated Parameters						
Total Hardness (CaCO3)	mg/L	63.8	110	107	0.5	2469403
Total Metals by ICPMS						
Total Aluminum (Al)	ug/L	41.9	33.6	32.3	0.2	2468949
Total Antimony (Sb)	ug/L	0.07	0.08	0.08	0.02	2468949
Total Arsenic (As)	ug/L	0.52	0.44	0.42	0.02	2468949
Total Barium (Ba)	ug/L	36.1	36.2	34.6	0.02	2468949
Total Beryllium (Be)	ug/L	0.01	<0.01	0.01	0.01	2468949
Total Bismuth (Bi)	ug/L	<0.005	<0.005	<0.005	0.005	2468949
Total Boron (B)	ug/L	<50	<50	<50	50	2468949
Total Cadmium (Cd)	ug/L	0.021	0.022	0.022	0.005	2468949
Total Chromium (Cr)	ug/L	0.2	0.2	0.2	0.1	2468949
Total Cobalt (Co)	ug/L	0.063	0.481	0.332	0.005	2468949
Total Copper (Cu)	ug/L	1.10	0.95	0.93	0.05	2468949
Total Iron (Fe)	ug/L	91	149	126	1	2468949
Total Lead (Pb)	ug/L	0.849	0.425	0.429	0.005	2468949
Total Lithium (Li)	ug/L	2.1	2.9	2.8	0.5	2468949
Total Manganese (Mn)	ug/L	15.9	416	286	0.05	2468949
Total Molybdenum (Mo)	ug/L	0.35	0.41	0.37	0.05	2468949
Total Nickel (Ni)	ug/L	0.76	1.50	1.20	0.02	2468949
Total Selenium (Se)	ug/L	0.26	0.24	0.23	0.04	2468949
Total Silicon (Si)	ug/L	4720	4160	4320	100	2468949
Total Silver (Ag)	ug/L	<0.005	<0.005	<0.005	0.005	2468949
Total Strontium (Sr)	ug/L	74.7	116	113	0.05	2468949
Total Thallium (Tl)	ug/L	0.003	0.013	0.010	0.002	2468949
Total Tin (Sn)	ug/L	<0.01	0.10	0.05	0.01	2468949
Total Titanium (Ti)	ug/L	1.5	1.4	1.4	0.5	2468949
Total Uranium (U)	ug/L	0.684	0.960	0.892	0.002	2468949
Total Vanadium (V)	ug/L	0.6	0.3	0.3	0.2	2468949
Total Zinc (Zn)	ug/L	19.5	16.2	13.5	0.1	2468949
Total Zirconium (Zr)	ug/L	0.2	0.1	<0.1	0.1	2468949
Total Calcium (Ca)	mg/L	18.8	32.6	32.1	0.05	2478614
Total Magnesium (Mg)	mg/L	4.07	6.96	6.60	0.05	2478614

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		K87867	K87868	K87869		
Sampling Date		2008/07/22 17:30	2008/07/21 16:00	2008/07/22 13:00		
COC Number		F112780	F112780	F112780		
	Units	**R-1-ROSE CR U/S**	**R-2-ROSE CR NEAR X-14**	**R-3-ROSE CR MIDWAY**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.40	0.74	0.75	0.05	2478614
Total Sodium (Na)	mg/L	1.44	2.38	2.31	0.05	2478614
Total Sulphur (S)	mg/L	4	18	16	3	2478614

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		K87870	K87871	K87872		
Sampling Date		2008/07/22 10:30	2008/07/22 12:00	2008/07/22 11:30		
COC Number		F112780	F112780	F112780		
	Units	**R-4-ROSE CR**	**R-5-ANVIL CR D/S**	**R-6-ANVIL CR U/S**	**RDL**	**QC Batch**
Calculated Parameters						
Total Hardness (CaCO3)	mg/L	110	116	115	0.5	2469403
Total Metals by ICPMS						
Total Aluminum (Al)	ug/L	53.7	68.9	60.6	0.2	2468949
Total Antimony (Sb)	ug/L	0.10	0.11	0.12	0.02	2468949
Total Arsenic (As)	ug/L	0.45	0.49	0.46	0.02	2468949
Total Barium (Ba)	ug/L	47.9	49.4	48.8	0.02	2468949
Total Beryllium (Be)	ug/L	0.01	0.01	0.01	0.01	2468949
Total Bismuth (Bi)	ug/L	<0.005	<0.005	<0.005	0.005	2468949
Total Boron (B)	ug/L	<50	<50	<50	50	2468949
Total Cadmium (Cd)	ug/L	0.026	0.019	0.023	0.005	2468949
Total Chromium (Cr)	ug/L	0.3	0.3	0.3	0.1	2468949
Total Cobalt (Co)	ug/L	0.242	0.092	0.064	0.005	2468949
Total Copper (Cu)	ug/L	1.25	1.08	0.97	0.05	2468949
Total Iron (Fe)	ug/L	140	133	125	1	2468949
Total Lead (Pb)	ug/L	0.605	0.164	0.090	0.005	2468949
Total Lithium (Li)	ug/L	2.5	1.4	1.3	0.5	2468949
Total Manganese (Mn)	ug/L	208	28.6	12.8	0.05	2468949
Total Molybdenum (Mo)	ug/L	0.45	0.76	0.80	0.05	2468949
Total Nickel (Ni)	ug/L	1.40	0.66	0.56	0.02	2468949
Total Selenium (Se)	ug/L	0.41	0.68	0.74	0.04	2468949
Total Silicon (Si)	ug/L	4530	4120	4260	100	2468949
Total Silver (Ag)	ug/L	<0.005	<0.005	<0.005	0.005	2468949
Total Strontium (Sr)	ug/L	114	87.5	85.4	0.05	2468949
Total Thallium (Tl)	ug/L	0.012	0.004	0.003	0.002	2468949
Total Tin (Sn)	ug/L	<0.01	<0.01	<0.01	0.01	2468949
Total Titanium (Ti)	ug/L	2.1	2.9	2.3	0.5	2468949
Total Uranium (U)	ug/L	0.874	1.19	1.17	0.002	2468949
Total Vanadium (V)	ug/L	0.4	0.4	0.2	0.2	2468949
Total Zinc (Zn)	ug/L	11.1	1.7	0.8	0.1	2468949
Total Zirconium (Zr)	ug/L	0.1	0.1	0.1	0.1	2468949
Total Calcium (Ca)	mg/L	32.8	32.6	32.1	0.05	2478614
Total Magnesium (Mg)	mg/L	6.76	8.48	8.47	0.05	2478614

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		K87870	K87871	K87872		
Sampling Date		2008/07/22 10:30	2008/07/22 12:00	2008/07/22 11:30		
COC Number		F112780	F112780	F112780		
	Units	**R-4-ROSE CR**	**R-5-ANVIL CR D/S**	**R-6-ANVIL CR U/S**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.80	0.78	0.76	0.05	2478614
Total Sodium (Na)	mg/L	2.22	1.42	1.35	0.05	2478614
Total Sulphur (S)	mg/L	15	7	7	3	2478614

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		K87873	K87874		
Sampling Date		2008/07/22 13:45	2008/07/22 16:45		
COC Number		F112780	F112780		
	Units	**R-7-NORTH FORK**	**X-2-NORTH FORK**	**RDL**	**QC Batch**
Calculated Parameters					
Total Hardness (CaCO3)	mg/L	63.6	63.9	0.5	2469403
Total Metals by ICPMS					
Total Aluminum (Al)	ug/L	43.9	43.5	0.2	2468949
Total Antimony (Sb)	ug/L	0.08	0.08	0.02	2468949
Total Arsenic (As)	ug/L	0.55	0.52	0.02	2468949
Total Barium (Ba)	ug/L	36.0	34.0	0.02	2468949
Total Beryllium (Be)	ug/L	<0.01	0.01	0.01	2468949
Total Bismuth (Bi)	ug/L	<0.005	<0.005	0.005	2468949
Total Boron (B)	ug/L	<50	<50	50	2468949
Total Cadmium (Cd)	ug/L	0.009	0.026	0.005	2468949
Total Chromium (Cr)	ug/L	0.3	0.2	0.1	2468949
Total Cobalt (Co)	ug/L	0.047	0.070	0.005	2468949
Total Copper (Cu)	ug/L	0.73	1.36	0.05	2468949
Total Iron (Fe)	ug/L	114	101	1	2468949
Total Lead (Pb)	ug/L	0.085	0.883	0.005	2468949
Total Lithium (Li)	ug/L	1.7	2.0	0.5	2468949
Total Manganese (Mn)	ug/L	14.7	19.1	0.05	2468949
Total Molybdenum (Mo)	ug/L	0.36	0.35	0.05	2468949
Total Nickel (Ni)	ug/L	0.38	0.69	0.02	2468949
Total Selenium (Se)	ug/L	0.26	0.24	0.04	2468949
Total Silicon (Si)	ug/L	4360	4530	100	2468949
Total Silver (Ag)	ug/L	<0.005	<0.005	0.005	2468949
Total Strontium (Sr)	ug/L	68.7	70.5	0.05	2468949
Total Thallium (Tl)	ug/L	0.002	0.003	0.002	2468949
Total Tin (Sn)	ug/L	<0.01	<0.01	0.01	2468949
Total Titanium (Ti)	ug/L	1.7	1.4	0.5	2468949
Total Uranium (U)	ug/L	0.638	0.650	0.002	2468949
Total Vanadium (V)	ug/L	0.3	0.3	0.2	2468949
Total Zinc (Zn)	ug/L	0.8	22.5	0.1	2468949
Total Zirconium (Zr)	ug/L	0.1	0.1	0.1	2468949
Total Calcium (Ca)	mg/L	18.9	18.8	0.05	2478614
Total Magnesium (Mg)	mg/L	3.98	4.14	0.05	2478614

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		K87873	K87874		
Sampling Date		2008/07/22 13:45	2008/07/22 16:45		
COC Number		F112780	F112780		
	Units	**R-7-NORTH FORK**	**X-2-NORTH FORK**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.34	0.43	0.05	2478614
Total Sodium (Na)	mg/L	1.37	1.50	0.05	2478614
Total Sulphur (S)	mg/L	<3	4	3	2478614

RDL = Reportable Detection Limit

Maxxam Job #: A837468
Report Date: 2008/08/01

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: BB

General Comments

Results relate only to the items tested.

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE
P.O. #:
Site Reference:

Quality Assurance Report

Maxxam Job Number: VA837468

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2468070 AL8	MATRIX SPIKE	Alkalinity (Total as CaCO3)	2008/07/29		100	%	80 - 120
	SPIKE	Alkalinity (Total as CaCO3)	2008/07/29		85	%	80 - 120
	BLANK	Alkalinity (Total as CaCO3)	2008/07/29	<0.5		mg/L	
		Alkalinity (PP as CaCO3)	2008/07/29	<0.5		mg/L	
		Bicarbonate (HCO3)	2008/07/29	<0.5		mg/L	
		Carbonate (CO3)	2008/07/29	<0.5		mg/L	
		Hydroxide (OH)	2008/07/29	<0.5		mg/L	
	RPD	Alkalinity (Total as CaCO3)	2008/07/29	1.6		%	25
		Alkalinity (PP as CaCO3)	2008/07/29	NC		%	25
		Bicarbonate (HCO3)	2008/07/29	1.6		%	25
		Carbonate (CO3)	2008/07/29	NC		%	25
		Hydroxide (OH)	2008/07/29	NC		%	25
2468861 AA1	MATRIX SPIKE	Dissolved Arsenic (As)	2008/08/01		NC	%	75 - 125
		Dissolved Beryllium (Be)	2008/08/01		92	%	75 - 125
		Dissolved Cadmium (Cd)	2008/08/01		94	%	75 - 125
		Dissolved Chromium (Cr)	2008/08/01		98	%	75 - 125
		Dissolved Cobalt (Co)	2008/08/01		96	%	75 - 125
		Dissolved Copper (Cu)	2008/08/01		92	%	75 - 125
		Dissolved Lead (Pb)	2008/08/01		91	%	75 - 125
		Dissolved Lithium (Li)	2008/08/01		NC	%	75 - 125
		Dissolved Nickel (Ni)	2008/08/01		93	%	75 - 125
		Dissolved Selenium (Se)	2008/08/01		82	%	75 - 125
		Dissolved Uranium (U)	2008/08/01		88	%	75 - 125
		Dissolved Vanadium (V)	2008/08/01		98	%	75 - 125
		Dissolved Zinc (Zn)	2008/08/01		92	%	75 - 125
	SPIKE	Dissolved Arsenic (As)	2008/08/01		99	%	75 - 125
		Dissolved Beryllium (Be)	2008/08/01		97	%	75 - 125
		Dissolved Cadmium (Cd)	2008/08/01		96	%	75 - 125
		Dissolved Chromium (Cr)	2008/08/01		100	%	75 - 125
		Dissolved Cobalt (Co)	2008/08/01		98	%	75 - 125
		Dissolved Copper (Cu)	2008/08/01		102	%	75 - 125
		Dissolved Lead (Pb)	2008/08/01		99	%	75 - 125
		Dissolved Lithium (Li)	2008/08/01		101	%	75 - 125
		Dissolved Nickel (Ni)	2008/08/01		101	%	75 - 125
		Dissolved Selenium (Se)	2008/08/01		110	%	75 - 125
		Dissolved Uranium (U)	2008/08/01		98	%	75 - 125
		Dissolved Vanadium (V)	2008/08/01		108	%	75 - 125
		Dissolved Zinc (Zn)	2008/08/01		104	%	75 - 125
	BLANK	Dissolved Aluminum (Al)	2008/08/01	0.3, RDL=0.2		ug/L	
		Dissolved Antimony (Sb)	2008/08/01	<0.02		ug/L	
		Dissolved Arsenic (As)	2008/08/01	<0.02		ug/L	
		Dissolved Barium (Ba)	2008/08/01	<0.02		ug/L	
		Dissolved Beryllium (Be)	2008/08/01	<0.01		ug/L	
		Dissolved Bismuth (Bi)	2008/08/01	<0.005		ug/L	
		Dissolved Boron (B)	2008/08/01	<50		ug/L	
		Dissolved Cadmium (Cd)	2008/08/01	<0.005		ug/L	
		Dissolved Chromium (Cr)	2008/08/01	0.2, RDL=0.1		ug/L	
		Dissolved Cobalt (Co)	2008/08/01	<0.005		ug/L	
		Dissolved Copper (Cu)	2008/08/01	<0.05		ug/L	
		Dissolved Iron (Fe)	2008/08/01	<1		ug/L	
		Dissolved Lead (Pb)	2008/08/01	<0.005		ug/L	
		Dissolved Lithium (Li)	2008/08/01	<0.5		ug/L	
		Dissolved Manganese (Mn)	2008/08/01	<0.05		ug/L	
		Dissolved Molybdenum (Mo)	2008/08/01	<0.05		ug/L	
		Dissolved Nickel (Ni)	2008/08/01	<0.02		ug/L	

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE
P.O. #:
Site Reference:

Quality Assurance Report (Continued)

Maxxam Job Number: VA837468

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2468861 AA1	BLANK	Dissolved Selenium (Se)	2008/08/01	0.04, RDL=0.04		ug/L	
		Dissolved Silicon (Si)	2008/08/01	<100		ug/L	
		Dissolved Silver (Ag)	2008/08/01	<0.005		ug/L	
		Dissolved Strontium (Sr)	2008/08/01	<0.05		ug/L	
		Dissolved Thallium (Tl)	2008/08/01	<0.002		ug/L	
		Dissolved Tin (Sn)	2008/08/01	<0.01		ug/L	
		Dissolved Titanium (Ti)	2008/08/01	<0.5		ug/L	
		Dissolved Uranium (U)	2008/08/01	<0.002		ug/L	
		Dissolved Vanadium (V)	2008/08/01	<0.2		ug/L	
		Dissolved Zinc (Zn)	2008/08/01	<0.1		ug/L	
		Dissolved Zirconium (Zr)	2008/08/01	<0.1		ug/L	
	RPD	Dissolved Aluminum (Al)	2008/08/01	0.2		%	25
		Dissolved Antimony (Sb)	2008/08/01	1.5		%	25
		Dissolved Arsenic (As)	2008/08/01	1		%	25
		Dissolved Barium (Ba)	2008/08/01	1.3		%	25
		Dissolved Beryllium (Be)	2008/08/01	NC		%	25
		Dissolved Bismuth (Bi)	2008/08/01	NC		%	25
		Dissolved Boron (B)	2008/08/01	NC		%	25
		Dissolved Cadmium (Cd)	2008/08/01	NC		%	25
		Dissolved Chromium (Cr)	2008/08/01	NC		%	25
		Dissolved Cobalt (Co)	2008/08/01	0.07		%	25
		Dissolved Copper (Cu)	2008/08/01	0.3		%	25
		Dissolved Iron (Fe)	2008/08/01	0.6		%	25
		Dissolved Lead (Pb)	2008/08/01	2.4		%	25
		Dissolved Lithium (Li)	2008/08/01	2.2		%	25
		Dissolved Manganese (Mn)	2008/08/01	0.8		%	25
		Dissolved Molybdenum (Mo)	2008/08/01	0.3		%	25
		Dissolved Nickel (Ni)	2008/08/01	1.5		%	25
		Dissolved Selenium (Se)	2008/08/01	3.0		%	25
		Dissolved Silicon (Si)	2008/08/01	0.7		%	25
		Dissolved Silver (Ag)	2008/08/01	NC		%	25
		Dissolved Strontium (Sr)	2008/08/01	0.6		%	25
		Dissolved Thallium (Tl)	2008/08/01	NC		%	25
		Dissolved Tin (Sn)	2008/08/01	NC		%	25
		Dissolved Titanium (Ti)	2008/08/01	9.4		%	25
		Dissolved Uranium (U)	2008/08/01	2.8		%	25
		Dissolved Vanadium (V)	2008/08/01	4.4		%	25
		Dissolved Zinc (Zn)	2008/08/01	1.8		%	25
		Dissolved Zirconium (Zr)	2008/08/01	NC		%	25
2468949 AA1	MATRIX SPIKE [K87867-01]	Total Arsenic (As)	2008/08/01		96	%	75 - 125
		Total Beryllium (Be)	2008/08/01		102	%	75 - 125
		Total Cadmium (Cd)	2008/08/01		98	%	75 - 125
		Total Chromium (Cr)	2008/08/01		97	%	75 - 125
		Total Cobalt (Co)	2008/08/01		95	%	75 - 125
		Total Copper (Cu)	2008/08/01		96	%	75 - 125
		Total Lead (Pb)	2008/08/01		96	%	75 - 125
		Total Lithium (Li)	2008/08/01		99	%	75 - 125
		Total Nickel (Ni)	2008/08/01		95	%	75 - 125
		Total Selenium (Se)	2008/08/01		99	%	75 - 125
		Total Uranium (U)	2008/08/01		97	%	75 - 125
		Total Vanadium (V)	2008/08/01		96	%	75 - 125
		Total Zinc (Zn)	2008/08/01		NC	%	75 - 125
	SPIKE	Total Arsenic (As)	2008/08/01		100	%	75 - 125
		Total Beryllium (Be)	2008/08/01		98	%	75 - 125

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE
P.O. #:
Site Reference:

Quality Assurance Report (Continued)

Maxxam Job Number: VA837468

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2468949 AA1	SPIKE	Total Cadmium (Cd)	2008/08/01		99	%	75 - 125
		Total Chromium (Cr)	2008/08/01		101	%	75 - 125
		Total Cobalt (Co)	2008/08/01		99	%	75 - 125
		Total Copper (Cu)	2008/08/01		101	%	75 - 125
		Total Lead (Pb)	2008/08/01		101	%	75 - 125
		Total Lithium (Li)	2008/08/01		103	%	75 - 125
		Total Nickel (Ni)	2008/08/01		99	%	75 - 125
		Total Selenium (Se)	2008/08/01		96	%	75 - 125
		Total Uranium (U)	2008/08/01		101	%	75 - 125
		Total Vanadium (V)	2008/08/01		112	%	75 - 125
		Total Zinc (Zn)	2008/08/01		104	%	75 - 125
	BLANK	Total Aluminum (Al)	2008/08/01	<0.2		ug/L	
		Total Antimony (Sb)	2008/08/01	<0.02		ug/L	
		Total Arsenic (As)	2008/08/01	<0.02		ug/L	
		Total Barium (Ba)	2008/08/01	<0.02		ug/L	
		Total Beryllium (Be)	2008/08/01	<0.01		ug/L	
		Total Bismuth (Bi)	2008/08/01	<0.005		ug/L	
		Total Boron (B)	2008/08/01	<50		ug/L	
		Total Cadmium (Cd)	2008/08/01	<0.005		ug/L	
		Total Chromium (Cr)	2008/08/01	<0.1		ug/L	
		Total Cobalt (Co)	2008/08/01	<0.005		ug/L	
		Total Copper (Cu)	2008/08/01	<0.05		ug/L	
		Total Iron (Fe)	2008/08/01	<1		ug/L	
		Total Lead (Pb)	2008/08/01	<0.005		ug/L	
		Total Lithium (Li)	2008/08/01	<0.5		ug/L	
		Total Manganese (Mn)	2008/08/01	<0.05		ug/L	
		Total Molybdenum (Mo)	2008/08/01	<0.05		ug/L	
		Total Nickel (Ni)	2008/08/01	<0.02		ug/L	
		Total Selenium (Se)	2008/08/01	<0.04		ug/L	
		Total Silicon (Si)	2008/08/01	<100		ug/L	
		Total Silver (Ag)	2008/08/01	<0.005		ug/L	
		Total Strontium (Sr)	2008/08/01	<0.05		ug/L	
		Total Thallium (Tl)	2008/08/01	<0.002		ug/L	
		Total Tin (Sn)	2008/08/01	<0.01		ug/L	
		Total Titanium (Ti)	2008/08/01	<0.5		ug/L	
		Total Uranium (U)	2008/08/01	<0.002		ug/L	
		Total Vanadium (V)	2008/08/01	<0.2		ug/L	
		Total Zinc (Zn)	2008/08/01	<0.1		ug/L	
		Total Zirconium (Zr)	2008/08/01	<0.1		ug/L	
	RPD [K87867-01]	Total Aluminum (Al)	2008/08/01	2.9		%	25
		Total Antimony (Sb)	2008/08/01	NC		%	25
		Total Arsenic (As)	2008/08/01	1.5		%	25
		Total Barium (Ba)	2008/08/01	6.7		%	25
		Total Beryllium (Be)	2008/08/01	NC		%	25
		Total Bismuth (Bi)	2008/08/01	NC		%	25
		Total Boron (B)	2008/08/01	NC		%	25
		Total Cadmium (Cd)	2008/08/01	NC		%	25
		Total Chromium (Cr)	2008/08/01	NC		%	25
		Total Cobalt (Co)	2008/08/01	2.2		%	25
		Total Copper (Cu)	2008/08/01	0.4		%	25
		Total Iron (Fe)	2008/08/01	1.3		%	25
		Total Lead (Pb)	2008/08/01	4.2		%	25
		Total Lithium (Li)	2008/08/01	NC		%	25
		Total Manganese (Mn)	2008/08/01	1.0		%	25
		Total Molybdenum (Mo)	2008/08/01	5.1		%	25

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE
P.O. #:
Site Reference:

Quality Assurance Report (Continued)

Maxxam Job Number: VA837468

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2468949 AA1	RPD [K87867-01]	Total Nickel (Ni)	2008/08/01	10.7		%	25
		Total Selenium (Se)	2008/08/01	5.4		%	25
		Total Silicon (Si)	2008/08/01	1.6		%	25
		Total Silver (Ag)	2008/08/01	NC		%	25
		Total Strontium (Sr)	2008/08/01	2.6		%	25
		Total Thallium (Tl)	2008/08/01	NC		%	25
		Total Tin (Sn)	2008/08/01	NC		%	25
		Total Titanium (Ti)	2008/08/01	NC		%	25
		Total Uranium (U)	2008/08/01	5.4		%	25
		Total Vanadium (V)	2008/08/01	NC		%	25
		Total Zinc (Zn)	2008/08/01	0.9		%	25
		Total Zirconium (Zr)	2008/08/01	NC		%	25
2468990 WR1	SPIKE	Total Suspended Solids	2008/07/29		102	%	N/A
	BLANK	Total Suspended Solids	2008/07/29	<1		mg/L	
2472862 IC4	MATRIX SPIKE	Ammonia (N)	2008/07/30		107	%	80 - 120
	SPIKE	Ammonia (N)	2008/07/30		103	%	80 - 120
	BLANK	Ammonia (N)	2008/07/30	<0.01		mg/L	
	RPD	Ammonia (N)	2008/07/30	1.0		%	25
2472977 IC4	MATRIX SPIKE	Dissolved Sulphate (SO4)	2008/07/30		NC	%	75 - 125
	SPIKE	Dissolved Sulphate (SO4)	2008/07/30		93	%	80 - 120
	BLANK	Dissolved Sulphate (SO4)	2008/07/30	<0.5		mg/L	
	RPD [K87868-01]	Dissolved Sulphate (SO4)	2008/07/30	0.6		%	20
2478613 AA1	BLANK	Dissolved Calcium (Ca)	2008/08/01	<0.05		mg/L	
		Dissolved Magnesium (Mg)	2008/08/01	<0.05		mg/L	
		Dissolved Potassium (K)	2008/08/01	<0.05		mg/L	
		Dissolved Sodium (Na)	2008/08/01	<0.05		mg/L	
		Dissolved Sulphur (S)	2008/08/01	<3		mg/L	
	RPD	Dissolved Calcium (Ca)	2008/08/01	0		%	25
		Dissolved Magnesium (Mg)	2008/08/01	1		%	25
		Dissolved Potassium (K)	2008/08/01	0.6		%	25
		Dissolved Sodium (Na)	2008/08/01	1.2		%	25
		Dissolved Sulphur (S)	2008/08/01	2.5		%	25
2478614 AA1	BLANK	Total Calcium (Ca)	2008/08/01	<0.05		mg/L	
		Total Magnesium (Mg)	2008/08/01	<0.05		mg/L	
		Total Potassium (K)	2008/08/01	<0.05		mg/L	
		Total Sodium (Na)	2008/08/01	<0.05		mg/L	
		Total Sulphur (S)	2008/08/01	<3		mg/L	
	RPD [K87867-01]	Total Calcium (Ca)	2008/08/01	1.7		%	25
		Total Magnesium (Mg)	2008/08/01	3.7		%	25
		Total Potassium (K)	2008/08/01	2.1		%	25
		Total Sodium (Na)	2008/08/01	1.6		%	25
		Total Sulphur (S)	2008/08/01	NC		%	25

N/A = Not Applicable
NC = Non-calculable
RPD = Relative Percent Difference

Maxxam Analytics Inc
8577 Commerce Court
Burnaby, BC V5A 4N5
www.maxxamanalytics.com
Phone: (604) 444-4808
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Toll Free: 1-800-440-4808

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST PAGE 1 OF 1

A837468 ANALYSIS REQUEST F 112780

COMPANY NAME: LABERGE ENVIRONMENTAL SERVICES
PH. #: 867-668-6838
E-mail: bonnie.burns@northwestel.net
FAX #:

COMPANY ADDRESS: PO Box 21072 Whitehorse, Yukon Y1A 6P7

CLIENT PROJECT ID: (#) FARO CLOSURE OFFICE

SAMPLER NAME (PRINT): BONNIE BURNS

PROJECT MANAGER: BONNIE BURNS

FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE DD/MM/YY	SAMPLING: TIME	HEADSPACE VAPOUR	Alkalinity	Sulphate	TSS	Ammonia	Total Hardness	Total metals - CCME	Dissolved metals - CCME	pH
1 R-1 - Rose Cr u/s		✓				22/07/08	17:30	5	✓	✓	✓	✓	✓	✓	✓	✓
2 R-2 - Rose Cr near X-ing		✓				21/07/08	16:00	5	✓	✓	✓	✓	✓	✓	✓	✓
3 R-3 - Rose Cr midway		✓				22/07/08	13:00	5	✓	✓	✓	✓	✓	✓	✓	✓
4 R-4 - Rose Cr		✓				22/07/08	10:30	5	✓	✓	✓	✓	✓	✓	✓	✓
5 R-5 - Anvil Cr d/s		✓				22/07/08	12:00	5	✓	✓	✓	✓	✓	✓	✓	✓
6 R-6 - Anvil Cr u/s		✓				22/07/08	11:30	5	✓	✓	✓	✓	✓	✓	✓	✓
7 R-7 - North Fork		✓				22/07/08	13:45	5	✓	✓	✓	✓	✓	✓	✓	✓
8 X-2 - North Fork		✓				22/07/08	16:45	5	✓	✓	✓	✓	✓	✓	✓	✓
9																
10																
11																
12																

TAT (Turnaround Time)
45 DAY TAT MUST HAVE PRIOR APPROVAL
*some exceptions apply please contact lab

STANDARD	5 BUSINESS DAYS	☑
RUSH	3 BUSINESS DAYS	☐
RUSH	2 BUSINESS DAYS	☐
URGENT	1 BUSINESS DAY	☐

OTHER BUSINESS DAYS _____

CUSTODY RECORD

P.O. NUMBER / QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE: ultra low level

☑ CCME ☐ CSR ☐ ALBERTA TIER 1 ☐ OTHER

ACCOUNTING CONTACT: Laberge Environmental Services

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

JARS USED:

LABORATORY USE ONLY
ARRIVAL TEMPERATURE °C: 7, 8, 7
DUE DATE:
LOG IN CHECK:

	DATE: DD/MM/YY	TIME:	
RELINQUISHED BY SAMPLER:			RECEIVED BY:
RELINQUISHED BY:			RECEIVED BY:
RELINQUISHED BY:	DATE: 23/07/08	TIME: 12:50	RECEIVED BY LABORATORY: A.M

COCFORM - BC - 06/06

ORIGINAL - MAXXAM YELLOW - MAXXAM PINK - CLIENT

Your Project #: FARO CLOSURE OFFICE (ROSE CR.)
Your C.O.C. #: F109289

Attention: Bonnie Burns
LABERGE ENVIRONMENTAL SERVICES
WHITEHORSE
405 Ogilvie Street
PO Box 21072
Whitehorse, YT
CANADA Y1A 6P7

Report Date: 2008/09/12

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A844444
Received: 2008/08/28, 13:30

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
GS Special Analysis	6	N/A	2008/09/11		
Elements by ICPMS (total)	2	2008/09/05	2008/09/05	BRN SOP-00203	Based on EPA 200.8
Elements by ICPMS (total)	4	2008/09/05	2008/09/06	BRN SOP-00203	Based on EPA 200.8
pH (2:1 DI Water Extract) (1)	6	2008/09/05	2008/09/06	BRN SOP-00266 R1.0	Carter, SSMA 16.2

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	3	2008/09/02	2008/09/02	BRN SOP-00264 R2.0	Based on SM2320B
Conductance - water	3	N/A	2008/09/02	BRN SOP-00264 R2.0	Based on SM-2510B
Hardness Total (calculated as CaCO3)	3	N/A	2008/09/04		
Hardness (calculated as CaCO3)	3	N/A	2008/09/04		
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	3	N/A	2008/09/04	BRN SOP-00206	Based on EPA 200.8
Elements by ICPMS Low Level (dissolved) (1)	3	N/A	2008/09/04	BRN SOP-00206	Based on EPA 200.8
Elements by ICPMS Low Level (total) (1)	3	2008/09/02	2008/09/04	BRN SOP-00206	Based on EPA 200.8
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	2008/09/02	2008/09/04	BRN SOP-00206	Based on EPA 200.8
Ammonia (N)	3	N/A	2008/09/02	BRN SOP-00221 R3.0	Based on SM-4500MH3G
Filter and HNO3 Preserve for Metals	3	N/A	2008/09/03	BRN WI-00006 R1.0	Based on EPA 200.2
pH Water	3	N/A	2008/09/02	BRN SOP-00264 R2.0	Based on SM-4500H+B
Sulphate by Automated Colourimetry	3	N/A	2008/09/04	BRN-SOP 00243 R1.0	Based on EPA 375.4
Total Suspended Solids	3	N/A	2008/09/02	BRN SOP-00277 R2.0	Based on SM-2540 D

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) SCC/CAEAL

../2

Your Project #: FARO CLOSURE OFFICE (ROSE CR.)
Your C.O.C. #: F109289

Attention: Bonnie Burns
LABERGE ENVIRONMENTAL SERVICES
WHITEHORSE
405 Ogilvie Street
PO Box 21072
Whitehorse, YT
CANADA Y1A 6P7

Report Date: 2008/09/12

CERTIFICATE OF ANALYSIS

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

SUE REYNOLDS, BBY Customer Service
Email: sue.reynolds@maxxamanalytics.com
Phone# (604) 444-4808 Ext:235

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

Total cover pages: 2

Maxxam Job #: A844444
Report Date: 2008/09/12

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)

Sampler Initials: BB

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		L37044	L37045	L37046		
Sampling Date		2008/08/25 10:30	2008/08/25 12:30	2008/08/25 14:30		
COC Number		F109289	F109289	F109289		
	Units	**R-1 ROSE CR U/S**	**R-2 ROSE CR NEAR X-14**	**X-2 NORTH FORK @ RD**	**RDL**	**QC Batch**
Misc. Inorganics						
Dissolved Hardness (CaCO3)	mg/L	51.3	80.6	51.1	0.5	2543068
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	ug/L	37.8	35.3	37.1	0.2	2543934
Dissolved Antimony (Sb)	ug/L	0.10	0.10	0.08	0.02	2543934
Dissolved Arsenic (As)	ug/L	0.58	0.48	0.57	0.02	2543934
Dissolved Barium (Ba)	ug/L	27.8	34.3	28.6	0.02	2543934
Dissolved Beryllium (Be)	ug/L	0.01	0.01	0.02	0.01	2543934
Dissolved Bismuth (Bi)	ug/L	<0.005	<0.005	<0.005	0.005	2543934
Dissolved Boron (B)	ug/L	<50	<50	<50	50	2543934
Dissolved Cadmium (Cd)	ug/L	0.024	0.021	0.023	0.005	2543934
Dissolved Chromium (Cr)	ug/L	0.1	0.1	0.1	0.1	2543934
Dissolved Cobalt (Co)	ug/L	0.055	0.248	0.059	0.005	2543934
Dissolved Copper (Cu)	ug/L	1.50	1.53	1.43	0.05	2543934
Dissolved Iron (Fe)	ug/L	127	121	129	1	2543934
Dissolved Lead (Pb)	ug/L	0.647	0.333	0.634	0.005	2543934
Dissolved Lithium (Li)	ug/L	1.8	2.0	1.8	0.5	2543934
Dissolved Manganese (Mn)	ug/L	11.1	166	12.3	0.05	2543934
Dissolved Molybdenum (Mo)	ug/L	0.28	0.38	0.29	0.05	2543934
Dissolved Nickel (Ni)	ug/L	0.96	1.32	0.95	0.02	2543934
Dissolved Selenium (Se)	ug/L	0.18	0.21	0.18	0.04	2543934
Dissolved Silicon (Si)	ug/L	4500	4170	4510	100	2543934
Dissolved Silver (Ag)	ug/L	<0.005	<0.005	<0.005	0.005	2543934
Dissolved Strontium (Sr)	ug/L	64.2	91.2	64.7	0.05	2543934
Dissolved Thallium (Tl)	ug/L	0.002	0.007	0.003	0.002	2543934
Dissolved Tin (Sn)	ug/L	<0.01	<0.01	<0.01	0.01	2543934
Dissolved Titanium (Ti)	ug/L	<0.5	<0.5	0.6	0.5	2543934
Dissolved Uranium (U)	ug/L	0.452	0.629	0.467	0.002	2543934
Dissolved Vanadium (V)	ug/L	<0.2	<0.2	<0.2	0.2	2543934
Dissolved Zinc (Zn)	ug/L	25.4	13.6	25.4	0.1	2543934
Dissolved Zirconium (Zr)	ug/L	0.2	0.2	0.2	0.1	2543934
Dissolved Calcium (Ca)	mg/L	15.1	23.1	15.0	0.05	2549533
Dissolved Magnesium (Mg)	mg/L	3.31	5.55	3.29	0.05	2549533

RDL = Reportable Detection Limit

Maxxam Job #: A844444
Report Date: 2008/09/12

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)

Sampler Initials: BB

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		L37044	L37045	L37046		
Sampling Date		2008/08/25 10:30	2008/08/25 12:30	2008/08/25 14:30		
COC Number		F109289	F109289	F109289		
	Units	**R-1 ROSE CR U/S**	**R-2 ROSE CR NEAR X-14**	**X-2 NORTH FORK @ RD**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.63	0.75	0.61	0.05	2549533
Dissolved Sodium (Na)	mg/L	1.90	2.01	1.90	0.05	2549533
Dissolved Sulphur (S)	mg/L	4	8	4	3	2549533

RDL = Reportable Detection Limit

Maxxam Job #: A844444
Report Date: 2008/09/12

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)

Sampler Initials: BB

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		L37044	L37045	L37046		
Sampling Date		2008/08/25 10:30	2008/08/25 12:30	2008/08/25 14:30		
COC Number		F109289	F109289	F109289		
	Units	**R-1 ROSE CR U/S**	**R-2 ROSE CR NEAR X-14**	**X-2 NORTH FORK @ RD**	**RDL**	**QC Batch**
Calculated Parameters						
Total Hardness (CaCO3)	mg/L	51.2	82.2	53.2	0.5	2542968
Total Metals by ICPMS						
Total Aluminum (Al)	ug/L	214	339	309	0.2	2546396
Total Antimony (Sb)	ug/L	0.11	0.12	0.10	0.02	2546396
Total Arsenic (As)	ug/L	1.03	1.17	1.27	0.02	2546396
Total Barium (Ba)	ug/L	36.8	51.0	44.3	0.02	2546396
Total Beryllium (Be)	ug/L	0.04	0.04	0.05	0.01	2546396
Total Bismuth (Bi)	ug/L	0.013	0.012	0.018	0.005	2546396
Total Boron (B)	ug/L	<50	<50	<50	50	2546396
Total Cadmium (Cd)	ug/L	0.050	0.078	0.074	0.005	2546396
Total Chromium (Cr)	ug/L	0.4	0.7	0.7	0.1	2546396
Total Cobalt (Co)	ug/L	0.305	0.764	0.490	0.005	2546396
Total Copper (Cu)	ug/L	2.12	3.13	2.31	0.05	2546396
Total Iron (Fe)	ug/L	578	954	834	1	2546396
Total Lead (Pb)	ug/L	4.69	4.33	7.43	0.005	2546396
Total Lithium (Li)	ug/L	2.2	2.6	2.5	0.5	2546396
Total Manganese (Mn)	ug/L	60.2	252	103	0.05	2546396
Total Molybdenum (Mo)	ug/L	0.27	0.31	0.26	0.05	2546396
Total Nickel (Ni)	ug/L	1.49	2.40	1.81	0.02	2546396
Total Selenium (Se)	ug/L	0.16	0.19	0.19	0.04	2546396
Total Silicon (Si)	ug/L	4740	4850	5350	100	2546396
Total Silver (Ag)	ug/L	0.009	0.008	0.010	0.005	2546396
Total Strontium (Sr)	ug/L	64.9	93.6	67.4	0.05	2546396
Total Thallium (Tl)	ug/L	0.011	0.013	0.011	0.002	2546396
Total Tin (Sn)	ug/L	0.01	0.01	0.01	0.01	2546396
Total Titanium (Ti)	ug/L	8.1	12.5	11.4	0.5	2546396
Total Uranium (U)	ug/L	0.504	0.746	0.556	0.002	2546396
Total Vanadium (V)	ug/L	0.6	0.9	0.7	0.2	2546396
Total Zinc (Zn)	ug/L	36.9	31.8	43.1	0.1	2546396
Total Zirconium (Zr)	ug/L	0.3	0.4	0.3	0.1	2546396
Total Calcium (Ca)	mg/L	15.2	23.7	15.7	0.05	2549535
Total Magnesium (Mg)	mg/L	3.25	5.56	3.41	0.05	2549535

RDL = Reportable Detection Limit

Maxxam Job #: A844444
Report Date: 2008/09/12

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)

Sampler Initials: BB

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		L37044	L37045	L37046		
Sampling Date		2008/08/25 10:30	2008/08/25 12:30	2008/08/25 14:30		
COC Number		F109289	F109289	F109289		
	Units	**R-1 ROSE CR U/S**	**R-2 ROSE CR NEAR X-14**	**X-2 NORTH FORK @ RD**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.69	0.79	0.68	0.05	2549535
Total Sodium (Na)	mg/L	2.00	2.07	1.90	0.05	2549535
Total Sulphur (S)	mg/L	3	8	4	3	2549535

RDL = Reportable Detection Limit

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)
P.O. #:
Site Reference:

Quality Assurance Report

Maxxam Job Number: VA844444

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2543934	AA1	MATRIX SPIKE	Dissolved Arsenic (As)	2008/09/04		102	%	75 - 125
			Dissolved Beryllium (Be)	2008/09/04		101	%	75 - 125
			Dissolved Cadmium (Cd)	2008/09/04		108	%	75 - 125
			Dissolved Chromium (Cr)	2008/09/04		96	%	75 - 125
			Dissolved Cobalt (Co)	2008/09/04		94	%	75 - 125
			Dissolved Copper (Cu)	2008/09/04		93	%	75 - 125
			Dissolved Lead (Pb)	2008/09/04		92	%	75 - 125
			Dissolved Lithium (Li)	2008/09/04		97	%	75 - 125
			Dissolved Nickel (Ni)	2008/09/04		94	%	75 - 125
			Dissolved Selenium (Se)	2008/09/04		106	%	75 - 125
			Dissolved Uranium (U)	2008/09/04		96	%	75 - 125
			Dissolved Vanadium (V)	2008/09/04		96	%	75 - 125
			Dissolved Zinc (Zn)	2008/09/04		NC	%	75 - 125
		SPIKE	Dissolved Arsenic (As)	2008/09/04		97	%	75 - 125
			Dissolved Beryllium (Be)	2008/09/04		95	%	75 - 125
			Dissolved Cadmium (Cd)	2008/09/04		99	%	75 - 125
			Dissolved Chromium (Cr)	2008/09/04		98	%	75 - 125
			Dissolved Cobalt (Co)	2008/09/04		97	%	75 - 125
			Dissolved Copper (Cu)	2008/09/04		101	%	75 - 125
			Dissolved Lead (Pb)	2008/09/04		99	%	75 - 125
			Dissolved Lithium (Li)	2008/09/04		98	%	75 - 125
			Dissolved Nickel (Ni)	2008/09/04		99	%	75 - 125
			Dissolved Selenium (Se)	2008/09/04		101	%	75 - 125
			Dissolved Uranium (U)	2008/09/04		97	%	75 - 125
			Dissolved Vanadium (V)	2008/09/04		96	%	75 - 125
			Dissolved Zinc (Zn)	2008/09/04		112	%	75 - 125
		BLANK	Dissolved Aluminum (Al)	2008/09/04	<0.2		ug/L	
			Dissolved Antimony (Sb)	2008/09/04	<0.02		ug/L	
			Dissolved Arsenic (As)	2008/09/04	<0.02		ug/L	
			Dissolved Barium (Ba)	2008/09/04	<0.02		ug/L	
			Dissolved Beryllium (Be)	2008/09/04	<0.01		ug/L	
			Dissolved Bismuth (Bi)	2008/09/04	<0.005		ug/L	
			Dissolved Boron (B)	2008/09/04	<50		ug/L	
			Dissolved Cadmium (Cd)	2008/09/04	<0.005		ug/L	
			Dissolved Chromium (Cr)	2008/09/04	<0.1		ug/L	
			Dissolved Cobalt (Co)	2008/09/04	<0.005		ug/L	
			Dissolved Copper (Cu)	2008/09/04	0.08, RDL=0.05		ug/L	
			Dissolved Iron (Fe)	2008/09/04	<1		ug/L	
			Dissolved Lead (Pb)	2008/09/04	<0.005		ug/L	
			Dissolved Lithium (Li)	2008/09/04	<0.5		ug/L	
			Dissolved Manganese (Mn)	2008/09/04	<0.05		ug/L	
			Dissolved Molybdenum (Mo)	2008/09/04	<0.05		ug/L	
			Dissolved Nickel (Ni)	2008/09/04	0.02, RDL=0.02		ug/L	
			Dissolved Selenium (Se)	2008/09/04	<0.04		ug/L	
			Dissolved Silicon (Si)	2008/09/04	<100		ug/L	
			Dissolved Silver (Ag)	2008/09/04	<0.005		ug/L	
			Dissolved Strontium (Sr)	2008/09/04	<0.05		ug/L	
			Dissolved Thallium (Tl)	2008/09/04	<0.002		ug/L	
			Dissolved Tin (Sn)	2008/09/04	<0.01		ug/L	
			Dissolved Titanium (Ti)	2008/09/04	<0.5		ug/L	
			Dissolved Uranium (U)	2008/09/04	<0.002		ug/L	
			Dissolved Vanadium (V)	2008/09/04	0.2, RDL=0.2		ug/L	
			Dissolved Zinc (Zn)	2008/09/04	<0.1		ug/L	
			Dissolved Zirconium (Zr)	2008/09/04	<0.1		ug/L	
		RPD	Dissolved Aluminum (Al)	2008/09/04	NC		%	

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)
P.O. #:
Site Reference:

Quality Assurance Report (Continued)

Maxxam Job Number: VA844444

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2543934 AA1	RPD	Dissolved Antimony (Sb)	2008/09/04	NC		%	25
		Dissolved Arsenic (As)	2008/09/04	6.7		%	25
		Dissolved Barium (Ba)	2008/09/04	1.3		%	25
		Dissolved Beryllium (Be)	2008/09/04	NC		%	25
		Dissolved Bismuth (Bi)	2008/09/04	NC		%	25
		Dissolved Boron (B)	2008/09/04	NC		%	25
		Dissolved Cadmium (Cd)	2008/09/04	NC		%	25
		Dissolved Chromium (Cr)	2008/09/04	NC		%	25
		Dissolved Cobalt (Co)	2008/09/04	NC		%	25
		Dissolved Copper (Cu)	2008/09/04	0.07		%	25
		Dissolved Iron (Fe)	2008/09/04	NC		%	25
		Dissolved Lead (Pb)	2008/09/04	0.05		%	25
		Dissolved Lithium (Li)	2008/09/04	NC		%	25
		Dissolved Manganese (Mn)	2008/09/04	4.4		%	25
		Dissolved Molybdenum (Mo)	2008/09/04	NC		%	25
		Dissolved Nickel (Ni)	2008/09/04	3.6		%	25
		Dissolved Selenium (Se)	2008/09/04	1.7		%	25
		Dissolved Silicon (Si)	2008/09/04	0.9		%	25
		Dissolved Silver (Ag)	2008/09/04	NC		%	25
		Dissolved Strontium (Sr)	2008/09/04	1.3		%	25
		Dissolved Thallium (Tl)	2008/09/04	NC		%	25
		Dissolved Tin (Sn)	2008/09/04	1.7		%	25
		Dissolved Titanium (Ti)	2008/09/04	NC		%	25
		Dissolved Uranium (U)	2008/09/04	2.3		%	25
		Dissolved Vanadium (V)	2008/09/04	NC		%	25
		Dissolved Zinc (Zn)	2008/09/04	2.3		%	25
2544471 WR1	SPIKE	Total Suspended Solids	2008/09/02		99	%	N/A
	BLANK	Total Suspended Solids	2008/09/02	<1		mg/L	
2545506 BB3	MATRIX SPIKE	Ammonia (N)	2008/09/02		94	%	80 - 120
	SPIKE	Ammonia (N)	2008/09/02		85	%	80 - 120
	BLANK	Ammonia (N)	2008/09/02	<0.005		mg/L	
	RPD [L37046-01]	Ammonia (N)	2008/09/02	NC		%	25
2546249 AL8	MATRIX SPIKE	Alkalinity (Total as CaCO3)	2008/09/02		NC	%	80 - 120
	SPIKE	Alkalinity (Total as CaCO3)	2008/09/02		94	%	80 - 120
	BLANK	Alkalinity (Total as CaCO3)	2008/09/02	<0.5		mg/L	
		Alkalinity (PP as CaCO3)	2008/09/02	<0.5		mg/L	
		Bicarbonate (HCO3)	2008/09/02	<0.5		mg/L	
		Carbonate (CO3)	2008/09/02	<0.5		mg/L	
		Hydroxide (OH)	2008/09/02	<0.5		mg/L	
	RPD	Alkalinity (Total as CaCO3)	2008/09/02	NC		%	25
		Alkalinity (PP as CaCO3)	2008/09/02	NC		%	25
		Bicarbonate (HCO3)	2008/09/02	NC		%	25
		Carbonate (CO3)	2008/09/02	NC		%	25
		Hydroxide (OH)	2008/09/02	NC		%	25
2546300 AL8	SPIKE	Conductivity	2008/09/02		99	%	80 - 120
	BLANK	Conductivity	2008/09/02	<1		uS/cm	
	RPD	Conductivity	2008/09/03	0.3		%	25
2546396 AA1	MATRIX SPIKE	Total Arsenic (As)	2008/09/04		NC	%	75 - 125
		Total Beryllium (Be)	2008/09/04		99	%	75 - 125
		Total Cadmium (Cd)	2008/09/04		97	%	75 - 125
		Total Chromium (Cr)	2008/09/04		96	%	75 - 125
		Total Cobalt (Co)	2008/09/04		93	%	75 - 125
		Total Copper (Cu)	2008/09/04		NC	%	75 - 125
		Total Lead (Pb)	2008/09/04		92	%	75 - 125
		Total Lithium (Li)	2008/09/04		99	%	75 - 125

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)
P.O. #:
Site Reference:

Quality Assurance Report (Continued)

Maxxam Job Number: VA844444

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2546396 AA1	MATRIX SPIKE	Total Nickel (Ni)	2008/09/04		NC	%	75 - 125
		Total Selenium (Se)	2008/09/04		100	%	75 - 125
		Total Uranium (U)	2008/09/04		100	%	75 - 125
		Total Vanadium (V)	2008/09/04		95	%	75 - 125
		Total Zinc (Zn)	2008/09/04		NC	%	75 - 125
	SPIKE	Total Arsenic (As)	2008/09/04		97	%	75 - 125
		Total Beryllium (Be)	2008/09/04		98	%	75 - 125
		Total Cadmium (Cd)	2008/09/04		99	%	75 - 125
		Total Chromium (Cr)	2008/09/04		98	%	75 - 125
		Total Cobalt (Co)	2008/09/04		97	%	75 - 125
		Total Copper (Cu)	2008/09/04		102	%	75 - 125
		Total Lead (Pb)	2008/09/04		101	%	75 - 125
		Total Lithium (Li)	2008/09/04		100	%	75 - 125
		Total Nickel (Ni)	2008/09/04		98	%	75 - 125
		Total Selenium (Se)	2008/09/04		99	%	75 - 125
		Total Uranium (U)	2008/09/04		99	%	75 - 125
		Total Vanadium (V)	2008/09/04		95	%	75 - 125
		Total Zinc (Zn)	2008/09/04		108	%	75 - 125
	BLANK	Total Aluminum (Al)	2008/09/04	<0.2		ug/L	
		Total Antimony (Sb)	2008/09/04	<0.02		ug/L	
		Total Arsenic (As)	2008/09/04	<0.02		ug/L	
		Total Barium (Ba)	2008/09/04	<0.02		ug/L	
		Total Beryllium (Be)	2008/09/04	<0.01		ug/L	
		Total Bismuth (Bi)	2008/09/04	<0.005		ug/L	
		Total Boron (B)	2008/09/04	<50		ug/L	
		Total Cadmium (Cd)	2008/09/04	<0.005		ug/L	
		Total Chromium (Cr)	2008/09/04	<0.1		ug/L	
		Total Cobalt (Co)	2008/09/04	<0.005		ug/L	
		Total Copper (Cu)	2008/09/04	0.08, RDL=0.05		ug/L	
		Total Iron (Fe)	2008/09/04	<1		ug/L	
		Total Lead (Pb)	2008/09/04	<0.005		ug/L	
		Total Lithium (Li)	2008/09/04	<0.5		ug/L	
		Total Manganese (Mn)	2008/09/04	<0.05		ug/L	
		Total Molybdenum (Mo)	2008/09/04	<0.05		ug/L	
		Total Nickel (Ni)	2008/09/04	<0.02		ug/L	
		Total Selenium (Se)	2008/09/04	<0.04		ug/L	
		Total Silicon (Si)	2008/09/04	<100		ug/L	
		Total Silver (Ag)	2008/09/04	<0.005		ug/L	
		Total Strontium (Sr)	2008/09/04	<0.05		ug/L	
		Total Thallium (Tl)	2008/09/04	<0.002		ug/L	
		Total Tin (Sn)	2008/09/04	<0.01		ug/L	
		Total Titanium (Ti)	2008/09/04	<0.5		ug/L	
		Total Uranium (U)	2008/09/04	<0.002		ug/L	
		Total Vanadium (V)	2008/09/04	0.2, RDL=0.2		ug/L	
		Total Zinc (Zn)	2008/09/04	<0.1		ug/L	
		Total Zirconium (Zr)	2008/09/04	<0.1		ug/L	
	RPD	Total Aluminum (Al)	2008/09/04	2.0		%	25
		Total Antimony (Sb)	2008/09/04	2.5		%	25
		Total Arsenic (As)	2008/09/04	1.8		%	25
		Total Barium (Ba)	2008/09/04	1.7		%	25
		Total Beryllium (Be)	2008/09/04	9.8		%	25
		Total Bismuth (Bi)	2008/09/04	3.2		%	25
		Total Boron (B)	2008/09/04	NC		%	25
		Total Cadmium (Cd)	2008/09/04	NC		%	25
		Total Chromium (Cr)	2008/09/04	2.6		%	25

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)
P.O. #:
Site Reference:

Quality Assurance Report (Continued)

Maxxam Job Number: VA844444

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2546396 AA1	RPD	Total Cobalt (Co)	2008/09/04	0.07		%	25
		Total Copper (Cu)	2008/09/04	0.5		%	25
		Total Iron (Fe)	2008/09/04	4.9		%	25
		Total Lead (Pb)	2008/09/04	1.6		%	25
		Total Lithium (Li)	2008/09/04	NC		%	25
		Total Manganese (Mn)	2008/09/04	0.3		%	25
		Total Molybdenum (Mo)	2008/09/04	1.3		%	25
		Total Nickel (Ni)	2008/09/04	4.2		%	25
		Total Selenium (Se)	2008/09/04	NC		%	25
		Total Silicon (Si)	2008/09/04	5.9		%	25
		Total Silver (Ag)	2008/09/04	NC		%	25
		Total Strontium (Sr)	2008/09/04	2.3		%	25
		Total Thallium (Tl)	2008/09/04	NC		%	25
		Total Tin (Sn)	2008/09/04	9.6		%	25
		Total Titanium (Ti)	2008/09/04	1.1		%	25
		Total Uranium (U)	2008/09/04	0.3		%	25
		Total Vanadium (V)	2008/09/04	2.1		%	25
		Total Zinc (Zn)	2008/09/04	0.5		%	25
		Total Zirconium (Zr)	2008/09/04	NC		%	25
2549533 AA1	BLANK	Dissolved Calcium (Ca)	2008/09/04	<0.05		mg/L	
		Dissolved Magnesium (Mg)	2008/09/04	<0.05		mg/L	
		Dissolved Potassium (K)	2008/09/04	<0.05		mg/L	
		Dissolved Sodium (Na)	2008/09/04	<0.05		mg/L	
		Dissolved Sulphur (S)	2008/09/04	<3		mg/L	
	RPD	Dissolved Calcium (Ca)	2008/09/04	1.3		%	25
		Dissolved Magnesium (Mg)	2008/09/04	1.5		%	25
		Dissolved Potassium (K)	2008/09/04	0.7		%	25
		Dissolved Sodium (Na)	2008/09/04	0.1		%	25
		Dissolved Sulphur (S)	2008/09/04	NC		%	25
2549535 AA1	BLANK	Total Calcium (Ca)	2008/09/04	<0.05		mg/L	
		Total Magnesium (Mg)	2008/09/04	<0.05		mg/L	
		Total Potassium (K)	2008/09/04	<0.05		mg/L	
		Total Sodium (Na)	2008/09/04	0.05, RDL=0.05		mg/L	
		Total Sulphur (S)	2008/09/04	<3		mg/L	
	RPD	Total Calcium (Ca)	2008/09/04	1.1		%	25
		Total Magnesium (Mg)	2008/09/04	1.1		%	25
		Total Potassium (K)	2008/09/04	NC		%	25
		Total Sodium (Na)	2008/09/04	0.6		%	25
		Total Sulphur (S)	2008/09/04	NC		%	25
2550978 BB3	MATRIX SPIKE	Dissolved Sulphate (SO4)	2008/09/04		NC	%	75 - 125
	SPIKE	Dissolved Sulphate (SO4)	2008/09/04		96	%	80 - 120
	BLANK	Dissolved Sulphate (SO4)	2008/09/04	<0.5		mg/L	
	RPD [L37046-01]	Dissolved Sulphate (SO4)	2008/09/04	2.5		%	20
2553466 DJ	MATRIX SPIKE	Total Arsenic (As)	2008/09/05		109	%	75 - 125
		Total Beryllium (Be)	2008/09/05		108	%	75 - 125
		Total Cadmium (Cd)	2008/09/05		114	%	75 - 125
		Total Chromium (Cr)	2008/09/05		100	%	75 - 125
		Total Cobalt (Co)	2008/09/05		107	%	75 - 125
		Total Copper (Cu)	2008/09/05		102	%	75 - 125
		Total Lead (Pb)	2008/09/05		104	%	75 - 125
		Total Mercury (Hg)	2008/09/05		99	%	75 - 125
		Total Nickel (Ni)	2008/09/05		100	%	75 - 125
		Total Selenium (Se)	2008/09/05		111	%	75 - 125
		Total Vanadium (V)	2008/09/05		NC	%	75 - 125
		Total Zinc (Zn)	2008/09/05		NC	%	75 - 125

Your Project #: FARO CLOSURE OFFICE
Your C.O.C. #: F109290, F109291

Attention: Bonnie Burns
LABERGE ENVIRONMENTAL SERVICES
WHITEHORSE
405 Ogilvie Street
PO Box 21072
Whitehorse, YT
CANADA Y1A 6P7

Report Date: 2008/09/19

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A846358
Received: 2008/09/08, 11:25

Sample Matrix: Soil
Samples Received: 18

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
GS Special Analysis	18	N/A	2008/09/12		
Elements by ICPMS (total)	18	2008/09/12	2008/09/12	BRN SOP-00203	Based on EPA 200.8
pH (2:1 DI Water Extract) @	18	2008/09/10	2008/09/11	BRN SOP-00266 R1.0	Carter, SSMA 16.2

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity - Water	5	2008/09/10	2008/09/12	BRN SOP-00264 R2.0	Based on SM2320B
Alkalinity - Water	1	2008/09/13	2008/09/13	BRN SOP-00264 R2.0	Based on SM2320B
Conductance - water	5	N/A	2008/09/12	BRN SOP-00264 R2.0	Based on SM-2510B
Conductance - water	1	N/A	2008/09/13	BRN SOP-00264 R2.0	Based on SM-2510B
Hardness Total (calculated as CaCO3)	5	N/A	2008/09/12		
Hardness Total (calculated as CaCO3)	1	N/A	2008/09/16		
Hardness (calculated as CaCO3)	5	N/A	2008/09/12		
Hardness (calculated as CaCO3)	1	N/A	2008/09/16		
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	5	N/A	2008/09/11	BRN SOP-00206	Based on EPA 200.8
Na, K, Ca, Mg, S by CRC ICPMS (diss.)	1	N/A	2008/09/16	BRN SOP-00206	Based on EPA 200.8
Elements by ICPMS Low Level (dissolved) @	5	N/A	2008/09/11	BRN SOP-00206	Based on EPA 200.8
Elements by ICPMS Low Level (dissolved) @	1	N/A	2008/09/16	BRN SOP-00206	Based on EPA 200.8
Elements by ICPMS Low Level (total) @	5	2008/09/10	2008/09/12	BRN SOP-00206	Based on EPA 200.8
Elements by ICPMS Low Level (total) @	1	2008/09/15	2008/09/16	BRN SOP-00206	Based on EPA 200.8
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	2008/09/10	2008/09/11	BRN SOP-00206	Based on EPA 200.8
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	2008/09/10	2008/09/12	BRN SOP-00206	Based on EPA 200.8
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	2008/09/15	2008/09/16	BRN SOP-00206	Based on EPA 200.8
Ammonia-N	5	N/A	2008/09/18	BRN SOP-00232 R3.0	SM-4500 NH3 G
Ammonia (N)	1	N/A	2008/09/15	BRN SOP-00221 R3.0	Based on SM-4500MH3G
Filter and HNO3 Preserve for Metals	5	N/A	2008/09/09	BRN WI-00006 R1.0	Based on EPA 200.2
Filter and HNO3 Preserve for Metals	1	N/A	2008/09/17	BRN WI-00006 R1.0	Based on EPA 200.2
pH Water	5	N/A	2008/09/12	BRN SOP-00264 R2.0	Based on SM-4500H+B
pH Water	1	N/A	2008/09/13	BRN SOP-00264 R2.0	Based on SM-4500H+B
Sulphate by Automated Colourimetry	5	N/A	2008/09/12	BRN-SOP 00243 R1.0	Based on EPA 375.4
Sulphate by Automated Colourimetry	1	N/A	2008/09/13	BRN-SOP 00243 R1.0	Based on EPA 375.4
Total Suspended Solids	5	N/A	2008/09/11	BRN SOP-00277 R2.0	Based on SM-2540 D
Total Suspended Solids	1	N/A	2008/09/17	BRN SOP-00277 R2.0	Based on SM-2540 D

../2

Your Project #: FARO CLOSURE OFFICE
Your C.O.C. #: F109290, F109291

Attention: Bonnie Burns
LABERGE ENVIRONMENTAL SERVICES
WHITEHORSE
405 Ogilvie Street
PO Box 21072
Whitehorse, YT
CANADA Y1A 6P7

Report Date: 2008/09/19

CERTIFICATE OF ANALYSIS

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) SCC/CAEAL

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

SUE REYNOLDS, BBY Customer Service
Email: sue.reynolds@maxxamanalytics.com
Phone# (604) 444-4808 Ext:235

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

Total cover pages: 2

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		L48556	L48557	L48558	L48559		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109290	F109290	F109290	F109290		
	Units	**R3-MIDWAY**	**R4-ROSE CR U/S**	**R5-ANUIL CR D/S**	**R6-ANUIL CR U/S**	**RDL**	**QC Batch**
Preparation							
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	FIELD	N/A	ONSITE
Misc. Inorganics							
Alkalinity (Total as CaCO3)	mg/L	80	81	110	110	0.5	2562732
Alkalinity (PP as CaCO3)	mg/L	<0.5	<0.5	<0.5	<0.5	0.5	2562732
Bicarbonate (HCO3)	mg/L	98	99	130	130	0.5	2562732
Carbonate (CO3)	mg/L	<0.5	<0.5	<0.5	<0.5	0.5	2562732
Hydroxide (OH)	mg/L	<0.5	<0.5	<0.5	<0.5	0.5	2562732
Anions							
Dissolved Sulphate (SO4)	mg/L	50	44	22	19	0.5	2579030
Nutrients							
Ammonia (N)	mg/L	0.03	0.03	0.04	<0.01	0.01	2586837
Physical Properties							
Conductivity	uS/cm	290	280	260	260	1	2566331
pH	pH Units	8.1	8.2	8.3	8.3		2566328
Physical Properties							
Total Suspended Solids	mg/L	1	4	4	3	1	2566638

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		L48560			L48625		
Sampling Date		2008/09/04			2008/09/04		
COC Number		F109290			F109291		
	Units	**R7-NORTH FORK**	**RDL**	**QC Batch**	**BD**	**RDL**	**QC Batch**
Preparation							
Filter and HNO3 Preservation	N/A	FIELD	N/A	ONSITE	FIELD	N/A	ONSITE
Misc. Inorganics							
Alkalinity (Total as CaCO3)	mg/L	62	0.5	2562732	68	0.5	2573240
Alkalinity (PP as CaCO3)	mg/L	<0.5	0.5	2562732	<0.5	0.5	2573240
Bicarbonate (HCO3)	mg/L	76	0.5	2562732	83	0.5	2573240
Carbonate (CO3)	mg/L	<0.5	0.5	2562732	<0.5	0.5	2573240
Hydroxide (OH)	mg/L	<0.5	0.5	2562732	<0.5	0.5	2573240
Anions							
Dissolved Sulphate (SO4)	mg/L	7.2	0.5	2579030	7.1	0.5	2573342
Nutrients							
Ammonia (N)	mg/L	0.04	0.01	2586837	<0.05 (1)	0.05	2574833
Physical Properties							
Conductivity	uS/cm	150	1	2566331	150	1	2573239
pH	pH Units	8.1		2566328	8.2		2573235
Physical Properties							
Total Suspended Solids	mg/L	2	1	2566638	4	1	2582405

RDL = Reportable Detection Limit
(1) RDL raised due to sample matrix interference.

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		L48556	L48557	L48558	L48559		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109290	F109290	F109290	F109290		
	Units	**R3-MIDWAY**	**R4-ROSE CR U/S**	**R5-ANUIL CR D/S**	**R6-ANUIL CR U/S**	**RDL**	**QC Batch**
Misc. Inorganics							
Dissolved Hardness (CaCO3)	mg/L	146	144	140	136	0.5	2559817
Dissolved Metals by ICPMS							
Dissolved Aluminum (Al)	ug/L	15.0	16.3	13.3	13.4	0.2	2562778
Dissolved Antimony (Sb)	ug/L	0.09	0.11	0.11	0.11	0.02	2562778
Dissolved Arsenic (As)	ug/L	0.32	0.32	0.37	0.36	0.02	2562778
Dissolved Barium (Ba)	ug/L	40.7	53.3	54.0	55.2	0.02	2562778
Dissolved Beryllium (Be)	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	2562778
Dissolved Bismuth (Bi)	ug/L	<0.005	<0.005	<0.005	<0.005	0.005	2562778
Dissolved Boron (B)	ug/L	<50	<50	<50	<50	50	2562778
Dissolved Cadmium (Cd)	ug/L	0.021	0.025	0.014	0.012	0.005	2562778
Dissolved Chromium (Cr)	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	2562778
Dissolved Cobalt (Co)	ug/L	0.490	0.277	0.056	0.032	0.005	2562778
Dissolved Copper (Cu)	ug/L	0.76	1.02	0.75	0.70	0.05	2562778
Dissolved Iron (Fe)	ug/L	94	71	67	66	1	2562778
Dissolved Lead (Pb)	ug/L	0.138	0.127	0.019	0.009	0.005	2562778
Dissolved Lithium (Li)	ug/L	3.8	3.4	1.7	1.6	0.5	2562778
Dissolved Manganese (Mn)	ug/L	440	277	34.2	9.53	0.05	2562778
Dissolved Molybdenum (Mo)	ug/L	0.46	0.51	0.88	0.96	0.05	2562778
Dissolved Nickel (Ni)	ug/L	1.48	1.41	0.50	0.39	0.02	2562778
Dissolved Selenium (Se)	ug/L	0.26	0.38	0.60	0.62	0.04	2562778
Dissolved Silicon (Si)	ug/L	4890	4700	4580	4550	100	2562778
Dissolved Silver (Ag)	ug/L	<0.005	<0.005	<0.005	<0.005	0.005	2562778
Dissolved Strontium (Sr)	ug/L	160	150	106	104	0.05	2562778
Dissolved Thallium (Tl)	ug/L	0.019	0.012	0.003	<0.002	0.002	2562778
Dissolved Tin (Sn)	ug/L	<0.01	0.07	<0.01	<0.01	0.01	2562778
Dissolved Titanium (Ti)	ug/L	0.6	0.6	0.6	0.7	0.5	2562778
Dissolved Uranium (U)	ug/L	1.16	1.09	1.40	1.46	0.002	2562778
Dissolved Vanadium (V)	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	2562778
Dissolved Zinc (Zn)	ug/L	16.6	14.1	1.8	0.6	0.1	2562778
Dissolved Zirconium (Zr)	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	2562778
Dissolved Calcium (Ca)	mg/L	43.9	43.0	39.3	38.3	0.05	2568232
Dissolved Magnesium (Mg)	mg/L	8.77	8.82	10.1	9.88	0.05	2568232

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		L48556	L48557	L48558	L48559		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109290	F109290	F109290	F109290		
	Units	**R3-MIDWAY**	**R4-ROSE CR U/S**	**R5-ANUIL CR D/S**	**R6-ANUIL CR U/S**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	1.03	1.06	0.98	0.96	0.05	2568232
Dissolved Sodium (Na)	mg/L	2.97	2.77	1.72	1.59	0.05	2568232
Dissolved Sulphur (S)	mg/L	23	21	9	7	3	2568232

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		L48560		L48625		
Sampling Date		2008/09/04		2008/09/04		
COC Number		F109290		F109291		
	Units	**R7-NORTH FORK**	**QC Batch**	**BD**	**RDL**	**QC Batch**
Misc. Inorganics						
Dissolved Hardness (CaCO3)	mg/L	72.4	2559817	68.7	0.5	2570025
Dissolved Metals by ICPMS						
Dissolved Aluminum (Al)	ug/L	15.1	2562778	15.8	0.2	2574302
Dissolved Antimony (Sb)	ug/L	0.08	2562778	0.08	0.02	2574302
Dissolved Arsenic (As)	ug/L	0.48	2562778	0.50	0.02	2574302
Dissolved Barium (Ba)	ug/L	36.2	2562778	39.2	0.02	2574302
Dissolved Beryllium (Be)	ug/L	<0.01	2562778	<0.01	0.01	2574302
Dissolved Bismuth (Bi)	ug/L	<0.005	2562778	<0.005	0.005	2574302
Dissolved Boron (B)	ug/L	<50	2562778	<50	50	2574302
Dissolved Cadmium (Cd)	ug/L	0.016	2562778	0.007	0.005	2574302
Dissolved Chromium (Cr)	ug/L	<0.1	2562778	<0.1	0.1	2574302
Dissolved Cobalt (Co)	ug/L	0.030	2562778	0.033	0.005	2574302
Dissolved Copper (Cu)	ug/L	0.62	2562778	0.61	0.05	2574302
Dissolved Iron (Fe)	ug/L	72	2562778	85	1	2574302
Dissolved Lead (Pb)	ug/L	0.067	2562778	0.024	0.005	2574302
Dissolved Lithium (Li)	ug/L	2.1	2562778	2.0	0.5	2574302
Dissolved Manganese (Mn)	ug/L	13.4	2562778	13.5	0.05	2574302
Dissolved Molybdenum (Mo)	ug/L	0.39	2562778	0.40	0.05	2574302
Dissolved Nickel (Ni)	ug/L	0.31	2562778	0.50	0.02	2574302
Dissolved Selenium (Se)	ug/L	0.27	2562778	0.29	0.04	2574302
Dissolved Silicon (Si)	ug/L	4960	2562778	4890	100	2574302
Dissolved Silver (Ag)	ug/L	<0.005	2562778	<0.005	0.005	2574302
Dissolved Strontium (Sr)	ug/L	77.3	2562778	81.3	0.05	2574302
Dissolved Thallium (Tl)	ug/L	<0.002	2562778	<0.002	0.002	2574302
Dissolved Tin (Sn)	ug/L	<0.01	2562778	<0.01	0.01	2574302
Dissolved Titanium (Ti)	ug/L	0.6	2562778	<0.5	0.5	2574302
Dissolved Uranium (U)	ug/L	0.754	2562778	0.808	0.002	2574302
Dissolved Vanadium (V)	ug/L	<0.2	2562778	<0.2	0.2	2574302
Dissolved Zinc (Zn)	ug/L	1.2	2562778	0.9	0.1	2574302
Dissolved Zirconium (Zr)	ug/L	<0.1	2562778	<0.1	0.1	2574302
Dissolved Calcium (Ca)	mg/L	22.0	2568232	20.7	0.05	2577304
Dissolved Magnesium (Mg)	mg/L	4.26	2568232	4.12	0.05	2577304

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

LOW LEVEL DISSOLVED METALS - WATER (WATER)

Maxxam ID		L48560		L48625		
Sampling Date		2008/09/04		2008/09/04		
COC Number		F109290		F109291		
	Units	**R7-NORTH FORK**	**QC Batch**	**BD**	**RDL**	**QC Batch**
Dissolved Potassium (K)	mg/L	0.47	2568232	0.45	0.05	2577304
Dissolved Sodium (Na)	mg/L	1.59	2568232	1.60	0.05	2577304
Dissolved Sulphur (S)	mg/L	3	2568232	<3	3	2577304

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		L48556	L48557	L48558	L48559		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109290	F109290	F109290	F109290		
	Units	**R3-MIDWAY**	**R4-ROSE CR U/S**	**R5-ANUIL CR D/S**	**R6-ANUIL CR U/S**	**RDL**	**QC Batch**
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	142	135	131	129	0.5	2560664
Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	26.4	44.5	44.5	41.9	0.2	2562783
Total Antimony (Sb)	ug/L	0.09	0.11	0.12	0.12	0.02	2562783
Total Arsenic (As)	ug/L	0.36	0.38	0.40	0.40	0.02	2562783
Total Barium (Ba)	ug/L	40.1	55.9	57.7	58.0	0.02	2562783
Total Beryllium (Be)	ug/L	0.01	<0.01	<0.01	<0.01	0.01	2562783
Total Bismuth (Bi)	ug/L	<0.005	<0.005	<0.005	<0.005	0.005	2562783
Total Boron (B)	ug/L	<50	<50	<50	<50	50	2562783
Total Cadmium (Cd)	ug/L	0.024	0.030	0.019	0.019	0.005	2562783
Total Chromium (Cr)	ug/L	<0.1	0.1	0.1	0.2	0.1	2562783
Total Cobalt (Co)	ug/L	0.507	0.341	0.088	0.055	0.005	2562783
Total Copper (Cu)	ug/L	0.86	1.27	0.90	0.83	0.05	2562783
Total Iron (Fe)	ug/L	140	154	136	124	1	2562783
Total Lead (Pb)	ug/L	0.374	0.490	0.123	0.049	0.005	2562783
Total Lithium (Li)	ug/L	3.8	3.3	1.7	1.7	0.5	2562783
Total Manganese (Mn)	ug/L	443	311	39.6	13.0	0.05	2562783
Total Molybdenum (Mo)	ug/L	0.43	0.49	0.91	0.93	0.05	2562783
Total Nickel (Ni)	ug/L	1.51	1.63	0.60	0.52	0.02	2562783
Total Selenium (Se)	ug/L	0.27	0.43	0.65	0.67	0.04	2562783
Total Silicon (Si)	ug/L	4900	4990	4730	4660	100	2562783
Total Silver (Ag)	ug/L	<0.005	<0.005	<0.005	<0.005	0.005	2562783
Total Strontium (Sr)	ug/L	157	146	108	104	0.05	2562783
Total Thallium (Tl)	ug/L	0.019	0.012	0.002	<0.002	0.002	2562783
Total Tin (Sn)	ug/L	<0.01	<0.01	<0.01	<0.01	0.01	2562783
Total Titanium (Ti)	ug/L	0.8	1.5	1.4	1.4	0.5	2562783
Total Uranium (U)	ug/L	1.11	1.05	1.43	1.45	0.002	2562783
Total Vanadium (V)	ug/L	<0.2	<0.2	<0.2	<0.2	0.2	2562783
Total Zinc (Zn)	ug/L	17.1	14.0	2.2	0.6	0.1	2562783
Total Zirconium (Zr)	ug/L	<0.1	<0.1	<0.1	<0.1	0.1	2562783
Total Calcium (Ca)	mg/L	42.9	40.4	36.6	35.6	0.05	2565067
Total Magnesium (Mg)	mg/L	8.49	8.40	9.75	9.70	0.05	2565067

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		L48556	L48557	L48558	L48559		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109290	F109290	F109290	F109290		
	Units	**R3-MIDWAY**	**R4-ROSE CR U/S**	**R5-ANUIL CR D/S**	**R6-ANUIL CR U/S**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	1.00	1.01	0.93	0.91	0.05	2565067
Total Sodium (Na)	mg/L	2.97	2.75	1.71	1.63	0.05	2565067
Total Sulphur (S)	mg/L	21	19	8	7	3	2565067

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		L48560		L48625		
Sampling Date		2008/09/04		2008/09/04		
COC Number		F109290		F109291		
	Units	**R7-NORTH FORK**	**QC Batch**	**BD**	**RDL**	**QC Batch**
Calculated Parameters						
Total Hardness (CaCO3)	mg/L	70.3	2560664	69.7	0.5	2570057
Total Metals by ICPMS						
Total Aluminum (Al)	ug/L	28.9	2562783	52.9	0.2	2574387
Total Antimony (Sb)	ug/L	0.09	2562783	0.08	0.02	2574387
Total Arsenic (As)	ug/L	0.53	2562783	0.56	0.02	2574387
Total Barium (Ba)	ug/L	40.1	2562783	40.6	0.02	2574387
Total Beryllium (Be)	ug/L	<0.01	2562783	<0.01	0.01	2574387
Total Bismuth (Bi)	ug/L	<0.005	2562783	<0.005	0.005	2574387
Total Boron (B)	ug/L	<50	2562783	<50	50	2574387
Total Cadmium (Cd)	ug/L	0.017	2562783	0.011	0.005	2574387
Total Chromium (Cr)	ug/L	<0.1	2562783	0.1	0.1	2574387
Total Cobalt (Co)	ug/L	0.041	2562783	0.061	0.005	2574387
Total Copper (Cu)	ug/L	0.73	2562783	0.69	0.05	2574387
Total Iron (Fe)	ug/L	105	2562783	166	1	2574387
Total Lead (Pb)	ug/L	0.090	2562783	0.086	0.005	2574387
Total Lithium (Li)	ug/L	2.2	2562783	2.2	0.5	2574387
Total Manganese (Mn)	ug/L	15.5	2562783	16.9	0.05	2574387
Total Molybdenum (Mo)	ug/L	0.41	2562783	0.41	0.05	2574387
Total Nickel (Ni)	ug/L	0.36	2562783	0.38	0.02	2574387
Total Selenium (Se)	ug/L	0.29	2562783	0.31	0.04	2574387
Total Silicon (Si)	ug/L	5170	2562783	5050	100	2574387
Total Silver (Ag)	ug/L	<0.005	2562783	<0.005	0.005	2574387
Total Strontium (Sr)	ug/L	81.3	2562783	80.9	0.05	2574387
Total Thallium (Tl)	ug/L	<0.002	2562783	0.003	0.002	2574387
Total Tin (Sn)	ug/L	<0.01	2562783	<0.01	0.01	2574387
Total Titanium (Ti)	ug/L	0.7	2562783	2.4	0.5	2574387
Total Uranium (U)	ug/L	0.794	2562783	0.789	0.002	2574387
Total Vanadium (V)	ug/L	<0.2	2562783	<0.2	0.2	2574387
Total Zinc (Zn)	ug/L	1.2	2562783	0.8	0.1	2574387
Total Zirconium (Zr)	ug/L	<0.1	2562783	<0.1	0.1	2574387
Total Calcium (Ca)	mg/L	21.1	2565067	21.0	0.05	2577305
Total Magnesium (Mg)	mg/L	4.26	2565067	4.20	0.05	2577305

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

LOW LEVEL TOTAL METALS - WATER (WATER)

Maxxam ID		L48560		L48625		
Sampling Date		2008/09/04		2008/09/04		
COC Number		F109290		F109291		
	Units	**R7-NORTH FORK**	**QC Batch**	**BD**	**RDL**	**QC Batch**
Total Potassium (K)	mg/L	0.45	2565067	0.46	0.05	2577305
Total Sodium (Na)	mg/L	1.64	2565067	1.64	0.05	2577305
Total Sulphur (S)	mg/L	<3	2565067	<3	3	2577305

RDL = Reportable Detection Limit

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE
P.O. #:
Site Reference:

Quality Assurance Report

Maxxam Job Number: VA846358

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2562732 MM3	MATRIX SPIKE [L48560-01]	Alkalinity (Total as CaCO3)	2008/09/12		NC	%	80 - 120
	SPIKE	Alkalinity (Total as CaCO3)	2008/09/12		91	%	80 - 120
	BLANK	Alkalinity (Total as CaCO3)	2008/09/12	<0.5		mg/L	
		Alkalinity (PP as CaCO3)	2008/09/12	<0.5		mg/L	
		Bicarbonate (HCO3)	2008/09/12	<0.5		mg/L	
		Carbonate (CO3)	2008/09/12	<0.5		mg/L	
		Hydroxide (OH)	2008/09/12	<0.5		mg/L	
	RPD [L48560-01]	Alkalinity (Total as CaCO3)	2008/09/12	1.2		%	25
		Alkalinity (PP as CaCO3)	2008/09/12	NC		%	25
		Bicarbonate (HCO3)	2008/09/12	1.2		%	25
		Carbonate (CO3)	2008/09/12	NC		%	25
		Hydroxide (OH)	2008/09/12	NC		%	25
2562778 AA1	MATRIX SPIKE	Dissolved Arsenic (As)	2008/09/11		97	%	75 - 125
		Dissolved Beryllium (Be)	2008/09/11		99	%	75 - 125
		Dissolved Cadmium (Cd)	2008/09/11		104	%	75 - 125
		Dissolved Chromium (Cr)	2008/09/11		100	%	75 - 125
		Dissolved Cobalt (Co)	2008/09/11		93	%	75 - 125
		Dissolved Copper (Cu)	2008/09/11		93	%	75 - 125
		Dissolved Lead (Pb)	2008/09/11		99	%	75 - 125
		Dissolved Lithium (Li)	2008/09/11		104	%	75 - 125
		Dissolved Nickel (Ni)	2008/09/11		95	%	75 - 125
		Dissolved Selenium (Se)	2008/09/11		105	%	75 - 125
		Dissolved Uranium (U)	2008/09/11		101	%	75 - 125
		Dissolved Vanadium (V)	2008/09/11		99	%	75 - 125
		Dissolved Zinc (Zn)	2008/09/11		NC	%	75 - 125
	SPIKE	Dissolved Arsenic (As)	2008/09/11		97	%	75 - 125
		Dissolved Beryllium (Be)	2008/09/11		101	%	75 - 125
		Dissolved Cadmium (Cd)	2008/09/11		102	%	75 - 125
		Dissolved Chromium (Cr)	2008/09/11		100	%	75 - 125
		Dissolved Cobalt (Co)	2008/09/11		96	%	75 - 125
		Dissolved Copper (Cu)	2008/09/11		100	%	75 - 125
		Dissolved Lead (Pb)	2008/09/11		105	%	75 - 125
		Dissolved Lithium (Li)	2008/09/11		109	%	75 - 125
		Dissolved Nickel (Ni)	2008/09/11		100	%	75 - 125
		Dissolved Selenium (Se)	2008/09/11		99	%	75 - 125
		Dissolved Uranium (U)	2008/09/11		105	%	75 - 125
		Dissolved Vanadium (V)	2008/09/11		97	%	75 - 125
		Dissolved Zinc (Zn)	2008/09/11		102	%	75 - 125
	BLANK	Dissolved Aluminum (Al)	2008/09/11	<0.2		ug/L	
		Dissolved Antimony (Sb)	2008/09/11	<0.02		ug/L	
		Dissolved Arsenic (As)	2008/09/11	<0.02		ug/L	
		Dissolved Barium (Ba)	2008/09/11	<0.02		ug/L	
		Dissolved Beryllium (Be)	2008/09/11	<0.01		ug/L	
		Dissolved Bismuth (Bi)	2008/09/11	<0.005		ug/L	
		Dissolved Boron (B)	2008/09/11	<50		ug/L	
		Dissolved Cadmium (Cd)	2008/09/11	<0.005		ug/L	
		Dissolved Chromium (Cr)	2008/09/11	<0.1		ug/L	
		Dissolved Cobalt (Co)	2008/09/11	<0.005		ug/L	
		Dissolved Copper (Cu)	2008/09/11	<0.05		ug/L	
		Dissolved Iron (Fe)	2008/09/11	<1		ug/L	
		Dissolved Lead (Pb)	2008/09/11	<0.005		ug/L	
		Dissolved Lithium (Li)	2008/09/11	<0.5		ug/L	
		Dissolved Manganese (Mn)	2008/09/11	<0.05		ug/L	
		Dissolved Molybdenum (Mo)	2008/09/11	<0.05		ug/L	

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE
P.O. #:
Site Reference:

Quality Assurance Report (Continued)

Maxxam Job Number: VA846358

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2574833 BB3	BLANK	Ammonia (N)	2008/09/15	<0.005		mg/L	
	RPD	Ammonia (N)	2008/09/15	NC		%	25
2577304 AA1	BLANK	Dissolved Calcium (Ca)	2008/09/16	<0.05		mg/L	
		Dissolved Magnesium (Mg)	2008/09/16	<0.05		mg/L	
		Dissolved Potassium (K)	2008/09/16	<0.05		mg/L	
		Dissolved Sodium (Na)	2008/09/16	<0.05		mg/L	
		Dissolved Sulphur (S)	2008/09/16	<3		mg/L	
	RPD [L48625-01]	Dissolved Calcium (Ca)	2008/09/16	2.8		%	25
		Dissolved Magnesium (Mg)	2008/09/16	2.8		%	25
		Dissolved Potassium (K)	2008/09/16	3.1		%	25
		Dissolved Sodium (Na)	2008/09/16	2.2		%	25
		Dissolved Sulphur (S)	2008/09/16	NC		%	25
2577305 AA1	BLANK	Total Calcium (Ca)	2008/09/16	<0.05		mg/L	
		Total Magnesium (Mg)	2008/09/16	<0.05		mg/L	
		Total Potassium (K)	2008/09/16	<0.05		mg/L	
		Total Sodium (Na)	2008/09/16	<0.05		mg/L	
		Total Sulphur (S)	2008/09/16	<3		mg/L	
	RPD	Total Calcium (Ca)	2008/09/16	0.8		%	25
		Total Magnesium (Mg)	2008/09/16	2.2		%	25
		Total Potassium (K)	2008/09/16	1.2		%	25
		Total Sodium (Na)	2008/09/16	0.3		%	25
		Total Sulphur (S)	2008/09/16	2.9		%	25
2579030 BB3	MATRIX SPIKE	Dissolved Sulphate (SO4)	2008/09/16		NC	%	75 - 125
	SPIKE	Dissolved Sulphate (SO4)	2008/09/16		92	%	80 - 120
	BLANK	Dissolved Sulphate (SO4)	2008/09/16	0.6, RDL=0.5		mg/L	
	RPD	Dissolved Sulphate (SO4)	2008/09/16	NC		%	20
2582405 WR1	SPIKE	Total Suspended Solids	2008/09/17		104	%	N/A
	BLANK	Total Suspended Solids	2008/09/17	<1		mg/L	
2586837 BB3	MATRIX SPIKE	Ammonia (N)	2008/09/18		106	%	80 - 120
	SPIKE	Ammonia (N)	2008/09/18		115	%	80 - 120
	BLANK	Ammonia (N)	2008/09/18	<0.01		mg/L	
	RPD	Ammonia (N)		TBA		%	25

N/A = Not Applicable
TBA = Result to follow
NC = Non-calculable
RPD = Relative Percent Difference

APPENDIX C

SEDIMENT GEOCHEMISTRY DATA

AUGUST AND SEPTEMBER, 2008

Maxxam Job #: A844444
Report Date: 2008/09/12

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)

Sampler Initials: BB

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		L37047	L37048	L37049	L37050		
Sampling Date		2008/08/25 11:00	2008/08/25 11:00	2008/08/25 11:00	2008/08/25 11:00		
COC Number		F109289	F109289	F109289	F109289		
	Units	**R1-A**	**R1-B**	**R1-C**	**X2-A**	**RDL**	**QC Batch**
Parameter							
Special Analysis	N/A	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	N/A	2572334

RDL = Reportable Detection Limit

Maxxam ID		L37051	L37052		
Sampling Date		2008/08/25 11:00	2008/08/25 11:00		
COC Number		F109289	F109289		
	Units	**X2-B**	**X2-C**	**RDL**	**QC Batch**
Parameter					
Special Analysis	N/A	SEE NOTES	SEE NOTES	N/A	2572334

RDL = Reportable Detection Limit

Maxxam Job #: A844444
Report Date: 2008/09/12

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)

Sampler Initials: BB

RESULTS OF CHEMICAL ANALYSES OF WATER

Maxxam ID		L37044	L37045	L37046		
Sampling Date		2008/08/25 10:30	2008/08/25 12:30	2008/08/25 14:30		
COC Number		F109289	F109289	F109289		
	Units	**R-1 ROSE CR U/S**	**R-2 ROSE CR NEAR X-14**	**X-2 NORTH FORK @ RD**	**RDL**	**QC Batch**
Preparation						
Filter and HNO3 Preservation	N/A	FIELD	FIELD	FIELD	N/A	ONSITE
Misc. Inorganics						
Alkalinity (Total as CaCO3)	mg/L	44	59	44	0.5	2546249
Alkalinity (PP as CaCO3)	mg/L	<0.5	<0.5	<0.5	0.5	2546249
Bicarbonate (HCO3)	mg/L	54	72	54	0.5	2546249
Carbonate (CO3)	mg/L	<0.5	<0.5	<0.5	0.5	2546249
Hydroxide (OH)	mg/L	<0.5	<0.5	<0.5	0.5	2546249
Anions						
Dissolved Sulphate (SO4)	mg/L	8.1	23	8.1	0.5	2550978
Nutrients						
Ammonia (N)	mg/L	<0.005	<0.005	<0.005	0.005	2545506
Physical Properties						
Conductivity	uS/cm	100	170	110	1	2546300
pH	pH Units	7.8	7.9	7.7		2546325
Physical Properties						
Total Suspended Solids	mg/L	18	45	30	1	2544471

RDL = Reportable Detection Limit

Maxxam Job #: A844444
Report Date: 2008/09/12

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)

Sampler Initials: BB

CSR/CCME METALS - SOIL (SOIL)

Maxxam ID		L37047	L37048	L37049		
Sampling Date		2008/08/25 11:00	2008/08/25 11:00	2008/08/25 11:00		
COC Number		F109289	F109289	F109289		
	Units	**R1-A**	**R1-B**	**R1-C**	**RDL**	**QC Batch**
Misc. Inorganics						
Soluble (2:1) pH	pH Units	6.84	6.77	7.03	0.01	2555034
Total Metals by ICPMS						
Total Aluminum (Al)	mg/kg	17800	19400	20100	100	2553466
Total Antimony (Sb)	mg/kg	1.6	1.6	1.7	0.1	2553466
Total Arsenic (As)	mg/kg	31.6	35.5	33.5	0.2	2553466
Total Barium (Ba)	mg/kg	343	388	377	0.1	2553466
Total Beryllium (Be)	mg/kg	1.2	1.1	1.2	0.1	2553466
Total Bismuth (Bi)	mg/kg	1.2	1.2	1.1	0.1	2553466
Total Cadmium (Cd)	mg/kg	2.78	2.79	2.93	0.05	2553466
Total Calcium (Ca)	mg/kg	6960	7040	7480	100	2553466
Total Chromium (Cr)	mg/kg	44	49	52	1	2553466
Total Cobalt (Co)	mg/kg	21.2	26.1	25.2	0.3	2553466
Total Copper (Cu)	mg/kg	50.2	51.4	53.0	0.5	2553466
Total Iron (Fe)	mg/kg	43100	47700	47400	100	2553466
Total Lead (Pb)	mg/kg	347	365	360	0.1	2553466
Total Magnesium (Mg)	mg/kg	7850	8490	8890	100	2553466
Total Manganese (Mn)	mg/kg	2400	3190	3500	0.2	2553466
Total Mercury (Hg)	mg/kg	0.27	0.27	0.27	0.05	2553466
Total Molybdenum (Mo)	mg/kg	2.3	2.3	2.6	0.1	2553466
Total Nickel (Ni)	mg/kg	54.0	62.3	60.8	0.8	2553466
Total Phosphorus (P)	mg/kg	983	957	965	10	2553466
Total Potassium (K)	mg/kg	2200	2300	2320	100	2553466
Total Selenium (Se)	mg/kg	1.2	1.1	1.4	0.5	2553466
Total Silver (Ag)	mg/kg	0.77	0.84	0.82	0.05	2553466
Total Sodium (Na)	mg/kg	279	285	294	100	2553466
Total Strontium (Sr)	mg/kg	49.8	52.6	53.8	0.1	2553466
Total Thallium (Tl)	mg/kg	0.42	0.43	0.42	0.05	2553466
Total Tin (Sn)	mg/kg	1.3	1.5	1.7	0.1	2553466
Total Titanium (Ti)	mg/kg	496	522	530	1	2553466
Total Vanadium (V)	mg/kg	44	48	48	2	2553466
Total Zinc (Zn)	mg/kg	858	991	911	1	2553466
Total Zirconium (Zr)	mg/kg	0.8	0.9	0.9	0.5	2553466

RDL = Reportable Detection Limit

Maxxam Job #: A844444
Report Date: 2008/09/12

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)

Sampler Initials: BB

CSR/CCME METALS - SOIL (SOIL)

Maxxam ID		L37050	L37051	L37052		
Sampling Date		2008/08/25 11:00	2008/08/25 11:00	2008/08/25 11:00		
COC Number		F109289	F109289	F109289		
	Units	**X2-A**	**X2-B**	**X2-C**	**RDL**	**QC Batch**
Misc. Inorganics						
Soluble (2:1) pH	pH Units	7.06	7.09	6.91	0.01	2555034
Total Metals by ICPMS						
Total Aluminum (Al)	mg/kg	11100	15900	15400	100	2553466
Total Antimony (Sb)	mg/kg	2.0	3.7	2.4	0.1	2553466
Total Arsenic (As)	mg/kg	52.2	54.6	52.2	0.2	2553466
Total Barium (Ba)	mg/kg	202	404	305	0.1	2553466
Total Beryllium (Be)	mg/kg	0.7	1.0	0.9	0.1	2553466
Total Bismuth (Bi)	mg/kg	1.1	1.3	3.3	0.1	2553466
Total Cadmium (Cd)	mg/kg	0.76	2.52	1.31	0.05	2553466
Total Calcium (Ca)	mg/kg	4800	5810	5410	100	2553466
Total Chromium (Cr)	mg/kg	31	47	40	1	2553466
Total Cobalt (Co)	mg/kg	16.6	20.3	20.8	0.3	2553466
Total Copper (Cu)	mg/kg	52.2	78.7	60.0	0.5	2553466
Total Iron (Fe)	mg/kg	35400	45900	43300	100	2553466
Total Lead (Pb)	mg/kg	1000	1090	717	0.1	2553466
Total Magnesium (Mg)	mg/kg	5030	7660	6970	100	2553466
Total Manganese (Mn)	mg/kg	618	1180	1410	0.2	2553466
Total Mercury (Hg)	mg/kg	0.39	0.56	0.54	0.05	2553466
Total Molybdenum (Mo)	mg/kg	2.4	2.5	1.9	0.1	2553466
Total Nickel (Ni)	mg/kg	37.2	48.6	41.8	0.8	2553466
Total Phosphorus (P)	mg/kg	1180	964	979	10	2553466
Total Potassium (K)	mg/kg	1540	2200	2090	100	2553466
Total Selenium (Se)	mg/kg	<0.5	0.6	<0.5	0.5	2553466
Total Silver (Ag)	mg/kg	1.33	2.31	1.58	0.05	2553466
Total Sodium (Na)	mg/kg	196	237	245	100	2553466
Total Strontium (Sr)	mg/kg	32.7	37.3	39.0	0.1	2553466
Total Thallium (Tl)	mg/kg	0.33	0.69	0.50	0.05	2553466
Total Tin (Sn)	mg/kg	1.1	2.3	1.7	0.1	2553466
Total Titanium (Ti)	mg/kg	375	430	485	1	2553466
Total Vanadium (V)	mg/kg	35	39	40	2	2553466
Total Zinc (Zn)	mg/kg	413	1080	572	1	2553466
Total Zirconium (Zr)	mg/kg	1.5	0.9	1.3	0.5	2553466

RDL = Reportable Detection Limit

Maxxam Job #: A844444
Report Date: 2008/09/12

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)

Sampler Initials: BB

RESULTS OF CHEMICAL ANALYSES OF SOIL Comments

Sample L37047-01 GS Special Analysis: 100 mesh sieve is performed on the sample

Sample L37048-01 GS Special Analysis: 100 mesh sieve is performed on the sample

Sample L37049-01 GS Special Analysis: 100 mesh sieve is performed on the sample

Sample L37050-01 GS Special Analysis: 100 mesh sieve is performed on the sample

Sample L37051-01 GS Special Analysis: 100 mesh sieve is performed on the sample

Sample L37052-01 GS Special Analysis: 100 mesh sieve is performed on the sample

CSR/CCME METALS - SOIL (SOIL) Comments

Sample L37047-01 Elements by ICPMS (total): < 100 mesh

Sample L37048-01 Elements by ICPMS (total): < 100 mesh

Sample L37049-01 Elements by ICPMS (total): < 100 mesh

Sample L37050-01 Elements by ICPMS (total): < 100 mesh

Sample L37051-01 Elements by ICPMS (total): < 100 mesh

Sample L37052-01 Elements by ICPMS (total): < 100 mesh

Results relate only to the items tested.

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)
P.O. #:
Site Reference:

Quality Assurance Report (Continued)

Maxxam Job Number: VA844444

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2553466 DJ	QC STANDARD	Total Aluminum (Al)	2008/09/05		93	%	75 - 125
		Total Antimony (Sb)	2008/09/05		108	%	75 - 125
		Total Arsenic (As)	2008/09/05		97	%	75 - 125
		Total Barium (Ba)	2008/09/05		106	%	75 - 125
		Total Bismuth (Bi)	2008/09/05		91	%	75 - 125
		Total Cadmium (Cd)	2008/09/05		93	%	75 - 125
		Total Calcium (Ca)	2008/09/05		100	%	75 - 125
		Total Chromium (Cr)	2008/09/05		91	%	75 - 125
		Total Cobalt (Co)	2008/09/05		101	%	75 - 125
		Total Copper (Cu)	2008/09/05		95	%	75 - 125
		Total Iron (Fe)	2008/09/05		96	%	75 - 125
		Total Lead (Pb)	2008/09/05		102	%	75 - 125
		Total Magnesium (Mg)	2008/09/05		96	%	75 - 125
		Total Manganese (Mn)	2008/09/05		99	%	75 - 125
		Total Molybdenum (Mo)	2008/09/05		103	%	75 - 125
		Total Nickel (Ni)	2008/09/05		99	%	75 - 125
		Total Phosphorus (P)	2008/09/05		98	%	75 - 125
		Total Silver (Ag)	2008/09/05		96	%	75 - 125
		Total Strontium (Sr)	2008/09/05		96	%	75 - 125
		Total Thallium (Tl)	2008/09/05		88	%	75 - 125
		Total Titanium (Ti)	2008/09/05		97	%	75 - 125
		Total Vanadium (V)	2008/09/05		94	%	75 - 125
		Total Zinc (Zn)	2008/09/05		93	%	75 - 125
	SPIKE	Total Arsenic (As)	2008/09/05		113	%	75 - 125
		Total Beryllium (Be)	2008/09/05		107	%	75 - 125
		Total Cadmium (Cd)	2008/09/05		109	%	75 - 125
		Total Chromium (Cr)	2008/09/05		99	%	75 - 125
		Total Cobalt (Co)	2008/09/05		105	%	75 - 125
		Total Copper (Cu)	2008/09/05		109	%	75 - 125
		Total Lead (Pb)	2008/09/05		103	%	75 - 125
		Total Mercury (Hg)	2008/09/05		100	%	75 - 125
		Total Nickel (Ni)	2008/09/05		105	%	75 - 125
		Total Selenium (Se)	2008/09/05		114	%	75 - 125
		Total Vanadium (V)	2008/09/05		100	%	75 - 125
		Total Zinc (Zn)	2008/09/05		118	%	75 - 125
	BLANK	Total Aluminum (Al)	2008/09/05	<100		mg/kg	
		Total Antimony (Sb)	2008/09/05	<0.1		mg/kg	
		Total Arsenic (As)	2008/09/05	<0.2		mg/kg	
		Total Barium (Ba)	2008/09/05	0.1, RDL=0.1		mg/kg	
		Total Beryllium (Be)	2008/09/05	<0.1		mg/kg	
		Total Bismuth (Bi)	2008/09/05	<0.1		mg/kg	
		Total Cadmium (Cd)	2008/09/05	<0.05		mg/kg	
		Total Calcium (Ca)	2008/09/05	<100		mg/kg	
		Total Chromium (Cr)	2008/09/05	<1		mg/kg	
		Total Cobalt (Co)	2008/09/05	<0.3		mg/kg	
		Total Copper (Cu)	2008/09/05	<0.5		mg/kg	
		Total Iron (Fe)	2008/09/05	<100		mg/kg	
		Total Lead (Pb)	2008/09/05	<0.1		mg/kg	
		Total Magnesium (Mg)	2008/09/05	<100		mg/kg	
		Total Manganese (Mn)	2008/09/05	<0.2		mg/kg	
		Total Mercury (Hg)	2008/09/05	<0.05		mg/kg	
		Total Molybdenum (Mo)	2008/09/05	<0.1		mg/kg	
		Total Nickel (Ni)	2008/09/05	<0.8		mg/kg	
		Total Phosphorus (P)	2008/09/05	<10		mg/kg	
		Total Potassium (K)	2008/09/05	<100		mg/kg	

LABERGE ENVIRONMENTAL SERVICES
Attention: Bonnie Burns
Client Project #: FARO CLOSURE OFFICE (ROSE CR.)
P.O. #:
Site Reference:

Quality Assurance Report (Continued)

Maxxam Job Number: VA844444

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2553466 DJ	BLANK	Total Selenium (Se)	2008/09/05	<0.5		mg/kg	
		Total Silver (Ag)	2008/09/05	<0.05		mg/kg	
		Total Sodium (Na)	2008/09/05	<100		mg/kg	
		Total Strontium (Sr)	2008/09/05	<0.1		mg/kg	
		Total Thallium (Tl)	2008/09/05	<0.05		mg/kg	
		Total Tin (Sn)	2008/09/05	<0.1		mg/kg	
		Total Titanium (Ti)	2008/09/05	<1		mg/kg	
		Total Vanadium (V)	2008/09/05	<2		mg/kg	
		Total Zinc (Zn)	2008/09/05	<1		mg/kg	
		Total Zirconium (Zr)	2008/09/05	<0.5		mg/kg	
	RPD	Total Aluminum (Al)	2008/09/05	7.1		%	35
		Total Antimony (Sb)	2008/09/05	NC		%	35
		Total Arsenic (As)	2008/09/05	NC		%	35
		Total Barium (Ba)	2008/09/05	3.8		%	35
		Total Beryllium (Be)	2008/09/05	NC		%	35
		Total Bismuth (Bi)	2008/09/05	NC		%	35
		Total Cadmium (Cd)	2008/09/05	NC		%	35
		Total Calcium (Ca)	2008/09/05	2.8		%	35
		Total Chromium (Cr)	2008/09/05	1.2		%	35
		Total Cobalt (Co)	2008/09/05	3.7		%	35
		Total Copper (Cu)	2008/09/05	6.0		%	35
		Total Iron (Fe)	2008/09/05	1.1		%	35
		Total Lead (Pb)	2008/09/05	2.6		%	35
		Total Magnesium (Mg)	2008/09/05	3.7		%	35
		Total Manganese (Mn)	2008/09/05	2.6		%	35
		Total Mercury (Hg)	2008/09/05	NC		%	35
		Total Molybdenum (Mo)	2008/09/05	NC		%	35
		Total Nickel (Ni)	2008/09/05	2.4		%	35
		Total Phosphorus (P)	2008/09/05	6.5		%	35
		Total Potassium (K)	2008/09/05	1.6		%	35
		Total Selenium (Se)	2008/09/05	NC		%	35
		Total Silver (Ag)	2008/09/05	NC		%	35
		Total Sodium (Na)	2008/09/05	2.2		%	35
		Total Strontium (Sr)	2008/09/05	1.4		%	35
		Total Thallium (Tl)	2008/09/05	NC		%	35
		Total Tin (Sn)	2008/09/05	NC		%	35
		Total Titanium (Ti)	2008/09/05	1.5		%	35
		Total Vanadium (V)	2008/09/05	1.8		%	35
		Total Zinc (Zn)	2008/09/05	1.2		%	35
		Total Zirconium (Zr)	2008/09/05	NC		%	35
2555034 MM3	SPIKE	Soluble (2:1) pH	2008/09/06		100	%	N/A
	RPD	Soluble (2:1) pH	2008/09/06	0.1		%	20

N/A = Not Applicable
NC = Non-calculable
RPD = Relative Percent Difference

A8444444

Maxxam Analytics Inc
8577 Commerce Court
Burnaby, BC V5A 4N5
www.maxxamanalytics.com

Phone: (604) 444-4808
Fax: (604) 444-4511
Toll Free: 1-800-440-4808

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST PAGE 1 OF 1

ANALYSIS REQUEST F109289

COMPANY NAME: Laberge Environmental Services	PH #: 867-668-6838 E-mail: bonnie.burns@northwestel.net FAX #: 867-667-6956
COMPANY ADDRESS: PO Box 21072 Whitehorse, Yukon Y1A 6P7	CLIENT PROJECT ID: (#) FARO CLOSURE OFFICE (ROSE CR. BENTHICS)
SAMPLER NAME (PRINT): BONNIE BURNS	PROJECT MANAGER: BONNIE BURNS

	FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE DD/MM/YY	SAMPLING: TIME	SAMPLING: HEADSPACE VAPOUR	Alkalinity	Sulphate	TSS	Ammonia	Total Hardness (As CaCO3)	Dissolved metals - CCME	Total metals - CCME	pH & conductivity	Dry & sieve thru a 100 mesh (0.15 mm)	Stainless sieve & perform total method analysis on portion that passes the 100 no.
1	R-1 Rose Cr. mouth		✓			5	25/08/08	10:30		✓	✓	✓	✓	✓	✓	✓	✓		
2	R-2 Rose Cr. near X-1		✓			5	25/08/08	12:30		✓	✓	✓	✓	✓	✓	✓	✓		
3	X-2 North Fork Rd		✓			5	25/08/08	14:30		✓	✓	✓	✓	✓	✓	✓	✓		
4	R1-A			✓		1	25/08/08	11:00										✓	
5	R1-B			✓		1	25/08/08	12:00										✓	
6	R1-C			✓		1	25/08/08	12:00										✓	
7	X2-A			✓		1	25/08/08	11:00										✓	
8	X2-B			✓		1	25/08/08	11:00										✓	
9	X2-C			✓		1	25/08/08	11:00										✓	
10																			
11	NOTE: Due to severe weather conditions the helicopter access sites could not be																		
12	completed. The testing of the samples will hopefully be done next week. RB																		

TAT (Turnaround Time)
<5 DAY TAT MUST HAVE PRIOR APPROVAL
*some exceptions apply please contact lab
STANDARD 5 BUSINESS DAYS ☐
RUSH 3 BUSINESS DAYS ☐
RUSH 2 BUSINESS DAYS ☐
URGENT 1 BUSINESS DAY ☐
OTHER BUSINESS DAYS _____

CUSTODY RECORD

P.O. NUMBER / QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE: Receiving waters - ultra low detection limits

☑ CCME ☐ CSR ☐ ALBERTA TIER 1 ☐ OTHER

ACCOUNTING CONTACT: Laberge Environmental Services

SPECIAL REPORTING OR BILLING INSTRUCTIONS: - Samples were filtered + preserved in the field.

JARS USED:

ARRIVAL TEMPERATURE °C: 8, 8, 4

DUE DATE:

LOG IN CHECK:

RELINQUISHED BY SAMPLER:	DATE: DD/MM/YY	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE: DD/MM/YY 28/08/08	TIME: 13:30	RECEIVED BY LABORATORY: JA

COCFORM - BC - 06/06

ORIGINAL - MAXXAM YELLOW - MAXXAM PINK - CLIENT

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

RESULTS OF CHEMICAL ANALYSES OF SOIL

Maxxam ID		L48581	L48592	L48594	L48596	L48598		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109290	F109290	F109290	F109290	F109290		
	Units	**R2-A**	**R2-B**	**R2-C**	**R3-A**	**R3-B**	**RDL**	**QC Batch**
Parameter								
Special Analysis	N/A	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	N/A	2562293

RDL = Reportable Detection Limit

Maxxam ID		L48601	L48603	L48605	L48608	L48611		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109290	F109290	F109291	F109291	F109291		
	Units	**R3-C**	**R4-A**	**R4-B**	**R4-C**	**R5-A**	**RDL**	**QC Batch**
Parameter								
Special Analysis	N/A	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	N/A	2562293

RDL = Reportable Detection Limit

Maxxam ID		L48613	L48614	L48616	L48618	L48619		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109291	F109291	F109291	F109291	F109291		
	Units	**R5-B**	**R5-C**	**R6-A**	**R6-B**	**R6-C**	**RDL**	**QC Batch**
Parameter								
Special Analysis	N/A	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	SEE NOTES	N/A	2562293

RDL = Reportable Detection Limit

Maxxam ID		L48620	L48621	L48623		
Sampling Date		2008/09/04	2008/09/04	2008/09/04		
COC Number		F109291	F109291	F109291		
	Units	**R7-A**	**R7-B**	**R7-C**	**RDL**	**QC Batch**
Parameter						
Special Analysis	N/A	SEE NOTES	SEE NOTES	SEE NOTES	N/A	2562293

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

CSR/CCME METALS - SOIL (SOIL)

Maxxam ID		L48581	L48592	L48594	L48596		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109290	F109290	F109290	F109290		
	Units	**R2-A**	**R2-B**	**R2-C**	**R3-A**	**RDL**	**QC Batch**
Misc. Inorganics							
Soluble (2:1) pH	pH Units	7.17	7.40	7.19	7.29	0.01	2566053
Total Metals by ICPMS							
Total Aluminum (Al)	mg/kg	13400	11400	12800	11600	100	2569724
Total Antimony (Sb)	mg/kg	1.5	1.3	1.6	1.2	0.1	2569724
Total Arsenic (As)	mg/kg	19.7	17.2	18.2	13.4	0.2	2569724
Total Barium (Ba)	mg/kg	410	292	356	347	0.1	2569724
Total Beryllium (Be)	mg/kg	0.5	0.5	0.6	0.6	0.1	2569724
Total Bismuth (Bi)	mg/kg	0.4	0.3	0.3	0.3	0.1	2569724
Total Cadmium (Cd)	mg/kg	0.88	0.62	0.78	0.76	0.05	2569724
Total Calcium (Ca)	mg/kg	7270	6420	7080	6400	100	2569724
Total Chromium (Cr)	mg/kg	36	31	35	29	1	2569724
Total Cobalt (Co)	mg/kg	16.8	13.9	15.9	16.7	0.3	2569724
Total Copper (Cu)	mg/kg	55.0	38.8	48.0	39.0	0.5	2569724
Total Iron (Fe)	mg/kg	30900	27600	31200	26500	100	2569724
Total Lead (Pb)	mg/kg	163	149	168	136	0.1	2569724
Total Magnesium (Mg)	mg/kg	7140	6230	6810	5770	100	2569724
Total Manganese (Mn)	mg/kg	2660	1460	2290	5150	0.2	2569724
Total Mercury (Hg)	mg/kg	0.17	0.13	0.16	0.13	0.05	2569724
Total Molybdenum (Mo)	mg/kg	1.7	1.2	1.6	1.3	0.1	2569724
Total Nickel (Ni)	mg/kg	42.0	34.0	38.8	35.7	0.8	2569724
Total Phosphorus (P)	mg/kg	987	1160	1040	969	10	2569724
Total Potassium (K)	mg/kg	1060	898	1000	1010	100	2569724
Total Selenium (Se)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	2569724
Total Silver (Ag)	mg/kg	0.45	0.47	0.47	0.35	0.05	2569724
Total Sodium (Na)	mg/kg	232	221	239	234	100	2569724
Total Strontium (Sr)	mg/kg	44.3	40.5	44.5	42.2	0.1	2569724
Total Thallium (Tl)	mg/kg	0.25	0.24	0.26	0.29	0.05	2569724
Total Tin (Sn)	mg/kg	0.8	0.6	0.7	0.7	0.1	2569724
Total Titanium (Ti)	mg/kg	293	278	293	305	1	2569724
Total Vanadium (V)	mg/kg	35	30	33	30	2	2569724
Total Zinc (Zn)	mg/kg	413	317	377	405	1	2569724
Total Zirconium (Zr)	mg/kg	1.2	1.1	1.0	0.9	0.5	2569724

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

CSR/CCME METALS - SOIL (SOIL)

Maxxam ID		L48598	L48601	L48603	L48605		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109290	F109290	F109290	F109291		
	Units	**R3-B**	**R3-C**	**R4-A**	**R4-B**	**RDL**	**QC Batch**
Misc. Inorganics							
Soluble (2:1) pH	pH Units	7.24	7.39	7.42	7.45	0.01	2566053
Total Metals by ICPMS							
Total Aluminum (Al)	mg/kg	12100	11600	9930	9640	100	2569724
Total Antimony (Sb)	mg/kg	1.8	1.1	0.9	1.0	0.1	2569724
Total Arsenic (As)	mg/kg	22.4	14.5	12.3	10.5	0.2	2569724
Total Barium (Ba)	mg/kg	579	305	293	353	0.1	2569724
Total Beryllium (Be)	mg/kg	0.6	0.5	0.3	0.3	0.1	2569724
Total Bismuth (Bi)	mg/kg	0.5	0.3	0.2	0.2	0.1	2569724
Total Cadmium (Cd)	mg/kg	0.78	0.50	0.41	0.36	0.05	2569724
Total Calcium (Ca)	mg/kg	6080	6240	4890	4990	100	2569724
Total Chromium (Cr)	mg/kg	29	28	32	30	1	2569724
Total Cobalt (Co)	mg/kg	18.4	15.0	11.0	10.7	0.3	2569724
Total Copper (Cu)	mg/kg	73.9	34.6	28.4	28.5	0.5	2569724
Total Iron (Fe)	mg/kg	30700	25600	19900	20100	100	2569724
Total Lead (Pb)	mg/kg	345	126	63.5	78.1	0.1	2569724
Total Magnesium (Mg)	mg/kg	5820	5820	6410	6290	100	2569724
Total Manganese (Mn)	mg/kg	5140	3370	1940	1460	0.2	2569724
Total Mercury (Hg)	mg/kg	0.26	0.12	0.05	0.07	0.05	2569724
Total Molybdenum (Mo)	mg/kg	1.5	1.2	1.2	1.1	0.1	2569724
Total Nickel (Ni)	mg/kg	35.5	30.5	32.6	31.4	0.8	2569724
Total Phosphorus (P)	mg/kg	925	1080	914	1030	10	2569724
Total Potassium (K)	mg/kg	1120	1020	809	766	100	2569724
Total Selenium (Se)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	2569724
Total Silver (Ag)	mg/kg	0.77	0.35	0.23	0.24	0.05	2569724
Total Sodium (Na)	mg/kg	233	251	186	194	100	2569724
Total Strontium (Sr)	mg/kg	42.3	42.5	31.7	31.6	0.1	2569724
Total Thallium (Tl)	mg/kg	0.38	0.24	0.16	0.17	0.05	2569724
Total Tin (Sn)	mg/kg	0.9	0.7	0.5	0.5	0.1	2569724
Total Titanium (Ti)	mg/kg	333	315	258	263	1	2569724
Total Vanadium (V)	mg/kg	30	29	33	32	2	2569724
Total Zinc (Zn)	mg/kg	556	312	198	198	1	2569724
Total Zirconium (Zr)	mg/kg	0.9	0.8	0.9	0.7	0.5	2569724

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

CSR/CCME METALS - SOIL (SOIL)

Maxxam ID		L48608	L48611	L48613	L48614		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109291	F109291	F109291	F109291		
	Units	**R4-C**	**R5-A**	**R5-B**	**R5-C**	**RDL**	**QC Batch**
Misc. Inorganics							
Soluble (2:1) pH	pH Units	7.52	7.43	7.60	7.57	0.01	2566053
Total Metals by ICPMS							
Total Aluminum (Al)	mg/kg	9020	14700	14400	13200	100	2569724
Total Antimony (Sb)	mg/kg	0.8	1.9	1.8	1.8	0.1	2569724
Total Arsenic (As)	mg/kg	9.1	10.6	11.3	10.9	0.2	2569724
Total Barium (Ba)	mg/kg	238	208	204	196	0.1	2569724
Total Beryllium (Be)	mg/kg	0.3	0.6	0.6	0.6	0.1	2569724
Total Bismuth (Bi)	mg/kg	0.2	0.3	0.2	0.2	0.1	2569724
Total Cadmium (Cd)	mg/kg	0.34	0.88	0.80	0.80	0.05	2569724
Total Calcium (Ca)	mg/kg	4590	5960	5840	5400	100	2569724
Total Chromium (Cr)	mg/kg	30	35	33	31	1	2569724
Total Cobalt (Co)	mg/kg	9.4	13.4	12.8	12.0	0.3	2569724
Total Copper (Cu)	mg/kg	22.3	35.4	34.0	32.8	0.5	2569724
Total Iron (Fe)	mg/kg	17700	28000	26000	25900	100	2569724
Total Lead (Pb)	mg/kg	50.8	19.9	18.5	17.5	0.1	2569724
Total Magnesium (Mg)	mg/kg	6040	7790	7740	6900	100	2569724
Total Manganese (Mn)	mg/kg	1270	509	420	443	0.2	2569724
Total Mercury (Hg)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	2569724
Total Molybdenum (Mo)	mg/kg	1.0	2.2	2.2	2.2	0.1	2569724
Total Nickel (Ni)	mg/kg	29.6	40.7	39.1	36.3	0.8	2569724
Total Phosphorus (P)	mg/kg	988	1180	1200	1160	10	2569724
Total Potassium (K)	mg/kg	688	1040	1020	900	100	2569724
Total Selenium (Se)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	2569724
Total Silver (Ag)	mg/kg	0.20	0.30	0.28	0.29	0.05	2569724
Total Sodium (Na)	mg/kg	163	184	183	168	100	2569724
Total Strontium (Sr)	mg/kg	28.9	33.5	32.7	29.8	0.1	2569724
Total Thallium (Tl)	mg/kg	0.12	0.22	0.20	0.19	0.05	2569724
Total Tin (Sn)	mg/kg	0.5	0.6	0.7	0.6	0.1	2569724
Total Titanium (Ti)	mg/kg	228	402	382	348	1	2569724
Total Vanadium (V)	mg/kg	30	63	61	57	2	2569724
Total Zinc (Zn)	mg/kg	155	163	153	145	1	2569724
Total Zirconium (Zr)	mg/kg	0.7	1.2	1.1	1.0	0.5	2569724

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

CSR/CCME METALS - SOIL (SOIL)

Maxxam ID		L48616	L48618	L48619	L48620		
Sampling Date		2008/09/04	2008/09/04	2008/09/04	2008/09/04		
COC Number		F109291	F109291	F109291	F109291		
	Units	**R6-A**	**R6-B**	**R6-C**	**R7-A**	**RDL**	**QC Batch**
Misc. Inorganics							
Soluble (2:1) pH	pH Units	7.49	7.66	7.50	6.99	0.01	2566053
Total Metals by ICPMS							
Total Aluminum (Al)	mg/kg	14200	13500	12400	9660	100	2569724
Total Antimony (Sb)	mg/kg	0.9	0.8	0.7	0.4	0.1	2569724
Total Arsenic (As)	mg/kg	7.0	6.9	6.2	5.6	0.2	2569724
Total Barium (Ba)	mg/kg	185	183	165	126	0.1	2569724
Total Beryllium (Be)	mg/kg	0.5	0.5	0.4	0.5	0.1	2569724
Total Bismuth (Bi)	mg/kg	0.2	0.2	0.2	0.2	0.1	2569724
Total Cadmium (Cd)	mg/kg	0.66	0.56	0.50	0.25	0.05	2569724
Total Calcium (Ca)	mg/kg	7300	7740	7130	3890	100	2569724
Total Chromium (Cr)	mg/kg	34	34	31	17	1	2569724
Total Cobalt (Co)	mg/kg	11.0	11.3	10.1	6.6	0.3	2569724
Total Copper (Cu)	mg/kg	25.0	24.0	22.0	14.0	0.5	2569724
Total Iron (Fe)	mg/kg	20500	20100	19700	16800	100	2569724
Total Lead (Pb)	mg/kg	10.8	10.7	9.8	10.5	0.1	2569724
Total Magnesium (Mg)	mg/kg	7270	7220	6710	3760	100	2569724
Total Manganese (Mn)	mg/kg	728	701	477	325	0.2	2569724
Total Mercury (Hg)	mg/kg	<0.05	<0.05	<0.05	<0.05	0.05	2569724
Total Molybdenum (Mo)	mg/kg	1.1	1.0	0.9	0.6	0.1	2569724
Total Nickel (Ni)	mg/kg	34.1	34.8	30.9	14.9	0.8	2569724
Total Phosphorus (P)	mg/kg	1040	1120	1160	880	10	2569724
Total Potassium (K)	mg/kg	1220	1160	1030	1150	100	2569724
Total Selenium (Se)	mg/kg	<0.5	<0.5	<0.5	<0.5	0.5	2569724
Total Silver (Ag)	mg/kg	0.14	0.13	0.12	0.10	0.05	2569724
Total Sodium (Na)	mg/kg	281	284	256	147	100	2569724
Total Strontium (Sr)	mg/kg	40.6	42.8	38.4	29.6	0.1	2569724
Total Thallium (Tl)	mg/kg	0.16	0.15	0.13	0.15	0.05	2569724
Total Tin (Sn)	mg/kg	0.6	0.6	0.6	0.6	0.1	2569724
Total Titanium (Ti)	mg/kg	383	364	334	319	1	2569724
Total Vanadium (V)	mg/kg	43	41	39	24	2	2569724
Total Zinc (Zn)	mg/kg	83	80	76	60	1	2569724
Total Zirconium (Zr)	mg/kg	0.9	0.9	1.0	0.7	0.5	2569724

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

CSR/CCME METALS - SOIL (SOIL)

Maxxam ID		L48621	L48623		
Sampling Date		2008/09/04	2008/09/04		
COC Number		F109291	F109291		
	Units	**R7-B**	**R7-C**	**RDL**	**QC Batch**
Misc. Inorganics					
Soluble (2:1) pH	pH Units	7.01	7.19	0.01	2566053
Total Metals by ICPMS					
Total Aluminum (Al)	mg/kg	8510	8530	100	2569724
Total Antimony (Sb)	mg/kg	0.4	0.4	0.1	2569724
Total Arsenic (As)	mg/kg	5.0	5.1	0.2	2569724
Total Barium (Ba)	mg/kg	110	112	0.1	2569724
Total Beryllium (Be)	mg/kg	0.4	0.5	0.1	2569724
Total Bismuth (Bi)	mg/kg	0.2	0.2	0.1	2569724
Total Cadmium (Cd)	mg/kg	0.21	0.22	0.05	2569724
Total Calcium (Ca)	mg/kg	3720	3840	100	2569724
Total Chromium (Cr)	mg/kg	15	16	1	2569724
Total Cobalt (Co)	mg/kg	6.2	6.2	0.3	2569724
Total Copper (Cu)	mg/kg	12.0	12.4	0.5	2569724
Total Iron (Fe)	mg/kg	15300	15500	100	2569724
Total Lead (Pb)	mg/kg	9.5	9.2	0.1	2569724
Total Magnesium (Mg)	mg/kg	3450	3310	100	2569724
Total Manganese (Mn)	mg/kg	294	338	0.2	2569724
Total Mercury (Hg)	mg/kg	<0.05	<0.05	0.05	2569724
Total Molybdenum (Mo)	mg/kg	0.5	0.5	0.1	2569724
Total Nickel (Ni)	mg/kg	13.2	13.5	0.8	2569724
Total Phosphorus (P)	mg/kg	893	932	10	2569724
Total Potassium (K)	mg/kg	1020	971	100	2569724
Total Selenium (Se)	mg/kg	<0.5	<0.5	0.5	2569724
Total Silver (Ag)	mg/kg	0.09	0.09	0.05	2569724
Total Sodium (Na)	mg/kg	143	134	100	2569724
Total Strontium (Sr)	mg/kg	27.8	27.7	0.1	2569724
Total Thallium (Tl)	mg/kg	0.13	0.13	0.05	2569724
Total Tin (Sn)	mg/kg	0.6	0.7	0.1	2569724
Total Titanium (Ti)	mg/kg	292	293	1	2569724
Total Vanadium (V)	mg/kg	22	23	2	2569724
Total Zinc (Zn)	mg/kg	53	56	1	2569724
Total Zirconium (Zr)	mg/kg	0.6	0.5	0.5	2569724

RDL = Reportable Detection Limit

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

RESULTS OF CHEMICAL ANALYSES OF SOIL Comments

Sample	L48581-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48592-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48594-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48596-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48598-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48601-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48603-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48605-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48608-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48611-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48613-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48614-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48616-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48618-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48619-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48620-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48621-01 GS Special Analysis: 100 mesh sieve was performed on the sample
Sample	L48623-01 GS Special Analysis: 100 mesh sieve was performed on the sample

CSR/CCME METALS - SOIL (SOIL) Comments

Sample	L48581-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48592-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48594-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48596-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48598-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48601-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48603-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48605-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48608-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48611-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48613-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve

Maxxam Job #: A846358
Report Date: 2008/09/19

LABERGE ENVIRONMENTAL SERVICES
Client Project #: FARO CLOSURE OFFICE

Sampler Initials: KN

Sample	L48614-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48616-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48618-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48619-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48620-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48621-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve
Sample	L48623-01 Elements by ICPMS (total): Total metals analysis on portion that passes 100 mesh sieve

Results relate only to the items tested.

Maxxam Analytics Inc
8577 Commerce Court
Burnaby, BC V5A 4N5
www.maxxamanalytics.com
Phone: (604) 444-4808
Fax: (604) 444-4511
Toll Free: 1-800-440-4808

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

A846358 ANALYSIS REQUEST F 109290

COMPANY NAME: LABERGE ENVIRONMENTAL SERVICES
PH. #: 867-668-6838
E-mail: bonnieburns@northwestel.net
FAX #: 867-667-6956
COMPANY ADDRESS: PO Box 21072 Whitehorse, YT Y1A 6P7
CLIENT PROJECT ID: (#) FARO CLOSURE OFFICE (ROSE CR. BENTHICS)
SAMPLER NAME (PRINT): KEN NORDIN
PROJECT MANAGER:

FIELD SAMPLE ID	MAXXAM LAB ID (Lab Use Only)	MATRIX: GROUND WATER	SURFACE WATER	SOIL	OTHER	# CONTAINERS	SAMPLING: DATE DD/MM/YY	TIME	HEADSPACE VAPOUR	Alkalinity	Sulphate	TSS	Ammonia	Total Hardness	Dissolved metals - ultra low detection	Total metals - ultra low detection	pH + conductivity	Dry & sieve thru a 100 mesh (0.15 mm) stainless wire & perform to 180 metre analysis on portion that passes 100 mesh sieve.								
1 R3 - midway			✓			5	04/09/08			✓	✓	✓	✓	✓	✓	✓	✓									
2 R4 - Rose Cr u/s			✓			5	"			✓	✓	✓	✓	✓	✓	✓	✓									
3 R5 - Anvil Cr d/s			✓			5	"			✓	✓	✓	✓	✓	✓	✓	✓									
4 R6 - Anvil Cr u/s			✓			5	"			✓	✓	✓	✓	✓	✓	✓	✓									
5 R7 - North Fork			✓			5	"			✓	✓	✓	✓	✓	✓	✓	✓									
6 R2-A				✓		1	"											✓								
7 R2-B				✓		1	"											✓								
8 R2-C				✓		1	"											✓								
9 R3-A				✓		1	"											✓								
10 R3-B				✓		1	"											✓								
11 R3-C				✓		1	"											✓								
12 R4-A				✓		1	"											✓								

TAT (Turnaround Time)
<5 DAY TAT MUST HAVE PRIOR APPROVAL
*some exceptions apply please contact lab
STANDARD 5 BUSINESS DAYS ☐
RUSH 3 BUSINESS DAYS ☐
RUSH 2 BUSINESS DAYS ☐
URGENT 1 BUSINESS DAY ☐
OTHER BUSINESS DAYS _____

CUSTODY RECORD

P.O. NUMBER / QUOTE NUMBER:
SPECIAL DETECTION LIMITS / CONTAMINANT TYPE: Receiving waters ultra low detection limits
☑ CCME ☐ CSR ☐ ALBERTA TIER 1 ☐ OTHER
ACCOUNTING CONTACT: Laberge Env. Serv.
SPECIAL REPORTING OR BILLING INSTRUCTIONS: Samples were filtered + preserved in field
JARS USED:
ARRIVAL TEMPERATURE °C: 7.7, 4
DUE DATE:
LOG IN CHECK:

RELINQUISHED BY SAMPLER:	DATE: DD/MM/YY	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE: DD/MM/YY	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE: SEPT 8 08 DD/MM/YY	TIME: 11:25	RECEIVED BY LABORATORY: EV

COCFORM - BC - 06/06

ORIGINAL - MAXXAM YELLOW - MAXXAM PINK - CLIENT

Maxxam Analytics Inc
8577 Commerce Court
Burnaby, BC V5A 4N5
www.maxxamanalytics.com
Phone: (604) 444-4808
Fax: (604) 444-4511
Toll Free: 1-800-440-4808

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

ANALYSIS REQUEST F109291

COMPANY NAME: Labrenz Env. Serv.
PH. #:
E-mail: bonnieburns@northwestel.net
FAX #:

COMPANY ADDRESS:

CLIENT PROJECT ID: (#)
FARO CLOSURE OFFICE
(Rose Cr. Benthics)

SAMPLER NAME (PRINT): KEN NORDIN

PROJECT MANAGER:

	FIELD SAMPLE ID	MATRIX: GROUND WATER	MATRIX: SURFACE WATER	MATRIX: SOIL	MATRIX: OTHER	# CONTAINERS	SAMPLING: DATE DD/MM/YY	SAMPLING: TIME	SAMPLING: HEADSPACE VAPOUR	Dry & sieve thru a 100 mesh (0.15mm) Stainless steel sieve & perform total meta analysis on particl that passed 100 me sieve
1	R4-B			✓		1	04/09/08			✓
2	R4-C			✓		1	"			✓
3	R5-A			✓		1	"			✓
4	R5-B			✓		1	"			✓
5	R5-C			✓		1	"			✓
6	R6-A			✓		1	"			✓
7	R6-B			✓		1	"			✓
8	R6-C			✓		1	"			✓
9	R7-A			✓		1	"			✓
10	R7-B			✓		1	"			✓
11	R7-C			✓		1	"			✓
12										

TAT (Turnaround Time)
<5 DAY TAT MUST HAVE PRIOR APPROVAL
*some exceptions apply please contact lab
STANDARD 5 BUSINESS DAYS ☐
RUSH 3 BUSINESS DAYS ☐
RUSH 2 BUSINESS DAYS ☐
URGENT 1 BUSINESS DAY ☐
OTHER BUSINESS DAYS _____

CUSTODY RECORD

P.O. NUMBER / QUOTE NUMBER:

SPECIAL DETECTION LIMITS / CONTAMINANT TYPE:

☐ CCME
☐ CSR
☐ ALBERTA TIER 1
☐ OTHER

ACCOUNTING CONTACT:

SPECIAL REPORTING OR BILLING INSTRUCTIONS:

JARS USED:

ARRIVAL TEMPERATURE °C: 7.7.6

DUE DATE:

LOG IN CHECK:

	DATE: DD/MM/YY	TIME:	
RELINQUISHED BY SAMPLER:			RECEIVED BY:
RELINQUISHED BY:			RECEIVED BY:
RELINQUISHED BY:	SEPT 8 08	11:25	RECEIVED BY LABORATORY: EV

COCFORM - BC - 06/06

ORIGINAL - MAXXAM YELLOW - MAXXAM PINK - CLIENT

APPENDIX D

BENTHIC INVERTEBRATE DATA, 2008

Sample ID:		R1-A	R1-B	R1-C	R2-C	R2-D
Portion subsampled: Fine		1/2	3/16	3/16	3/4	3/16
Portion subsampled: Coarse		1/16	1/8	1/8	1/2	1/4
PHYLUM ARTHROPODA						
Class Insecta						
Order: Ephemeroptera	larvae (dam.)					
Family: Ameletidae						
Ameletus sp.	nymph				5	
Family: Baetidae	nymph (dam./juv.)	34	40	65	53	437
Baetis sp.	nymph					
Baetis bicaudatus	nymph					
Baetis tricaudatus	nymph					4
Acentrella sp.	nymph			8		
Family: Heptageniidae	nymph (dam./juv.)				5	65
Rhithrogena sp.	nymph					
Cinygmula sp.	nymph					
Epeorus sp.	nymph				2	
Family: Ephemerellidae	nymph (dam./juv.)	4	5	15	1	20
Ephemerella sp.	nymph					
Serratella sp.	nymph					4
Drunella doddsi	nymph					
Drunella grandis	nymph					
Drunella spinifera	nymph					
Drunella coloradensis	nymph					
Order: Plecoptera	nymph (dam./juv.)	18	123	85	4	75
Family: Chloroperlidae						
Sweltsa sp.	nymph					
Suwallia sp.	nymph					
Family: Perlodidae	nymph (dam./juv.)			10	1	10
Kogotus sp.	nymph					
Skwala sp.	nymph					
Megarcys sp.	nymph					
Isoperla sp.	nymph					
Family: Perlidae	nymph (dam./juv.)					14
Family: Taeniopterygidae						
Taenionema sp.	nymph	14		20		20
Family: Nemouridae	nymph					
Zapada sp.	nymph	28	38	48	1	78
Zapada oregonensis/haysi	nymph	20		47	9	79
Zapada columbiana	nymph					
Zapada cinctipes	nymph	16		65		21
Visoka sp.	nymph					

Family: Capniidae	nymph (dam./juv.)	16		5	11	35
Order: Trichoptera	pupae					
Family: Hydropsychidae	larvae (dam./juv.)					25
Parapsyche sp.	larvae					8
Family:Glossosomatidae						
Glossosoma sp.	larvae					
Family: Rhyacophilidae						
Rhyacophila sp.	larvae		8	16	4	42
Family: Brachycentridae						
Micrasema sp.	larvae	2	5		1	
Brachycentrus sp.	larvae					
Family: Limnephilidae	larvae (dam./juv.)					5
Dicosmoecus sp.	larvae				3	16
Order: Diptera						
Order: Diptera UID	larvae	4				
Order: Diptera UID	pupae			5		
Family: Tipulidae						
Dicranota sp.	larvae					
Limnophila sp.	larvae					5
Family: Psychodidae UID	larvae					5
Pericoma sp.	larvae		16			5
Family: Ceratopogonidae						
Bezzia/Palpomyia sp.	larvae		10			4
Family: Empididae						
Chelifera/Metachela sp.	larvae				1	
Clinocera sp.	larvae		13			
Family: Simuliidae	pupae	40	38	55	3	4
Simulium sp.	larvae	10	35	55	7	20
Prosimulium sp.	larvae	26		10		5
Family: Chironomidae	larvae					
Family: Chironomidae	pupae	96	64	40	4	8
Subfamily : Orthocladiinae	larvae			265		
Corynoneura sp.	larvae				1	
Cricotopus/Orthocladius sp.	larvae	76	160	80	104	410
Diplocladius sp.	larvae		55			
Eukieferiella sp.	larvae	90	1065	884	37	75
Hydrobaenus sp.	larvae					
Rheocricotopus sp.	larvae					
Thienemanniella sp.	larvae					
Tvetenia sp.	larvae				13	35
Subfamily : Diamesinae	larvae					
Diamesa sp.	larvae	56				33

Pagastia sp.	larvae	334	325	168	60	189
Potthastia (longimana group)	larvae				3	
Subfamily Tanypodinae	larvae					
Thienemannimyia Group	larvae				15	15
Subfamily : Chironominae	larvae					
Tribe : Tanytarsini	larvae					
Micropsectra/Tanytarsus sp.	larvae				72	125
Rheotanytarsus sp.	larvae		15	40		
Stempellinella sp.	larvae					
Order: Lepidoptera	larvae					
Order: Collembola	larvae	2	30	5		
Class: Crustacea						
Order: Ostracoda					3	14
Order: Copepoda						
Class: Arachnida						
Order: Prostigmata	deutonymph	6	10	5	3	35
Order: Prostigmata	juvenile					
Order: Prostigmata UID	adult	2				
Family: Hydrozetidae	adult	4				
Family: Limnesiidae						
Limnesia	adult				4	5
Family: Hygrobatidae						
Hygrobates	adult				1	5
Family: Sperchontidae						
Sperchon	adult	2		5		15
Family: Lebertiidae						
Lebertia	adult			5		35
Family: Feltriidae						
Feltria	adult	12	25	5	1	40
Family: Arturidae						
Arturus	adult	6		15	4	30
PHYLUM ANNELIDA						
Class: Oligochaeta						
Family: Naididae		32			2	10
Class: Hirudinea						
Family: Piscicolidae						5
PHYLUM MOLLUSCA						

Class: Gastropoda					
PHYLUM NEMATODA	6	15		5	4
Total per sample	956	2095	2026	442	2094
Total per site	5077			5136	
Taxonomic Richness/Sample	27	21	27	33	44
Taxonomic Richness/Site	38			54	

R2-E	R3-A	R3-B	R3-C	R4-A	R4-B	R4-C	R5-A	R5-B	R5-C
1/8	1/8	3/16	1/8	3/8	3/16	1/4	1/2	3/4	all
1/4	1/8	1/4	1/4	1/8	1/4	1/4	1/2	1/2	1/2
					15				
668	824	532	1008	16	70	228	100	13	5
			16		8				
4									
12		4					2		
40	16	95	72	148	495	332	26	7	1
				5	15				
								2	
							2		
32	32	25	4	23	122	24	30	14	2
								2	
16									
8		15	16			4	4	4	
4									
					8		6		4
	16	25	4	18	10	8		9	1
				8	21	12	2		
				3					
8	8	10	28	21	45	8	8	4	
		4							
			4						
					5				
	8								
							8	3	
108	176	98	72	44	140	88	100	38	7
104	256	32	136	105	127	116	80	64	19
			4						
60			12	37	61	44	18	15	7
						4			

52	40	103	88	286	255	176	16	5	
						4			
20	8	10		5		8	14	13	1
16							4	6	2
						4			
		5	4						
									1
			4				2		
						4			
	8			3					
	8					4			
	8				5	4			
				3					
8	16	20	8	24	5	8	8	2	
	8		16	5		4			
				3					1
8		5	4				8	5	2
120	112	75	112	3	25	40	36	10	8
24			16				26	4	3
		4				8			
			8				2		6
144									
				5	5			2	
248	664	144	252	44	153	44	30	52	56
120	200	115	144	26	4	8	98	12	12
							86	230	117
40	152	125	96	39	45	8	44	13	15
24									

244	224	60	132	128	82	116	138	30	34
	8	5			5				
80			24						
136	136	55	248						
					19		40	22	21
					5	8			
				3	5				
					5				
							2		
84	40	5	8	11	19	4	8	4	1
	8					4			
					5				
			8		5	4			
36	16	15	4	18	14	24	28	4	2
16	16		8	5	25	8	6	3	1
64	64	35	56	10	10	12	14	5	10
24	64	25	44	13	35	16	44	21	22
12	40	20	12	13	19	4	2	2	

							6		
16	8	10	148	10	10	12	2	3	
2600	3184 7680	1676	2820	1085 4391	1902	1404	1050 2033	622	361
34	30 45	29	35	32 51	37	36	37 43	33	27

R6-A	R6-B	R6-C	R7-A	R7-B	R7-E	Total	%
1/8	1/8	3/8	1/16	1/16	1/8		
1/8	1/16	1/4	1/8	1/8	1/8		
8						**8**	**0.02**
						20	**0.04**
512	536	57	32	64	40	**5334**	**11.1**
					8	**32**	**0.07**
				8		**8**	**0.02**
						8	**0.02**
8		4				**38**	**0.08**
104	168	55	312	80	88	**2109**	**4.4**
16	8	22				**66**	**0.1**
8		3	24			**37**	**0.08**
40	8	8				**60**	**0.1**
136	80	25	120	152	136	**1002**	**2.1**
	16					**18**	**0.04**
	8					**28**	**0.06**
40	56	56				**203**	**0.4**
						4	**0.01**
						18	**0.04**
8		4				**12**	**0.02**
40	24	16		112	32	**620**	**1.3**
			16			**59**	**0.1**
						3	**0.01**
8	24	8	24	16	16	**257**	**0.5**
						4	**0.01**
						4	**0.01**
						5	**0.01**
						22	**0.05**
16	8	5		24	8	**126**	**0.3**
336	160	61	672	848	600	**3742**	**7.8**
488	424	101	328	600	152	**3288**	**6.8**
	16					**20**	**0.04**
304	280	74	440	480	336	**2270**	**4.7**
						4	**0.01**

160	96	49	224	80	312	**2010**	**4.2**
						4	**0.01**
96	32	8				**240**	**0.5**
8	32	24	16			**116**	**0.2**
	8	5			8	**25**	**0.05**
	8		8		8	**103**	**0.2**
						9	**0.02**
	8					**14**	**0.03**
						5	**0.01**
			8			**31**	**0.07**
	8					**23**	**0.05**
						17	**0.04**
				32		**49**	**0.10**
						5	**0.01**
						8	**0.02**
16	8	5	24	16	16	**205**	**0.4**
						47	**0.10**
8				8		**21**	**0.04**
						13	**0.03**
96	88	103				**459**	**1.0**
184	200	108		16	16	**1191**	**2.5**
64	72	18		80		**348**	**0.7**
			1488	1648		**3148**	**6.5**
40	48	8	24	16	16	**380**	**0.8**
64		12				**485**	**1.0**
			16			**30**	**0.06**
	56		560	448	400	**3981**	**8.3**
						55	**0.1**
152	88	31			56	**3217**	**6.7**
240			16			**689**	**1.4**
			16			**16**	**0.03**
208	104	60	536	1040	1160	**3733**	**7.8**
						113	**0.2**

152	80	40	232	240	128	**3136**	**6.5**
						21	**0.04**
						134	**0.3**
						772	**1.6**
24	16	5	192	16		**410**	**0.9**
					8	**8**	**0.02**
						13	**0.03**
						45	**0.09**
						22	**0.04**
		3				**5**	**0.01**
8		3	64	48	152	**517**	**1.1**
					8	**10**	**0.02**
				16	24	**56**	**0.1**
						14	**0.03**
			16		24	**63**	**0.1**
		3	128	32	64	**410**	**0.9**
	8	5	16		16	**173**	**0.4**
24	8	16	96	96	32	**636**	**1.3**
40	32	13	104	64	120	**736**	**1.5**
					8	**8**	**0.02**
8		3	16	56	8	**259**	**0.5**
						5	**0.01**