

Test Result Analysis Report

June 17, 2005

Sheep River sampling at Turner Valley June 7-12, 2005

BACKGROUND

Alberta Environment conducted sampling on the Sheep River in response to concerns that recent storm and flooding events introduced contamination from the Turner Valley Gas Plant into the water.

SAMPLING

The initial sampling events happened on June 7th, 10th and 12th.

On June 7th the severe flow of the river and our safety concerns restricted sampling to one collection point 300 to 500 meters downstream of the gas plant. Sampling on the 10th and 12th resulted in collections upstream (100-200 meters above the gas plant) and downstream (directly below the gas plant). Between six to eight samples were taken at each collection point.

RESULTS ANALYSIS

The focus of the testing was hydrocarbons, mercury, chromium and other metals.

Analysis of the June 7th samples indicated no hydrocarbon contamination below the gas plant site. A number of metals were at the level expected during a significant storm event. Mercury levels were within drinking water guidelines and chromium levels warranted further testing for hexavalent chromium in subsequent samples. There were low levels of polycyclic aromatic hydrocarbons (usual sources are deposition of airborne PAHs, wastewater discharge, storm water runoff).

Analysis of the June 10th samples again indicated no hydrocarbon contamination either above or below the gas plant site. The results for metals dropped dramatically, likely because the water flow had decreased. There were some very low levels of mercury above the gas plant but no mercury was detected below the gas plant. No hexavalent chromium was detected. Polycyclic aromatic hydrocarbons were at very low levels both above and below the gas plant.

Analysis of the June 12th samples again indicated no hydrocarbon contamination above or below the gas plant site. The results for metals continued to drop as the water flow decreased. No mercury or hexavalent chromium was detected above or below the gas plant. Polycyclic aromatic hydrocarbons were barely detectable.

Appendix A contains the complete test results.

NEXT STEPS

Further water sampling is planned around the Turner Valley Gas Plant site as further significant storm and flooding events occur. Additional sampling will be scheduled based on future results and activities.

**Alberta Environment Sampling of Turner Valley Gas Plant
June 7th - 12th Storm Event**

Sample Date	Sample Location	ETL Tests Requested	Result	Comments
June 7th	3-500 meters downstream of TV gas plant	BTEX, F1 & F2	none detected	no F2 (>C10-C16), Benzene, Toluene, EthylBenzene, Xylenes, F1(C6-C10), F1(BTEX)
		Mercury (total / dissolved)	total within acceptable limits 0.0008 / no dissolved detected	continue to monitor
		Metals (Total / Dissolved)	many very elevated, no concerns	monitor total Al (95.1) & speciate total Cr (0.134)
		Alberta Tier 1 & Carc PAHs	14 of 21 parameters were not detected, the remainder were at acceptably low levels	For example 0.00014 Naphthalene; 0.00004 Flourene; 0.00028 Phenanthrene; 0.00004 Pyrene
June 10th	1-200 meters upstream of TV gas plant	BTEX, F1 & F2	none detected	no F2 (>C10-C16), Benzene, Toluene, EthylBenzene, Xylenes, F1(C6-C10), F1(BTEX)
		Chromium, Hexavalent	none detected	
		Mercury (total / dissolved)	total within acceptable limits 0.0003 / no dissolved detected	
		Metals (Total / Dissolved)	no concerns	monitor total Al (17.2) & speciate total Cr (0.028)
		Alberta Tier 1 & Carc PAHs	19 of 21 parameters were not detected, the remainder were at acceptably low levels	For example 0.00003 Naphthalene; 0.00010 Phenanthrene
June 10th	directly downstream of TV gas plant	BTEX, F1 & F2	none detected	no F2 (>C10-C16), Benzene, Toluene, EthylBenzene, Xylenes, F1(C6-C10), F1(BTEX)
		Chromium, Hexavalent	none detected	
		Mercury (total / dissolved)	no total or dissolved Hg detected	
		Metals (Total / Dissolved)	no concerns	monitor total Al (20.7) & speciate total Cr (0.034)
		Alberta Tier 1 & Carc PAHs	17 of 21 parameters were not detected, the remainder were at acceptably low levels	0.00005 Naphthalene; 0.00003 Flourene; 0.00015 Phenanthrene; 0.00002 Pyrene
June 12th	1-200 meters upstream of TV gas plant	BTEX, F1 & F2	none detected	no F2 (>C10-C16), Benzene, Toluene, EthylBenzene, Xylenes, F1(C6-C10), F1(BTEX)
		Chromium, Hexavalent	none detected	
		Mercury (total / dissolved)	no total or dissolved Hg detected	
		Metals (Total / Dissolved)	no concerns	monitor total Al (14.6) & speciate total Cr (0.027)
		Alberta Tier 1 & Carc PAHs	18 of 21 parameters were not detected, the remainder were at acceptably low levels	0.00005 Naphthalene; 0.00002 Flourene; 0.00008 Phenanthrene
June 12th	directly downstream of TV gas plant	BTEX, F1 & F2	none detected	no F2 (>C10-C16), Benzene, Toluene, EthylBenzene, Xylenes, F1(C6-C10), F1(BTEX)
		Chromium, Hexavalent	none detected	
		Mercury (total / dissolved)	no total or dissolved Hg detected	
		Metals (Total / Dissolved)	no concerns	monitor total Al (13.5) & speciate total Cr (0.027)
		Alberta Tier 1 & Carc PAHs	18 of 21 parameters were not detected, the remainder were at acceptably low levels	0.00006 Naphthalene; 0.00002 Flourene; 0.00008 Phenanthrene

Appendix A
Test Results Data

PRELIMINARY RESULTS

ALBERTA ENVIRONMENT

DATE: 09-JUN-05 08:59 AM

ATTN: KEVIN PILGER

2 FL DEERFOOT SQ 2938 11 ST NE

CALGARY AB T2E 7L7

Lab Work Order #: L274998

Sampled By: NOT PROVIDED

Date Received: 07-JUN-05

Project P.O. #: NA

Project Reference: SHEEP RIVER

Comments:

RON MINKS
Director of Operations, Calgary

KELLY JONES
Client Service Specialist

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ANY REMAINING SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L274998-1 KP050607-TV								
Sample Date: 07-JUN-05								
Matrix: WATER								
BTEX, F1 (C6-C10) and F2 (>C10-C16)								
F2 (>C10-C16)	<0.05		0.05	mg/L	08-JUN-05	08-JUN-05	GVZ	R291685
BTEX and F1 (C6-C10)								
Benzene	<0.0005		0.0005	mg/L	07-JUN-05	08-JUN-05	NZL	R291015
Toluene	<0.0005		0.0005	mg/L	07-JUN-05	08-JUN-05	NZL	R291015
EthylBenzene	<0.0005		0.0005	mg/L	07-JUN-05	08-JUN-05	NZL	R291015
Xylenes	<0.0005		0.0005	mg/L	07-JUN-05	08-JUN-05	NZL	R291015
F1(C6-C10)	<0.1		0.1	mg/L	07-JUN-05	08-JUN-05	NZL	R291015
F1-BTEX	<0.1		0.1	mg/L	07-JUN-05	08-JUN-05	NZL	R291015
Total Metals								
Total Trace Metals								
Silver (Ag)	<0.005		0.005	mg/L		08-JUN-05	CLL	R291650
Aluminum (Al)	95.1		0.01	mg/L		08-JUN-05	CLL	R291650
Boron (B)	0.18		0.05	mg/L		08-JUN-05	CLL	R291650
Barium (Ba)	2.42		0.003	mg/L		08-JUN-05	CLL	R291650
Beryllium (Be)	0.005		0.002	mg/L		08-JUN-05	CLL	R291650
Cadmium (Cd)	0.002		0.001	mg/L		08-JUN-05	CLL	R291650
Cobalt (Co)	0.046		0.002	mg/L		08-JUN-05	CLL	R291650
Chromium (Cr)	0.134		0.005	mg/L		08-JUN-05	CLL	R291650
Copper (Cu)	0.124		0.001	mg/L		08-JUN-05	CLL	R291650
Molybdenum (Mo)	0.008		0.005	mg/L		08-JUN-05	CLL	R291650
Nickel (Ni)	0.143		0.002	mg/L		08-JUN-05	CLL	R291650
Lead (Pb)	0.063		0.005	mg/L		08-JUN-05	CLL	R291650
Tin (Sn)	<0.05		0.05	mg/L		08-JUN-05	CLL	R291650
Strontium (Sr)	0.499		0.002	mg/L		08-JUN-05	CLL	R291650
Titanium (Ti)	0.596		0.001	mg/L		08-JUN-05	CLL	R291650
Thallium (Tl)	<0.05		0.05	mg/L		08-JUN-05	CLL	R291650
Vanadium (V)	0.297		0.001	mg/L		08-JUN-05	CLL	R291650
Zinc (Zn)	0.757		0.001	mg/L		08-JUN-05	CLL	R291650
Total Major Metals								
Calcium (Ca)	15.3		0.5	mg/L		08-JUN-05	HAS	R291659
Potassium (K)	3.6		0.1	mg/L		08-JUN-05	HAS	R291659
Magnesium (Mg)	4.2		0.1	mg/L		08-JUN-05	HAS	R291659
Sodium (Na)	<1		1	mg/L		08-JUN-05	HAS	R291659
Iron (Fe)	10.0		0.005	mg/L		08-JUN-05	HAS	R291659
Manganese (Mn)	0.124		0.001	mg/L		08-JUN-05	HAS	R291659
Mercury (Hg)-Dissolved	<0.0002		0.0002	mg/L		08-JUN-05	CLL	R291648
Mercury (Hg)-Total	0.0008		0.0002	mg/L		08-JUN-05	CLL	R291650
AB Tier1 & Carcinogenic PAHs								
Naphthalene	0.00014		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Acenaphthylene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Acenaphthene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Fluorene	0.00004		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Phenanthrene	0.00028	RAMB	0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Anthracene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Fluoranthene	0.00002		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Pyrene	0.00004		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Benzo(c)phenanthrene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Benzo(a)anthracene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Chrysene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
7,12-Dimethylbenz(a)anthracene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L274998-1 KP050607-TV								
Sample Date: 07-JUN-05								
Matrix: WATER								
AB Tier1 & Carcinogenic PAHs								
Benzo(b)fluoranthene	0.00002		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Benzo(j)fluoranthene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Benzo(k)fluoranthene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Benzo(a)pyrene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
3-Methylcholanthrene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Indeno(1,2,3-cd)pyrene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Dibenzo(a,h)anthracene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Benzo(g,h,i)perylene	0.00003		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Dibenzo(a,h/a,i/a,l)pyrene	<0.00001		0.00001	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Surr: Nitrobenzene d5	85		42-107	%	08-JUN-05	09-JUN-05	JME	R291744
Surr: 2-Fluorobiphenyl	75		48-104	%	08-JUN-05	09-JUN-05	JME	R291744
Surr: p-Terphenyl d14	81		63-132	%	08-JUN-05	09-JUN-05	JME	R291744
Equivalent B(a)P Concentration	<0.00003		0.00003	mg/L	08-JUN-05	09-JUN-05	JME	R291744
Major Ions & Dissolved Metals								
Iron (Fe)-Dissolved	0.249		0.005	mg/L		08-JUN-05	HAS	R291660
Manganese (Mn)-Dissolved	0.002		0.001	mg/L		08-JUN-05	HAS	R291660
Chloride (Cl)	3.1		0.1	mg/L	08-JUN-05	08-JUN-05	WJR	R291418
Nitrate+Nitrite-N	0.36		0.05	mg/L	08-JUN-05	08-JUN-05	WJR	R291418
Nitrate-N	0.29		0.05	mg/L	08-JUN-05	08-JUN-05	WJR	R291418
Nitrite-N	0.07		0.05	mg/L	08-JUN-05	08-JUN-05	WJR	R291418
Sulphate (SO4)	25.6		0.5	mg/L	08-JUN-05	08-JUN-05	WJR	R291418
pH, Conductivity and Total Alkalinity								
pH	7.7		0.1	pH		08-JUN-05	SIW	R291468
Conductivity (EC)	222		3	uS/cm		08-JUN-05	SIW	R291468
Bicarbonate (HCO3)	115		5	mg/L		08-JUN-05	SIW	R291468
Carbonate (CO3)	<5		5	mg/L		08-JUN-05	SIW	R291468
Hydroxide (OH)	<5		5	mg/L		08-JUN-05	SIW	R291468
Alkalinity, Total (as CaCO3)	94		5	mg/L		08-JUN-05	SIW	R291468
Ion Balance Calculation								
Ion Balance	92.1			%		08-JUN-05		
TDS (Calculated)	130			mg/L		08-JUN-05		
Hardness (as CaCO3)	105			mg/L		08-JUN-05		
ICP metals for routine water								
Calcium (Ca)	30.4		0.5	mg/L		08-JUN-05	KG	R291449
Potassium (K)	2.2		0.1	mg/L		08-JUN-05	KG	R291449
Magnesium (Mg)	7.1		0.1	mg/L		08-JUN-05	KG	R291449
Sodium (Na)	4		1	mg/L		08-JUN-05	KG	R291449
Dissolved Trace Metals								
Silver (Ag)	<0.005		0.005	mg/L		08-JUN-05	CLL	R291648
Aluminum (Al)	0.12		0.01	mg/L		08-JUN-05	CLL	R291648
Boron (B)	<0.05		0.05	mg/L		08-JUN-05	CLL	R291648
Barium (Ba)	0.057		0.003	mg/L		08-JUN-05	CLL	R291648
Beryllium (Be)	<0.001		0.001	mg/L		08-JUN-05	CLL	R291648
Cadmium (Cd)	<0.001		0.001	mg/L		08-JUN-05	CLL	R291648
Cobalt (Co)	<0.002		0.002	mg/L		08-JUN-05	CLL	R291648
Chromium (Cr)	<0.005		0.005	mg/L		08-JUN-05	CLL	R291648
Copper (Cu)	0.002		0.001	mg/L		08-JUN-05	CLL	R291648
Molybdenum (Mo)	<0.005		0.005	mg/L		08-JUN-05	CLL	R291648
Nickel (Ni)	<0.002		0.002	mg/L		08-JUN-05	CLL	R291648
Lead (Pb)	<0.005		0.005	mg/L		08-JUN-05	CLL	R291648

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
ISCR:ST	Improper Sample Container Received: Subsamples Taken

Sample Parameter Qualifier key listed:

Qualifier	Description
RAMB	Result Adjusted For Method Blank

Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
BTX,F1-CL	Water	BTEX and F1 (C6-C10)	EPA 5030B	EPA 5030/8015& 8260-P&T GC-MS/FID
CL-CL	Water	Chloride (Cl)		APHA 4110 B-Ion Chromatography
ETL-ROUTINE-ICP-CL	Water	ICP metals for routine water		APHA 3120 B-ICP-OES
F2-CL	Water	F2 (>C10-C16)	EPA 3550B	EPA 3510/8000-GC-FID
FE-DIS-ED	Water	Iron (Fe)-Dissolved		EPA 200.7
HG-DIS-HYD-ED	Water	Mercury (Hg)-Dissolved (CVAA)		EPA 6020
HG-TOT-HYD-ED	Water	Mercury (Hg)-Total (CVAA)	EPA3015	EPA 6020
IONBALANCE-CL	Water	Ion Balance Calculation		APHA 1030E
MET1-DIS-ED	Water	Dissolved Trace Metals		EPA 6020
MET1-TOT-ED	Water	Total Trace Metals	EPA3015	EPA 6020
MET2-TOT-ED	Water	Total Major Metals	EPA3015	EPA 200.7
MN-DIS-ED	Water	Manganese (Mn)-Dissolved		EPA 200.7
N2N3-CL	Water	Nitrate+Nitrite-N		APHA 4110 B-Ion Chromatography
NO2-CL	Water	Nitrite-N		APHA 4110 B-Ion Chromatography
NO3-IC-CL	Water	Nitrate-N		APHA 4110 B-Ion Chromatography
PAH-ABT1,CARCINO-ED	Water	AB Tier1 & Carcinogenic PAHs	EPA 3510	EPA 3510/8270-GC/MS
PH/EC/ALK-CL	Water	pH, Conductivity and Total Alkalinity		APHA 4500H,2510,2320
SO4-CL	Water	Sulfate (SO4)		APHA 4110 B-Ion Chromatography

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
CL	Enviro-Test Laboratories - Calgary, Alberta, Canada	ED	Enviro-Test Laboratories - Edmonton, Alberta, Canada

Reference Information

GLOSSARY OF REPORT TERMS

Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds. The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million

mg/L (units) - unit of concentration based on volume, parts per million

< - Less than

D.L. - Detection Limit

N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results.

Enviro-Test Quality Control Report

Workorder: L274998

Client: ALBERTA ENVIRONMENT
2 FL DEERFOOT SQ 2938 11 ST NE
CALGARY AB T2E 7L7

Contact: KEVIN PILGER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX,F1-CL		Water						
Batch	R291015							
WG308756-13	DUP	L274461-1						
Benzene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	07-JUN-05
EthylBenzene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	07-JUN-05
Toluene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	07-JUN-05
F1(C6-C10)		<0.1	<0.1	RPD-NA	mg/L	N/A	25	07-JUN-05
Xylenes		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	07-JUN-05
WG308756-19	DUP	L273933-1						
Benzene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	07-JUN-05
EthylBenzene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	07-JUN-05
Toluene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	07-JUN-05
F1(C6-C10)		<0.1	<0.1	RPD-NA	mg/L	N/A	25	07-JUN-05
Xylenes		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	07-JUN-05
WG308756-21	DUP	L273582-2						
Benzene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	08-JUN-05
EthylBenzene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	08-JUN-05
Toluene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	08-JUN-05
F1(C6-C10)		<0.1	<0.1	RPD-NA	mg/L	N/A	25	08-JUN-05
Xylenes		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	08-JUN-05
WG308756-3	DUP	L273448-1						
Benzene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	06-JUN-05
EthylBenzene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	06-JUN-05
Toluene		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	06-JUN-05
F1(C6-C10)		<0.1	<0.1	RPD-NA	mg/L	N/A	25	06-JUN-05
Xylenes		<0.0005	<0.0005	RPD-NA	mg/L	N/A	20	06-JUN-05
WG308756-1	LCS							
Benzene			92		%		85-112	06-JUN-05
EthylBenzene			90		%		86-112	06-JUN-05
Toluene			89		%		87-112	06-JUN-05
F1(C6-C10)			89		%		85-115	06-JUN-05
Xylenes			94		%		87-116	06-JUN-05
WG308756-10	LCS							
Benzene			105		%		85-112	07-JUN-05
EthylBenzene			106		%		86-112	07-JUN-05
Toluene			104		%		87-112	07-JUN-05

Enviro-Test Quality Control Report

Workorder: L274998

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX,F1-CL		Water						
Batch	R291015							
WG308756-10	LCS							
F1(C6-C10)			103		%		85-115	07-JUN-05
Xylenes			106		%		87-116	07-JUN-05
WG308756-16	LCS							
Benzene			86		%		85-112	08-JUN-05
EthylBenzene			96		%		86-112	08-JUN-05
Toluene			95		%		87-112	08-JUN-05
F1(C6-C10)			84	H	%		85-115	08-JUN-05
Xylenes			102		%		87-116	08-JUN-05
WG308756-17	MB							
Benzene			<0.0005		mg/L		0.0005	08-JUN-05
EthylBenzene			<0.0005		mg/L		0.0005	08-JUN-05
Toluene			<0.0005		mg/L		0.0005	08-JUN-05
F1(C6-C10)			<0.1		mg/L		0.1	08-JUN-05
Xylenes			<0.0005		mg/L		0.0005	08-JUN-05
WG308756-2	MB							
Benzene			<0.0005		mg/L		0.0005	07-JUN-05
EthylBenzene			<0.0005		mg/L		0.0005	07-JUN-05
Toluene			<0.0005		mg/L		0.0005	07-JUN-05
F1(C6-C10)			<0.1		mg/L		0.1	07-JUN-05
Xylenes			<0.0005		mg/L		0.0005	07-JUN-05
WG308756-20	MS	L273915-1						
Benzene			84		%		70-118	08-JUN-05
EthylBenzene			93		%		70-118	08-JUN-05
Toluene			92		%		70-118	08-JUN-05
F1(C6-C10)			83		%		70-130	08-JUN-05
Xylenes			98		%		70-118	08-JUN-05
WG308756-4	MS	L273448-2						
Benzene			113		%		70-118	07-JUN-05
EthylBenzene			113		%		70-118	07-JUN-05
Toluene			112		%		70-118	07-JUN-05
F1(C6-C10)			103		%		70-130	07-JUN-05
Xylenes			120	H	%		70-118	07-JUN-05
CL-CL		Water						
Batch	R291418							
WG309216-2	DUP	L274998-1						
Chloride (Cl)		3.1	3.0		mg/L	4.0	10	08-JUN-05
WG309216-3	MS	L274998-1						
Chloride (Cl)			92		%		91-107	08-JUN-05

Enviro-Test Quality Control Report

Workorder: L274998

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ETL-ROUTINE-ICP-CL		Water						
Batch	R291449							
WG309231-2	DUP	L274686-1						
Calcium (Ca)		53.8	52.8		mg/L	1.9	10	08-JUN-05
Magnesium (Mg)		15.1	14.8		mg/L	1.8	10	08-JUN-05
Potassium (K)		0.7	0.7	J	mg/L	0.0	0.31	08-JUN-05
Sodium (Na)		4	4	J	mg/L	0	3.1	08-JUN-05
WG309231-3	DUP	L266567-1						
Calcium (Ca)		11.7	11.1		mg/L	5.2	10	08-JUN-05
Magnesium (Mg)		6.1	5.8		mg/L	4.9	10	08-JUN-05
Potassium (K)		21.5	21.4		mg/L	0.72	10	08-JUN-05
Sodium (Na)		7	7	J	mg/L	0	3.1	08-JUN-05
WG309231-5	DUP	L274879-1						
Calcium (Ca)		52.2	52.5		mg/L	0.58	10	08-JUN-05
Magnesium (Mg)		6.8	6.8		mg/L	0.28	10	08-JUN-05
Potassium (K)		3.7	3.7		mg/L	0.61	10	08-JUN-05
Sodium (Na)		12	12		mg/L	0.20	10	08-JUN-05
WG309231-6	DUP	L274946-7						
Calcium (Ca)		189	185		mg/L	2.2	10	08-JUN-05
Magnesium (Mg)		40.9	39.8		mg/L	2.6	10	08-JUN-05
Potassium (K)		2.0	2.0		mg/L	2.1	10	08-JUN-05
Sodium (Na)		17	16		mg/L	3.2	10	08-JUN-05
WG309231-8	DUP	L274991-8						
Calcium (Ca)		126	125		mg/L	0.65	10	08-JUN-05
Magnesium (Mg)		85.2	84.7		mg/L	0.60	10	08-JUN-05
Potassium (K)		2.9	2.9		mg/L	1.8	10	08-JUN-05
Sodium (Na)		61	61		mg/L	0.50	10	08-JUN-05
WG309231-1	LCS							
Calcium (Ca)			106		%		90-110	08-JUN-05
Magnesium (Mg)			101		%		90-110	08-JUN-05
Potassium (K)			102		%		90-110	08-JUN-05
Sodium (Na)			101		%		90-110	08-JUN-05
WG309231-4	MS	L266567-1						
Calcium (Ca)			103		%		90-114	08-JUN-05
Magnesium (Mg)			98		%		93-107	08-JUN-05
Potassium (K)			101		%		90-104	08-JUN-05
Sodium (Na)			100		%		87-113	08-JUN-05
F2-CL		Water						
Batch	R291685							
WG309505-2	DUP	L273349-33						
F2 (>C10-C16)		<0.05	<0.05	RPD-NA	mg/L	N/A	25	08-JUN-05
WG309505-3	MS	L273349-33						

Enviro-Test Quality Control Report

Workorder: L274998

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-CL	Water							
Batch	R291685							
WG309505-3	MS	L273349-33						
F2 (>C10-C16)			108		%		65-125	08-JUN-05
FE-DIS-ED	Water							
Batch	R291660							
WG309314-1	MB							
Iron (Fe)-Dissolved			<0.005		mg/L		0.005	08-JUN-05
HG-DIS-HYD-ED	Water							
Batch	R291648							
WG309257-1	MB							
Mercury (Hg)-Dissolved			<0.0002		mg/L		0.001	08-JUN-05
HG-TOT-HYD-ED	Water							
Batch	R291650							
WG309181-1	MB							
Mercury (Hg)-Total			<0.0002		mg/L		0.001	08-JUN-05
MET1-DIS-ED	Water							
Batch	R291648							
WG309257-1	MB							
Aluminum (Al)			<0.01		mg/L		0.05	08-JUN-05
Barium (Ba)			<0.003		mg/L		0.015	08-JUN-05
Beryllium (Be)			<0.001		mg/L		0.005	08-JUN-05
Boron (B)			<0.05		mg/L		0.25	08-JUN-05
Cadmium (Cd)			<0.001		mg/L		0.005	08-JUN-05
Chromium (Cr)			<0.005		mg/L		0.025	08-JUN-05
Cobalt (Co)			<0.002		mg/L		0.01	08-JUN-05
Copper (Cu)			<0.001		mg/L		0.005	08-JUN-05
Lead (Pb)			<0.005		mg/L		0.025	08-JUN-05
Molybdenum (Mo)			<0.005		mg/L		0.025	08-JUN-05
Nickel (Ni)			<0.002		mg/L		0.01	08-JUN-05
Phosphorus (P)			<0.1		mg/L		0.1	08-JUN-05
Silver (Ag)			<0.005		mg/L		0.025	08-JUN-05
Strontium (Sr)			<0.005		mg/L		0.025	08-JUN-05
Thallium (Tl)			<0.05		mg/L		0.25	08-JUN-05
Tin (Sn)			<0.05		mg/L		0.25	08-JUN-05
Titanium (Ti)			<0.001		mg/L		0.005	08-JUN-05
Vanadium (V)			<0.001		mg/L		0.005	08-JUN-05
Zinc (Zn)			<0.001		mg/L		0.005	08-JUN-05

Enviro-Test Quality Control Report

Workorder: L274998

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET1-TOT-ED		Water						
Batch	R291650							
WG309181-1	MB							
Aluminum (Al)			<0.01		mg/L		0.05	08-JUN-05
Barium (Ba)			<0.003		mg/L		0.015	08-JUN-05
Beryllium (Be)			<0.002		mg/L		0.01	08-JUN-05
Boron (B)			<0.05		mg/L		0.25	08-JUN-05
Cadmium (Cd)			<0.001		mg/L		0.005	08-JUN-05
Chromium (Cr)			<0.005		mg/L		0.025	08-JUN-05
Cobalt (Co)			<0.002		mg/L		0.01	08-JUN-05
Copper (Cu)			<0.001		mg/L		0.005	08-JUN-05
Lead (Pb)			<0.005		mg/L		0.025	08-JUN-05
Molybdenum (Mo)			<0.005		mg/L		0.025	08-JUN-05
Nickel (Ni)			<0.002		mg/L		0.01	08-JUN-05
Phosphorus (P)			<0.05		mg/L		0.05	08-JUN-05
Silver (Ag)			<0.005		mg/L		0.025	08-JUN-05
Strontium (Sr)			<0.002	B	mg/L		0.01	08-JUN-05
Thallium (Tl)			<0.05		mg/L		0.25	08-JUN-05
Tin (Sn)			<0.05		mg/L		0.25	08-JUN-05
Titanium (Ti)			<0.001		mg/L		0.005	08-JUN-05
Vanadium (V)			<0.001		mg/L		0.005	08-JUN-05
Zinc (Zn)			0.002		mg/L		0.005	08-JUN-05
MET2-TOT-ED		Water						
Batch	R291659							
WG309181-1	MB							
Calcium (Ca)			<0.5		mg/L		2.5	08-JUN-05
Iron (Fe)			<0.005		mg/L		0.025	08-JUN-05
Magnesium (Mg)			<0.1		mg/L		0.5	08-JUN-05
Manganese (Mn)			<0.001		mg/L		0.005	08-JUN-05
Potassium (K)			<0.1		mg/L		0.5	08-JUN-05
Sodium (Na)			<1		mg/L		5	08-JUN-05
MN-DIS-ED		Water						
Batch	R291660							
WG309314-1	MB							
Manganese (Mn)-Dissolved			<0.001		mg/L		0.001	08-JUN-05
N2N3-CL		Water						
Batch	R291418							
WG309216-2	DUP							
Nitrate+Nitrite-N		L274998-1	0.35	J	mg/L	0.01	0.15	08-JUN-05
WG309216-3	MS							
		L274998-1						

Enviro-Test Quality Control Report

Workorder: L274998

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
N2N3-CL	Water							
Batch	R291418							
WG309216-3	MS	L274998-1						
Nitrate+Nitrite-N			101		%		93-109	08-JUN-05
NO2-CL	Water							
Batch	R291418							
WG309216-2	DUP	L274998-1						
Nitrite-N		0.07	0.07	J	mg/L	0.01	0.15	08-JUN-05
WG309216-3	MS	L274998-1						
Nitrite-N			101		%		94-110	08-JUN-05
NO3-IC-CL	Water							
Batch	R291418							
WG309216-2	DUP	L274998-1						
Nitrate-N		0.29	0.28	J	mg/L	0.01	0.15	08-JUN-05
WG309216-3	MS	L274998-1						
Nitrate-N			96		%		94-106	08-JUN-05
PAH-ABT1,CARCINO-ED	Water							
Batch	R291744							
WG309080-2	MB							
3-Methylcholanthrene			<0.00001		mg/L		0.00001	09-JUN-05
7,12-Dimethylbenz(a)anthracene			<0.00001		mg/L		0.00001	09-JUN-05
Acenaphthene			<0.00001		mg/L		0.00001	09-JUN-05
Acenaphthylene			<0.00001		mg/L		0.00001	09-JUN-05
Anthracene			<0.00001		mg/L		0.00001	09-JUN-05
Benzo(a)anthracene			<0.00001		mg/L		0.00001	09-JUN-05
Benzo(a)pyrene			<0.00001		mg/L		0.00001	09-JUN-05
Benzo(b)fluoranthene			<0.00001		mg/L		0.00001	09-JUN-05
Benzo(c)phenanthrene			<0.00001		mg/L		0.00001	09-JUN-05
Benzo(g,h,i)perylene			<0.00001		mg/L		0.00001	09-JUN-05
Benzo(j)fluoranthene			<0.00001		mg/L		0.00001	09-JUN-05
Benzo(k)fluoranthene			<0.00001		mg/L		0.00001	09-JUN-05
Chrysene			<0.00001		mg/L		0.00001	09-JUN-05
Dibenzo(a,h)anthracene			<0.00001		mg/L		0.00001	09-JUN-05
Dibenzo(a,h/a,i/a,l)pyrene			<0.00001		mg/L		0.00001	09-JUN-05
Fluoranthene			<0.00001		mg/L		0.00001	09-JUN-05
Fluorene			<0.00001		mg/L		0.00001	09-JUN-05
Indeno(1,2,3-cd)pyrene			<0.00001		mg/L		0.00001	09-JUN-05
Naphthalene			<0.00001		mg/L		0.00001	09-JUN-05
Phenanthrene			0.00002	A	mg/L		0.00001	09-JUN-05
Pyrene			<0.00001		mg/L		0.00001	09-JUN-05

Enviro-Test Quality Control Report

Workorder: L274998

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH/EC/ALK-CL		Water						
Batch	R291468							
WG309271-2	DUP	L274998-1						
Alkalinity, Total (as CaCO3)		94	99	H	mg/L	5.5	5	08-JUN-05
Bicarbonate (HCO3)		115	121		mg/L	5.5	25	08-JUN-05
Conductivity (EC)		222	210		uS/cm	5.6	7.5	08-JUN-05
pH		7.7	7.8	J,H	pH	0.1	0.1	08-JUN-05
WG309271-5	DUP	L273777-18						
Alkalinity, Total (as CaCO3)		266	265		mg/L	0.42	5	08-JUN-05
Bicarbonate (HCO3)		325	323		mg/L	0.42	25	08-JUN-05
Carbonate (CO3)		<5	<5	RPD-NA	mg/L	N/A	25	08-JUN-05
Conductivity (EC)		588	573		uS/cm	2.6	7.5	08-JUN-05
Hydroxide (OH)		<5	<5	RPD-NA	mg/L	N/A	25	08-JUN-05
pH		7.5	7.5	J	pH	0.0	0.1	08-JUN-05
WG309271-6	DUP	L273893-5						
Alkalinity, Total (as CaCO3)		96	98		mg/L	1.7	5	08-JUN-05
Bicarbonate (HCO3)		118	120		mg/L	1.7	25	08-JUN-05
Carbonate (CO3)		<5	<5	RPD-NA	mg/L	N/A	25	08-JUN-05
Conductivity (EC)		243	243		uS/cm	0.0	7.5	08-JUN-05
Hydroxide (OH)		<5	<5	RPD-NA	mg/L	N/A	25	08-JUN-05
pH		7.9	7.9	J	pH	0.1	0.1	08-JUN-05
WG309271-1	LCS							
Alkalinity, Total (as CaCO3)			100		%		95-105	08-JUN-05
Carbonate (CO3)			98		%		89-105	08-JUN-05
Conductivity (EC)			97		%		97-101	08-JUN-05
pH			7.1		pH		6.9-7.1	08-JUN-05
SO4-CL		Water						
Batch	R291418							
WG309216-2	DUP	L274998-1						
Sulphate (SO4)		25.6	25.3		mg/L	1.2	10	08-JUN-05
WG309216-3	MS	L274998-1						
Sulphate (SO4)			104		%		90-112	08-JUN-05

Workorder # L274998

Legend:

- Limit 95% Confidence Interval (Laboratory Warning Limits)
- DUP Duplicate
- RPD Relative Percent Difference
- N/A Not Available
- LCS Laboratory Control Sample
- SRM Standard Reference Material
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- ADE Average Desorption Efficiency
- MB Method Blank
- IRM Internal Reference Material
- CRM Certified Reference Material
- CCV Continuing Calibration Verification
- CVS Calibration Verification Standard
- LCSD Laboratory Control Sample Duplicate

Qualifier:

- RPD-NA Relative Percent Difference Not Available due to result(s) being less than detection limit.
- A Method blank exceeds acceptance limit. Blank correction not applied, unless the qualifier "RAMB" (result adjusted for method blank) appears in the Analytical Report.
- B Method blank result exceeds acceptance limit, however, it is less than 5% of sample concentration. Blank correction not applied.
- E Matrix spike recovery may fall outside the acceptance limits due to high sample background.
- F Silver recovery low, likely due to elevated chloride levels in sample.
- G Outlier - No assignable cause for nonconformity has been determined.
- H Result falls within the 99% Confidence Interval (Laboratory Control Limits)
- J Duplicate results and limit(s) are expressed in terms of absolute difference.
- K The sample referenced above is of a non-standard matrix type; standard QC acceptance criteria may not be achievable.

PRELIMINARY RESULTS

ALBERTA ENVIRONMENT
ATTN: DARREN BOURGET

DATE: 16-JUN-05 08:56 AM

2 FL DEERFOOT SQ 2938 11 ST NE
CALGARY AB T2E 7L7

Lab Work Order #: L276371

Sampled By: NOT PROVIDED

Date Received: 10-JUN-05

Project P.O. #: NA

Project Reference: NA

Comments:

RON MINKS
Director of Operations, Calgary

KELLY JONES
Client Service Specialist

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ANY REMAINING SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L276371-1 DB061005D (TV.D)								
Sample Date: 10-JUN-05 11:30								
Matrix: WATER								
BTEX, F1 (C6-C10) and F2 (>C10-C16)								
F2 (>C10-C16)	<0.05		0.05	mg/L	11-JUN-05	11-JUN-05	MMY	R292635
BTEX and F1 (C6-C10)								
Benzene	<0.0005		0.0005	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
Toluene	<0.0005		0.0005	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
EthylBenzene	<0.0005		0.0005	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
Xylenes	<0.0005		0.0005	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
F1(C6-C10)	<0.1		0.1	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
F1-BTEX	<0.1		0.1	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
Total Metals								
Total Trace Metals								
Silver (Ag)	<0.005		0.005	mg/L		15-JUN-05	CLL	R294018
Aluminum (Al)	20.7		0.01	mg/L		15-JUN-05	CLL	R294018
Boron (B)	0.07		0.05	mg/L		15-JUN-05	CLL	R294018
Barium (Ba)	0.561		0.003	mg/L		15-JUN-05	CLL	R294018
Beryllium (Be)	<0.002		0.002	mg/L		15-JUN-05	CLL	R294018
Cadmium (Cd)	<0.001		0.001	mg/L		15-JUN-05	CLL	R294018
Cobalt (Co)	0.008		0.002	mg/L		15-JUN-05	CLL	R294018
Chromium (Cr)	0.034		0.005	mg/L		15-JUN-05	CLL	R294018
Copper (Cu)	0.023		0.001	mg/L		15-JUN-05	CLL	R294018
Molybdenum (Mo)	<0.005		0.005	mg/L		15-JUN-05	CLL	R294018
Nickel (Ni)	0.006		0.002	mg/L		15-JUN-05	CLL	R294018
Lead (Pb)	0.013		0.005	mg/L		15-JUN-05	CLL	R294018
Tin (Sn)	<0.05		0.05	mg/L		15-JUN-05	CLL	R294018
Strontium (Sr)	0.204		0.002	mg/L		15-JUN-05	CLL	R294018
Titanium (Ti)	0.098		0.001	mg/L		15-JUN-05	CLL	R294018
Thallium (Tl)	<0.05		0.05	mg/L		15-JUN-05	CLL	R294018
Vanadium (V)	0.077		0.001	mg/L		15-JUN-05	CLL	R294018
Zinc (Zn)	0.149		0.001	mg/L		15-JUN-05	CLL	R294018
Total Major Metals								
Calcium (Ca)	8.3		0.5	mg/L		15-JUN-05	HAS	R293949
Potassium (K)	0.9		0.1	mg/L		15-JUN-05	HAS	R293949
Magnesium (Mg)	2.1		0.1	mg/L		15-JUN-05	HAS	R293949
Sodium (Na)	<1		1	mg/L		15-JUN-05	HAS	R293949
Iron (Fe)	2.68	RAMB	0.005	mg/L		15-JUN-05	HAS	R293949
Manganese (Mn)	0.021	RAMB	0.001	mg/L		15-JUN-05	HAS	R293949
Chromium, Hexavalent	<0.001		0.001	mg/L		14-JUN-05	CVE	R293510
Mercury (Hg)-Dissolved	<0.0002		0.0002	mg/L		14-JUN-05	MX	R293858
Mercury (Hg)-Total	<0.0002		0.0002	mg/L		15-JUN-05	CLL	R294018
AB Tier1 & Carcinogenic PAHs								
Naphthalene	0.00005	RAMB	0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Acenaphthylene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Acenaphthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Fluorene	0.00003		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Phenanthrene	0.00015	RAMB	0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Pyrene	0.00002		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(c)phenanthrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(a)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Chrysene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L276371-1 DB061005D (TV.D)								
Sample Date: 10-JUN-05 11:30								
Matrix: WATER								
AB Tier1 & Carcinogenic PAHs								
7,12-Dimethylbenz(a)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(b)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(j)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(k)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(a)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
3-Methylcholanthrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Indeno(1,2,3-cd)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Dibenzo(a,h)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(g,h,i)perylene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Dibenzo(a,h/a,i/a,l)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Surr: Nitrobenzene d5	58		42-107	%	14-JUN-05	15-JUN-05	JME	R293608
Surr: 2-Fluorobiphenyl	75		48-104	%	14-JUN-05	15-JUN-05	JME	R293608
Surr: p-Terphenyl d14	73		63-132	%	14-JUN-05	15-JUN-05	JME	R293608
Equivalent B(a)P Concentration	<0.00003		0.00003	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Major Ions & Dissolved Metals								
Iron (Fe)-Dissolved	1.47		0.005	mg/L		15-JUN-05	HAS	R293950
Manganese (Mn)-Dissolved	0.147		0.001	mg/L		15-JUN-05	HAS	R293950
Chloride (Cl)	0.8		0.1	mg/L	11-JUN-05	11-JUN-05	WJR	R292341
Nitrate+Nitrite-N	0.08		0.05	mg/L	11-JUN-05	11-JUN-05	WJR	R292341
Nitrate-N	0.08		0.05	mg/L	11-JUN-05	11-JUN-05	WJR	R292341
Nitrite-N	<0.05		0.05	mg/L	11-JUN-05	11-JUN-05	WJR	R292341
Sulphate (SO4)	20.8		0.5	mg/L	11-JUN-05	11-JUN-05	WJR	R292341
pH, Conductivity and Total Alkalinity								
pH	7.6		0.1	pH		11-JUN-05	HSC	R292631
Conductivity (EC)	231		3	uS/cm		11-JUN-05	HSC	R292631
Bicarbonate (HCO3)	135		5	mg/L		11-JUN-05	HSC	R292631
Carbonate (CO3)	<5		5	mg/L		11-JUN-05	HSC	R292631
Hydroxide (OH)	<5		5	mg/L		11-JUN-05	HSC	R292631
Alkalinity, Total (as CaCO3)	111		5	mg/L		11-JUN-05	HSC	R292631
Ion Balance Calculation								
Ion Balance	99.5			%		11-JUN-05		
TDS (Calculated)	137			mg/L		11-JUN-05		
Hardness (as CaCO3)	128			mg/L		11-JUN-05		
ICP metals for routine water								
Calcium (Ca)	37.1		0.5	mg/L		10-JUN-05	HSC	R292633
Potassium (K)	0.9		0.1	mg/L		10-JUN-05	HSC	R292633
Magnesium (Mg)	8.5		0.1	mg/L		10-JUN-05	HSC	R292633
Sodium (Na)	2		1	mg/L		10-JUN-05	HSC	R292633
Dissolved Trace Metals								
Silver (Ag)	<0.005		0.005	mg/L		14-JUN-05	MX	R293858
Aluminum (Al)	0.54		0.01	mg/L		14-JUN-05	MX	R293858
Boron (B)	<0.05		0.05	mg/L		14-JUN-05	MX	R293858
Barium (Ba)	0.194		0.003	mg/L		14-JUN-05	MX	R293858
Beryllium (Be)	<0.001		0.001	mg/L		14-JUN-05	MX	R293858
Cadmium (Cd)	<0.001		0.001	mg/L		14-JUN-05	MX	R293858
Cobalt (Co)	0.003		0.002	mg/L		14-JUN-05	MX	R293858
Chromium (Cr)	<0.005		0.005	mg/L		14-JUN-05	MX	R293858
Copper (Cu)	0.006		0.001	mg/L		14-JUN-05	MX	R293858
Molybdenum (Mo)	<0.005		0.005	mg/L		14-JUN-05	MX	R293858
Nickel (Ni)	0.005		0.002	mg/L		14-JUN-05	MX	R293858

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
SFP	FOR MET-DIS - Sample Filtered, Then Preserved On Receipt

Sample Parameter Qualifier key listed:

Qualifier	Description
RAMB	Result Adjusted For Method Blank

Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
BTX,F1-CL	Water	BTEX and F1 (C6-C10)	EPA 5030B	EPA 5030/8015& 8260-P&T GC-MS/FID
CL-CL	Water	Chloride (Cl)		APHA 4110 B-Ion Chromatography
CR-CR6-ED	Water	Chromium, Hexavalent (Cr +6)		APHA 3500-Cr C (Ion Chromatography)
ETL-ROUTINE-ICP-CL	Water	ICP metals for routine water		APHA 3120 B-ICP-OES
F2-CL	Water	F2 (>C10-C16)	EPA 3550B	EPA 3510/8000-GC-FID
FE-DIS-ED	Water	Iron (Fe)-Dissolved		EPA 200.7
HG-DIS-HYD-ED	Water	Mercury (Hg)-Dissolved (CVAA)		EPA 6020
HG-TOT-HYD-ED	Water	Mercury (Hg)-Total (CVAA)	EPA3015	EPA 6020
IONBALANCE-CL	Water	Ion Balance Calculation		APHA 1030E
MET1-DIS-ED	Water	Dissolved Trace Metals		EPA 6020
MET1-TOT-ED	Water	Total Trace Metals	EPA3015	EPA 6020
MET2-TOT-ED	Water	Total Major Metals	EPA3015	EPA 200.7
MN-DIS-ED	Water	Manganese (Mn)-Dissolved		EPA 200.7
N2N3-CL	Water	Nitrate+Nitrite-N		APHA 4110 B-Ion Chromatography
NO2-CL	Water	Nitrite-N		APHA 4110 B-Ion Chromatography
NO3-IC-CL	Water	Nitrate-N		APHA 4110 B-Ion Chromatography
PAH-ABT1,CARCINO-ED	Water	AB Tier1 & Carcinogenic PAHs	EPA 3510	EPA 3510/8270-GC/MS
PH/EC/ALK-CL	Water	pH, Conductivity and Total Alkalinity		APHA 4500H,2510,2320
SO4-CL	Water	Sulfate (SO4)		APHA 4110 B-Ion Chromatography

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

181080

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
CL	Enviro-Test Laboratories - Calgary, Alberta, Canada	ED	Enviro-Test Laboratories - Edmonton, Alberta, Canada

Reference Information

GLOSSARY OF REPORT TERMS

Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds. The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million

mg/L (units) - unit of concentration based on volume, parts per million

< - Less than

D.L. - Detection Limit

N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results.

PRELIMINARY RESULTS

ALBERTA ENVIRONMENT
ATTN: DARREN BOURGET

DATE: 16-JUN-05 08:56 AM

2 FL DEERFOOT SQ 2938 11 ST NE
CALGARY AB T2E 7L7

Lab Work Order #: L276370

Sampled By: NOT PROVIDED

Date Received: 10-JUN-05

Project P.O. #: NA

Project Reference: NA

Comments:

RON MINKS
Director of Operations, Calgary

KELLY JONES
Client Service Specialist

THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN AUTHORITY OF THE LABORATORY.
ANY REMAINING SAMPLES WILL BE DISPOSED OF AFTER 30 DAYS FOLLOWING ANALYSIS. PLEASE CONTACT THE LAB IF YOU
REQUIRE ADDITIONAL SAMPLE STORAGE TIME.

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L276370-1 DB061005U (TV.U)								
Sample Date: 10-JUN-05 11:00								
Matrix: WATER								
BTEX, F1 (C6-C10) and F2 (>C10-C16)								
F2 (>C10-C16)	<0.05		0.05	mg/L	11-JUN-05	11-JUN-05	MMY	R292635
BTEX and F1 (C6-C10)								
Benzene	<0.0005		0.0005	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
Toluene	<0.0005		0.0005	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
EthylBenzene	<0.0005		0.0005	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
Xylenes	<0.0005		0.0005	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
F1(C6-C10)	<0.1		0.1	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
F1-BTEX	<0.1		0.1	mg/L	11-JUN-05	11-JUN-05	SXA	R292634
Total Metals								
Total Trace Metals								
Silver (Ag)	<0.005		0.005	mg/L		15-JUN-05	CLL	R294018
Aluminum (Al)	17.2		0.01	mg/L		15-JUN-05	CLL	R294018
Boron (B)	0.06		0.05	mg/L		15-JUN-05	CLL	R294018
Barium (Ba)	0.483		0.003	mg/L		15-JUN-05	CLL	R294018
Beryllium (Be)	<0.002		0.002	mg/L		15-JUN-05	CLL	R294018
Cadmium (Cd)	0.003		0.001	mg/L		15-JUN-05	CLL	R294018
Cobalt (Co)	0.009		0.002	mg/L		15-JUN-05	CLL	R294018
Chromium (Cr)	0.028		0.005	mg/L		15-JUN-05	CLL	R294018
Copper (Cu)	0.024		0.001	mg/L		15-JUN-05	CLL	R294018
Molybdenum (Mo)	<0.005		0.005	mg/L		15-JUN-05	CLL	R294018
Nickel (Ni)	0.030		0.002	mg/L		15-JUN-05	CLL	R294018
Lead (Pb)	0.015		0.005	mg/L		15-JUN-05	CLL	R294018
Tin (Sn)	<0.05		0.05	mg/L		15-JUN-05	CLL	R294018
Strontium (Sr)	0.218		0.002	mg/L		15-JUN-05	CLL	R294018
Titanium (Ti)	0.085		0.001	mg/L		15-JUN-05	CLL	R294018
Thallium (Tl)	<0.05		0.05	mg/L		15-JUN-05	CLL	R294018
Vanadium (V)	0.063		0.001	mg/L		15-JUN-05	CLL	R294018
Zinc (Zn)	0.145		0.001	mg/L		15-JUN-05	CLL	R294018
Total Major Metals								
Calcium (Ca)	8.9		0.5	mg/L		15-JUN-05	HAS	R293949
Potassium (K)	0.8		0.1	mg/L		15-JUN-05	HAS	R293949
Magnesium (Mg)	2.0		0.1	mg/L		15-JUN-05	HAS	R293949
Sodium (Na)	<1		1	mg/L		15-JUN-05	HAS	R293949
Iron (Fe)	2.52	RAMB	0.005	mg/L		15-JUN-05	HAS	R293949
Manganese (Mn)	0.023	RAMB	0.001	mg/L		15-JUN-05	HAS	R293949
Chromium, Hexavalent	<0.001		0.001	mg/L		14-JUN-05	CVE	R293510
Mercury (Hg)-Dissolved	<0.0002		0.0002	mg/L		14-JUN-05	MX	R293858
Mercury (Hg)-Total	0.0003		0.0002	mg/L		15-JUN-05	CLL	R294018
AB Tier1 & Carcinogenic PAHs								
Naphthalene	0.00003	RAMB	0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Acenaphthylene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Acenaphthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Fluorene	<0.00001	RAMB	0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Phenanthrene	0.00010	RAMB	0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Pyrene	<0.00001	RAMB	0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(c)phenanthrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(a)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Chrysene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L276370-1 DB061005U (TV.U)								
Sample Date: 10-JUN-05 11:00								
Matrix: WATER								
AB Tier1 & Carcinogenic PAHs								
7,12-Dimethylbenz(a)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(b)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(j)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(k)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(a)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
3-Methylcholanthrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Indeno(1,2,3-cd)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Dibenzo(a,h)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(g,h,i)perylene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Dibenzo(a,h/a,i/a,l)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Surr: Nitrobenzene d5	45		42-107	%	14-JUN-05	15-JUN-05	JME	R293608
Surr: 2-Fluorobiphenyl	62		48-104	%	14-JUN-05	15-JUN-05	JME	R293608
Surr: p-Terphenyl d14	70		63-132	%	14-JUN-05	15-JUN-05	JME	R293608
Equivalent B(a)P Concentration	<0.00003		0.00003	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Major Ions & Dissolved Metals								
Iron (Fe)-Dissolved	1.60		0.005	mg/L		15-JUN-05	HAS	R293950
Manganese (Mn)-Dissolved	0.173		0.001	mg/L		15-JUN-05	HAS	R293950
Chloride (Cl)	1.0		0.1	mg/L	11-JUN-05	11-JUN-05	WJR	R292341
Nitrate+Nitrite-N	0.13		0.05	mg/L	11-JUN-05	11-JUN-05	WJR	R292341
Nitrate-N	0.13		0.05	mg/L	11-JUN-05	11-JUN-05	WJR	R292341
Nitrite-N	<0.05		0.05	mg/L	11-JUN-05	11-JUN-05	WJR	R292341
Sulphate (SO4)	20.8		0.5	mg/L	11-JUN-05	11-JUN-05	WJR	R292341
pH, Conductivity and Total Alkalinity								
pH	7.5		0.1	pH		11-JUN-05	HSC	R292631
Conductivity (EC)	245		3	uS/cm		11-JUN-05	HSC	R292631
Bicarbonate (HCO3)	137		5	mg/L		11-JUN-05	HSC	R292631
Carbonate (CO3)	<5		5	mg/L		11-JUN-05	HSC	R292631
Hydroxide (OH)	<5		5	mg/L		11-JUN-05	HSC	R292631
Alkalinity, Total (as CaCO3)	120		5	mg/L		11-JUN-05	HSC	R292631
Ion Balance Calculation								
Ion Balance	96.9			%		11-JUN-05		
TDS (Calculated)	142			mg/L		11-JUN-05		
Hardness (as CaCO3)	126			mg/L		11-JUN-05		
ICP metals for routine water								
Calcium (Ca)	36.7		0.5	mg/L		10-JUN-05	HSC	R292633
Potassium (K)	0.9		0.1	mg/L		10-JUN-05	HSC	R292633
Magnesium (Mg)	8.4		0.1	mg/L		10-JUN-05	HSC	R292633
Sodium (Na)	2		1	mg/L		10-JUN-05	HSC	R292633
Dissolved Trace Metals								
Silver (Ag)	<0.005		0.005	mg/L		14-JUN-05	MX	R293858
Aluminum (Al)	0.61		0.01	mg/L		14-JUN-05	MX	R293858
Boron (B)	<0.05		0.05	mg/L		14-JUN-05	MX	R293858
Barium (Ba)	0.208		0.003	mg/L		14-JUN-05	MX	R293858
Beryllium (Be)	<0.001		0.001	mg/L		14-JUN-05	MX	R293858
Cadmium (Cd)	<0.001		0.001	mg/L		14-JUN-05	MX	R293858
Cobalt (Co)	0.004		0.002	mg/L		14-JUN-05	MX	R293858
Chromium (Cr)	<0.005		0.005	mg/L		14-JUN-05	MX	R293858
Copper (Cu)	0.007		0.001	mg/L		14-JUN-05	MX	R293858
Molybdenum (Mo)	<0.005		0.005	mg/L		14-JUN-05	MX	R293858
Nickel (Ni)	0.006		0.002	mg/L		14-JUN-05	MX	R293858

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L276370-1 DB061005U (TV.U) Sample Date: 10-JUN-05 11:00 Matrix: WATER								
Major Ions & Dissolved Metals								
Dissolved Trace Metals								
Lead (Pb)	<0.005		0.005	mg/L		14-JUN-05	MX	R293858
Tin (Sn)	<0.05		0.05	mg/L		14-JUN-05	MX	R293858
Strontium (Sr)	0.193		0.005	mg/L		14-JUN-05	MX	R293858
Titanium (Ti)	0.003		0.001	mg/L		14-JUN-05	MX	R293858
Thallium (Tl)	<0.05		0.05	mg/L		14-JUN-05	MX	R293858
Vanadium (V)	0.002		0.001	mg/L		14-JUN-05	MX	R293858
Zinc (Zn)	0.022		0.001	mg/L		14-JUN-05	MX	R293858
Refer to Referenced Information for Qualifiers (if any) and Methodology.								

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
SFP	FOR MET-DIS - Sample Filtered, Then Preserved On Receipt

Sample Parameter Qualifier key listed:

Qualifier	Description
RAMB	Result Adjusted For Method Blank

Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
BTX,F1-CL	Water	BTEX and F1 (C6-C10)	EPA 5030B	EPA 5030/8015& 8260-P&T GC-MS/FID
CL-CL	Water	Chloride (Cl)		APHA 4110 B-Ion Chromatography
CR-CR6-ED	Water	Chromium, Hexavalent (Cr +6)		APHA 3500-Cr C (Ion Chromatography)
ETL-ROUTINE-ICP-CL	Water	ICP metals for routine water		APHA 3120 B-ICP-OES
F2-CL	Water	F2 (>C10-C16)	EPA 3550B	EPA 3510/8000-GC-FID
FE-DIS-ED	Water	Iron (Fe)-Dissolved		EPA 200.7
HG-DIS-HYD-ED	Water	Mercury (Hg)-Dissolved (CVAA)		EPA 6020
HG-TOT-HYD-ED	Water	Mercury (Hg)-Total (CVAA)	EPA3015	EPA 6020
IONBALANCE-CL	Water	Ion Balance Calculation		APHA 1030E
MET1-DIS-ED	Water	Dissolved Trace Metals		EPA 6020
MET1-TOT-ED	Water	Total Trace Metals	EPA3015	EPA 6020
MET2-TOT-ED	Water	Total Major Metals	EPA3015	EPA 200.7
MN-DIS-ED	Water	Manganese (Mn)-Dissolved		EPA 200.7
N2N3-CL	Water	Nitrate+Nitrite-N		APHA 4110 B-Ion Chromatography
NO2-CL	Water	Nitrite-N		APHA 4110 B-Ion Chromatography
NO3-IC-CL	Water	Nitrate-N		APHA 4110 B-Ion Chromatography
PAH-ABT1,CARCINO-ED	Water	AB Tier1 & Carcinogenic PAHs	EPA 3510	EPA 3510/8270-GC/MS
PH/EC/ALK-CL	Water	pH, Conductivity and Total Alkalinity		APHA 4500H,2510,2320
SO4-CL	Water	Sulfate (SO4)		APHA 4110 B-Ion Chromatography

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

181081

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
CL	Enviro-Test Laboratories - Calgary, Alberta, Canada	ED	Enviro-Test Laboratories - Edmonton, Alberta, Canada

Reference Information

GLOSSARY OF REPORT TERMS

Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds. The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million

mg/L (units) - unit of concentration based on volume, parts per million

< - Less than

D.L. - Detection Limit

N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results.

PRELIMINARY RESULTS

ALBERTA ENVIRONMENT

DATE: 16-JUN-05 08:56 AM

ATTN: SCOTT NORRIS

2 FL DEERFOOT SQ 2938 11 ST NE

CALGARY AB T2E 7L7

Lab Work Order #: L276570

Sampled By: NOT PROVIDED

Date Received: 13-JUN-05

Project P.O. #: NA

Project Reference: NA

Comments: L276570-1 F2 DL's adjusted due to limited amount of sample.

RON MINKS
Director of Operations, Calgary

KELLY JONES
Client Service Specialist

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L276570-1 TVGP-UP Sample Date: 12-JUN-05 16:30 Matrix: WATER BTEX, F1 (C6-C10) and F2 (>C10-C16) F2 (>C10-C16)	<0.15		0.15	mg/L		14-JUN-05	SMG	R293230
Note: F2 MDL adjusted due to low sample volume.								
BTEX and F1 (C6-C10)								
Benzene	<0.0005		0.0005	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
Toluene	<0.0005		0.0005	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
EthylBenzene	<0.0005		0.0005	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
Xylenes	<0.0005		0.0005	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
F1(C6-C10)	<0.1		0.1	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
F1-BTEX	<0.1		0.1	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
Total Metals								
Total Trace Metals								
Silver (Ag)	<0.005		0.005	mg/L		13-JUN-05	CLL	R293556
Aluminum (Al)	14.6		0.01	mg/L		13-JUN-05	CLL	R293556
Barium (Ba)	0.337		0.003	mg/L		13-JUN-05	CLL	R293556
Beryllium (Be)	<0.002		0.002	mg/L		13-JUN-05	CLL	R293556
Cadmium (Cd)	<0.001		0.001	mg/L		13-JUN-05	CLL	R293556
Cobalt (Co)	0.005		0.002	mg/L		13-JUN-05	CLL	R293556
Chromium (Cr)	0.027		0.005	mg/L		13-JUN-05	CLL	R293556
Copper (Cu)	0.015		0.001	mg/L		13-JUN-05	CLL	R293556
Molybdenum (Mo)	<0.005		0.005	mg/L		13-JUN-05	CLL	R293556
Nickel (Ni)	0.019		0.002	mg/L		13-JUN-05	CLL	R293556
Lead (Pb)	0.008		0.005	mg/L		13-JUN-05	CLL	R293556
Tin (Sn)	<0.05		0.05	mg/L		13-JUN-05	CLL	R293556
Strontium (Sr)	0.175		0.002	mg/L		13-JUN-05	CLL	R293556
Titanium (Ti)	0.076		0.001	mg/L		13-JUN-05	CLL	R293556
Thallium (Tl)	<0.05		0.05	mg/L		13-JUN-05	CLL	R293556
Vanadium (V)	0.055		0.001	mg/L		13-JUN-05	CLL	R293556
Zinc (Zn)	0.060	RAMB	0.001	mg/L		13-JUN-05	CLL	R293556
Total Major Metals								
Calcium (Ca)	68.4		0.5	mg/L		14-JUN-05	HAS	R293546
Potassium (K)	7.4		0.1	mg/L		14-JUN-05	HAS	R293546
Magnesium (Mg)	16.9		0.1	mg/L		14-JUN-05	HAS	R293546
Sodium (Na)	3		1	mg/L		14-JUN-05	HAS	R293546
Iron (Fe)	17.6		0.005	mg/L		14-JUN-05	HAS	R293546
Manganese (Mn)	0.152	RAMB	0.001	mg/L		14-JUN-05	HAS	R293546
Chromium, Hexavalent	<0.001		0.001	mg/L		14-JUN-05	CVE	R293510
Mercury (Hg)-Dissolved	<0.0002		0.0002	mg/L		15-JUN-05	MX	R293858
Mercury (Hg)-Total	<0.0002		0.0002	mg/L		13-JUN-05	CLL	R293556
AB Tier1 & Carcinogenic PAHs								
Naphthalene	0.00005	RAMB	0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Acenaphthylene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Acenaphthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Fluorene	0.00002		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Phenanthrene	0.00008	RAMB	0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(c)phenanthrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(a)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L276570-1 TVGP-UP								
Sample Date: 12-JUN-05 16:30								
Matrix: WATER								
AB Tier1 & Carcinogenic PAHs								
Chrysene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
7,12-Dimethylbenz(a)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(b)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(j)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(k)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(a)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
3-Methylcholanthrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Indeno(1,2,3-cd)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Dibenzo(a,h)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(g,h,i)perylene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Dibenzo(a,h/a,i/a,l)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Surr: Nitrobenzene d5	69		42-107	%	14-JUN-05	15-JUN-05	JME	R293608
Surr: 2-Fluorobiphenyl	77		48-104	%	14-JUN-05	15-JUN-05	JME	R293608
Surr: p-Terphenyl d14	91		63-132	%	14-JUN-05	15-JUN-05	JME	R293608
Equivalent B(a)P Concentration	<0.00003		0.00003	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Major Ions & Dissolved Metals								
Iron (Fe)-Dissolved	1.71		0.005	mg/L		14-JUN-05	HAS	R293544
Manganese (Mn)-Dissolved	0.017		0.001	mg/L		14-JUN-05	HAS	R293544
Chloride (Cl)	1.1		0.1	mg/L	13-JUN-05	13-JUN-05	WJR	R292980
Nitrate+Nitrite-N	0.13		0.05	mg/L	13-JUN-05	13-JUN-05	WJR	R292980
Nitrate-N	0.13		0.05	mg/L	13-JUN-05	13-JUN-05	WJR	R292980
Nitrite-N	<0.05		0.05	mg/L	13-JUN-05	13-JUN-05	WJR	R292980
Sulphate (SO4)	19.6		0.5	mg/L	13-JUN-05	13-JUN-05	WJR	R292980
pH, Conductivity and Total Alkalinity								
pH	8.0		0.1	pH		13-JUN-05	LHH	R292998
Conductivity (EC)	260		3	uS/cm		13-JUN-05	LHH	R292998
Bicarbonate (HCO3)	152		5	mg/L		13-JUN-05	LHH	R292998
Carbonate (CO3)	<5		5	mg/L		13-JUN-05	LHH	R292998
Hydroxide (OH)	<5		5	mg/L		13-JUN-05	LHH	R292998
Alkalinity, Total (as CaCO3)	125		5	mg/L		13-JUN-05	LHH	R292998
Ion Balance Calculation								
Ion Balance	96.9			%		14-JUN-05		
TDS (Calculated)	148			mg/L		14-JUN-05		
Hardness (as CaCO3)	135			mg/L		14-JUN-05		
ICP metals for routine water								
Calcium (Ca)	38.9		0.5	mg/L		13-JUN-05	KG	R293226
Potassium (K)	0.8		0.1	mg/L		13-JUN-05	KG	R293226
Magnesium (Mg)	9.2		0.1	mg/L		13-JUN-05	KG	R293226
Sodium (Na)	3		1	mg/L		13-JUN-05	KG	R293226
Dissolved Trace Metals								
Silver (Ag)	<0.005		0.005	mg/L		15-JUN-05	MX	R293858
Aluminum (Al)	0.03		0.01	mg/L		15-JUN-05	MX	R293858
Boron (B)	<0.05		0.05	mg/L		15-JUN-05	MX	R293858
Barium (Ba)	0.063		0.003	mg/L		15-JUN-05	MX	R293858
Beryllium (Be)	<0.001		0.001	mg/L		15-JUN-05	MX	R293858
Cadmium (Cd)	<0.001		0.001	mg/L		15-JUN-05	MX	R293858
Cobalt (Co)	<0.002		0.002	mg/L		15-JUN-05	MX	R293858
Chromium (Cr)	<0.005		0.005	mg/L		15-JUN-05	MX	R293858
Copper (Cu)	0.001		0.001	mg/L		15-JUN-05	MX	R293858
Molybdenum (Mo)	<0.005		0.005	mg/L		15-JUN-05	MX	R293858

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L276570-1 TVGP-UP								
Sample Date: 12-JUN-05 16:30								
Matrix: WATER								
Major Ions & Dissolved Metals								
Dissolved Trace Metals								
Nickel (Ni)	<0.002		0.002	mg/L		15-JUN-05	MX	R293858
Lead (Pb)	<0.005		0.005	mg/L		15-JUN-05	MX	R293858
Tin (Sn)	<0.05		0.05	mg/L		15-JUN-05	MX	R293858
Strontium (Sr)	0.146		0.005	mg/L		15-JUN-05	MX	R293858
Titanium (Ti)	0.002		0.001	mg/L		15-JUN-05	MX	R293858
Thallium (Tl)	<0.05		0.05	mg/L		15-JUN-05	MX	R293858
Vanadium (V)	<0.001		0.001	mg/L		15-JUN-05	MX	R293858
Zinc (Zn)	0.005		0.001	mg/L		15-JUN-05	MX	R293858
Refer to Referenced Information for Qualifiers (if any) and Methodology.								

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
SRU	Sample Received Unpreserved

Sample Parameter Qualifier key listed:

Qualifier	Description
RAMB	Result Adjusted For Method Blank

Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
BTX,F1-CL	Water	BTEX and F1 (C6-C10)		EPA 5030/8015& 8260-P&T GC-MS/FID
CL-CL	Water	Chloride (Cl)		APHA 4110 B-Ion Chromatography
CR-CR6-ED	Water	Chromium, Hexavalent (Cr +6)		APHA 3500-Cr C (Ion Chromatography)
ETL-ROUTINE-ICP-CL	Water	ICP metals for routine water		APHA 3120 B-ICP-OES
F2-CL	Water	F2 (>C10-C16)		EPA 3510/8000-GC-FID
FE-DIS-ED	Water	Iron (Fe)-Dissolved		EPA 200.7
HG-DIS-HYD-ED	Water	Mercury (Hg)-Dissolved (CVAA)		EPA 6020
HG-TOT-HYD-ED	Water	Mercury (Hg)-Total (CVAA)	EPA3015	EPA 6020
IONBALANCE-CL	Water	Ion Balance Calculation		APHA 1030E
MET1-DIS-ED	Water	Dissolved Trace Metals		EPA 6020
MET1-TOT-ED	Water	Total Trace Metals	EPA3015	EPA 6020
MET2-TOT-ED	Water	Total Major Metals	EPA3015	EPA 200.7
MN-DIS-ED	Water	Manganese (Mn)-Dissolved		EPA 200.7
N2N3-CL	Water	Nitrate+Nitrite-N		APHA 4110 B-Ion Chromatography
NO2-CL	Water	Nitrite-N		APHA 4110 B-Ion Chromatography
NO3-IC-CL	Water	Nitrate-N		APHA 4110 B-Ion Chromatography
PAH-ABT1,CARCINO-ED	Water	AB Tier1 & Carcinogenic PAHs	EPA 3510	EPA 3510/8270-GC/MS
PH/EC/ALK-CL	Water	pH, Conductivity and Total Alkalinity		APHA 4500H,2510,2320
SO4-CL	Water	Sulfate (SO4)		APHA 4110 B-Ion Chromatography

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

167280

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
CL	Enviro-Test Laboratories - Calgary, Alberta, Canada	ED	Enviro-Test Laboratories - Edmonton, Alberta, Canada

Reference Information

GLOSSARY OF REPORT TERMS

Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds. The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million

mg/L (units) - unit of concentration based on volume, parts per million

< - Less than

D.L. - Detection Limit

N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results.

PRELIMINARY RESULTS

ALBERTA ENVIRONMENT

DATE: 16-JUN-05 09:00 AM

ATTN: SCOTT NORRIS

2 FL DEERFOOT SQ 2938 11 ST NE

CALGARY AB T2E 7L7

Lab Work Order #: L276584

Sampled By: NOT PROVIDED

Date Received: 13-JUN-05

Project P.O. #: NA

Project Reference: NA

Comments: L276584-1 F2 DL's adjusted due to limited amount of sample.

RON MINKS
Director of Operations, Calgary

KELLY JONES
Client Service Specialist

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L276584-1 TVGP-DS								
Sample Date: 12-JUN-05 17:15								
Matrix: WATER								
BTEX, F1 (C6-C10) and F2 (>C10-C16)								
F2 (>C10-C16)	<0.15		0.16	mg/L		14-JUN-05	SMG	R293230
Note: F2 MDL adjusted due to low sample volume.								
BTEX and F1 (C6-C10)								
Benzene	<0.0005		0.0005	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
Toluene	<0.0005		0.0005	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
EthylBenzene	<0.0005		0.0005	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
Xylenes	<0.0005		0.0005	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
F1(C6-C10)	<0.1		0.1	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
F1-BTEX	<0.1		0.1	mg/L	13-JUN-05	14-JUN-05	KEB	R293539
Total Metals								
Total Trace Metals								
Silver (Ag)	<0.005		0.005	mg/L		13-JUN-05	CLL	R293556
Aluminum (Al)	13.5		0.01	mg/L		13-JUN-05	CLL	R293556
Boron (B)	0.06		0.05	mg/L		13-JUN-05	CLL	R293556
Barium (Ba)	0.353		0.003	mg/L		13-JUN-05	CLL	R293556
Beryllium (Be)	<0.002		0.002	mg/L		13-JUN-05	CLL	R293556
Cadmium (Cd)	<0.001		0.001	mg/L		13-JUN-05	CLL	R293556
Cobalt (Co)	0.006		0.002	mg/L		13-JUN-05	CLL	R293556
Chromium (Cr)	0.027		0.005	mg/L		13-JUN-05	CLL	R293556
Copper (Cu)	0.017		0.001	mg/L		13-JUN-05	CLL	R293556
Molybdenum (Mo)	<0.005		0.005	mg/L		13-JUN-05	CLL	R293556
Nickel (Ni)	0.022		0.002	mg/L		13-JUN-05	CLL	R293556
Lead (Pb)	0.009		0.005	mg/L		13-JUN-05	CLL	R293556
Tin (Sn)	<0.05		0.05	mg/L		13-JUN-05	CLL	R293556
Strontium (Sr)	0.185		0.002	mg/L		13-JUN-05	CLL	R293556
Titanium (Ti)	0.071		0.001	mg/L		13-JUN-05	CLL	R293556
Thallium (Tl)	<0.05		0.05	mg/L		13-JUN-05	CLL	R293556
Vanadium (V)	0.050		0.001	mg/L		13-JUN-05	CLL	R293556
Zinc (Zn)	0.067	RAMB	0.001	mg/L		13-JUN-05	CLL	R293556
Total Major Metals								
Calcium (Ca)	69.8		0.5	mg/L		14-JUN-05	HAS	R293546
Potassium (K)	7.2		0.1	mg/L		14-JUN-05	HAS	R293546
Magnesium (Mg)	16.8		0.1	mg/L		14-JUN-05	HAS	R293546
Sodium (Na)	3		1	mg/L		14-JUN-05	HAS	R293546
Iron (Fe)	18.4		0.005	mg/L		14-JUN-05	HAS	R293546
Manganese (Mn)	0.161	RAMB	0.001	mg/L		14-JUN-05	HAS	R293546
Chromium, Hexavalent	<0.001		0.001	mg/L		14-JUN-05	CVE	R293510
Mercury (Hg)-Dissolved	<0.0002		0.0002	mg/L		15-JUN-05	MX	R293858
Mercury (Hg)-Total	<0.0002		0.0002	mg/L		13-JUN-05	CLL	R293556
AB Tier1 & Carcinogenic PAHs								
Naphthalene	0.00006	RAMB	0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Acenaphthylene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Acenaphthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Fluorene	0.00002		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Phenanthrene	0.00008	RAMB	0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(c)phenanthrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608

ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L276584-1 TVGP-DS								
Sample Date: 12-JUN-05 17:15								
Matrix: WATER								
AB Tier1 & Carcinogenic PAHs								
Benzo(a)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Chrysene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
7,12-Dimethylbenz(a)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(b)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(j)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(k)fluoranthene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(a)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
3-Methylcholanthrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Indeno(1,2,3-cd)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Dibenzo(a,h)anthracene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Benzo(g,h,i)perylene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Dibenzo(a,h/a,i/a,l)pyrene	<0.00001		0.00001	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Surr: Nitrobenzene d5	64		42-107	%	14-JUN-05	15-JUN-05	JME	R293608
Surr: 2-Fluorobiphenyl	65		48-104	%	14-JUN-05	15-JUN-05	JME	R293608
Surr: p-Terphenyl d14	72		63-132	%	14-JUN-05	15-JUN-05	JME	R293608
Equivalent B(a)P Concentration	<0.00003		0.00003	mg/L	14-JUN-05	15-JUN-05	JME	R293608
Major Ions & Dissolved Metals								
Iron (Fe)-Dissolved	2.13		0.005	mg/L		14-JUN-05	HAS	R293544
Manganese (Mn)-Dissolved	0.020		0.001	mg/L		14-JUN-05	HAS	R293544
Chloride (Cl)	0.9		0.1	mg/L	13-JUN-05	13-JUN-05	WJR	R292980
Nitrate+Nitrite-N	0.14		0.05	mg/L	13-JUN-05	13-JUN-05	WJR	R292980
Nitrate-N	0.14		0.05	mg/L	13-JUN-05	13-JUN-05	WJR	R292980
Nitrite-N	<0.05		0.05	mg/L	13-JUN-05	13-JUN-05	WJR	R292980
Sulphate (SO4)	19.9		0.5	mg/L	13-JUN-05	13-JUN-05	WJR	R292980
pH, Conductivity and Total Alkalinity								
pH	8.0		0.1	pH		13-JUN-05	LHH	R292998
Conductivity (EC)	254		3	uS/cm		13-JUN-05	LHH	R292998
Bicarbonate (HCO3)	148		5	mg/L		13-JUN-05	LHH	R292998
Carbonate (CO3)	<5		5	mg/L		13-JUN-05	LHH	R292998
Hydroxide (OH)	<5		5	mg/L		13-JUN-05	LHH	R292998
Alkalinity, Total (as CaCO3)	121		5	mg/L		13-JUN-05	LHH	R292998
Ion Balance Calculation								
Ion Balance	98.0			%		14-JUN-05		
TDS (Calculated)	145			mg/L		14-JUN-05		
Hardness (as CaCO3)	136			mg/L		14-JUN-05		
ICP metals for routine water								
Calcium (Ca)	39.0		0.5	mg/L		13-JUN-05	KG	R293226
Potassium (K)	0.8		0.1	mg/L		13-JUN-05	KG	R293226
Magnesium (Mg)	9.3		0.1	mg/L		13-JUN-05	KG	R293226
Sodium (Na)	2		1	mg/L		13-JUN-05	KG	R293226
Dissolved Trace Metals								
Silver (Ag)	<0.005		0.005	mg/L		15-JUN-05	MX	R293858
Aluminum (Al)	0.03		0.01	mg/L		15-JUN-05	MX	R293858
Boron (B)	<0.05		0.05	mg/L		15-JUN-05	MX	R293858
Barium (Ba)	0.064		0.003	mg/L		15-JUN-05	MX	R293858
Beryllium (Be)	<0.001		0.001	mg/L		15-JUN-05	MX	R293858
Cadmium (Cd)	<0.001		0.001	mg/L		15-JUN-05	MX	R293858
Cobalt (Co)	<0.002		0.002	mg/L		15-JUN-05	MX	R293858
Chromium (Cr)	<0.005		0.005	mg/L		15-JUN-05	MX	R293858
Copper (Cu)	0.001		0.001	mg/L		15-JUN-05	MX	R293858

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
RAMB	Result Adjusted For Method Blank

Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
BTX,F1-CL	Water	BTEX and F1 (C6-C10)		EPA 5030/8015& 8260-P&T GC-MS/FID
CL-CL	Water	Chloride (Cl)		APHA 4110 B-Ion Chromatography
CR-CR6-ED	Water	Chromium, Hexavalent (Cr +6)		APHA 3500-Cr C (Ion Chromatography)
ETL-ROUTINE-ICP-CL	Water	ICP metals for routine water		APHA 3120 B-ICP-OES
F2-CL	Water	F2 (>C10-C16)		EPA 3510/8000-GC-FID
FE-DIS-ED	Water	Iron (Fe)-Dissolved		EPA 200.7
HG-DIS-HYD-ED	Water	Mercury (Hg)-Dissolved (CVAA)		EPA 6020
HG-TOT-HYD-ED	Water	Mercury (Hg)-Total (CVAA)	EPA3015	EPA 6020
IONBALANCE-CL	Water	Ion Balance Calculation		APHA 1030E
MET1-DIS-ED	Water	Dissolved Trace Metals		EPA 6020
MET1-TOT-ED	Water	Total Trace Metals	EPA3015	EPA 6020
MET2-TOT-ED	Water	Total Major Metals	EPA3015	EPA 200.7
MN-DIS-ED	Water	Manganese (Mn)-Dissolved		EPA 200.7
N2N3-CL	Water	Nitrate+Nitrite-N		APHA 4110 B-Ion Chromatography
NO2-CL	Water	Nitrite-N		APHA 4110 B-Ion Chromatography
NO3-IC-CL	Water	Nitrate-N		APHA 4110 B-Ion Chromatography
PAH-ABT1,CARCINO-ED	Water	AB Tier1 & Carcinogenic PAHs	EPA 3510	EPA 3510/8270-GC/MS
PH/EC/ALK-CL	Water	pH, Conductivity and Total Alkalinity		APHA 4500H,2510,2320
SO4-CL	Water	Sulfate (SO4)		APHA 4110 B-Ion Chromatography

** Laboratory Methods employed follow in-house procedures, which are generally based on nationally or internationally accepted methodologies.

Chain of Custody numbers:

167279

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
CL	Enviro-Test Laboratories - Calgary, Alberta, Canada	ED	Enviro-Test Laboratories - Edmonton, Alberta, Canada

Reference Information

GLOSSARY OF REPORT TERMS

Surr - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds. The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.

mg/kg (units) - unit of concentration based on mass, parts per million

mg/L (units) - unit of concentration based on volume, parts per million

< - Less than

D.L. - Detection Limit

N/A - Result not available. Refer to qualifier code and definition for explanation

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.

Although test results are generated under strict QA/QC protocols, any unsigned test reports, faxes, or emails are considered preliminary.

Enviro-Test Laboratories has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot be guaranteed, Enviro-Test Laboratories assumes no liability for the use or interpretation of the results.