

# Appendix B Effluent and Soil Lab Results

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## ALS Lab Work Orders:

**L420839 2006 Effluent and Soil Sample Results**

**L516797 2007 Effluent Sample Results**

**L527067 2007 Effluent Sample Results**

**L524586 2007 Effluent Sample Results**

**L654816 2008 Effluent Sample Results**

**L703160 2008 Soil Sample Results**



**Environmental Division**

**PRELIMINARY RESULTS**

MIRAMAR HOPE BAY LTD

ATTN: MATT KAWEI

Reported On: 20-AUG-06 11:24 AM

300, 889 HARBOURSIDE DRIVE

NORTH VANCOUVER BC V7P 3S1

Lab Work Order #: **L420839**

Date Received: **11-AUG-06**

Project P.O. #:

Job Reference:

Legal Site Desc:

CofC Numbers: 74422, 74423, 74426

Other Information:

Comments:

ROY JONES  
General Manager

For any questions about this report please contact your Account Manager:

**JENNIFER DARRAH**

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



## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-1 WINDY CAMP LTA								
Sampled By: APRIL on 04-AUG-06 @ 17:30								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	112		0.5	mg/L		14-AUG-06	SYF	R430268
Potassium (K)	21.2		0.1	mg/L		14-AUG-06	SYF	R430268
Magnesium (Mg)	78.1		0.1	mg/L		14-AUG-06	SYF	R430268
Sodium (Na)	287		1	mg/L		14-AUG-06	SYF	R430268
Iron (Fe)	2.23		0.005	mg/L		14-AUG-06	SYF	R430268
Manganese (Mn)	0.289		0.001	mg/L		14-AUG-06	SYF	R430268
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Aluminum (Al)	1.34		0.02	mg/L		15-AUG-06	QLI	R430691
Arsenic (As)	0.0516		0.0004	mg/L		15-AUG-06	QLI	R430691
Boron (B)	0.68		0.02	mg/L		15-AUG-06	QLI	R430691
Barium (Ba)	0.0445		0.0002	mg/L		15-AUG-06	QLI	R430691
Beryllium (Be)	<0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Cobalt (Co)	0.0028		0.0002	mg/L		15-AUG-06	QLI	R430691
Chromium (Cr)	0.0104		0.0008	mg/L		15-AUG-06	QLI	R430691
Copper (Cu)	0.046		0.001	mg/L		15-AUG-06	QLI	R430691
Molybdenum (Mo)	0.0098		0.0001	mg/L		15-AUG-06	QLI	R430691
Nickel (Ni)	0.0162		0.0002	mg/L		15-AUG-06	QLI	R430691
Lead (Pb)	0.0013		0.0001	mg/L		15-AUG-06	QLI	R430691
Antimony (Sb)	0.0036		0.0004	mg/L		15-AUG-06	QLI	R430691
Selenium (Se)	0.0089		0.0004	mg/L		15-AUG-06	QLI	R430691
Tin (Sn)	0.0024		0.0004	mg/L		15-AUG-06	QLI	R430691
Strontium (Sr)	0.403		0.0002	mg/L		15-AUG-06	QLI	R430691
Titanium (Ti)	0.082		0.005	mg/L		15-AUG-06	QLI	R430691
Thallium (Tl)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Uranium (U)	0.0021		0.0001	mg/L		15-AUG-06	QLI	R430691
Vanadium (V)	0.0214		0.0002	mg/L		15-AUG-06	QLI	R430691
Zinc (Zn)	0.013		0.004	mg/L		15-AUG-06	QLI	R430691
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Toluene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
EthylBenzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Xylenes	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1(C6-C10)	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1-BTEX	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	652		1	mg/L		14-AUG-06	EOC	R430262
Fluoride (F)	0.17		0.05	mg/L		12-AUG-06	PTT	R429805
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	130		0.5	mg/L		14-AUG-06	JWU	R430125
Potassium (K)	21.9		0.5	mg/L		14-AUG-06	JWU	R430125
Magnesium (Mg)	95.4		0.1	mg/L		14-AUG-06	JWU	R430125
Sodium (Na)	315		1	mg/L		14-AUG-06	JWU	R430125
Sulfate (SO4)	246		0.5	mg/L		14-AUG-06	JWU	R430125
<b>Ion Balance Calculation</b>								
Ion Balance	102			%		15-AUG-06		
TDS (Calculated)	1590			mg/L		15-AUG-06		
Hardness (as CaCO3)	717			mg/L		15-AUG-06		

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-1 WINDY CAMP LTA Sampled By: APRIL on 04-AUG-06 @ 17:30 Matrix: WATER								
<b>Routine Water: Major Ions, Fluoride</b>								
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrate-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrite-N	<0.05		0.05	mg/L		14-AUG-06	KMY	R430408
<b>pH, Conductivity and Total Alkalinity</b>								
pH	8.3		0.1	pH		12-AUG-06	PTT	R429805
Conductivity (EC)	2540		0.2	uS/cm		12-AUG-06	PTT	R429805
Bicarbonate (HCO3)	274		5	mg/L		12-AUG-06	PTT	R429805
Carbonate (CO3)	<5		5	mg/L		12-AUG-06	PTT	R429805
Hydroxide (OH)	<5		5	mg/L		12-AUG-06	PTT	R429805
Alkalinity, Total (as CaCO3)	224		5	mg/L		12-AUG-06	PTT	R429805
L420839-2 WINDY CAMP LTA-SOUTH Sampled By: APRIL on 04-AUG-06 @ 17:42 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	11.6		0.5	mg/L		14-AUG-06	SYF	R430268
Potassium (K)	3.8		0.1	mg/L		14-AUG-06	SYF	R430268
Magnesium (Mg)	9.1		0.1	mg/L		14-AUG-06	SYF	R430268
Sodium (Na)	52		1	mg/L		14-AUG-06	SYF	R430268
Iron (Fe)	0.186		0.005	mg/L		14-AUG-06	SYF	R430268
Manganese (Mn)	0.006		0.001	mg/L		14-AUG-06	SYF	R430268
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Aluminum (Al)	0.23		0.02	mg/L		15-AUG-06	QLI	R430691
Arsenic (As)	0.0009		0.0004	mg/L		15-AUG-06	QLI	R430691
Boron (B)	0.09		0.02	mg/L		15-AUG-06	QLI	R430691
Barium (Ba)	0.0044		0.0002	mg/L		15-AUG-06	QLI	R430691
Beryllium (Be)	<0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Cobalt (Co)	0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Chromium (Cr)	0.0031		0.0008	mg/L		15-AUG-06	QLI	R430691
Copper (Cu)	0.002		0.001	mg/L		15-AUG-06	QLI	R430691
Molybdenum (Mo)	0.0007		0.0001	mg/L		15-AUG-06	QLI	R430691
Nickel (Ni)	0.0004		0.0002	mg/L		15-AUG-06	QLI	R430691
Lead (Pb)	0.0003		0.0001	mg/L		15-AUG-06	QLI	R430691
Antimony (Sb)	0.0007		0.0004	mg/L		15-AUG-06	QLI	R430691
Selenium (Se)	0.0032		0.0004	mg/L		15-AUG-06	QLI	R430691
Tin (Sn)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Strontium (Sr)	0.0585		0.0002	mg/L		15-AUG-06	QLI	R430691
Titanium (Ti)	0.013		0.005	mg/L		15-AUG-06	QLI	R430691
Thallium (Tl)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Uranium (U)	0.0002		0.0001	mg/L		15-AUG-06	QLI	R430691
Vanadium (V)	0.0038		0.0002	mg/L		15-AUG-06	QLI	R430691
Zinc (Zn)	<0.004		0.004	mg/L		15-AUG-06	QLI	R430691
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Toluene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
EthylBenzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Xylenes	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-2 WINDY CAMP LTA-SOUTH Sampled By: APRIL on 04-AUG-06 @ 17:42 Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
F1(C6-C10)	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1-BTEX	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	98		1	mg/L		17-AUG-06	EOC	R431636
Fluoride (F)	0.07		0.05	mg/L		12-AUG-06	PTT	R429805
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	11.9		0.5	mg/L		17-AUG-06	EOC	R431610
Potassium (K)	3.8		0.5	mg/L		17-AUG-06	EOC	R431610
Magnesium (Mg)	9.9		0.1	mg/L		17-AUG-06	EOC	R431610
Sodium (Na)	52		1	mg/L		17-AUG-06	EOC	R431610
Sulfate (SO4)	9.0		0.5	mg/L		17-AUG-06	EOC	R431610
<b>Ion Balance Calculation</b>								
Ion Balance	94.9			%		18-AUG-06		
TDS (Calculated)	215			mg/L		18-AUG-06		
Hardness (as CaCO3)	70			mg/L		18-AUG-06		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		18-AUG-06	KMY	R432093
Nitrate-N	<0.1		0.1	mg/L		18-AUG-06	KMY	R432093
Nitrite-N	<0.05		0.05	mg/L		18-AUG-06	KMY	R432093
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.9		0.1	pH		12-AUG-06	PTT	R429805
Conductivity (EC)	433		0.2	uS/cm		12-AUG-06	PTT	R429805
Bicarbonate (HCO3)	62		5	mg/L		12-AUG-06	PTT	R429805
Carbonate (CO3)	<5		5	mg/L		12-AUG-06	PTT	R429805
Hydroxide (OH)	<5		5	mg/L		12-AUG-06	PTT	R429805
Alkalinity, Total (as CaCO3)	51		5	mg/L		12-AUG-06	PTT	R429805
L420839-3 WINDY CAMP LTA-NORTH Sampled By: APRIL on 04-AUG-06 @ 17:38 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	11.1		0.5	mg/L		14-AUG-06	SYF	R430268
Potassium (K)	3.8		0.1	mg/L		14-AUG-06	SYF	R430268
Magnesium (Mg)	8.7		0.1	mg/L		14-AUG-06	SYF	R430268
Sodium (Na)	51		1	mg/L		14-AUG-06	SYF	R430268
Iron (Fe)	0.084		0.005	mg/L		14-AUG-06	SYF	R430268
Manganese (Mn)	0.003		0.001	mg/L		14-AUG-06	SYF	R430268
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Aluminum (Al)	0.10		0.02	mg/L		15-AUG-06	QLI	R430691
Arsenic (As)	0.0010		0.0004	mg/L		15-AUG-06	QLI	R430691
Boron (B)	0.10		0.02	mg/L		15-AUG-06	QLI	R430691
Barium (Ba)	0.0031		0.0002	mg/L		15-AUG-06	QLI	R430691
Beryllium (Be)	<0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Cobalt (Co)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Chromium (Cr)	0.0027		0.0008	mg/L		15-AUG-06	QLI	R430691
Copper (Cu)	0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Molybdenum (Mo)	0.0006		0.0001	mg/L		15-AUG-06	QLI	R430691
Nickel (Ni)	0.0003		0.0002	mg/L		15-AUG-06	QLI	R430691

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-3 WINDY CAMP LTA-NORTH								
Sampled By: APRIL on 04-AUG-06 @ 17:38								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Trace Metals (Low Level)</b>								
Lead (Pb)	0.0003		0.0001	mg/L		15-AUG-06	QLI	R430691
Antimony (Sb)	0.0008		0.0004	mg/L		15-AUG-06	QLI	R430691
Selenium (Se)	0.0031		0.0004	mg/L		15-AUG-06	QLI	R430691
Tin (Sn)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Strontium (Sr)	0.0558		0.0002	mg/L		15-AUG-06	QLI	R430691
Titanium (Ti)	0.006		0.005	mg/L		15-AUG-06	QLI	R430691
Thallium (Tl)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Uranium (U)	0.0002		0.0001	mg/L		15-AUG-06	QLI	R430691
Vanadium (V)	0.0030		0.0002	mg/L		15-AUG-06	QLI	R430691
Zinc (Zn)	<0.004		0.004	mg/L		15-AUG-06	QLI	R430691
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Toluene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
EthylBenzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Xylenes	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1(C6-C10)	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1-BTEX	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	99		1	mg/L		14-AUG-06	EOC	R430262
Fluoride (F)	0.07		0.05	mg/L		12-AUG-06	PTT	R429805
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	13.5		0.5	mg/L		14-AUG-06	JWU	R430125
Potassium (K)	4.1		0.5	mg/L		14-AUG-06	JWU	R430125
Magnesium (Mg)	10.8		0.1	mg/L		14-AUG-06	JWU	R430125
Sodium (Na)	59		1	mg/L		14-AUG-06	JWU	R430125
Sulfate (SO4)	8.7		0.5	mg/L		14-AUG-06	JWU	R430125
<b>Ion Balance Calculation</b>								
Ion Balance	106			%		15-AUG-06		
TDS (Calculated)	225			mg/L		15-AUG-06		
Hardness (as CaCO3)	78			mg/L		15-AUG-06		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrate-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrite-N	<0.05		0.05	mg/L		14-AUG-06	KMY	R430408
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.9		0.1	pH		12-AUG-06	PTT	R429805
Conductivity (EC)	428		0.2	uS/cm		12-AUG-06	PTT	R429805
Bicarbonate (HCO3)	61		5	mg/L		12-AUG-06	PTT	R429805
Carbonate (CO3)	<5		5	mg/L		12-AUG-06	PTT	R429805
Hydroxide (OH)	<5		5	mg/L		12-AUG-06	PTT	R429805
Alkalinity, Total (as CaCO3)	50		5	mg/L		12-AUG-06	PTT	R429805
L420839-4 WINDY CAMP LTA-IMPACT AREA								
Sampled By: APRIL on 04-AUG-06 @ 17:35								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	11.2		0.5	mg/L		14-AUG-06	SYF	R430268
Potassium (K)	3.7		0.1	mg/L		14-AUG-06	SYF	R430268
Magnesium (Mg)	8.8		0.1	mg/L		14-AUG-06	SYF	R430268
Sodium (Na)	51		1	mg/L		14-AUG-06	SYF	R430268

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-4 WINDY CAMP LTA-IMPACT AREA								
Sampled By: APRIL on 04-AUG-06 @ 17:35								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Iron (Fe)	0.094		0.005	mg/L		14-AUG-06	SYF	R430268
Manganese (Mn)	0.005		0.001	mg/L		14-AUG-06	SYF	R430268
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Aluminum (Al)	0.11		0.02	mg/L		15-AUG-06	QLI	R430691
Arsenic (As)	0.0010		0.0004	mg/L		15-AUG-06	QLI	R430691
Boron (B)	1.05		0.02	mg/L		15-AUG-06	QLI	R430691
Barium (Ba)	0.0031		0.0002	mg/L		15-AUG-06	QLI	R430691
Beryllium (Be)	<0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Cobalt (Co)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Chromium (Cr)	0.0029		0.0008	mg/L		15-AUG-06	QLI	R430691
Copper (Cu)	0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Molybdenum (Mo)	0.0007		0.0001	mg/L		15-AUG-06	QLI	R430691
Nickel (Ni)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Lead (Pb)	0.0002		0.0001	mg/L		15-AUG-06	QLI	R430691
Antimony (Sb)	0.0008		0.0004	mg/L		15-AUG-06	QLI	R430691
Selenium (Se)	0.0035		0.0004	mg/L		15-AUG-06	QLI	R430691
Tin (Sn)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Strontium (Sr)	0.0563		0.0002	mg/L		15-AUG-06	QLI	R430691
Titanium (Ti)	0.006		0.005	mg/L		15-AUG-06	QLI	R430691
Thallium (Tl)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Uranium (U)	0.0002		0.0001	mg/L		15-AUG-06	QLI	R430691
Vanadium (V)	0.0034		0.0002	mg/L		15-AUG-06	QLI	R430691
Zinc (Zn)	<0.004		0.004	mg/L		15-AUG-06	QLI	R430691
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Toluene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
EthylBenzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Xylenes	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1(C6-C10)	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1-BTEX	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	99		1	mg/L		14-AUG-06	EOC	R430262
Fluoride (F)	0.07		0.05	mg/L		12-AUG-06	PTT	R429805
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	13.2		0.5	mg/L		14-AUG-06	JWU	R430125
Potassium (K)	4.1		0.5	mg/L		14-AUG-06	JWU	R430125
Magnesium (Mg)	10.6		0.1	mg/L		14-AUG-06	JWU	R430125
Sodium (Na)	59		1	mg/L		14-AUG-06	JWU	R430125
Sulfate (SO4)	8.0		0.5	mg/L		14-AUG-06	JWU	R430125
<b>Ion Balance Calculation</b>								
Ion Balance	106			%		15-AUG-06		
TDS (Calculated)	225			mg/L		15-AUG-06		
Hardness (as CaCO3)	77			mg/L		15-AUG-06		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrate-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrite-N	<0.05		0.05	mg/L		14-AUG-06	KMY	R430408

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-4 WINDY CAMP LTA-IMPACT AREA Sampled By: APRIL on 04-AUG-06 @ 17:35 Matrix: WATER <b>Routine Water: Major Ions, Fluoride pH, Conductivity and Total Alkalinity</b>								
pH	7.9		0.1	pH		12-AUG-06	PTT	R429805
Conductivity (EC)	429		0.2	uS/cm		12-AUG-06	PTT	R429805
Bicarbonate (HCO3)	62		5	mg/L		12-AUG-06	PTT	R429805
Carbonate (CO3)	<5		5	mg/L		12-AUG-06	PTT	R429805
Hydroxide (OH)	<5		5	mg/L		12-AUG-06	PTT	R429805
Alkalinity, Total (as CaCO3)	51		5	mg/L		12-AUG-06	PTT	R429805
L420839-5 WINDY CAMP LTA #A Sampled By: APRIL on 05-AUG-06 @ 09:31 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	100		33-172	%	17-AUG-06	17-AUG-06	AAT	R431984
Surr: Hexatriacontane	151		44-173	%	17-AUG-06	17-AUG-06	AAT	R431984
Prep/Analysis Dates					17-AUG-06	17-AUG-06	AAT	R431984
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5	IPT	5	mg/kg		18-AUG-06		
F1-BTEX	<5		5	mg/kg		18-AUG-06		
F2 (C10-C16)	180	RAMB	5	mg/kg		18-AUG-06		
F3 (C16-C34)	560		5	mg/kg		18-AUG-06		
F4 (C34-C50)	160		5	mg/kg		18-AUG-06		
Total Hydrocarbons (C6-C50)	900		5	mg/kg		18-AUG-06		
Chromatogram to baseline at nC50	NO					18-AUG-06		
% Moisture	16		0.1	%		14-AUG-06	HMB	R430313
L420839-6 WINDY CAMP LTA #B Sampled By: APRIL on 05-AUG-06 @ 09:35 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	92		33-172	%	17-AUG-06	17-AUG-06	AAT	R431984
Surr: Hexatriacontane	117		44-173	%	17-AUG-06	17-AUG-06	AAT	R431984
Prep/Analysis Dates					17-AUG-06	17-AUG-06	AAT	R431984
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5	IPT	5	mg/kg		18-AUG-06		
F1-BTEX	<5		5	mg/kg		18-AUG-06		
F2 (C10-C16)	44	RAMB	5	mg/kg		18-AUG-06		
F3 (C16-C34)	230	RAMB	5	mg/kg		18-AUG-06		
F4 (C34-C50)	100		5	mg/kg		18-AUG-06		
Total Hydrocarbons (C6-C50)	370		5	mg/kg		18-AUG-06		
Chromatogram to baseline at nC50	NO					18-AUG-06		



## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-6 WINDY CAMP LTA #B Sampled By: APRIL on 05-AUG-06 @ 09:35 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b>								
% Moisture	14		0.1	%		14-AUG-06	HMB	R430313
L420839-7 WINDY CAMP LTA #C Sampled By: APRIL on 05-AUG-06 @ 09:38 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	<0.01	RAMB	0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	101		33-172	%	17-AUG-06	17-AUG-06	AAT	R431984
Surr: Hexatriacontane	157		44-173	%	17-AUG-06	17-AUG-06	AAT	R431984
Prep/Analysis Dates					17-AUG-06	17-AUG-06	AAT	R431984
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5	IPT	5	mg/kg		18-AUG-06		
F1-BTEX	<5		5	mg/kg		18-AUG-06		
F2 (C10-C16)	130	RAMB	5	mg/kg		18-AUG-06		
F3 (C16-C34)	760		5	mg/kg		18-AUG-06		
F4 (C34-C50)	290		5	mg/kg		18-AUG-06		
Total Hydrocarbons (C6-C50)	1200		5	mg/kg		18-AUG-06		
Chromatogram to baseline at nC50	NO					18-AUG-06		
% Moisture	25		0.1	%		14-AUG-06	HMB	R430313
L420839-8 WINDY CAMP LTA #D Sampled By: APRIL on 05-AUG-06 @ 09:43 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	87		33-172	%	17-AUG-06	17-AUG-06	AAT	R431984
Surr: Hexatriacontane	127		44-173	%	17-AUG-06	17-AUG-06	AAT	R431984
Prep/Analysis Dates					17-AUG-06	17-AUG-06	AAT	R431984
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5	IPT	5	mg/kg		18-AUG-06		
F1-BTEX	<5		5	mg/kg		18-AUG-06		
F2 (C10-C16)	320		5	mg/kg		18-AUG-06		
F3 (C16-C34)	490		5	mg/kg		18-AUG-06		
F4 (C34-C50)	130		5	mg/kg		18-AUG-06		
Total Hydrocarbons (C6-C50)	940		5	mg/kg		18-AUG-06		
Chromatogram to baseline at nC50	NO					18-AUG-06		
% Moisture	14		0.1	%		14-AUG-06	HMB	R430313

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-9 WINDY CAMP LTA #E								
Sampled By: APRIL on 05-AUG-06 @ 09:48								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	105		33-172	%	17-AUG-06	17-AUG-06	AAT	R431984
Surr: Hexatriacontane	153		44-173	%	17-AUG-06	17-AUG-06	AAT	R431984
Prep/Analysis Dates								
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5	IPT	5	mg/kg		18-AUG-06		
F1-BTEX	<5		5	mg/kg		18-AUG-06		
F2 (C10-C16)	60	RAMB	5	mg/kg		18-AUG-06		
F3 (C16-C34)	420		5	mg/kg		18-AUG-06		
F4 (C34-C50)	160		5	mg/kg		18-AUG-06		
Total Hydrocarbons (C6-C50)	640		5	mg/kg		18-AUG-06		
Chromatogram to baseline at nC50	NO					18-AUG-06		
% Moisture	15		0.1	%		14-AUG-06	HMB	R430313
L420839-10 WINDY CAMP LTA #F								
Sampled By: APRIL on 05-AUG-06 @ 09:51								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	0.02		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01	RAMB	0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	0.13		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	89		33-172	%	17-AUG-06	17-AUG-06	AAT	R431984
Surr: Hexatriacontane	114		44-173	%	17-AUG-06	17-AUG-06	AAT	R431984
Prep/Analysis Dates								
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5	IPT	5	mg/kg		18-AUG-06		
F1-BTEX	<5		5	mg/kg		18-AUG-06		
F2 (C10-C16)	380		5	mg/kg		18-AUG-06		
F3 (C16-C34)	310	RAMB	5	mg/kg		18-AUG-06		
F4 (C34-C50)	84		5	mg/kg		18-AUG-06		
Total Hydrocarbons (C6-C50)	770		5	mg/kg		18-AUG-06		
Chromatogram to baseline at nC50	NO					18-AUG-06		
% Moisture	10		0.1	%		14-AUG-06	HMB	R430313
L420839-11 WINDY CAMP LTA #G								
Sampled By: APRIL on 05-AUG-06 @ 09:55								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420





## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-15 WINDY CAMP LTA #K Sampled By: APRIL on 05-AUG-06 @ 10:44 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b> <b>CCME Total Hydrocarbons</b> F4 (C34-C50) Total Hydrocarbons (C6-C50) Chromatogram to baseline at nC50  % Moisture	48 230 NO  20		5 5  0.1	mg/kg mg/kg  %		20-AUG-06 20-AUG-06 20-AUG-06  14-AUG-06	HMB	R430313
L420839-16 WINDY CAMP LTA #L Sampled By: APRIL on 05-AUG-06 @ 10:47 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b> <b>CCME BTEX</b> Benzene Toluene Ethylbenzene Xylenes <b>CCME Total Extractable Hydrocarbons</b> Surr: 2-Bromobenzotrifluoride Surr: Hexatriacontane Prep/Analysis Dates <b>CCME Total Hydrocarbons</b> F1 (C6-C10) F1-BTEX F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Total Hydrocarbons (C6-C50) Chromatogram to baseline at nC50  % Moisture	<0.005 <0.01 <0.01 <0.01  114 102  <5 <5 10 69 32 110 NO  12		0.005 0.01 0.01 0.01  33-172 44-173  IPT RAMB 5 5 5 5 5 5 0.1	mg/kg mg/kg mg/kg mg/kg  % %  mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg %	14-AUG-06 14-AUG-06 14-AUG-06 14-AUG-06  17-AUG-06 17-AUG-06 17-AUG-06	14-AUG-06 14-AUG-06 14-AUG-06 14-AUG-06  18-AUG-06 18-AUG-06 18-AUG-06	SCM SCM SCM SCM  MKE MKE MKE	R430420 R430420 R430420 R430420  R432244 R432244 R432244
L420839-17 147-A Sampled By: APRIL on 07-AUG-06 @ 09:45 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b> <b>CCME BTEX</b> Benzene Toluene Ethylbenzene Xylenes <b>CCME Total Extractable Hydrocarbons</b> Surr: 2-Bromobenzotrifluoride Surr: Hexatriacontane Prep/Analysis Dates <b>CCME Total Hydrocarbons</b> F1 (C6-C10) F1-BTEX F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Total Hydrocarbons (C6-C50) Chromatogram to baseline at nC50	<0.005 <0.01 <0.01 <0.01  68 93  <5 <5 20 69 31 120 NO		0.005 0.01 0.01 0.01  33-172 44-173  IPT RAMB 5 5 5 5 5 5	mg/kg mg/kg mg/kg mg/kg  % %  mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	14-AUG-06 14-AUG-06 14-AUG-06 14-AUG-06  17-AUG-06 17-AUG-06 17-AUG-06	14-AUG-06 14-AUG-06 14-AUG-06 14-AUG-06  18-AUG-06 18-AUG-06 18-AUG-06	SCM SCM SCM SCM  MKE MKE MKE	R430420 R430420 R430420 R430420  R432244 R432244 R432244



## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-20 2003-2A Sampled By: APRIL on 07-AUG-06 @ 09:25 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b> <b>CCME BTEX</b> Benzene Toluene Ethylbenzene Xylenes <b>CCME Total Extractable Hydrocarbons</b> Surr: 2-Bromobenzotrifluoride Surr: Hexatriacontane Prep/Analysis Dates <b>CCME Total Hydrocarbons</b> F1 (C6-C10) F1-BTEX F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Total Hydrocarbons (C6-C50) Chromatogram to baseline at nC50  % Moisture	<0.005 <0.01 <0.01 <0.01 107 118 NO 22		0.005 0.01 0.01 0.01 33-172 44-173 5 5 5 5 5 5 0.1	mg/kg mg/kg mg/kg mg/kg % % mg/kg mg/kg mg/kg mg/kg mg/kg %	14-AUG-06 14-AUG-06 14-AUG-06 14-AUG-06 18-AUG-06 18-AUG-06 18-AUG-06 18-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 14-AUG-06	14-AUG-06 14-AUG-06 14-AUG-06 14-AUG-06 18-AUG-06 18-AUG-06 18-AUG-06 18-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 14-AUG-06	SCM SCM SCM SCM MKE MKE MKE MKE HMB	R430420 R430420 R430420 R430420 R432237 R432237 R432237 R432237 R430313
L420839-21 2003-1A Sampled By: APRIL on 07-AUG-06 @ 09:12 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b> <b>CCME BTEX</b> Benzene Toluene Ethylbenzene Xylenes <b>CCME Total Extractable Hydrocarbons</b> Surr: 2-Bromobenzotrifluoride Surr: Hexatriacontane Prep/Analysis Dates <b>CCME Total Hydrocarbons</b> F1 (C6-C10) F1-BTEX F2 (C10-C16) F3 (C16-C34) F4 (C34-C50) Total Hydrocarbons (C6-C50) Chromatogram to baseline at nC50  % Moisture	<0.005 <0.01 <0.01 <0.01 108 226 NO 19		0.005 0.01 0.01 0.01 33-172 44-173 5 5 5 5 5 5 0.1	mg/kg mg/kg mg/kg mg/kg % % mg/kg mg/kg mg/kg mg/kg mg/kg %	14-AUG-06 14-AUG-06 14-AUG-06 14-AUG-06 18-AUG-06 18-AUG-06 18-AUG-06 18-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 14-AUG-06	14-AUG-06 14-AUG-06 14-AUG-06 14-AUG-06 18-AUG-06 18-AUG-06 18-AUG-06 18-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 20-AUG-06 14-AUG-06	SCM SCM SCM SCM MKE MKE MKE MKE HMB	R430420 R430420 R430420 R430420 R432237 R432237 R432237 R432237 R430313
L420839-22 2003-1B Sampled By: APRIL on 07-AUG-06 @ 09:14 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b> <b>CCME BTEX</b> Benzene Toluene Ethylbenzene Xylenes	<0.005 <0.01 <0.01 <0.01		0.005 0.01 0.01 0.01	mg/kg mg/kg mg/kg mg/kg	14-AUG-06 14-AUG-06 14-AUG-06 14-AUG-06	14-AUG-06 14-AUG-06 14-AUG-06 14-AUG-06	SCM SCM SCM SCM	R430420 R430420 R430420 R430420





## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-24 2005-1B								
Sampled By: APRIL on 07-AUG-06 @ 09:30								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	690	IPT	5	mg/kg		20-AUG-06		
F1-BTEX	680		5	mg/kg		20-AUG-06		
F2 (C10-C16)	3600	IPC	5	mg/kg		20-AUG-06		
F3 (C16-C34)	1000	IPC	5	mg/kg		20-AUG-06		
F4 (C34-C50)	28	IPC	5	mg/kg		20-AUG-06		
Total Hydrocarbons (C6-C50)	5300		5	mg/kg		20-AUG-06		
Chromatogram to baseline at nC50	NO					20-AUG-06		
% Moisture	11		0.1	%		14-AUG-06	HMB	R430313
L420839-25 WALMART #1								
Sampled By: APRIL P. on 07-AUG-06 @ 09:40								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	111		33-172	%	18-AUG-06	18-AUG-06	MKE	R432237
Surr: Hexatriacontane	139		44-173	%	18-AUG-06	18-AUG-06	MKE	R432237
Prep/Analysis Dates								
					18-AUG-06	18-AUG-06	MKE	R432237
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5	IPT	5	mg/kg		20-AUG-06		
F1-BTEX	<5		5	mg/kg		20-AUG-06		
F2 (C10-C16)	32	IPC	5	mg/kg		20-AUG-06		
F3 (C16-C34)	1500	IPC	5	mg/kg		20-AUG-06		
F4 (C34-C50)	190	IPC	5	mg/kg		20-AUG-06		
Total Hydrocarbons (C6-C50)	1700		5	mg/kg		20-AUG-06		
Chromatogram to baseline at nC50	NO					20-AUG-06		
% Moisture	34		0.1	%		14-AUG-06	HMB	R430313
L420839-26 LAKE NORTH END								
Sampled By: APRIL P. on 07-AUG-06 @ 13:40								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	11.5		0.5	mg/L		17-AUG-06	SYF	R431645
Potassium (K)	3.7		0.1	mg/L		17-AUG-06	SYF	R431645
Magnesium (Mg)	9.0		0.1	mg/L		17-AUG-06	SYF	R431645
Sodium (Na)	50		1	mg/L		17-AUG-06	SYF	R431645
Iron (Fe)	0.048		0.005	mg/L		17-AUG-06	SYF	R431645
Manganese (Mn)	0.002		0.001	mg/L		17-AUG-06	SYF	R431645
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Aluminum (Al)	0.07		0.02	mg/L		15-AUG-06	QLI	R430691
Arsenic (As)	0.0010		0.0004	mg/L		15-AUG-06	QLI	R430691
Boron (B)	0.09		0.02	mg/L		15-AUG-06	QLI	R430691
Barium (Ba)	0.0033		0.0002	mg/L		15-AUG-06	QLI	R430691
Beryllium (Be)	<0.001		0.001	mg/L		15-AUG-06	QLI	R430691

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-26 LAKE NORTH END								
Sampled By: APRIL P. on 07-AUG-06 @ 13:40								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Trace Metals (Low Level)</b>								
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Cobalt (Co)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Chromium (Cr)	0.0030		0.0008	mg/L		15-AUG-06	QLI	R430691
Copper (Cu)	0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Molybdenum (Mo)	0.0007		0.0001	mg/L		15-AUG-06	QLI	R430691
Nickel (Ni)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Lead (Pb)	0.0002		0.0001	mg/L		15-AUG-06	QLI	R430691
Antimony (Sb)	0.0008		0.0004	mg/L		15-AUG-06	QLI	R430691
Selenium (Se)	0.0038		0.0004	mg/L		15-AUG-06	QLI	R430691
Tin (Sn)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Strontium (Sr)	0.0589		0.0002	mg/L		15-AUG-06	QLI	R430691
Titanium (Ti)	<0.005		0.005	mg/L		15-AUG-06	QLI	R430691
Thallium (Tl)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Uranium (U)	0.0002		0.0001	mg/L		15-AUG-06	QLI	R430691
Vanadium (V)	0.0035		0.0002	mg/L		15-AUG-06	QLI	R430691
Zinc (Zn)	<0.004		0.004	mg/L		15-AUG-06	QLI	R430691
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Toluene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
EthylBenzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Xylenes	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1(C6-C10)	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1-BTEX	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	97		1	mg/L		17-AUG-06	EOC	R431636
Fluoride (F)	0.07		0.05	mg/L		12-AUG-06	PTT	R429805
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	13.1		0.5	mg/L		14-AUG-06	JWU	R430125
Potassium (K)	4.1		0.5	mg/L		14-AUG-06	JWU	R430125
Magnesium (Mg)	10.5		0.1	mg/L		14-AUG-06	JWU	R430125
Sodium (Na)	59		1	mg/L		14-AUG-06	JWU	R430125
Sulfate (SO4)	8.2		0.5	mg/L		14-AUG-06	JWU	R430125
<b>Ion Balance Calculation</b>								
Ion Balance	107			%		17-AUG-06		
TDS (Calculated)	222			mg/L		17-AUG-06		
Hardness (as CaCO3)	76			mg/L		17-AUG-06		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrate-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrite-N	<0.05		0.05	mg/L		14-AUG-06	KMY	R430408
<b>pH, Conductivity and Total Alkalinity</b>								
pH	8.0		0.1	pH		12-AUG-06	PTT	R429805
Conductivity (EC)	428		0.2	uS/cm		12-AUG-06	PTT	R429805
Bicarbonate (HCO3)	61		5	mg/L		12-AUG-06	PTT	R429805
Carbonate (CO3)	<5		5	mg/L		12-AUG-06	PTT	R429805
Hydroxide (OH)	<5		5	mg/L		12-AUG-06	PTT	R429805
Alkalinity, Total (as CaCO3)	50		5	mg/L		12-AUG-06	PTT	R429805

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-27 WINDY LAKE-SOUTH								
Sampled By: APRIL P. on 07-AUG-06 @ 13:20								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	11.4		0.5	mg/L		14-AUG-06	SYF	R430268
Potassium (K)	3.7		0.1	mg/L		14-AUG-06	SYF	R430268
Magnesium (Mg)	9.1		0.1	mg/L		14-AUG-06	SYF	R430268
Sodium (Na)	52		1	mg/L		14-AUG-06	SYF	R430268
Iron (Fe)	0.066		0.005	mg/L		14-AUG-06	SYF	R430268
Manganese (Mn)	0.002		0.001	mg/L		14-AUG-06	SYF	R430268
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Aluminum (Al)	0.09		0.02	mg/L		15-AUG-06	QLI	R430691
Arsenic (As)	0.0009		0.0004	mg/L		15-AUG-06	QLI	R430691
Boron (B)	0.09		0.02	mg/L		15-AUG-06	QLI	R430691
Barium (Ba)	0.0034		0.0002	mg/L		15-AUG-06	QLI	R430691
Beryllium (Be)	<0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Cobalt (Co)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Chromium (Cr)	0.0030		0.0008	mg/L		15-AUG-06	QLI	R430691
Copper (Cu)	0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Molybdenum (Mo)	0.0006		0.0001	mg/L		15-AUG-06	QLI	R430691
Nickel (Ni)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Lead (Pb)	0.0002		0.0001	mg/L		15-AUG-06	QLI	R430691
Antimony (Sb)	0.0008		0.0004	mg/L		15-AUG-06	QLI	R430691
Selenium (Se)	0.0032		0.0004	mg/L		15-AUG-06	QLI	R430691
Tin (Sn)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Strontium (Sr)	0.0568		0.0002	mg/L		15-AUG-06	QLI	R430691
Titanium (Ti)	<0.005		0.005	mg/L		15-AUG-06	QLI	R430691
Thallium (Tl)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Uranium (U)	0.0002		0.0001	mg/L		15-AUG-06	QLI	R430691
Vanadium (V)	0.0037		0.0002	mg/L		15-AUG-06	QLI	R430691
Zinc (Zn)	<0.004		0.004	mg/L		15-AUG-06	QLI	R430691
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Toluene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
EthylBenzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Xylenes	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1(C6-C10)	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1-BTEX	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	99		1	mg/L		14-AUG-06	EOC	R430262
Fluoride (F)	0.07		0.05	mg/L		12-AUG-06	PTT	R429805
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	13.1		0.5	mg/L		14-AUG-06	JWU	R430125
Potassium (K)	4.0		0.5	mg/L		14-AUG-06	JWU	R430125
Magnesium (Mg)	10.7		0.1	mg/L		14-AUG-06	JWU	R430125
Sodium (Na)	59		1	mg/L		14-AUG-06	JWU	R430125
Sulfate (SO4)	8.3		0.5	mg/L		14-AUG-06	JWU	R430125
<b>Ion Balance Calculation</b>								
Ion Balance	105			%		15-AUG-06		
TDS (Calculated)	225			mg/L		15-AUG-06		
Hardness (as CaCO3)	77			mg/L		15-AUG-06		

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-27 WINDY LAKE-SOUTH								
Sampled By: APRIL P. on 07-AUG-06 @ 13:20								
Matrix: WATER								
<b>Routine Water: Major Ions, Fluoride</b>								
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrate-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrite-N	<0.05		0.05	mg/L		14-AUG-06	KMY	R430408
<b>pH, Conductivity and Total Alkalinity</b>								
pH	8.0		0.1	pH		12-AUG-06	PTT	R429805
Conductivity (EC)	429		0.2	uS/cm		12-AUG-06	PTT	R429805
Bicarbonate (HCO3)	62		5	mg/L		12-AUG-06	PTT	R429805
Carbonate (CO3)	<5		5	mg/L		12-AUG-06	PTT	R429805
Hydroxide (OH)	<5		5	mg/L		12-AUG-06	PTT	R429805
Alkalinity, Total (as CaCO3)	51		5	mg/L		12-AUG-06	PTT	R429805
L420839-28 LAKE CENTRAL								
Sampled By: APRIL P. on 07-AUG-06 @ 13:30								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	11.3		0.5	mg/L		14-AUG-06	SYF	R430268
Potassium (K)	3.6		0.1	mg/L		14-AUG-06	SYF	R430268
Magnesium (Mg)	9.1		0.1	mg/L		14-AUG-06	SYF	R430268
Sodium (Na)	51		1	mg/L		14-AUG-06	SYF	R430268
Iron (Fe)	0.044		0.005	mg/L		14-AUG-06	SYF	R430268
Manganese (Mn)	0.002		0.001	mg/L		14-AUG-06	SYF	R430268
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Aluminum (Al)	0.07		0.02	mg/L		15-AUG-06	QLI	R430691
Arsenic (As)	0.0009		0.0004	mg/L		15-AUG-06	QLI	R430691
Boron (B)	0.08		0.02	mg/L		15-AUG-06	QLI	R430691
Barium (Ba)	0.0032		0.0002	mg/L		15-AUG-06	QLI	R430691
Beryllium (Be)	<0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Cobalt (Co)	<0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Chromium (Cr)	0.0029		0.0008	mg/L		15-AUG-06	QLI	R430691
Copper (Cu)	0.001		0.001	mg/L		15-AUG-06	QLI	R430691
Molybdenum (Mo)	0.0006		0.0001	mg/L		15-AUG-06	QLI	R430691
Nickel (Ni)	0.0002		0.0002	mg/L		15-AUG-06	QLI	R430691
Lead (Pb)	0.0002		0.0001	mg/L		15-AUG-06	QLI	R430691
Antimony (Sb)	0.0007		0.0004	mg/L		15-AUG-06	QLI	R430691
Selenium (Se)	0.0035		0.0004	mg/L		15-AUG-06	QLI	R430691
Tin (Sn)	<0.0004		0.0004	mg/L		15-AUG-06	QLI	R430691
Strontium (Sr)	0.0567		0.0002	mg/L		15-AUG-06	QLI	R430691
Titanium (Ti)	<0.005		0.005	mg/L		15-AUG-06	QLI	R430691
Thallium (Tl)	<0.0001		0.0001	mg/L		15-AUG-06	QLI	R430691
Uranium (U)	0.0002		0.0001	mg/L		15-AUG-06	QLI	R430691
Vanadium (V)	0.0038		0.0002	mg/L		15-AUG-06	QLI	R430691
Zinc (Zn)	<0.004		0.004	mg/L		15-AUG-06	QLI	R430691
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Toluene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
EthylBenzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Xylenes	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-28 LAKE CENTRAL Sampled By: APRIL P. on 07-AUG-06 @ 13:30 Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
F1(C6-C10)	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1-BTEX	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	99		1	mg/L		14-AUG-06	EOC	R430262
Fluoride (F)	0.07		0.05	mg/L		12-AUG-06	PTT	R429805
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	13.0		0.5	mg/L		14-AUG-06	JWU	R430125
Potassium (K)	3.9		0.5	mg/L		14-AUG-06	JWU	R430125
Magnesium (Mg)	10.5		0.1	mg/L		14-AUG-06	JWU	R430125
Sodium (Na)	58		1	mg/L		14-AUG-06	JWU	R430125
Sulfate (SO4)	8.1		0.5	mg/L		14-AUG-06	JWU	R430125
<b>Ion Balance Calculation</b>								
Ion Balance	104			%		15-AUG-06		
TDS (Calculated)	223			mg/L		15-AUG-06		
Hardness (as CaCO3)	76			mg/L		15-AUG-06		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrate-N	<0.1		0.1	mg/L		14-AUG-06	KMY	R430408
Nitrite-N	<0.05		0.05	mg/L		14-AUG-06	KMY	R430408
<b>pH, Conductivity and Total Alkalinity</b>								
pH	8.0		0.1	pH		12-AUG-06	PTT	R429805
Conductivity (EC)	429		0.2	uS/cm		12-AUG-06	PTT	R429805
Bicarbonate (HCO3)	61		5	mg/L		12-AUG-06	PTT	R429805
Carbonate (CO3)	<5		5	mg/L		12-AUG-06	PTT	R429805
Hydroxide (OH)	<5		5	mg/L		12-AUG-06	PTT	R429805
Alkalinity, Total (as CaCO3)	50		5	mg/L		12-AUG-06	PTT	R429805
L420839-29 WINDY TF-SW Sampled By: APRIL P. on 08-AUG-06 @ 09:20 Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Toluene	<0.0005	RAMB	0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
EthylBenzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Xylenes	0.0024		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1(C6-C10)	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1-BTEX	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
L420839-30 WINDY TF-CENTRE Sampled By: APRIL P. on 08-AUG-06 @ 09:22 Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Toluene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
EthylBenzene	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
Xylenes	<0.0005		0.0005	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1(C6-C10)	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821
F1-BTEX	<0.1		0.1	mg/L	12-AUG-06	12-AUG-06	SCM	R429821

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-31 WINDY TF-SW2								
Sampled By: APRIL P. on 08-AUG-06 @ 09:25								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	122		33-172	%	18-AUG-06	18-AUG-06	MKE	R432237
Surr: Hexatriacontane	111		44-173	%	18-AUG-06	18-AUG-06	MKE	R432237
Prep/Analysis Dates 18-AUG-06 18-AUG-06 MKE R432237								
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5	IPT	5	mg/kg		20-AUG-06		
F1-BTEX	<5		5	mg/kg		20-AUG-06		
F2 (C10-C16)	37		5	mg/kg		20-AUG-06		
F3 (C16-C34)	130	RAMB	5	mg/kg		20-AUG-06		
F4 (C34-C50)	32		5	mg/kg		20-AUG-06		
Total Hydrocarbons (C6-C50)	200		5	mg/kg		20-AUG-06		
Chromatogram to baseline at nC50 NO 20-AUG-06								
% Moisture	8.1		0.1	%		14-AUG-06	HMB	R430313
L420839-32 WINDY TF-CENTRE 2								
Sampled By: APRIL P. on 08-AUG-06 @ 09:26								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	112		33-172	%	18-AUG-06	18-AUG-06	MKE	R432238
Surr: Hexatriacontane	115		44-173	%	18-AUG-06	18-AUG-06	MKE	R432238
Prep/Analysis Dates 18-AUG-06 18-AUG-06 MKE R432238								
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5	IPT	5	mg/kg		20-AUG-06		
F1-BTEX	<5		5	mg/kg		20-AUG-06		
F2 (C10-C16)	410		5	mg/kg		20-AUG-06		
F3 (C16-C34)	110	RAMB	5	mg/kg		20-AUG-06		
F4 (C34-C50)	48		5	mg/kg		20-AUG-06		
Total Hydrocarbons (C6-C50)	570		5	mg/kg		20-AUG-06		
Chromatogram to baseline at nC50 NO 20-AUG-06								
% Moisture	26		0.1	%		14-AUG-06	HMB	R430313
L420839-33 WINDY TF-NW								
Sampled By: APRIL P. on 08-AUG-06 @ 09:29								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Toluene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Ethylbenzene	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420
Xylenes	<0.01		0.01	mg/kg	14-AUG-06	14-AUG-06	SCM	R430420

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L420839-33 WINDY TF-NW								
Sampled By: APRIL P. on 08-AUG-06 @ 09:29								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	115		33-172	%	18-AUG-06	18-AUG-06	MKE	R432238
Surr: Hexatriacontane	111		44-173	%	18-AUG-06	18-AUG-06	MKE	R432238
Prep/Analysis Dates					18-AUG-06	18-AUG-06	MKE	R432238
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5	IPT	5	mg/kg		20-AUG-06		
F1-BTEX	<5		5	mg/kg		20-AUG-06		
F2 (C10-C16)	<5	RAMB	5	mg/kg		20-AUG-06		
F3 (C16-C34)	48	RAMB	5	mg/kg		20-AUG-06		
F4 (C34-C50)	18		5	mg/kg		20-AUG-06		
Total Hydrocarbons (C6-C50)	66		5	mg/kg		20-AUG-06		
Chromatogram to baseline at nC50	NO					20-AUG-06		
% Moisture	13		0.1	%		14-AUG-06	HMB	R430313
* Refer to Referenced Information for Qualifiers (if any) and Methodology.								

## Reference Information

### Qualifiers for Individual Samples Listed:

Sample Number	Client ID	Qualifier	Description
L420839-12	WINDY CAMP LTA #H	IPC	TEH-CCME-ED F2-F4 - Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.
L420839-14	WINDY CAMP LTA #J	IPC	TEH-CCME-ED F2-F4 - Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.
L420839-15	WINDY CAMP LTA #K	IPC	TEH-CCME-ED F2-F4 - Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.
L420839-16	WINDY CAMP LTA #L	IPC	TEH-CCME-ED F2-F4 - Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.
L420839-17	147-A	IPC	TEH-CCME-ED F2-F4 - Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.
L420839-18	147-B	IPC	TEH-CCME-ED F2-F4 - Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.
L420839-19	2003-2B	IPC	TEH-CCME-ED F2-F4 - Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.
L420839-31	WINDY TF-SW2	IPC	TEH-CCME-ED F2-F4 - Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.
L420839-32	WINDY TF-CENTRE 2	IPC	TEH-CCME-ED F2-F4 - Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.
L420839-33	WINDY TF-NW	IPC	TEH-CCME-ED F2-F4 - Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.

### Sample Parameter Qualifier key listed:

Qualifier	Description
IPC	Instrument performance not showing the C50 response factor within 30% of the average of C10, C16 & C34 response factors.
IPT	Instrument performance showing response factors for C6 and C10 not within 30% of the response factor for toluene.
RAMB	Result Adjusted For Method Blank
SOL:MI	Surrogate recovery outside acceptable limits due to matrix interference

### Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
BTX,F1-ED	Water	BTEX and F1 (C6-C10)	EPA 5030	EPA 5030/8015&8260-P&T GC-MS & FID
CL-ED	Water	Chloride (Cl)		APHA 4500 Cl E-Colorimetry
ETL-BTX,TVH-CCME-ED	Soil	CCME BTEX		CCME CWS-PHC Dec-2000 - Pub# 1310
ETL-ROUTINE-ICP-ED	Water	ICP metals and SO4 for routine water		APHA 3120 B-ICP-OES
ETL-TEH-CCME-ED	Soil	CCME Total Extractable Hydrocarbons		CCME CWS-PHC Dec-2000 - Pub# 1310
ETL-TVH,TEH-CCME-ED	Soil	CCME Total Hydrocarbons		CCME CWS-PHC Dec-2000 - Pub# 1310

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.



## Reference Information

IONBALANCE-ED	Water	Ion Balance Calculation		APHA 1030E
MET1-TOT-LOW-ED	Water	Total Trace Metals (Low Level)	EPA3015	EPA 6020
MET2-TOT-LOW-ED	Water	Total Major Metals	EPA3015	EPA 200.7
N2N3-ED	Water	Nitrate+Nitrite-N		APHA 4500 NO3H-Colorimetry
NO2-ED	Water	Nitrite-N		APHA 4500 NO2B-Colorimetry
NO3-ED	Water	Nitrate-N		APHA 4500 NO3H-Colorimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity		APHA 4500-H, 2510, 2320
PREP-MOISTURE-ED	Soil	% Moisture		Oven dry 105C-Gravimetric

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

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Chain of Custody numbers:

74422	74423	74426
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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
ED	ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA		

### 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 control limits 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. - The reporting 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.*

*ALS Laboratory Group 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, ALS Laboratory Group assumes no liability for the use or interpretation of the results.*



Environmental Division

**ANALYTICAL REPORT**

MIRAMAR HOPE BAY LTD

ATTN: MATT KAWEI

300, 889 HARBOURSIDE DRIVE

NORTH VANCOUVER BC V7P 3S1

Reported On: 26-JUN-07 11:42 AM

Revision: 3

Lab Work Order #: **L516797**

Date Received: **12-JUN-07**

Project P.O. #:

Job Reference: COMPLIANCE WATER SAMPLES

Legal Site Desc:

CofC Numbers:

Other Information:

Comments:

RON MINKS  
Director, Western Canada Operations

For any questions about this report please contact your Account Manager:

**JESSICA SPIRA**

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

**ALS Canada Ltd. (formerly ETL Chemspec Analytical Ltd.)**  
Part of the **ALS Laboratory Group**

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A Campbell Brothers Limited Company

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-1 3 - SEWER POND								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	21.6		0.5	mg/L		15-JUN-07	SYF	R536253
Potassium (K)	4.5		0.1	mg/L		15-JUN-07	SYF	R536253
Magnesium (Mg)	8.6		0.1	mg/L		15-JUN-07	SYF	R536253
Sodium (Na)	11		1	mg/L		15-JUN-07	SYF	R536253
Iron (Fe)	0.761		0.005	mg/L		15-JUN-07	SYF	R536253
Manganese (Mn)	0.073		0.001	mg/L		15-JUN-07	SYF	R536253
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Aluminum (Al)	0.48		0.02	mg/L		15-JUN-07	CVM	R536028
Arsenic (As)	0.0026		0.0004	mg/L		15-JUN-07	CVM	R536028
Boron (B)	0.09		0.02	mg/L		15-JUN-07	CVM	R536028
Barium (Ba)	0.0131		0.0002	mg/L		15-JUN-07	CVM	R536028
Beryllium (Be)	<0.001		0.001	mg/L		15-JUN-07	CVM	R536028
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-JUN-07	CVM	R536028
Cobalt (Co)	0.0009		0.0002	mg/L		15-JUN-07	CVM	R536028
Chromium (Cr)	0.0018		0.0008	mg/L		15-JUN-07	CVM	R536028
Copper (Cu)	0.014		0.001	mg/L		15-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0004		0.0001	mg/L		15-JUN-07	CVM	R536028
Nickel (Ni)	0.0042		0.0002	mg/L		15-JUN-07	CVM	R536028
Lead (Pb)	0.0007		0.0001	mg/L		15-JUN-07	CVM	R536028
Antimony (Sb)	0.0027		0.0004	mg/L		15-JUN-07	CVM	R536028
Selenium (Se)	0.0008		0.0004	mg/L		15-JUN-07	CVM	R536028
Tin (Sn)	0.0006		0.0004	mg/L		15-JUN-07	CVM	R536028
Strontium (Sr)	0.0538		0.0002	mg/L		15-JUN-07	CVM	R536028
Titanium (Ti)	0.020		0.005	mg/L		15-JUN-07	CVM	R536028
Thallium (Tl)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Uranium (U)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Vanadium (V)	0.0014		0.0002	mg/L		15-JUN-07	CVM	R536028
Zinc (Zn)	0.028		0.004	mg/L		15-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Toluene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
EthylBenzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Xylenes	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1(C6-C10)	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
<b>F2, F3, F4</b>								
F2 (>C10-C16)	<0.05		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F3 (C16-C34)	0.29		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F4 (C34-C50)	0.17		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	22		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	<0.05		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	21.9		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	4.3		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	8.3		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	12		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	12.6		0.5	mg/L		15-JUN-07	EOC	R535811

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-1 3 - SEWER POND Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER <b>Routine Water: Major Ions, Fluoride</b> <b>Ion Balance Calculation</b> Ion Balance 101 % 16-JUN-07 TDS (Calculated) 127 mg/L 16-JUN-07 Hardness (as CaCO3) 89 mg/L 16-JUN-07 Nitrate+Nitrite-N <0.1 0.1 mg/L 14-JUN-07 BLI/ R535768 Nitrate-N <0.1 0.1 mg/L 14-JUN-07 BLI/ R535768 Nitrite-N <0.05 0.05 mg/L 14-JUN-07 BLI/ R535768 <b>pH, Conductivity and Total Alkalinity</b> pH 7.3 0.1 pH 14-JUN-07 CLT R535605 Conductivity (EC) 254 0.2 uS/cm 14-JUN-07 CLT R535605 Bicarbonate (HCO3) 92 5 mg/L 14-JUN-07 CLT R535605 Carbonate (CO3) <5 5 mg/L 14-JUN-07 CLT R535605 Hydroxide (OH) <5 5 mg/L 14-JUN-07 CLT R535605 Alkalinity, Total (as CaCO3) 76 5 mg/L 14-JUN-07 CLT R535605								
L516797-2 4 - SAUNA LAKE Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER <b>Total Metals</b> <b>Total Major Metals</b> Calcium (Ca) 1.7 0.5 mg/L 15-JUN-07 SYF R536253 Potassium (K) 0.7 0.1 mg/L 15-JUN-07 SYF R536253 Magnesium (Mg) 0.9 0.1 mg/L 15-JUN-07 SYF R536253 Sodium (Na) 3 1 mg/L 15-JUN-07 SYF R536253 Iron (Fe) 0.459 0.005 mg/L 15-JUN-07 SYF R536253 Manganese (Mn) 0.021 0.001 mg/L 15-JUN-07 SYF R536253 <b>Total Trace Metals (Low Level)</b> Silver (Ag) <0.0004 0.0004 mg/L 15-JUN-07 CVM R536028 Aluminum (Al) 0.36 0.02 mg/L 15-JUN-07 CVM R536028 Arsenic (As) 0.0004 0.0004 mg/L 15-JUN-07 CVM R536028 Boron (B) <0.02 0.02 mg/L 15-JUN-07 CVM R536028 Barium (Ba) 0.0045 0.0002 mg/L 15-JUN-07 CVM R536028 Beryllium (Be) <0.001 0.001 mg/L 15-JUN-07 CVM R536028 Bismuth (Bi) <0.0001 0.0001 mg/L 15-JUN-07 CVM R536028 Cadmium (Cd) <0.0002 0.0002 mg/L 15-JUN-07 CVM R536028 Cobalt (Co) 0.0005 0.0002 mg/L 15-JUN-07 CVM R536028 Chromium (Cr) 0.0012 0.0008 mg/L 15-JUN-07 CVM R536028 Copper (Cu) 0.003 0.001 mg/L 15-JUN-07 CVM R536028 Molybdenum (Mo) 0.0001 0.0001 mg/L 15-JUN-07 CVM R536028 Nickel (Ni) 0.0009 0.0002 mg/L 15-JUN-07 CVM R536028 Lead (Pb) 0.0005 0.0001 mg/L 15-JUN-07 CVM R536028 Antimony (Sb) 0.0008 0.0004 mg/L 15-JUN-07 CVM R536028 Selenium (Se) 0.0006 0.0004 mg/L 15-JUN-07 CVM R536028 Tin (Sn) <0.0004 0.0004 mg/L 15-JUN-07 CVM R536028 Strontium (Sr) 0.0082 0.0002 mg/L 15-JUN-07 CVM R536028 Titanium (Ti) 0.016 0.005 mg/L 15-JUN-07 CVM R536028 Thallium (Tl) <0.0001 0.0001 mg/L 15-JUN-07 CVM R536028 Uranium (U) <0.0001 0.0001 mg/L 15-JUN-07 CVM R536028 Vanadium (V) 0.0010 0.0002 mg/L 15-JUN-07 CVM R536028 Zinc (Zn) 0.011 0.004 mg/L 15-JUN-07 CVM R536028  <b>BTEX and F1 (C6-C10)</b>								

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-2 4 - SAUNA LAKE Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Toluene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
EthylBenzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Xylenes	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1(C6-C10)	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
<b>F2, F3, F4</b>								
F2 (>C10-C16)	<0.06		0.06	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F3 (C16-C34)	0.29		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F4 (C34-C50)	<0.05		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	4		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	<0.05		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	1.3		0.5	mg/L		16-JUN-07	WYA	R536428
Potassium (K)	0.6		0.5	mg/L		16-JUN-07	WYA	R536428
Magnesium (Mg)	0.5		0.1	mg/L		16-JUN-07	WYA	R536428
Sodium (Na)	3		1	mg/L		16-JUN-07	WYA	R536428
Sulfate (SO4)	1.2		0.5	mg/L		16-JUN-07	WYA	R536428
<b>Ion Balance Calculation</b>								
Ion Balance	Low EC			%		17-JUN-07		
TDS (Calculated)	11			mg/L		17-JUN-07		
Hardness (as CaCO3)	5			mg/L		17-JUN-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	6.5		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	29.2		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	6		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
L516797-3 5 - LAKE BOX Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	19.0		0.5	mg/L		15-JUN-07	SYF	R536253
Potassium (K)	7.6		0.1	mg/L		15-JUN-07	SYF	R536253
Magnesium (Mg)	11.3		0.1	mg/L		15-JUN-07	SYF	R536253
Sodium (Na)	42		1	mg/L		15-JUN-07	SYF	R536253
Iron (Fe)	2.42		0.005	mg/L		15-JUN-07	SYF	R536253
Manganese (Mn)	0.184		0.001	mg/L		15-JUN-07	SYF	R536253
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Aluminum (Al)	2.48		0.02	mg/L		15-JUN-07	CVM	R536028
Arsenic (As)	0.0016		0.0004	mg/L		15-JUN-07	CVM	R536028
Boron (B)	0.04		0.02	mg/L		15-JUN-07	CVM	R536028
Barium (Ba)	0.0256		0.0002	mg/L		15-JUN-07	CVM	R536028

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-3 5 - LAKE BOX								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Trace Metals (Low Level)</b>								
Beryllium (Be)	<0.001		0.001	mg/L		15-JUN-07	CVM	R536028
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-JUN-07	CVM	R536028
Cobalt (Co)	0.0019		0.0002	mg/L		15-JUN-07	CVM	R536028
Chromium (Cr)	0.0061		0.0008	mg/L		15-JUN-07	CVM	R536028
Copper (Cu)	0.009		0.001	mg/L		15-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0008		0.0001	mg/L		15-JUN-07	CVM	R536028
Nickel (Ni)	0.0048		0.0002	mg/L		15-JUN-07	CVM	R536028
Lead (Pb)	0.0012		0.0001	mg/L		15-JUN-07	CVM	R536028
Antimony (Sb)	0.0007		0.0004	mg/L		15-JUN-07	CVM	R536028
Selenium (Se)	0.0012		0.0004	mg/L		15-JUN-07	CVM	R536028
Tin (Sn)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Strontium (Sr)	0.0778		0.0002	mg/L		15-JUN-07	CVM	R536028
Titanium (Ti)	0.103		0.005	mg/L		15-JUN-07	CVM	R536028
Thallium (Tl)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Uranium (U)	0.0003		0.0001	mg/L		15-JUN-07	CVM	R536028
Vanadium (V)	0.0054		0.0002	mg/L		15-JUN-07	CVM	R536028
Zinc (Zn)	0.012		0.004	mg/L		15-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Toluene	0.00058		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
EthylBenzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Xylenes	0.00070		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1(C6-C10)	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
<b>F2, F3, F4</b>								
F2 (>C10-C16)	<0.06		0.06	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F3 (C16-C34)	0.28		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F4 (C34-C50)	<0.05		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	98		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	0.08		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	20.0		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	7.2		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	11.0		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	46		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	7.8		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	96.7			%		16-JUN-07		
TDS (Calculated)	229			mg/L		16-JUN-07		
Hardness (as CaCO3)	95			mg/L		16-JUN-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.3		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	461		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	79		5	mg/L		14-JUN-07	CLT	R535605

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-3 5 - LAKE BOX Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER <b>Routine Water: Major Ions, Fluoride pH, Conductivity and Total Alkalinity</b>								
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	65		5	mg/L		14-JUN-07	CLT	R535605
L516797-4 6 - N IMPACT AREA Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER <b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	47.7		0.5	mg/L		15-JUN-07	SYF	R536253
Potassium (K)	19.3		0.1	mg/L		15-JUN-07	SYF	R536253
Magnesium (Mg)	30.9		0.1	mg/L		15-JUN-07	SYF	R536253
Sodium (Na)	48		1	mg/L		15-JUN-07	SYF	R536253
Iron (Fe)	38.4		0.005	mg/L		15-JUN-07	SYF	R536253
Manganese (Mn)	0.606		0.001	mg/L		15-JUN-07	SYF	R536253
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Aluminum (Al)	36.8		0.02	mg/L		15-JUN-07	CVM	R536028
Arsenic (As)	0.0090		0.0004	mg/L		15-JUN-07	CVM	R536028
Boron (B)	0.05		0.02	mg/L		15-JUN-07	CVM	R536028
Barium (Ba)	0.294		0.0002	mg/L		15-JUN-07	CVM	R536028
Beryllium (Be)	0.001		0.001	mg/L		15-JUN-07	CVM	R536028
Bismuth (Bi)	0.0004		0.0001	mg/L		15-JUN-07	CVM	R536028
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-JUN-07	CVM	R536028
Cobalt (Co)	0.0200		0.0002	mg/L		15-JUN-07	CVM	R536028
Chromium (Cr)	0.0746		0.0008	mg/L		15-JUN-07	CVM	R536028
Copper (Cu)	0.070		0.001	mg/L		15-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0019		0.0001	mg/L		15-JUN-07	CVM	R536028
Nickel (Ni)	0.0502		0.0002	mg/L		15-JUN-07	CVM	R536028
Lead (Pb)	0.0146		0.0001	mg/L		15-JUN-07	CVM	R536028
Antimony (Sb)	0.0023		0.0004	mg/L		15-JUN-07	CVM	R536028
Selenium (Se)	0.0015		0.0004	mg/L		15-JUN-07	CVM	R536028
Tin (Sn)	0.0012		0.0004	mg/L		15-JUN-07	CVM	R536028
Strontium (Sr)	0.194		0.0002	mg/L		15-JUN-07	CVM	R536028
Titanium (Ti)	1.79		0.005	mg/L		15-JUN-07	CVM	R536028
Thallium (Tl)	0.0005		0.0001	mg/L		15-JUN-07	CVM	R536028
Uranium (U)	0.0017		0.0001	mg/L		15-JUN-07	CVM	R536028
Vanadium (V)	0.0788		0.0002	mg/L		15-JUN-07	CVM	R536028
Zinc (Zn)	0.124		0.004	mg/L		15-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Toluene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
EthylBenzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Xylenes	0.00141		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1(C6-C10)	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
<b>F2, F3, F4</b>								
F2 (>C10-C16)	0.30		0.06	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F3 (C16-C34)	1.2		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F4 (C34-C50)	1.9		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-4 6 - N IMPACT AREA								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	92		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	0.06		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	32.9		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	7.5		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	11.3		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	36		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	30.4		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	105			%		16-JUN-07		
TDS (Calculated)	237			mg/L		16-JUN-07		
Hardness (as CaCO3)	129			mg/L		16-JUN-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	6.9		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	497		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	55		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	45		5	mg/L		14-JUN-07	CLT	R535605
L516797-5 7 - IMPACT AREA								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	35.6		0.5	mg/L		15-JUN-07	SYF	R536253
Potassium (K)	15.2		0.1	mg/L		15-JUN-07	SYF	R536253
Magnesium (Mg)	26.9		0.1	mg/L		15-JUN-07	SYF	R536253
Sodium (Na)	40		1	mg/L		15-JUN-07	SYF	R536253
Iron (Fe)	43.2		0.005	mg/L		15-JUN-07	SYF	R536253
Manganese (Mn)	0.607		0.001	mg/L		15-JUN-07	SYF	R536253
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Aluminum (Al)	36.0		0.02	mg/L		15-JUN-07	CVM	R536028
Arsenic (As)	0.0112		0.0004	mg/L		15-JUN-07	CVM	R536028
Boron (B)	0.05		0.02	mg/L		15-JUN-07	CVM	R536028
Barium (Ba)	0.262		0.0002	mg/L		15-JUN-07	CVM	R536028
Beryllium (Be)	<0.001		0.001	mg/L		15-JUN-07	CVM	R536028
Bismuth (Bi)	0.0004		0.0001	mg/L		15-JUN-07	CVM	R536028
Cadmium (Cd)	0.0003		0.0002	mg/L		15-JUN-07	CVM	R536028
Cobalt (Co)	0.0238		0.0002	mg/L		15-JUN-07	CVM	R536028
Chromium (Cr)	0.0846		0.0008	mg/L		15-JUN-07	CVM	R536028
Copper (Cu)	0.094		0.001	mg/L		15-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0023		0.0001	mg/L		15-JUN-07	CVM	R536028
Nickel (Ni)	0.0597		0.0002	mg/L		15-JUN-07	CVM	R536028
Lead (Pb)	0.0161		0.0001	mg/L		15-JUN-07	CVM	R536028
Antimony (Sb)	0.0010		0.0004	mg/L		15-JUN-07	CVM	R536028
Selenium (Se)	0.0016		0.0004	mg/L		15-JUN-07	CVM	R536028
Tin (Sn)	0.0011		0.0004	mg/L		15-JUN-07	CVM	R536028



## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-5 7 - IMPACT AREA								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Trace Metals (Low Level)</b>								
Strontium (Sr)	0.133		0.0002	mg/L		15-JUN-07	CVM	R536028
Titanium (Ti)	1.96		0.005	mg/L		15-JUN-07	CVM	R536028
Thallium (Tl)	0.0005		0.0001	mg/L		15-JUN-07	CVM	R536028
Uranium (U)	0.0024		0.0001	mg/L		15-JUN-07	CVM	R536028
Vanadium (V)	0.0906		0.0002	mg/L		15-JUN-07	CVM	R536028
Zinc (Zn)	0.134		0.004	mg/L		15-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Toluene	0.00068		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
EthylBenzene	0.00053		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Xylenes	0.00329		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1(C6-C10)	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
<b>F2, F3, F4</b>								
F2 (>C10-C16)	0.7		0.15	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F3 (C16-C34)	2.3		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F4 (C34-C50)	4.7		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	81		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	0.06		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	26.6		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	6.0		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	9.5		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	40		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	37.3		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	101			%		16-JUN-07		
TDS (Calculated)	228			mg/L		16-JUN-07		
Hardness (as CaCO3)	106			mg/L		16-JUN-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.0		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	437		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	56		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	46		5	mg/L		14-JUN-07	CLT	R535605
L516797-6 8 - S IMPACT AREA								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	36.6		0.5	mg/L		15-JUN-07	SYF	R536253
Potassium (K)	6.2		0.1	mg/L		15-JUN-07	SYF	R536253
Magnesium (Mg)	14.2		0.1	mg/L		15-JUN-07	SYF	R536253
Sodium (Na)	18		1	mg/L		15-JUN-07	SYF	R536253

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-6 8 - S IMPACT AREA								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Iron (Fe)	3.11		0.005	mg/L		15-JUN-07	SYF	R536253
Manganese (Mn)	0.253		0.001	mg/L		15-JUN-07	SYF	R536253
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Aluminum (Al)	4.24		0.02	mg/L		15-JUN-07	CVM	R536028
Arsenic (As)	0.0022		0.0004	mg/L		15-JUN-07	CVM	R536028
Boron (B)	0.03		0.02	mg/L		15-JUN-07	CVM	R536028
Barium (Ba)	0.0622		0.0002	mg/L		15-JUN-07	CVM	R536028
Beryllium (Be)	<0.001		0.001	mg/L		15-JUN-07	CVM	R536028
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-JUN-07	CVM	R536028
Cobalt (Co)	0.0023		0.0002	mg/L		15-JUN-07	CVM	R536028
Chromium (Cr)	0.0103		0.0008	mg/L		15-JUN-07	CVM	R536028
Copper (Cu)	0.010		0.001	mg/L		15-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0005		0.0001	mg/L		15-JUN-07	CVM	R536028
Nickel (Ni)	0.0070		0.0002	mg/L		15-JUN-07	CVM	R536028
Lead (Pb)	0.0017		0.0001	mg/L		15-JUN-07	CVM	R536028
Antimony (Sb)	0.0094		0.0004	mg/L		15-JUN-07	CVM	R536028
Selenium (Se)	0.0009		0.0004	mg/L		15-JUN-07	CVM	R536028
Tin (Sn)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Strontium (Sr)	0.263		0.0002	mg/L		15-JUN-07	CVM	R536028
Titanium (Ti)	0.179		0.005	mg/L		15-JUN-07	CVM	R536028
Thallium (Tl)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Uranium (U)	0.0002		0.0001	mg/L		15-JUN-07	CVM	R536028
Vanadium (V)	0.0079		0.0002	mg/L		15-JUN-07	CVM	R536028
Zinc (Zn)	0.016		0.004	mg/L		15-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Toluene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
EthylBenzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Xylenes	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1(C6-C10)	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
<b>F2, F3, F4</b>								
F2 (>C10-C16)	0.22		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F3 (C16-C34)	0.18		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
F4 (C34-C50)	<0.05		0.05	mg/L	15-JUN-07	16-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	102		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	<0.05		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	38.2		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	4.9		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	13.8		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	20		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	5.8		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	109			%		16-JUN-07		
TDS (Calculated)	206			mg/L		16-JUN-07		
Hardness (as CaCO3)	152			mg/L		16-JUN-07		

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-6 8 - S IMPACT AREA Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Routine Water: Major Ions, Fluoride</b>								
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.0		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	475		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	43		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	36		5	mg/L		14-JUN-07	CLT	R535605
L516797-7 9 - MUSTER LAKE Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	298		0.5	mg/L		15-JUN-07	SYF	R536253
Potassium (K)	89.7		0.1	mg/L		15-JUN-07	SYF	R536253
Magnesium (Mg)	212		0.1	mg/L		15-JUN-07	SYF	R536253
Sodium (Na)	40		1	mg/L		15-JUN-07	SYF	R536253
Iron (Fe)	545		0.005	mg/L		15-JUN-07	SYF	R536253
Manganese (Mn)	8.31		0.001	mg/L		15-JUN-07	SYF	R536253
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004	RAMB	0.0004	mg/L		16-JUN-07	CVM	R536028
Aluminum (Al)	426		0.02	mg/L		16-JUN-07	CVM	R536028
Arsenic (As)	0.138		0.0004	mg/L		16-JUN-07	CVM	R536028
Boron (B)	0.39		0.02	mg/L		16-JUN-07	CVM	R536028
Barium (Ba)	2.89		0.0002	mg/L		16-JUN-07	CVM	R536028
Beryllium (Be)	0.011		0.001	mg/L		16-JUN-07	CVM	R536028
Bismuth (Bi)	0.0040		0.0001	mg/L		16-JUN-07	CVM	R536028
Cadmium (Cd)	0.0033		0.0002	mg/L		16-JUN-07	CVM	R536028
Cobalt (Co)	0.276		0.0002	mg/L		16-JUN-07	CVM	R536028
Chromium (Cr)	1.03	RRVAP	0.0008	mg/L		16-JUN-07	CVM	R536028
Copper (Cu)	1.49		0.001	mg/L		16-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0193		0.0001	mg/L		16-JUN-07	CVM	R536028
Nickel (Ni)	0.654		0.0002	mg/L		16-JUN-07	CVM	R536028
Lead (Pb)	0.223		0.0001	mg/L		16-JUN-07	CVM	R536028
Antimony (Sb)	0.0060		0.0004	mg/L		16-JUN-07	CVM	R536028
Selenium (Se)	0.0074		0.0004	mg/L		16-JUN-07	CVM	R536028
Tin (Sn)	0.0079		0.0004	mg/L		16-JUN-07	CVM	R536028
Strontium (Sr)	1.12		0.0002	mg/L		16-JUN-07	CVM	R536028
Titanium (Ti)	23.0		0.005	mg/L		16-JUN-07	CVM	R536028
Thallium (Tl)	0.0055		0.0001	mg/L		16-JUN-07	CVM	R536028
Uranium (U)	0.0331		0.0001	mg/L		16-JUN-07	CVM	R536028
Vanadium (V)	1.18	RRVAP	0.0002	mg/L		16-JUN-07	CVM	R536028
Zinc (Zn)	1.70		0.004	mg/L		16-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.020	DLA	0.02	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
Toluene	<0.020	DLA	0.02	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
EthylBenzene	<0.020	DLA	0.02	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
Xylenes	<0.020	DLA	0.02	mg/L	20-JUN-07	21-JUN-07	JDV	R538219

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-7 9 - MUSTER LAKE Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
F1(C6-C10)	<4	DLA	4.4	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
F1-BTEX	0.7		0.1	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
Note: DETECTION LIMIT RAISED DUE TO LIMITED SAMPLE								
<b>F2, F3, F4</b>								
F2 (>C10-C16)	3.3		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
F3 (C16-C34)	3.9		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
F4 (C34-C50)	2.3		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	54		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	0.09		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	44.0		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	3.9		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	7.8		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	22		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	21.0		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	98.2			%		16-JUN-07		
TDS (Calculated)	213			mg/L		16-JUN-07		
Hardness (as CaCO3)	142			mg/L		16-JUN-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.6		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	404		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	122		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	100		5	mg/L		14-JUN-07	CLT	R535605
L516797-8 10 - LTA Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	71.9		0.5	mg/L		15-JUN-07	SYF	R536253
Potassium (K)	8.0		0.1	mg/L		15-JUN-07	SYF	R536253
Magnesium (Mg)	14.3		0.1	mg/L		15-JUN-07	SYF	R536253
Sodium (Na)	86		1	mg/L		15-JUN-07	SYF	R536253
Iron (Fe)	5.34		0.005	mg/L		15-JUN-07	SYF	R536253
Manganese (Mn)	0.162		0.001	mg/L		15-JUN-07	SYF	R536253
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Aluminum (Al)	4.75		0.02	mg/L		15-JUN-07	CVM	R536028
Arsenic (As)	0.0113		0.0004	mg/L		15-JUN-07	CVM	R536028
Boron (B)	0.06		0.02	mg/L		15-JUN-07	CVM	R536028
Barium (Ba)	0.0470		0.0002	mg/L		15-JUN-07	CVM	R536028
Beryllium (Be)	<0.001		0.001	mg/L		15-JUN-07	CVM	R536028
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-8 10 - LTA								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Trace Metals (Low Level)</b>								
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-JUN-07	CVM	R536028
Cobalt (Co)	0.0037		0.0002	mg/L		15-JUN-07	CVM	R536028
Chromium (Cr)	0.0226		0.0008	mg/L		15-JUN-07	CVM	R536028
Copper (Cu)	0.040		0.001	mg/L		15-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0017		0.0001	mg/L		15-JUN-07	CVM	R536028
Nickel (Ni)	0.0209		0.0002	mg/L		15-JUN-07	CVM	R536028
Lead (Pb)	0.0019		0.0001	mg/L		15-JUN-07	CVM	R536028
Antimony (Sb)	0.0010		0.0004	mg/L		15-JUN-07	CVM	R536028
Selenium (Se)	0.0013		0.0004	mg/L		15-JUN-07	CVM	R536028
Tin (Sn)	0.0025		0.0004	mg/L		15-JUN-07	CVM	R536028
Strontium (Sr)	1.16		0.0002	mg/L		15-JUN-07	CVM	R536028
Titanium (Ti)	0.189		0.005	mg/L		15-JUN-07	CVM	R536028
Thallium (Tl)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Uranium (U)	0.0003		0.0001	mg/L		15-JUN-07	CVM	R536028
Vanadium (V)	0.0135		0.0002	mg/L		15-JUN-07	CVM	R536028
Zinc (Zn)	0.032		0.004	mg/L		15-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	0.00630		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Toluene	0.0330		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
EthylBenzene	0.00675		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Xylenes	0.0565		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1(C6-C10)	0.2		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
<b>F2, F3, F4</b>								
F2 (>C10-C16)	2.0		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
F3 (C16-C34)	1.5		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
F4 (C34-C50)	1.7		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	269		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	0.05		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	75.1		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	6.5		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	12.5		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	93		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	33.9		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	99.0			%		16-JUN-07		
TDS (Calculated)	515			mg/L		16-JUN-07		
Hardness (as CaCO3)	239			mg/L		16-JUN-07		
Nitrate+Nitrite-N	0.4		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	0.4		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.0		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	1050		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	46		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-8 10 - LTA Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER <b>Routine Water: Major Ions, Fluoride pH, Conductivity and Total Alkalinity</b> Alkalinity, Total (as CaCO3)	38		5	mg/L		14-JUN-07	CLT	R535605
L516797-9 11 - FUEL FARM Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER <b>Total Metals</b> <b>Total Major Metals</b> Calcium (Ca) 11.8 Potassium (K) 3.9 Magnesium (Mg) 6.0 Sodium (Na) 25 Iron (Fe) 3.10 Manganese (Mn) 0.102 <b>Total Trace Metals (Low Level)</b> Silver (Ag) <0.0004 Aluminum (Al) 4.41 Arsenic (As) 0.0016 Boron (B) 0.03 Barium (Ba) 0.0505 Beryllium (Be) <0.001 Bismuth (Bi) <0.0001 Cadmium (Cd) <0.0002 Cobalt (Co) 0.0018 Chromium (Cr) 0.0084 Copper (Cu) 0.006 Molybdenum (Mo) 0.0005 Nickel (Ni) 0.0049 Lead (Pb) 0.0023 Antimony (Sb) 0.0005 Selenium (Se) 0.0006 Tin (Sn) <0.0004 Strontium (Sr) 0.0533 Titanium (Ti) 0.167 Thallium (Tl) <0.0001 Uranium (U) 0.0002 Vanadium (V) 0.0072 Zinc (Zn) 0.036  <b>BTEX and F1 (C6-C10)</b> Benzene 0.0582 Toluene 0.0259 EthylBenzene 0.0344 Xylenes 0.210 F1(C6-C10) 0.7 F1-BTEX 0.4  <b>F2, F3, F4</b> F2 (>C10-C16) 0.77 F3 (C16-C34) 0.34 F4 (C34-C50) 0.07  <b>Routine Water: Major Ions, Fluoride</b> Chloride (Cl) 44								
			0.5	mg/L		15-JUN-07	SYF	R536253
			0.1	mg/L		15-JUN-07	SYF	R536253
			0.1	mg/L		15-JUN-07	SYF	R536253
			1	mg/L		15-JUN-07	SYF	R536253
			0.005	mg/L		15-JUN-07	SYF	R536253
			0.001	mg/L		15-JUN-07	SYF	R536253
			0.0004	mg/L		15-JUN-07	CVM	R536028
			0.02	mg/L		15-JUN-07	CVM	R536028
			0.0004	mg/L		15-JUN-07	CVM	R536028
			0.02	mg/L		15-JUN-07	CVM	R536028
			0.0002	mg/L		15-JUN-07	CVM	R536028
			0.001	mg/L		15-JUN-07	CVM	R536028
			0.0001	mg/L		15-JUN-07	CVM	R536028
			0.0002	mg/L		15-JUN-07	CVM	R536028
			0.0002	mg/L		15-JUN-07	CVM	R536028
			0.001	mg/L		15-JUN-07	CVM	R536028
			0.0001	mg/L		15-JUN-07	CVM	R536028
			0.0002	mg/L		15-JUN-07	CVM	R536028
			0.001	mg/L		15-JUN-07	CVM	R536028
			0.0001	mg/L		15-JUN-07	CVM	R536028
			0.0002	mg/L		15-JUN-07	CVM	R536028
			0.0002	mg/L		15-JUN-07	CVM	R536028
			0.001	mg/L		15-JUN-07	CVM	R536028
			0.0001	mg/L		15-JUN-07	CVM	R536028
			0.0002	mg/L		15-JUN-07	CVM	R536028
			0.0002	mg/L		15-JUN-07	CVM	R536028
			0.004	mg/L		15-JUN-07	CVM	R536028
			0.0005	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
			0.0005	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
			0.0005	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
			0.0005	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
			0.1	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
			0.1	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
			0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
			0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
			0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
			1	mg/L		14-JUN-07	LWW/	R535437

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-9 11 - FUEL FARM Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Routine Water: Major Ions, Fluoride</b>								
Fluoride (F)	<0.05		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	11.4		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	2.6		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	4.5		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	27		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	25.8		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	103			%		16-JUN-07		
TDS (Calculated)	126			mg/L		16-JUN-07		
Hardness (as CaCO3)	47			mg/L		16-JUN-07		
Nitrate+Nitrite-N	0.2		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	0.2		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	6.8		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	256		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	20		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	17		5	mg/L		14-JUN-07	CLT	R535605
L516797-10 12 - LTA COCONUT MAT Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	68.3		0.5	mg/L		15-JUN-07	HAS	R535885
Potassium (K)	11.9		0.1	mg/L		15-JUN-07	HAS	R535885
Magnesium (Mg)	30.9		0.1	mg/L		15-JUN-07	HAS	R535885
Sodium (Na)	59		1	mg/L		15-JUN-07	HAS	R535885
Iron (Fe)	31.9		0.005	mg/L		15-JUN-07	HAS	R535885
Manganese (Mn)	0.654		0.001	mg/L		15-JUN-07	HAS	R535885
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Aluminum (Al)	29.3		0.02	mg/L		15-JUN-07	CVM	R536028
Arsenic (As)	0.0086		0.0004	mg/L		15-JUN-07	CVM	R536028
Boron (B)	0.04		0.02	mg/L		15-JUN-07	CVM	R536028
Barium (Ba)	0.238		0.0002	mg/L		15-JUN-07	CVM	R536028
Beryllium (Be)	<0.001		0.001	mg/L		15-JUN-07	CVM	R536028
Bismuth (Bi)	0.0003		0.0001	mg/L		15-JUN-07	CVM	R536028
Cadmium (Cd)	0.0002		0.0002	mg/L		15-JUN-07	CVM	R536028
Cobalt (Co)	0.0176		0.0002	mg/L		15-JUN-07	CVM	R536028
Chromium (Cr)	0.0689		0.0008	mg/L		15-JUN-07	CVM	R536028
Copper (Cu)	0.080		0.001	mg/L		15-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0025		0.0001	mg/L		15-JUN-07	CVM	R536028
Nickel (Ni)	0.0451		0.0002	mg/L		15-JUN-07	CVM	R536028
Lead (Pb)	0.0137		0.0001	mg/L		15-JUN-07	CVM	R536028
Antimony (Sb)	0.0020		0.0004	mg/L		15-JUN-07	CVM	R536028
Selenium (Se)	0.0022		0.0004	mg/L		15-JUN-07	CVM	R536028
Tin (Sn)	0.0013		0.0004	mg/L		15-JUN-07	CVM	R536028
Strontium (Sr)	0.256		0.0002	mg/L		15-JUN-07	CVM	R536028

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-10 12 - LTA COCONUT MAT Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Trace Metals (Low Level)</b>								
Titanium (Ti)	1.41		0.005	mg/L		15-JUN-07	CVM	R536028
Thallium (Tl)	0.0004		0.0001	mg/L		15-JUN-07	CVM	R536028
Uranium (U)	0.0024		0.0001	mg/L		15-JUN-07	CVM	R536028
Vanadium (V)	0.0725		0.0002	mg/L		15-JUN-07	CVM	R536028
Zinc (Zn)	0.112		0.004	mg/L		15-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.0030	DLA	0.003	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
Toluene	<0.0030	DLA	0.003	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
EthylBenzene	<0.0030	DLA	0.003	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
Xylenes	0.0030	DLA	0.003	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
F1(C6-C10)	<0.5	DLA	0.5	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	22-JUN-07	JDV	R538219
<b>F2, F3, F4</b>								
F2 (>C10-C16)	1.6		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
F3 (C16-C34)	1.8		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
F4 (C34-C50)	2.1		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	157		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	0.05		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	60.7		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	4.8		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	19.3		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	57		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	62.7		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	105			%		16-JUN-07		
TDS (Calculated)	397			mg/L		16-JUN-07		
Hardness (as CaCO3)	231			mg/L		16-JUN-07		
Nitrate+Nitrite-N	0.5		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	0.5		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.3		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	786		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	68		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	56		5	mg/L		14-JUN-07	CLT	R535605
L516797-11 13 - COCONUT MAT Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	35.6		0.5	mg/L		15-JUN-07	HAS	R535885
Potassium (K)	14.4		0.1	mg/L		15-JUN-07	HAS	R535885
Magnesium (Mg)	29.4		0.1	mg/L		15-JUN-07	HAS	R535885
Sodium (Na)	41		1	mg/L		15-JUN-07	HAS	R535885
Iron (Fe)	47.8		0.005	mg/L		15-JUN-07	HAS	R535885



## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-11 13 - COCONUT MAT								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Manganese (Mn)	0.609		0.001	mg/L		15-JUN-07	HAS	R535885
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Aluminum (Al)	42.3		0.02	mg/L		15-JUN-07	CVM	R536028
Arsenic (As)	0.0123		0.0004	mg/L		15-JUN-07	CVM	R536028
Boron (B)	0.06		0.02	mg/L		15-JUN-07	CVM	R536028
Barium (Ba)	0.287		0.0002	mg/L		15-JUN-07	CVM	R536028
Beryllium (Be)	0.001		0.001	mg/L		15-JUN-07	CVM	R536028
Bismuth (Bi)	0.0004		0.0001	mg/L		15-JUN-07	CVM	R536028
Cadmium (Cd)	0.0003		0.0002	mg/L		15-JUN-07	CVM	R536028
Cobalt (Co)	0.0262		0.0002	mg/L		15-JUN-07	CVM	R536028
Chromium (Cr)	0.0960		0.0008	mg/L		15-JUN-07	CVM	R536028
Copper (Cu)	0.100		0.001	mg/L		15-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0022		0.0001	mg/L		15-JUN-07	CVM	R536028
Nickel (Ni)	0.0655		0.0002	mg/L		15-JUN-07	CVM	R536028
Lead (Pb)	0.0182		0.0001	mg/L		15-JUN-07	CVM	R536028
Antimony (Sb)	0.0011		0.0004	mg/L		15-JUN-07	CVM	R536028
Selenium (Se)	0.0015		0.0004	mg/L		15-JUN-07	CVM	R536028
Tin (Sn)	0.0011		0.0004	mg/L		15-JUN-07	CVM	R536028
Strontium (Sr)	0.139		0.0002	mg/L		15-JUN-07	CVM	R536028
Titanium (Ti)	2.31		0.005	mg/L		15-JUN-07	CVM	R536028
Thallium (Tl)	0.0005		0.0001	mg/L		15-JUN-07	CVM	R536028
Uranium (U)	0.0029		0.0001	mg/L		15-JUN-07	CVM	R536028
Vanadium (V)	0.105		0.0002	mg/L		15-JUN-07	CVM	R536028
Zinc (Zn)	0.148		0.004	mg/L		15-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
Toluene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
EthylBenzene	0.00082		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
Xylenes	0.00421		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
F1(C6-C10)	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
<b>F2, F3, F4</b>								
F2 (>C10-C16)	0.93		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
F3 (C16-C34)	4.5		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
F4 (C34-C50)	2.1		0.05	mg/L	16-JUN-07	18-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	78		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	0.05		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	26.1		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	3.6		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	9.3		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	39		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	37.3		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	101			%		16-JUN-07		
TDS (Calculated)	219			mg/L		16-JUN-07		
Hardness (as CaCO3)	103			mg/L		16-JUN-07		

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-11 13 - COCONUT MAT Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Routine Water: Major Ions, Fluoride</b>								
Nitrate+Nitrite-N	0.3		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	0.3		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.2		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	420		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	50		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	41		5	mg/L		14-JUN-07	CLT	R535605
L516797-12 14 - KG FRONT BOX Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	18.1		0.5	mg/L		15-JUN-07	HAS	R535885
Potassium (K)	8.1		0.1	mg/L		15-JUN-07	HAS	R535885
Magnesium (Mg)	13.7		0.1	mg/L		15-JUN-07	HAS	R535885
Sodium (Na)	11		1	mg/L		15-JUN-07	HAS	R535885
Iron (Fe)	26.4		0.005	mg/L		15-JUN-07	HAS	R535885
Manganese (Mn)	0.364		0.001	mg/L		15-JUN-07	HAS	R535885
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Aluminum (Al)	23.5		0.02	mg/L		15-JUN-07	CVM	R536028
Arsenic (As)	0.0067		0.0004	mg/L		15-JUN-07	CVM	R536028
Boron (B)	0.04		0.02	mg/L		15-JUN-07	CVM	R536028
Barium (Ba)	0.167		0.0002	mg/L		15-JUN-07	CVM	R536028
Beryllium (Be)	<0.001		0.001	mg/L		15-JUN-07	CVM	R536028
Bismuth (Bi)	0.0002		0.0001	mg/L		15-JUN-07	CVM	R536028
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-JUN-07	CVM	R536028
Cobalt (Co)	0.0149		0.0002	mg/L		15-JUN-07	CVM	R536028
Chromium (Cr)	0.0516		0.0008	mg/L		15-JUN-07	CVM	R536028
Copper (Cu)	0.056		0.001	mg/L		15-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0011		0.0001	mg/L		15-JUN-07	CVM	R536028
Nickel (Ni)	0.0362		0.0002	mg/L		15-JUN-07	CVM	R536028
Lead (Pb)	0.0106		0.0001	mg/L		15-JUN-07	CVM	R536028
Antimony (Sb)	0.0015		0.0004	mg/L		15-JUN-07	CVM	R536028
Selenium (Se)	0.0008		0.0004	mg/L		15-JUN-07	CVM	R536028
Tin (Sn)	0.0009		0.0004	mg/L		15-JUN-07	CVM	R536028
Strontium (Sr)	0.0630		0.0002	mg/L		15-JUN-07	CVM	R536028
Titanium (Ti)	1.20		0.005	mg/L		15-JUN-07	CVM	R536028
Thallium (Tl)	0.0003		0.0001	mg/L		15-JUN-07	CVM	R536028
Uranium (U)	0.0013		0.0001	mg/L		15-JUN-07	CVM	R536028
Vanadium (V)	0.0547		0.0002	mg/L		15-JUN-07	CVM	R536028
Zinc (Zn)	0.094		0.004	mg/L		15-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Toluene	0.00086		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
EthylBenzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
Xylenes	0.00141		0.0005	mg/L	20-JUN-07	21-JUN-07	YAK	R538446

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-12 14 - KG FRONT BOX Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
F1(C6-C10)	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	YAK	R538446
<b>F2, F3, F4</b>								
F2 (>C10-C16)	0.74		0.05	mg/L	16-JUN-07	19-JUN-07	JEA	R536131
F3 (C16-C34)	2.8		0.05	mg/L	16-JUN-07	19-JUN-07	JEA	R536131
F4 (C34-C50)	0.45		0.05	mg/L	16-JUN-07	19-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	18		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	0.06		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	10.7		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	3.3		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	2.6		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	10		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	8.8		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	104			%		16-JUN-07		
TDS (Calculated)	69			mg/L		16-JUN-07		
Hardness (as CaCO3)	37			mg/L		16-JUN-07		
Nitrate+Nitrite-N	0.2		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	0.2		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.0		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	140		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	31		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	25		5	mg/L		14-JUN-07	CLT	R535605
L516797-13 15 - BOX DRAIN Sampled By: APRIL PIGALAK on 09-JUN-07 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	45.1		0.5	mg/L		15-JUN-07	HAS	R535885
Potassium (K)	19.7		0.1	mg/L		15-JUN-07	HAS	R535885
Magnesium (Mg)	25.7		0.1	mg/L		15-JUN-07	HAS	R535885
Sodium (Na)	15		1	mg/L		15-JUN-07	HAS	R535885
Iron (Fe)	68.5		0.005	mg/L		15-JUN-07	HAS	R535885
Manganese (Mn)	1.06		0.001	mg/L		15-JUN-07	HAS	R535885
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		16-JUN-07	CVM	R536028
Aluminum (Al)	35.4		0.02	mg/L		16-JUN-07	CVM	R536028
Arsenic (As)	0.0163		0.0004	mg/L		16-JUN-07	CVM	R536028
Boron (B)	0.07		0.02	mg/L		16-JUN-07	CVM	R536028
Barium (Ba)	0.263		0.0002	mg/L		16-JUN-07	CVM	R536028
Beryllium (Be)	<0.001		0.001	mg/L		16-JUN-07	CVM	R536028
Bismuth (Bi)	0.0003		0.0001	mg/L		16-JUN-07	CVM	R536028
Cadmium (Cd)	0.0009		0.0002	mg/L		16-JUN-07	CVM	R536028
Cobalt (Co)	0.0308		0.0002	mg/L		16-JUN-07	CVM	R536028

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-13 15 - BOX DRAIN								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Trace Metals (Low Level)</b>								
Chromium (Cr)	0.0826		0.0008	mg/L		16-JUN-07	CVM	R536028
Copper (Cu)	0.153		0.001	mg/L		16-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0029		0.0001	mg/L		16-JUN-07	CVM	R536028
Nickel (Ni)	0.0697		0.0002	mg/L		16-JUN-07	CVM	R536028
Lead (Pb)	0.0289		0.0001	mg/L		16-JUN-07	CVM	R536028
Antimony (Sb)	0.0063		0.0004	mg/L		16-JUN-07	CVM	R536028
Selenium (Se)	0.0013		0.0004	mg/L		16-JUN-07	CVM	R536028
Tin (Sn)	0.0023		0.0004	mg/L		16-JUN-07	CVM	R536028
Strontium (Sr)	0.146		0.0002	mg/L		16-JUN-07	CVM	R536028
Titanium (Ti)	1.51		0.005	mg/L		16-JUN-07	CVM	R536028
Thallium (Tl)	0.0004		0.0001	mg/L		16-JUN-07	CVM	R536028
Uranium (U)	0.0022		0.0001	mg/L		16-JUN-07	CVM	R536028
Vanadium (V)	0.0891		0.0002	mg/L		16-JUN-07	CVM	R536028
Zinc (Zn)	0.353		0.004	mg/L		16-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
Toluene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
EthylBenzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
Xylenes	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
F1(C6-C10)	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
<b>F2, F3, F4</b>								
F2 (>C10-C16)	0.75		0.05	mg/L	16-JUN-07	19-JUN-07	JEA	R536131
F3 (C16-C34)	5.2		0.05	mg/L	16-JUN-07	19-JUN-07	JEA	R536131
F4 (C34-C50)	0.65		0.05	mg/L	16-JUN-07	19-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	31		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	0.06		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	20.6		0.5	mg/L		15-JUN-07	EOC	R535811
Potassium (K)	12.0		0.5	mg/L		15-JUN-07	EOC	R535811
Magnesium (Mg)	6.1		0.1	mg/L		15-JUN-07	EOC	R535811
Sodium (Na)	13		1	mg/L		15-JUN-07	EOC	R535811
Sulfate (SO4)	8.5		0.5	mg/L		15-JUN-07	EOC	R535811
<b>Ion Balance Calculation</b>								
Ion Balance	103			%		16-JUN-07		
TDS (Calculated)	130			mg/L		16-JUN-07		
Hardness (as CaCO3)	77			mg/L		16-JUN-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrate-N	<0.1		0.1	mg/L		14-JUN-07	BLI/	R535768
Nitrite-N	<0.05		0.05	mg/L		14-JUN-07	BLI/	R535768
<b>pH, Conductivity and Total Alkalinity</b>								
pH	6.9		0.1	pH		14-JUN-07	CLT	R535605
Conductivity (EC)	252		0.2	uS/cm		14-JUN-07	CLT	R535605
Bicarbonate (HCO3)	78		5	mg/L		14-JUN-07	CLT	R535605
Carbonate (CO3)	<5		5	mg/L		14-JUN-07	CLT	R535605
Hydroxide (OH)	<5		5	mg/L		14-JUN-07	CLT	R535605
Alkalinity, Total (as CaCO3)	64		5	mg/L		14-JUN-07	CLT	R535605

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L516797-14 16 - KITCHEN SINK								
Sampled By: APRIL PIGALAK on 09-JUN-07								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	5.3		0.5	mg/L		15-JUN-07	HAS	R535885
Potassium (K)	2.6		0.1	mg/L		15-JUN-07	HAS	R535885
Magnesium (Mg)	3.7		0.1	mg/L		15-JUN-07	HAS	R535885
Sodium (Na)	17		1	mg/L		15-JUN-07	HAS	R535885
Iron (Fe)	0.520		0.005	mg/L		15-JUN-07	HAS	R535885
Manganese (Mn)	0.019		0.001	mg/L		15-JUN-07	HAS	R535885
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Aluminum (Al)	0.54		0.02	mg/L		15-JUN-07	CVM	R536028
Arsenic (As)	0.0007		0.0004	mg/L		15-JUN-07	CVM	R536028
Boron (B)	0.02		0.02	mg/L		15-JUN-07	CVM	R536028
Barium (Ba)	0.0084		0.0002	mg/L		15-JUN-07	CVM	R536028
Beryllium (Be)	<0.001		0.001	mg/L		15-JUN-07	CVM	R536028
Bismuth (Bi)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Cadmium (Cd)	<0.0002		0.0002	mg/L		15-JUN-07	CVM	R536028
Cobalt (Co)	0.0004		0.0002	mg/L		15-JUN-07	CVM	R536028
Chromium (Cr)	0.0016		0.0008	mg/L		15-JUN-07	CVM	R536028
Copper (Cu)	0.116		0.001	mg/L		15-JUN-07	CVM	R536028
Molybdenum (Mo)	0.0003		0.0001	mg/L		15-JUN-07	CVM	R536028
Nickel (Ni)	0.0029		0.0002	mg/L		15-JUN-07	CVM	R536028
Lead (Pb)	0.0077		0.0001	mg/L		15-JUN-07	CVM	R536028
Antimony (Sb)	0.0014		0.0004	mg/L		15-JUN-07	CVM	R536028
Selenium (Se)	0.0011		0.0004	mg/L		15-JUN-07	CVM	R536028
Tin (Sn)	<0.0004		0.0004	mg/L		15-JUN-07	CVM	R536028
Strontium (Sr)	0.0251		0.0002	mg/L		15-JUN-07	CVM	R536028
Titanium (Ti)	0.019		0.005	mg/L		15-JUN-07	CVM	R536028
Thallium (Tl)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Uranium (U)	<0.0001		0.0001	mg/L		15-JUN-07	CVM	R536028
Vanadium (V)	0.0012		0.0002	mg/L		15-JUN-07	CVM	R536028
Zinc (Zn)	0.207		0.004	mg/L		15-JUN-07	CVM	R536028
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
Toluene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
EthylBenzene	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
Xylenes	<0.00050		0.0005	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
F1(C6-C10)	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
F1-BTEX	<0.1		0.1	mg/L	20-JUN-07	21-JUN-07	JDV	R538219
<b>F2, F3, F4</b>								
F2 (>C10-C16)	<0.05		0.05	mg/L	16-JUN-07	19-JUN-07	JEA	R536131
F3 (C16-C34)	<0.05		0.05	mg/L	16-JUN-07	19-JUN-07	JEA	R536131
F4 (C34-C50)	<0.05		0.05	mg/L	16-JUN-07	19-JUN-07	JEA	R536131
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	17		1	mg/L		14-JUN-07	LWW/	R535437
Fluoride (F)	<0.05		0.05	mg/L		14-JUN-07	CLT	R535605
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	3.7		0.5	mg/L		16-JUN-07	WYA	R536428
Potassium (K)	2.0		0.5	mg/L		16-JUN-07	WYA	R536428
Magnesium (Mg)	2.2		0.1	mg/L		16-JUN-07	WYA	R536428
Sodium (Na)	9		1	mg/L		16-JUN-07	WYA	R536428
Sulfate (SO4)	2.9		0.5	mg/L		16-JUN-07	WYA	R536428





## Reference Information

**Sample Parameter Qualifier key listed:**

Qualifier	Description
DLA	Detection Limit Adjusted For Dilution
RAMB	Result Adjusted For Method Blank
RRVAP	Reported Result Verified by Alternate Process

**Methods Listed (if applicable):**

ALS 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-ED	Water	Chloride (Cl)		APHA 4500 Cl E-Colorimetry
ETL-ROUTINE-ICP-ED	Water	ICP metals and SO4 for routine water		APHA 3120 B-ICP-OES
F-ED	Water	Fluoride (F)		APHA 4500 F-C-Electrode
F2,F3,F4-CL	Water	F2, F3, F4	EPA 3510C	EPA 3510/8000-GC-FID
IONBALANCE-ED	Water	Ion Balance Calculation		APHA 1030E
MET1-TOT-LOW-ED	Water	Total Trace Metals (Low Level)	EPA3015	EPA 6020
MET2-TOT-LOW-ED	Water	Total Major Metals	EPA3015	EPA 200.7
N2N3-ED	Water	Nitrate+Nitrite-N		APHA 4500 NO3-H - COLORIMETRY
NO2-ED	Water	Nitrite-N		APHA 4500 NO2B-Colorimetry
NO3-ED	Water	Nitrate-N		APHA 4500 NO3H-Colorimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity		APHA 4500-H, 2510, 2320

\*\* 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	ALS LABORATORY GROUP - CALGARY, ALBERTA, CANADA	ED	ALS LABORATORY GROUP - 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 control limits 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. - The reporting 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.*

*ALS Laboratory Group 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, ALS Laboratory Group assumes no liability for the use or interpretation of the results.*



Environmental Division

**ANALYTICAL REPORT**

MIRAMAR HOPE BAY LTD

ATTN: MATT KAWEI

300- 889 HARBOURSIDE DRIVE

NORTH VANCOUVER BC V7P 3S1

Reported On: 27-AUG-07 08:47 AM

Revision: 1

Lab Work Order #: **L527067**

Date Received: **09-JUL-07**

Project P.O. #:

Job Reference: COMPLIANCE WATER SAMPLES

Legal Site Desc:

CofC Numbers:

Other Information: INV COMMENTS: PROJECT COST CENTRE:  
WCAMP-025200-1505

Comments:

CHARLES LEBLANC  
General Manager, Edmonton

For any questions about this report please contact your Account Manager:

**JESSICA SPIRA**

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

**ALS Canada Ltd. (formerly ETL Chemspec Analytical Ltd.)**

Part of the **ALS Laboratory Group**

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## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L527067-1 WCLTA-1								
Sampled By: A.P. on 03-JUL-07 @ 09:40								
Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	0.0132		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
Toluene	0.0276		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
EthylBenzene	0.00058		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
Xylenes	0.0934		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
F1(C6-C10)	1.2		0.1	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
F1-BTEX	1.1		0.1	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
<b>F2, F3, F4</b>								
F2 (>C10-C16)	41		0.05	mg/L	15-JUL-07	16-JUL-07	JUN	R549349
F3 (C16-C34)	23		0.05	mg/L	15-JUL-07	16-JUL-07	JUN	R549349
F4 (C34-C50)	1.7		0.05	mg/L	15-JUL-07	16-JUL-07	JUN	R549349
Total Suspended Solids	39		3	mg/L		11-JUL-07	SVG	R546659
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	1360		1	mg/L		10-JUL-07	RGM/	R546179
Fluoride (F)	0.11		0.05	mg/L		10-JUL-07	CLT	R545975
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	132		0.5	mg/L		10-JUL-07	JWU	R546027
Potassium (K)	38.2		0.5	mg/L		10-JUL-07	JWU	R546027
Magnesium (Mg)	153		0.1	mg/L		10-JUL-07	JWU	R546027
Sodium (Na)	668		1	mg/L		10-JUL-07	JWU	R546027
Sulfate (SO4)	364		0.5	mg/L		10-JUL-07	JWU	R546027
<b>Ion Balance Calculation</b>								
Ion Balance	98.7			%		11-JUL-07		
TDS (Calculated)	2830			mg/L		11-JUL-07		
Hardness (as CaCO3)	960			mg/L		11-JUL-07		
Nitrate+Nitrite-N	0.2		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrate-N	<0.1		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrite-N	0.12		0.05	mg/L		10-JUL-07	BLI	R546174
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.2		0.1	pH		10-JUL-07	CLT	R545975
Conductivity (EC)	4780		0.2	uS/cm		10-JUL-07	CLT	R545975
Bicarbonate (HCO3)	239		5	mg/L		10-JUL-07	CLT	R545975
Carbonate (CO3)	<5		5	mg/L		10-JUL-07	CLT	R545975
Hydroxide (OH)	<5		5	mg/L		10-JUL-07	CLT	R545975
Alkalinity, Total (as CaCO3)	196		5	mg/L		10-JUL-07	CLT	R545975
L527067-2 WCLTA-2								
Sampled By: A.P. on 03-JUL-07 @ 09:44								
Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
Toluene	<0.00050		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
EthylBenzene	<0.00050		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
Xylenes	<0.00050		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
F1(C6-C10)	<0.1		0.1	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
F1-BTEX	<0.1		0.1	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
<b>F2, F3, F4</b>								
F2 (>C10-C16)	0.15		0.05	mg/L	15-JUL-07	15-JUL-07	JUN	R549349
F3 (C16-C34)	<0.05		0.05	mg/L	15-JUL-07	15-JUL-07	JUN	R549349
F4 (C34-C50)	<0.05		0.05	mg/L	15-JUL-07	15-JUL-07	JUN	R549349
Total Suspended Solids	7		3	mg/L		11-JUL-07	SVG	R546659

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L527067-2 WCLTA-2								
Sampled By: A.P. on 03-JUL-07 @ 09:44								
Matrix: WATER								
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	284		1	mg/L		10-JUL-07	RGM/	R546179
Fluoride (F)	0.10		0.05	mg/L		10-JUL-07	CLT	R545975
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	82.8		0.5	mg/L		10-JUL-07	JWU	R546027
Potassium (K)	5.1		0.5	mg/L		10-JUL-07	JWU	R546027
Magnesium (Mg)	26.6		0.1	mg/L		10-JUL-07	JWU	R546027
Sodium (Na)	101		1	mg/L		10-JUL-07	JWU	R546027
Sulfate (SO4)	30.2		0.5	mg/L		10-JUL-07	JWU	R546027
<b>Ion Balance Calculation</b>								
Ion Balance	100			%		11-JUL-07		
TDS (Calculated)	595			mg/L		11-JUL-07		
Hardness (as CaCO3)	316			mg/L		11-JUL-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrate-N	<0.1		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrite-N	<0.05		0.05	mg/L		10-JUL-07	BLI	R546174
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.7		0.1	pH		10-JUL-07	CLT	R545975
Conductivity (EC)	1160		0.2	uS/cm		10-JUL-07	CLT	R545975
Bicarbonate (HCO3)	133		5	mg/L		10-JUL-07	CLT	R545975
Carbonate (CO3)	<5		5	mg/L		10-JUL-07	CLT	R545975
Hydroxide (OH)	<5		5	mg/L		10-JUL-07	CLT	R545975
Alkalinity, Total (as CaCO3)	109		5	mg/L		10-JUL-07	CLT	R545975
L527067-3 WCLTA-2-3								
Sampled By: A.P. on 27-JUN-07 @ 13:22								
Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	16-JUL-07	16-JUL-07	JDV	R549341
Toluene	<0.00050		0.0005	mg/L	16-JUL-07	16-JUL-07	JDV	R549341
EthylBenzene	<0.00050		0.0005	mg/L	16-JUL-07	16-JUL-07	JDV	R549341
Xylenes	<0.00050		0.0005	mg/L	16-JUL-07	16-JUL-07	JDV	R549341
F1(C6-C10)	<0.1		0.1	mg/L	16-JUL-07	16-JUL-07	JDV	R549341
F1-BTEX	<0.1		0.1	mg/L	16-JUL-07	16-JUL-07	JDV	R549341
<b>F2, F3, F4</b>								
F2 (>C10-C16)	<0.05		0.05	mg/L	15-JUL-07	15-JUL-07	JUN	R549349
F3 (C16-C34)	<0.05		0.05	mg/L	15-JUL-07	15-JUL-07	JUN	R549349
F4 (C34-C50)	<0.05		0.05	mg/L	15-JUL-07	15-JUL-07	JUN	R549349
Total Suspended Solids	<3		3	mg/L		11-JUL-07	SVG	R546659
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	1140		1	mg/L		10-JUL-07	RGM/	R546179
Fluoride (F)	0.09		0.05	mg/L		10-JUL-07	CLT	R545975
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	166		0.5	mg/L		10-JUL-07	JWU	R546027
Potassium (K)	25.0		0.5	mg/L		10-JUL-07	JWU	R546027
Magnesium (Mg)	127		0.1	mg/L		10-JUL-07	JWU	R546027
Sodium (Na)	506		1	mg/L		10-JUL-07	JWU	R546027
Sulfate (SO4)	290		0.5	mg/L		10-JUL-07	JWU	R546027
<b>Ion Balance Calculation</b>								
Ion Balance	99.2			%		11-JUL-07		
TDS (Calculated)	2360			mg/L		11-JUL-07		

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L527067-3 WCLTA-2-3								
Sampled By: A.P. on 27-JUN-07 @ 13:22								
Matrix: WATER								
<b>Routine Water: Major Ions, Fluoride</b>								
<b>Ion Balance Calculation</b>								
Hardness (as CaCO3)	937			mg/L		11-JUL-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrate-N	<0.1		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrite-N	<0.05		0.05	mg/L		10-JUL-07	BLI	R546174
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.6		0.1	pH		10-JUL-07	CLT	R545975
Conductivity (EC)	4040		0.2	uS/cm		10-JUL-07	CLT	R545975
Bicarbonate (HCO3)	214		5	mg/L		10-JUL-07	CLT	R545975
Carbonate (CO3)	<5		5	mg/L		10-JUL-07	CLT	R545975
Hydroxide (OH)	<5		5	mg/L		10-JUL-07	CLT	R545975
Alkalinity, Total (as CaCO3)	175		5	mg/L		10-JUL-07	CLT	R545975
L527067-4 WCLTA-2-4								
Sampled By: A.P. on 28-JUN-07 @ 09:50								
Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
Toluene	<0.00050		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
EthylBenzene	<0.00050		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
Xylenes	<0.00050		0.0005	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
F1(C6-C10)	<0.1		0.1	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
F1-BTEX	<0.1		0.1	mg/L	16-JUL-07	17-JUL-07	JDV	R549341
<b>F2, F3, F4</b>								
F2 (>C10-C16)	<0.05		0.05	mg/L	15-JUL-07	15-JUL-07	JUN	R549349
F3 (C16-C34)	<0.05		0.05	mg/L	15-JUL-07	15-JUL-07	JUN	R549349
F4 (C34-C50)	<0.05		0.05	mg/L	15-JUL-07	15-JUL-07	JUN	R549349
Total Suspended Solids	<3		3	mg/L		11-JUL-07	SVG	R546659
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	1250		1	mg/L		10-JUL-07	RGM/	R546179
Fluoride (F)	0.09		0.05	mg/L		10-JUL-07	CLT	R545975
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	180		0.5	mg/L		10-JUL-07	JWU	R546027
Potassium (K)	26.0		0.5	mg/L		10-JUL-07	JWU	R546027
Magnesium (Mg)	141		0.1	mg/L		10-JUL-07	JWU	R546027
Sodium (Na)	549		1	mg/L		10-JUL-07	JWU	R546027
Sulfate (SO4)	324		0.5	mg/L		10-JUL-07	JWU	R546027
<b>Ion Balance Calculation</b>								
Ion Balance	98.8			%		11-JUL-07		
TDS (Calculated)	2580			mg/L		11-JUL-07		
Hardness (as CaCO3)	1030			mg/L		11-JUL-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrate-N	<0.1		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrite-N	<0.05		0.05	mg/L		10-JUL-07	BLI	R546174
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.5		0.1	pH		10-JUL-07	CLT	R545975
Conductivity (EC)	4410		0.2	uS/cm		10-JUL-07	CLT	R545975
Bicarbonate (HCO3)	225		5	mg/L		10-JUL-07	CLT	R545975
Carbonate (CO3)	<5		5	mg/L		10-JUL-07	CLT	R545975
Hydroxide (OH)	<5		5	mg/L		10-JUL-07	CLT	R545975
Alkalinity, Total (as CaCO3)	184		5	mg/L		10-JUL-07	CLT	R545975



## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L527067-6 WCRBC SITE A Sampled By: APRIL on 06-JUL-07 @ 08:08 Matrix: WATER								
<b>Total Nitrogen</b>								
Nitrate+Nitrite-N	<0.1		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrogen, Total	73.5		0.2	mg/L		12-JUL-07		
Total Kjeldahl Nitrogen	73.5		0.2	mg/L	12-JUL-07	12-JUL-07	FYG	R547340
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	78		1	mg/L		10-JUL-07	RGM/	R546179
Fluoride (F)	0.05		0.05	mg/L		10-JUL-07	CLT	R545975
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	9.5		0.5	mg/L		10-JUL-07	JWU	R546027
Potassium (K)	21.4		0.5	mg/L		10-JUL-07	JWU	R546027
Magnesium (Mg)	5.7		0.1	mg/L		10-JUL-07	JWU	R546027
Sodium (Na)	251		1	mg/L		10-JUL-07	JWU	R546027
Sulfate (SO4)	24.4		0.5	mg/L		10-JUL-07	JWU	R546027
<b>Ion Balance Calculation</b>								
Ion Balance	75.0	BL:INT		%		11-JUL-07		
TDS (Calculated)	805			mg/L		11-JUL-07		
Hardness (as CaCO3)	47			mg/L		11-JUL-07		
Nitrate-N	<0.1		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrite-N	<0.05		0.05	mg/L		10-JUL-07	BLI	R546174
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.8		0.1	pH		10-JUL-07	CLT	R545975
Conductivity (EC)	1550		0.2	uS/cm		10-JUL-07	CLT	R545975
Bicarbonate (HCO3)	844		5	mg/L		10-JUL-07	CLT	R545975
Carbonate (CO3)	<5		5	mg/L		10-JUL-07	CLT	R545975
Hydroxide (OH)	<5		5	mg/L		10-JUL-07	CLT	R545975
Alkalinity, Total (as CaCO3)	692		5	mg/L		10-JUL-07	CLT	R545975
L527067-7 WCRBC SITE B Sampled By: APRIL on 06-JUL-07 @ 08:20 Matrix: WATER								
Biochemical Oxygen Demand	8		2	mg/L		09-JUL-07	JIH/JW	R548374
MF - E. Coli	1		1	CFU/100mL		10-JUL-07	PB	R561255
MF - Fecal Coliforms	2		1	CFU/100mL		10-JUL-07	PB	R561255
Phosphorus, Total	<0.02		0.02	mg/L		13-JUL-07	BOC/	R547848
MF - Total Coliforms	82		1	CFU/100mL		10-JUL-07	PB	R561255
Total Suspended Solids	<3		3	mg/L		11-JUL-07	SVG	R546659
<b>Total Nitrogen</b>								
Nitrate+Nitrite-N	<0.1		0.1	mg/L		10-JUL-07	BLI	R546174
Nitrogen, Total	<0.2		0.2	mg/L		12-JUL-07		
Total Kjeldahl Nitrogen	<0.2		0.2	mg/L	12-JUL-07	12-JUL-07	FYG	R547340
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	9		1	mg/L		10-JUL-07	RGM/	R546179
Fluoride (F)	<0.05		0.05	mg/L		10-JUL-07	CLT	R545975
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	1.6		0.5	mg/L		10-JUL-07	JWU	R546027
Potassium (K)	0.5		0.5	mg/L		10-JUL-07	JWU	R546027
Magnesium (Mg)	0.9		0.1	mg/L		10-JUL-07	JWU	R546027
Sodium (Na)	5		1	mg/L		10-JUL-07	JWU	R546027
Sulfate (SO4)	1.0		0.5	mg/L		10-JUL-07	JWU	R546027
<b>Ion Balance Calculation</b>								
Ion Balance	Low EC			%		11-JUL-07		

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L527067-7 WCRBC SITE B Sampled By: APRIL on 06-JUL-07 @ 08:20 Matrix: WATER <b>Routine Water: Major Ions, Fluoride</b> <b>Ion Balance Calculation</b> TDS (Calculated) 23 mg/L 11-JUL-07 Hardness (as CaCO3) 8 mg/L 11-JUL-07 Nitrate-N <0.1 0.1 mg/L 10-JUL-07 BLI R546174 Nitrite-N <0.05 0.05 mg/L 10-JUL-07 BLI R546174 <b>pH, Conductivity and Total Alkalinity</b> pH 7.0 0.1 pH 10-JUL-07 CLT R545975 Conductivity (EC) 46.5 0.2 uS/cm 10-JUL-07 CLT R545975 Bicarbonate (HCO3) 10 5 mg/L 10-JUL-07 CLT R545975 Carbonate (CO3) <5 5 mg/L 10-JUL-07 CLT R545975 Hydroxide (OH) <5 5 mg/L 10-JUL-07 CLT R545975 Alkalinity, Total (as CaCO3) 8 5 mg/L 10-JUL-07 CLT R545975								
L527067-8 WCRBC SITE C Sampled By: APRIL on 06-JUL-07 @ 08:32 Matrix: WATER  Biochemical Oxygen Demand 8 2 mg/L 09-JUL-07 JIH/JW R548374 MF - E. Coli <1 1 CFU/100mL 10-JUL-07 PB R561255 MF - Fecal Coliforms <1 1 CFU/100mL 10-JUL-07 PB R561255 Phosphorus, Total <0.02 0.02 mg/L 13-JUL-07 BOC/ R547848 MF - Total Coliforms <1 1 CFU/100mL 10-JUL-07 PB R561255 Total Suspended Solids <3 3 mg/L 11-JUL-07 SVG R546659 <b>Total Nitrogen</b> Nitrate+Nitrite-N <0.1 0.1 mg/L 10-JUL-07 BLI R546174 Nitrogen, Total <0.2 0.2 mg/L 12-JUL-07 Total Kjeldahl Nitrogen <0.2 0.2 mg/L 12-JUL-07 FYG R547340 <b>Routine Water: Major Ions, Fluoride</b> Chloride (Cl) 13 1 mg/L 10-JUL-07 RGM/ R546179 Fluoride (F) <0.05 0.05 mg/L 10-JUL-07 CLT R545975 <b>ICP metals and SO4 for routine water</b> Calcium (Ca) 2.1 0.5 mg/L 10-JUL-07 JWU R546027 Potassium (K) 0.8 0.5 mg/L 10-JUL-07 JWU R546027 Magnesium (Mg) 1.4 0.1 mg/L 10-JUL-07 JWU R546027 Sodium (Na) 8 1 mg/L 10-JUL-07 JWU R546027 Sulfate (SO4) 1.4 0.5 mg/L 10-JUL-07 JWU R546027 <b>Ion Balance Calculation</b> Ion Balance Low EC % 11-JUL-07 TDS (Calculated) 33 mg/L 11-JUL-07 Hardness (as CaCO3) 11 mg/L 11-JUL-07 Nitrate-N <0.1 0.1 mg/L 10-JUL-07 BLI R546174 Nitrite-N <0.05 0.05 mg/L 10-JUL-07 BLI R546174 <b>pH, Conductivity and Total Alkalinity</b> pH 7.1 0.1 pH 10-JUL-07 CLT R545975 Conductivity (EC) 66.5 0.2 uS/cm 10-JUL-07 CLT R545975 Bicarbonate (HCO3) 12 5 mg/L 10-JUL-07 CLT R545975 Carbonate (CO3) <5 5 mg/L 10-JUL-07 CLT R545975 Hydroxide (OH) <5 5 mg/L 10-JUL-07 CLT R545975 Alkalinity, Total (as CaCO3) 10 5 mg/L 10-JUL-07 CLT R545975								
* Refer to Referenced Information for Qualifiers (if any) and Methodology.								



## Reference Information

**Sample Parameter Qualifier key listed:**

Qualifier	Description
BL:INT	Balance Reviewed: Interference Or Non-Measured Component

**Methods Listed (if applicable):**

ALS Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
BOD-ED	Water	Biochemical Oxygen Demand (BOD)		APHA 5210 B-5 day Incub.-O2 electrode
BTX,F1-CL	Water	BTEX and F1 (C6-C10)	EPA 5030B	EPA 5030/8015& 8260-P&T GC-MS/FID
CL-ED	Water	Chloride (Cl)		APHA 4500 Cl E-Colorimetry
ECC-MF-PB	Water	Escherchia coli Count (E.coli)-MF		APHA 9221F MF
ETL-N-TOT-CALC-ED	Water	Nitrogen, Total		APHA 4500 N-Calculated
ETL-ROUTINE-ICP-ED	Water	ICP metals and SO4 for routine water		APHA 3120 B-ICP-OES
F-ED	Water	Fluoride (F)		APHA 4500 F-C-Electrode
F2,F3,F4-CL	Water	F2, F3, F4	EPA 3510C	EPA 3510/8000-GC-FID
FCC-MF-PB	Water	Fecal Coliform Count-MF		APHA 9222D MF
IONBALANCE-ED	Water	Ion Balance Calculation		APHA 1030E
N-TOTKJ-ED	Water	Total Kjeldahl Nitrogen		APHA 4500N-C -Dig.-Auto-Colorimetry
N2N3-ED	Water	Nitrate+Nitrite-N		APHA 4500 NO3-H - COLORIMETRY
NO2-ED	Water	Nitrite-N		APHA 4500 NO2B-Colorimetry
NO3-ED	Water	Nitrate-N		APHA 4500 NO3H-Colorimetry
P-TOTAL-ED	Water	Phosphorus, Total		APHA 4500 P B,E-Auto-Colorimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity		APHA 4500-H, 2510, 2320
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids		APHA 2540 D-Gravimetric
TCC-MF-PB	Water	Total Coliform Count-MF		APHA 9222B MF

\*\* 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	ALS LABORATORY GROUP - CALGARY, ALBERTA, CANADA	ED	ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA
PB	PBR LABORATORIES		

## Reference Information

Additional Information:

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INV COMMENTS

PROJECT COST CENTRE: WCAMP-025200-1505

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### 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 control limits 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.* - The reporting 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.*

*ALS Laboratory Group 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, ALS Laboratory Group assumes no liability for the use or interpretation of the results.*



Environmental Division

**ANALYTICAL REPORT**

MIRAMAR HOPE BAY LTD

ATTN: MATT KAWEI

300, 889 HARBOURSIDE DRIVE

NORTH VANCOUVER BC V7P 3S1

Reported On: 17-JUL-07 06:22 PM

Revision: 1

Lab Work Order #: **L524586**

Date Received: **30-JUN-07**

Project P.O. #:

Job Reference: COMPLIANCE WATER SAMPLES

Legal Site Desc:

CofC Numbers:

Other Information: INV COMMENTS: PROJECT COST CENTRE:  
WCAMP-025200-1505

Comments:

RON MINKS  
Director, Western Canada Operations

For any questions about this report please contact your Account Manager:

**JESSICA SPIRA**

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

**ALS Canada Ltd. (formerly ETL Chemspec Analytical Ltd.)**  
Part of the **ALS Laboratory Group**

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## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L524586-1 WCLTA-1-2								
Sampled By: A.P. on 26-JUN-07 @ 13:22								
Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
Toluene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
EthylBenzene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
Xylenes	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
F1(C6-C10)	<0.1		0.1	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
F1-BTEX	<0.1		0.1	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
<b>F2, F3, F4</b>								
F2 (>C10-C16)	830		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
F3 (C16-C34)	8300		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
F4 (C34-C50)	540		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	1110		1	mg/L		05-JUL-07	BOC	R544279
Fluoride (F)	0.09		0.05	mg/L		06-JUL-07	CLT	R544602
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	176		0.5	mg/L		05-JUL-07	CJN	R544238
Potassium (K)	24.2		0.5	mg/L		05-JUL-07	CJN	R544238
Magnesium (Mg)	124		0.1	mg/L		05-JUL-07	CJN	R544238
Sodium (Na)	454		1	mg/L		05-JUL-07	CJN	R544238
Sulfate (SO4)	305		0.5	mg/L		05-JUL-07	CJN	R544238
<b>Ion Balance Calculation</b>								
Ion Balance	95.9			%		06-JUL-07		
TDS (Calculated)	2290			mg/L		06-JUL-07		
Hardness (as CaCO3)	950			mg/L		06-JUL-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		03-JUL-07	BLI	R543417
Nitrate-N	<0.1		0.1	mg/L		03-JUL-07	BLI	R543417
Nitrite-N	<0.05		0.05	mg/L		03-JUL-07	BLI	R543417
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.8		0.1	pH		06-JUL-07	CLT	R544602
Conductivity (EC)	4120		0.2	uS/cm		06-JUL-07	CLT	R544602
Bicarbonate (HCO3)	205		5	mg/L		06-JUL-07	CLT	R544602
Carbonate (CO3)	<5		5	mg/L		06-JUL-07	CLT	R544602
Hydroxide (OH)	<5		5	mg/L		06-JUL-07	CLT	R544602
Alkalinity, Total (as CaCO3)	168		5	mg/L		06-JUL-07	CLT	R544602
L524586-2 WCLTA-2-2								
Sampled By: A.P. on 26-JUN-07 @ 13:22								
Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
Toluene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
EthylBenzene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
Xylenes	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
F1(C6-C10)	<0.1		0.1	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
F1-BTEX	<0.1		0.1	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
<b>F2, F3, F4</b>								
F2 (>C10-C16)	0.07		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
F3 (C16-C34)	0.37		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
F4 (C34-C50)	1.4		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	1170		1	mg/L		06-JUL-07	BOC/	R544791

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L524586-2 WCLTA-2-2								
Sampled By: A.P. on 26-JUN-07 @ 13:22								
Matrix: WATER								
<b>Routine Water: Major Ions, Fluoride</b>								
Fluoride (F)	0.07		0.05	mg/L		06-JUL-07	CLT	R545549
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	159		0.5	mg/L		06-JUL-07	JWU	R544733
Potassium (K)	24.1		0.5	mg/L		06-JUL-07	JWU	R544733
Magnesium (Mg)	122		0.1	mg/L		06-JUL-07	JWU	R544733
Sodium (Na)	472		1	mg/L		06-JUL-07	JWU	R544733
Sulfate (SO4)	301		0.5	mg/L		06-JUL-07	JWU	R544733
<b>Ion Balance Calculation</b>								
Ion Balance	92.1			%		09-JUL-07		
TDS (Calculated)	2340			mg/L		09-JUL-07		
Hardness (as CaCO3)	899			mg/L		09-JUL-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		03-JUL-07	BLI	R543417
Nitrate-N	<0.1		0.1	mg/L		03-JUL-07	BLI	R543417
Nitrite-N	0.06		0.05	mg/L		03-JUL-07	BLI	R543417
<b>pH, Conductivity and Total Alkalinity</b>								
pH	8.1		0.1	pH		06-JUL-07	CLT	R544602
Conductivity (EC)	4080		0.2	uS/cm		06-JUL-07	CLT	R544602
Bicarbonate (HCO3)	195		5	mg/L		06-JUL-07	CLT	R544602
Carbonate (CO3)	<5		5	mg/L		06-JUL-07	CLT	R544602
Hydroxide (OH)	<5		5	mg/L		06-JUL-07	CLT	R544602
Alkalinity, Total (as CaCO3)	159		5	mg/L		06-JUL-07	CLT	R544602
L524586-3 WCLTA-1								
Sampled By: GC,SC,AP on 25-JUN-07 @ 09:22								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	161		0.5	mg/L		06-JUL-07	SYF	R545105
Potassium (K)	26.3		0.1	mg/L		06-JUL-07	SYF	R545105
Magnesium (Mg)	111		0.1	mg/L		06-JUL-07	SYF	R545105
Sodium (Na)	473		1	mg/L		06-JUL-07	SYF	R545105
Iron (Fe)	2.77		0.005	mg/L		06-JUL-07	SYF	R545105
Manganese (Mn)	0.577		0.001	mg/L		06-JUL-07	SYF	R545105
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004	RAMB	0.0004	mg/L		10-JUL-07	CVM	R546049
Aluminum (Al)	1.15		0.02	mg/L		10-JUL-07	CVM	R546049
Arsenic (As)	0.0155		0.0004	mg/L		10-JUL-07	CVM	R546049
Boron (B)	0.15		0.02	mg/L		10-JUL-07	CVM	R546049
Barium (Ba)	0.0611		0.0002	mg/L		10-JUL-07	CVM	R546049
Beryllium (Be)	<0.001		0.001	mg/L		10-JUL-07	CVM	R546049
Bismuth (Bi)	<0.0001		0.0001	mg/L		10-JUL-07	CVM	R546049
Cadmium (Cd)	<0.0002		0.0002	mg/L		10-JUL-07	CVM	R546049
Cobalt (Co)	0.0042		0.0002	mg/L		10-JUL-07	CVM	R546049
Chromium (Cr)	<0.005	DLM	0.005	mg/L		06-JUL-07	SYF	R545105
Copper (Cu)	0.082		0.001	mg/L		10-JUL-07	CVM	R546049
Molybdenum (Mo)	0.0045		0.0001	mg/L		10-JUL-07	CVM	R546049
Nickel (Ni)	0.0395		0.0002	mg/L		10-JUL-07	CVM	R546049
Lead (Pb)	0.0017		0.0001	mg/L		10-JUL-07	CVM	R546049
Antimony (Sb)	0.0015		0.0004	mg/L		10-JUL-07	CVM	R546049
Selenium (Se)	0.0028		0.0004	mg/L		10-JUL-07	CVM	R546049
Tin (Sn)	0.0018		0.0004	mg/L		10-JUL-07	CVM	R546049
Strontium (Sr)	1.20		0.0002	mg/L		10-JUL-07	CVM	R546049

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L524586-3 WCLTA-1								
Sampled By: GC,SC,AP on 25-JUN-07 @ 09:22								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Trace Metals (Low Level)</b>								
Titanium (Ti)	0.065		0.005	mg/L		10-JUL-07	CVM	R546049
Thallium (Tl)	<0.0001		0.0001	mg/L		10-JUL-07	CVM	R546049
Uranium (U)	0.0017		0.0001	mg/L		10-JUL-07	CVM	R546049
Vanadium (V)	0.0085		0.0002	mg/L		10-JUL-07	CVM	R546049
Zinc (Zn)	0.058		0.004	mg/L		10-JUL-07	CVM	R546049
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
Toluene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
EthylBenzene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
Xylenes	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
F1(C6-C10)	<0.1		0.1	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
F1-BTEX	<0.1		0.1	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
<b>F2, F3, F4</b>								
F2 (>C10-C16)	150		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
F3 (C16-C34)	860		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
F4 (C34-C50)	50		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	1130		1	mg/L		06-JUL-07	BOC/	R544791
Fluoride (F)	0.07		0.05	mg/L		06-JUL-07	CLT	R545549
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	163		0.5	mg/L		06-JUL-07	JWU	R544733
Potassium (K)	23.1		0.5	mg/L		06-JUL-07	JWU	R544733
Magnesium (Mg)	115		0.1	mg/L		06-JUL-07	JWU	R544733
Sodium (Na)	433		1	mg/L		06-JUL-07	JWU	R544733
Sulfate (SO4)	288		0.5	mg/L		06-JUL-07	JWU	R544733
<b>Ion Balance Calculation</b>								
Ion Balance	90.2			%		09-JUL-07		
TDS (Calculated)	2250			mg/L		09-JUL-07		
Hardness (as CaCO3)	881			mg/L		09-JUL-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		03-JUL-07	BLI	R543417
Nitrate-N	<0.1		0.1	mg/L		03-JUL-07	BLI	R543417
Nitrite-N	<0.05		0.05	mg/L		03-JUL-07	BLI	R543417
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.9		0.1	pH		06-JUL-07	CLT	R544602
Conductivity (EC)	3920		0.2	uS/cm		06-JUL-07	CLT	R544602
Bicarbonate (HCO3)	194		5	mg/L		06-JUL-07	CLT	R544602
Carbonate (CO3)	<5		5	mg/L		06-JUL-07	CLT	R544602
Hydroxide (OH)	<5		5	mg/L		06-JUL-07	CLT	R544602
Alkalinity, Total (as CaCO3)	159		5	mg/L		06-JUL-07	CLT	R544602
L524586-4 WCLTA-2								
Sampled By: GC,SC,AP on 25-JUN-07 @ 09:45								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	20.4		0.5	mg/L		08-JUL-07	HAS	R545414
Potassium (K)	24.7		0.1	mg/L		08-JUL-07	HAS	R545414
Magnesium (Mg)	94.9		0.1	mg/L		08-JUL-07	HAS	R545414
Sodium (Na)	2580		1	mg/L		08-JUL-07	HAS	R545414
Iron (Fe)	0.969		0.005	mg/L		08-JUL-07	HAS	R545414

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L524586-4 WCLTA-2								
Sampled By: GC,SC,AP on 25-JUN-07 @ 09:45								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Manganese (Mn)	0.030		0.001	mg/L		08-JUL-07	HAS	R545414
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		10-JUL-07	CVM	R546049
Aluminum (Al)	0.45		0.02	mg/L		10-JUL-07	CVM	R546049
Arsenic (As)	3.09		0.0004	mg/L		10-JUL-07	CVM	R546049
Boron (B)	0.21		0.02	mg/L		10-JUL-07	CVM	R546049
Barium (Ba)	0.117		0.0002	mg/L		10-JUL-07	CVM	R546049
Beryllium (Be)	<0.001		0.001	mg/L		10-JUL-07	CVM	R546049
Bismuth (Bi)	<0.0001		0.0001	mg/L		10-JUL-07	CVM	R546049
Cadmium (Cd)	0.0003		0.0002	mg/L		10-JUL-07	CVM	R546049
Cobalt (Co)	0.0030		0.0002	mg/L		10-JUL-07	CVM	R546049
Chromium (Cr)	<0.005	DLM	0.005	mg/L		08-JUL-07	HAS	R545414
Copper (Cu)	0.004		0.001	mg/L		10-JUL-07	CVM	R546049
Molybdenum (Mo)	0.217		0.0001	mg/L		10-JUL-07	CVM	R546049
Nickel (Ni)	0.0258		0.0002	mg/L		10-JUL-07	CVM	R546049
Lead (Pb)	0.0006		0.0001	mg/L		10-JUL-07	CVM	R546049
Antimony (Sb)	0.363		0.0004	mg/L		10-JUL-07	CVM	R546049
Selenium (Se)	0.0203		0.0004	mg/L		10-JUL-07	CVM	R546049
Tin (Sn)	<0.0004		0.0004	mg/L		10-JUL-07	CVM	R546049
Strontium (Sr)	0.840		0.0002	mg/L		10-JUL-07	CVM	R546049
Titanium (Ti)	0.051		0.005	mg/L		10-JUL-07	CVM	R546049
Thallium (Tl)	0.0001		0.0001	mg/L		10-JUL-07	CVM	R546049
Uranium (U)	0.0274		0.0001	mg/L		10-JUL-07	CVM	R546049
Zinc (Zn)	0.088		0.004	mg/L		10-JUL-07	CVM	R546049
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	15-JUL-07	16-JUL-07	PGM	R548585
Toluene	<0.00050		0.0005	mg/L	15-JUL-07	16-JUL-07	PGM	R548585
EthylBenzene	<0.00050		0.0005	mg/L	15-JUL-07	16-JUL-07	PGM	R548585
Xylenes	<0.00050		0.0005	mg/L	15-JUL-07	16-JUL-07	PGM	R548585
F1(C6-C10)	<0.1		0.1	mg/L	15-JUL-07	16-JUL-07	PGM	R548585
F1-BTEX	<0.1		0.1	mg/L	15-JUL-07	16-JUL-07	PGM	R548585
<b>F2, F3, F4</b>								
F2 (>C10-C16)	<0.05		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
F3 (C16-C34)	0.06		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
F4 (C34-C50)	<0.05		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	1970		1	mg/L		06-JUL-07	BOC/	R544791
Fluoride (F)	0.45		0.05	mg/L		06-JUL-07	CLT	R545549
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	14.6		0.5	mg/L		06-JUL-07	JWU	R544733
Potassium (K)	20.5		0.5	mg/L		06-JUL-07	JWU	R544733
Magnesium (Mg)	104		0.1	mg/L		06-JUL-07	JWU	R544733
Sodium (Na)	2660		1	mg/L		06-JUL-07	JWU	R544733
Sulfate (SO4)	1680		0.5	mg/L		06-JUL-07	JWU	R544733
<b>Ion Balance Calculation</b>								
Ion Balance	91.6			%		10-JUL-07		
TDS (Calculated)	7850			mg/L		10-JUL-07		
Hardness (as CaCO3)	465			mg/L		10-JUL-07		
Nitrate+Nitrite-N	0.1		0.1	mg/L		03-JUL-07	BLI	R543417

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L524586-4 WCLTA-2								
Sampled By: GC,SC,AP on 25-JUN-07 @ 09:45								
Matrix: WATER								
<b>Routine Water: Major Ions, Fluoride</b>								
Nitrate-N	0.1		0.1	mg/L		03-JUL-07	BLI	R543417
Nitrite-N	<0.05		0.05	mg/L		03-JUL-07	BLI	R543417
<b>pH, Conductivity and Total Alkalinity</b>								
pH	9.6		0.1	pH		05-JUL-07	CLT	R544602
Conductivity (EC)	11700		0.2	uS/cm		05-JUL-07	CLT	R544602
Bicarbonate (HCO3)	1290		5	mg/L		05-JUL-07	CLT	R544602
Carbonate (CO3)	761		5	mg/L		05-JUL-07	CLT	R544602
Hydroxide (OH)	<5		5	mg/L		05-JUL-07	CLT	R544602
Alkalinity, Total (as CaCO3)	2330		5	mg/L		05-JUL-07	CLT	R544602
L524586-5 WCLTA-3								
Sampled By: GC,SC,AP on 25-JUN-07 @ 09:48								
Matrix: WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	2.2		0.5	mg/L		06-JUL-07	SYF	R545105
Potassium (K)	0.6		0.1	mg/L		06-JUL-07	SYF	R545105
Magnesium (Mg)	1.4		0.1	mg/L		06-JUL-07	SYF	R545105
Sodium (Na)	4		1	mg/L		06-JUL-07	SYF	R545105
Iron (Fe)	1.32		0.005	mg/L		06-JUL-07	SYF	R545105
Manganese (Mn)	0.031		0.001	mg/L		06-JUL-07	SYF	R545105
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		09-JUL-07	CVM	R546049
Aluminum (Al)	0.91		0.02	mg/L		09-JUL-07	CVM	R546049
Arsenic (As)	0.0007		0.0004	mg/L		09-JUL-07	CVM	R546049
Boron (B)	<0.02		0.02	mg/L		09-JUL-07	CVM	R546049
Barium (Ba)	0.0100		0.0002	mg/L		09-JUL-07	CVM	R546049
Beryllium (Be)	<0.001		0.001	mg/L		09-JUL-07	CVM	R546049
Bismuth (Bi)	<0.0001		0.0001	mg/L		09-JUL-07	CVM	R546049
Cadmium (Cd)	<0.0002		0.0002	mg/L		09-JUL-07	CVM	R546049
Cobalt (Co)	0.0008		0.0002	mg/L		09-JUL-07	CVM	R546049
Chromium (Cr)	0.0013		0.0008	mg/L		09-JUL-07	CVM	R546049
Copper (Cu)	0.006		0.001	mg/L		09-JUL-07	CVM	R546049
Molybdenum (Mo)	0.0002		0.0001	mg/L		09-JUL-07	CVM	R546049
Nickel (Ni)	0.0019		0.0002	mg/L		09-JUL-07	CVM	R546049
Lead (Pb)	0.0012		0.0001	mg/L		09-JUL-07	CVM	R546049
Antimony (Sb)	<0.0004		0.0004	mg/L		09-JUL-07	CVM	R546049
Selenium (Se)	<0.0004		0.0004	mg/L		09-JUL-07	CVM	R546049
Tin (Sn)	<0.0004		0.0004	mg/L		09-JUL-07	CVM	R546049
Strontium (Sr)	0.0109		0.0002	mg/L		09-JUL-07	CVM	R546049
Titanium (Ti)	0.053		0.005	mg/L		09-JUL-07	CVM	R546049
Thallium (Tl)	<0.0001		0.0001	mg/L		09-JUL-07	CVM	R546049
Uranium (U)	<0.0001		0.0001	mg/L		09-JUL-07	CVM	R546049
Vanadium (V)	0.0024		0.0002	mg/L		09-JUL-07	CVM	R546049
Zinc (Zn)	0.012		0.004	mg/L		09-JUL-07	CVM	R546049
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
Toluene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
EthylBenzene	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
Xylenes	<0.00050		0.0005	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
F1(C6-C10)	<0.1		0.1	mg/L	12-JUL-07	13-JUL-07	PGM	R547875



## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L524586-5 WCLTA-3 Sampled By: GC,SC,AP on 25-JUN-07 @ 09:48 Matrix: WATER								
<b>BTEX and F1 (C6-C10)</b>								
F1-BTEX	<0.1		0.1	mg/L	12-JUL-07	13-JUL-07	PGM	R547875
<b>F2, F3, F4</b>								
F2 (>C10-C16)	0.14		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
F3 (C16-C34)	2.8		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
F4 (C34-C50)	1.9		0.05	mg/L	05-JUL-07	07-JUL-07	VRP	R545299
<b>Routine Water: Major Ions, Fluoride</b>								
Chloride (Cl)	8		1	mg/L		06-JUL-07	BOC/	R544791
Fluoride (F)	<0.05		0.05	mg/L		06-JUL-07	CLT	R545549
<b>ICP metals and SO4 for routine water</b>								
Calcium (Ca)	1.8		0.5	mg/L		06-JUL-07	JWU	R544733
Potassium (K)	0.6		0.5	mg/L		06-JUL-07	JWU	R544733
Magnesium (Mg)	0.8		0.1	mg/L		06-JUL-07	JWU	R544733
Sodium (Na)	4		1	mg/L		06-JUL-07	JWU	R544733
Sulfate (SO4)	1.2		0.5	mg/L		06-JUL-07	JWU	R544733
<b>Ion Balance Calculation</b>								
Ion Balance	Low EC			%		09-JUL-07		
TDS (Calculated)	22			mg/L		09-JUL-07		
Hardness (as CaCO3)	8			mg/L		09-JUL-07		
Nitrate+Nitrite-N	<0.1		0.1	mg/L		03-JUL-07	BLI	R543417
Nitrate-N	<0.1		0.1	mg/L		03-JUL-07	BLI	R543417
Nitrite-N	<0.05		0.05	mg/L		03-JUL-07	BLI	R543417
<b>pH, Conductivity and Total Alkalinity</b>								
pH	7.2		0.1	pH		06-JUL-07	CLT	R544602
Conductivity (EC)	40.9		0.2	uS/cm		06-JUL-07	CLT	R544602
Bicarbonate (HCO3)	11		5	mg/L		06-JUL-07	CLT	R544602
Carbonate (CO3)	<5		5	mg/L		06-JUL-07	CLT	R544602
Hydroxide (OH)	<5		5	mg/L		06-JUL-07	CLT	R544602
Alkalinity, Total (as CaCO3)	9		5	mg/L		06-JUL-07	CLT	R544602

\* Refer to Referenced Information for Qualifiers (if any) and Methodology.

## Reference Information

**Qualifiers for Sample Submission Listed:**

Qualifier	Description
EHT	Exceeds Recommended Holding Time Prior To Analysis

**Sample Parameter Qualifier key listed:**

Qualifier	Description
DLM	Detection Limit Adjustment For Sample Matrix Effects
RAMB	Result Adjusted For Method Blank

**Methods Listed (if applicable):**

ALS 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-ED	Water	Chloride (Cl)		APHA 4500 Cl E-Colorimetry
ETL-ROUTINE-ICP-ED	Water	ICP metals and SO4 for routine water		APHA 3120 B-ICP-OES
F-ED	Water	Fluoride (F)		APHA 4500 F-C-Electrode
F2,F3,F4-CL	Water	F2, F3, F4	EPA 3510C	EPA 3510/8000-GC-FID
IONBALANCE-ED	Water	Ion Balance Calculation		APHA 1030E
MET1-TOT-LOW-ED	Water	Total Trace Metals (Low Level)	EPA3015	EPA 6020
MET2-TOT-LOW-ED	Water	Total Major Metals	EPA3015	EPA 200.7
N2N3-ED	Water	Nitrate+Nitrite-N		APHA 4500 NO3-H - COLORIMETRY
NO2-ED	Water	Nitrite-N		APHA 4500 NO2B-Colorimetry
NO3-ED	Water	Nitrate-N		APHA 4500 NO3H-Colorimetry
PH/EC/ALK-ED	Water	pH, Conductivity and Total Alkalinity		APHA 4500-H, 2510, 2320

\*\* 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	ALS LABORATORY GROUP - CALGARY, ALBERTA, CANADA	ED	ALS LABORATORY GROUP - EDMONTON, ALBERTA, CANADA

Additional Information:

INV COMMENTS	PROJECT COST CENTRE: WCAMP-025200-1505
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## 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 control limits 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. - The reporting 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.*

*ALS Laboratory Group 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, ALS Laboratory Group assumes no liability for the use or interpretation of the results.*



Environmental Division

**ANALYTICAL REPORT**

HOPE BAY MINING LTD

ATTN: MATT KAWEI

300, 889 HARBOURSIDE DRIVE

NORTH VANCOUVER BC V7P 3S1

Reported On: 18-JUL-08 03:32 PM

Lab Work Order #: **L654816**

Date Received: **11-JUL-08**

Project P.O. #: M00356\_L1

Job Reference: COMPLIANCE WATER SAMPLES

Legal Site Desc:

CofC Numbers:

Other Information:

Comments:

JESSICA SPIRA  
Senior Account Manager

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

**ALS Canada Ltd. (formerly ETL Chemspec Analytical Ltd.)**  
Part of the **ALS Laboratory Group**

9936-67 Avenue, Edmonton, AB T6E 0P5

Phone: +1 780 413 5227 Fax: +1 780 437 2311 [www.alsglobal.com](http://www.alsglobal.com)

A Campbell Brothers Limited Company

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L654816-1 HOP-4B								
Sampled By: JILL TURK on 09-JUL-08 @ 16:15								
Matrix: WATER								
<b>BTX, F1, F2, F3, F4</b>								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.020	DLM	0.020	mg/L	16-JUL-08	16-JUL-08	AJK	R693717
Toluene	<0.020	DLM	0.020	mg/L	16-JUL-08	16-JUL-08	AJK	R693717
EthylBenzene	<0.020	DLM	0.020	mg/L	16-JUL-08	16-JUL-08	AJK	R693717
Xylenes	<0.020	DLM	0.020	mg/L	16-JUL-08	16-JUL-08	AJK	R693717
F1(C6-C10)	<4	DLM	4	mg/L	16-JUL-08	16-JUL-08	AJK	R693717
F1-BTEX	2.4		0.1	mg/L	16-JUL-08	16-JUL-08	AJK	R693717
<b>F2, F3, F4</b>								
F2 (>C10-C16)	4.6		0.05	mg/L	15-JUL-08	15-JUL-08	VRP	R693832
F3 (C16-C34)	45		0.05	mg/L	15-JUL-08	15-JUL-08	VRP	R693832
F4 (C34-C50)	12		0.05	mg/L	15-JUL-08	15-JUL-08	VRP	R693832
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	173		0.5	mg/L		16-JUL-08	BOC	R694551
Potassium (K)	10.3		0.1	mg/L		16-JUL-08	BOC	R694551
Magnesium (Mg)	26.9		0.1	mg/L		16-JUL-08	BOC	R694551
Sodium (Na)	116		1	mg/L		16-JUL-08	BOC	R694551
Iron (Fe)	0.919		0.005	mg/L		16-JUL-08	BOC	R694551
Manganese (Mn)	0.662		0.001	mg/L		16-JUL-08	BOC	R694551
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		16-JUL-08	CVM	R695179
Aluminum (Al)	0.47		0.02	mg/L		16-JUL-08	CVM	R695179
Arsenic (As)	0.0068		0.0004	mg/L		16-JUL-08	CVM	R695179
Boron (B)	1.03		0.02	mg/L		16-JUL-08	CVM	R695179
Barium (Ba)	0.0712		0.0002	mg/L		16-JUL-08	CVM	R695179
Beryllium (Be)	<0.001		0.001	mg/L		16-JUL-08	CVM	R695179
Bismuth (Bi)	<0.0001		0.0001	mg/L		16-JUL-08	CVM	R695179
Cadmium (Cd)	0.0002		0.0002	mg/L		16-JUL-08	CVM	R695179
Cobalt (Co)	0.0180		0.0002	mg/L		16-JUL-08	CVM	R695179
Chromium (Cr)	0.0021	RRVAP	0.0008	mg/L		16-JUL-08	CVM	R695179
Copper (Cu)	0.048		0.001	mg/L		16-JUL-08	CVM	R695179
Molybdenum (Mo)	0.0059		0.0001	mg/L		16-JUL-08	CVM	R695179
Nickel (Ni)	0.0422		0.0002	mg/L		16-JUL-08	CVM	R695179
Lead (Pb)	0.0015		0.0001	mg/L		16-JUL-08	CVM	R695179
Antimony (Sb)	0.0038		0.0004	mg/L		16-JUL-08	CVM	R695179
Selenium (Se)	0.0017		0.0004	mg/L		16-JUL-08	CVM	R695179
Tin (Sn)	0.0008		0.0004	mg/L		16-JUL-08	CVM	R695179
Strontium (Sr)	2.21		0.0002	mg/L		16-JUL-08	CVM	R695179
Titanium (Ti)	0.016		0.005	mg/L		16-JUL-08	CVM	R695179
Thallium (Tl)	0.0004		0.0001	mg/L		16-JUL-08	CVM	R695179
Uranium (U)	0.0001		0.0001	mg/L		16-JUL-08	CVM	R695179
Vanadium (V)	0.0011	RRVAP	0.0002	mg/L		16-JUL-08	CVM	R695179
Zinc (Zn)	0.424	RRVAP	0.004	mg/L		16-JUL-08	CVM	R695179
<b>CCME PAHs</b>								
Naphthalene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Quinoline	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Acenaphthene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Fluorene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Phenanthrene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Anthracene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Acridine	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L654816-1 HOP-4B Sampled By: JILL TURK on 09-JUL-08 @ 16:15 Matrix: WATER								
<b>CCME PAHs</b>								
Fluoranthene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Pyrene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Benzo(a)anthracene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Chrysene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Benzo(b&j)fluoranthene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Benzo(k)fluoranthene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Benzo(a)pyrene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Indeno(1,2,3-cd)pyrene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Dibenzo(a,h)anthracene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Surr: Nitrobenzene d5	95		24-132	%	16-JUL-08	17-JUL-08	PCL	R694677
Surr: 2-Fluorobiphenyl	76		37-123	%	16-JUL-08	17-JUL-08	PCL	R694677
Surr: p-Terphenyl d14	96		41-143	%	16-JUL-08	17-JUL-08	PCL	R694677
Note: Extract dilution required to reduce matrix interference. PAH detection limits raised.								
Oil and Grease	2		1	mg/L		15-JUL-08	FOD	R694221
Phenols (4AAP)	0.101		0.001	mg/L		16-JUL-08	LIW	R695106
Total Suspended Solids	16		3	mg/L		15-JUL-08	SVG	R694349
pH	6.5		0.1	pH		15-JUL-08	WYA	R694231
L654816-2 HOP-4A Sampled By: JILL TURK on 09-JUL-08 @ 16:15 Matrix: WATER								
<b>BTX, F1, F2, F3, F4</b>								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.11	DLA	0.11	mg/L	16-JUL-08	17-JUL-08	AJK	R694702
Toluene	<0.11	DLA	0.11	mg/L	16-JUL-08	17-JUL-08	AJK	R694702
EthylBenzene	<0.11	DLA	0.11	mg/L	16-JUL-08	17-JUL-08	AJK	R694702
Xylenes	<0.11	DLA	0.11	mg/L	16-JUL-08	17-JUL-08	AJK	R694702
F1(C6-C10)	<20	DLA	20	mg/L	16-JUL-08	17-JUL-08	AJK	R694702
F1-BTEX	0.7		0.1	mg/L	16-JUL-08	17-JUL-08	AJK	R694702
<b>F2, F3, F4</b>								
F2 (>C10-C16)	42		0.05	mg/L	15-JUL-08	15-JUL-08	VRP	R693832
F3 (C16-C34)	400		0.05	mg/L	15-JUL-08	15-JUL-08	VRP	R693832
F4 (C34-C50)	85		0.05	mg/L	15-JUL-08	15-JUL-08	VRP	R693832
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	5.3		0.5	mg/L		17-JUL-08	CLR	R695714
Potassium (K)	2.6		0.1	mg/L		17-JUL-08	CLR	R695714
Magnesium (Mg)	7.2		0.1	mg/L		17-JUL-08	CLR	R695714
Sodium (Na)	81		1	mg/L		17-JUL-08	CLR	R695714
Iron (Fe)	0.432		0.005	mg/L		17-JUL-08	CLR	R695714
Manganese (Mn)	<0.01	DLM	0.01	mg/L		17-JUL-08	CLR	R695714
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		16-JUL-08	CVM	R695179
Aluminum (Al)	0.20		0.02	mg/L		16-JUL-08	CVM	R695179
Arsenic (As)	0.0008		0.0004	mg/L		16-JUL-08	CVM	R695179
Boron (B)	0.29		0.02	mg/L		16-JUL-08	CVM	R695179
Barium (Ba)	0.0042		0.0002	mg/L		16-JUL-08	CVM	R695179
Beryllium (Be)	<0.001		0.001	mg/L		16-JUL-08	CVM	R695179
Bismuth (Bi)	0.0008		0.0001	mg/L		16-JUL-08	CVM	R695179
Cadmium (Cd)	0.0004		0.0002	mg/L		16-JUL-08	CVM	R695179

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L654816-2 HOP-4A Sampled By: JILL TURK on 09-JUL-08 @ 16:15 Matrix: WATER								
<b>Total Metals</b>								
<b>Total Trace Metals (Low Level)</b>								
Cobalt (Co)	0.0002		0.0002	mg/L		16-JUL-08	CVM	R695179
Chromium (Cr)	0.0024		0.0008	mg/L		16-JUL-08	CVM	R695179
Copper (Cu)	0.018		0.001	mg/L		16-JUL-08	CVM	R695179
Molybdenum (Mo)	0.0183		0.0001	mg/L		16-JUL-08	CVM	R695179
Nickel (Ni)	0.0018		0.0002	mg/L		16-JUL-08	CVM	R695179
Lead (Pb)	0.0035		0.0001	mg/L		16-JUL-08	CVM	R695179
Antimony (Sb)	0.0017		0.0004	mg/L		16-JUL-08	CVM	R695179
Selenium (Se)	0.0008		0.0004	mg/L		16-JUL-08	CVM	R695179
Tin (Sn)	0.0012		0.0004	mg/L		16-JUL-08	CVM	R695179
Strontium (Sr)	0.0162		0.0002	mg/L		16-JUL-08	CVM	R695179
Titanium (Ti)	0.011		0.005	mg/L		16-JUL-08	CVM	R695179
Thallium (Tl)	0.0003		0.0001	mg/L		16-JUL-08	CVM	R695179
Uranium (U)	<0.0001		0.0001	mg/L		16-JUL-08	CVM	R695179
Vanadium (V)	0.0006		0.0002	mg/L		16-JUL-08	CVM	R695179
Zinc (Zn)	0.497		0.004	mg/L		16-JUL-08	CVM	R695179
<b>CCME PAHs</b>								
Naphthalene	0.021		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Quinoline	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Acenaphthene	0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Fluorene	0.007		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Phenanthrene	0.008		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Anthracene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Acridine	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Fluoranthene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Pyrene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Benzo(a)anthracene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Chrysene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Benzo(b&j)fluoranthene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Benzo(k)fluoranthene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Benzo(a)pyrene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Indeno(1,2,3-cd)pyrene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Dibenzo(a,h)anthracene	<0.002		0.002	mg/L	16-JUL-08	17-JUL-08	PCL	R694677
Surr: Nitrobenzene d5	0	SOL:MI	24-132	%	16-JUL-08	17-JUL-08	PCL	R694677
Surr: 2-Fluorobiphenyl	72		37-123	%	16-JUL-08	17-JUL-08	PCL	R694677
Surr: p-Terphenyl d14	75		41-143	%	16-JUL-08	17-JUL-08	PCL	R694677
Note: Extract dilution required to reduce matrix interference. PAH detection limits raised.								
Oil and Grease	813		2	mg/L		15-JUL-08	FOD	R694221
Phenols (4AAP)	0.648		0.001	mg/L		16-JUL-08	LIW	R695106
Total Suspended Solids	81		3	mg/L		15-JUL-08	SVG	R694349
pH	7.3		0.1	pH		15-JUL-08	WYA	R694231
L654816-3 ROBERTS BAY RBD-A Sampled By: JILL TURK / MATT KAW on 05-JUL-08 @ 14:45 Matrix: WATER								
<b>BTX, F1, F2, F3, F4</b>								
<b>BTEX and F1 (C6-C10)</b>								
Benzene	<0.00050		0.00050	mg/L	16-JUL-08	15-JUL-08	AJK	R694702
Toluene	<0.00050		0.00050	mg/L	16-JUL-08	15-JUL-08	AJK	R694702
EthylBenzene	<0.00050		0.00050	mg/L	16-JUL-08	15-JUL-08	AJK	R694702

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L654816-3 ROBERTS BAY RBD-A Sampled By: JILL TURK / MATT KAW on 05-JUL-08 @ 14:45 Matrix: WATER								
<b>BTX, F1, F2, F3, F4</b>								
<b>BTEX and F1 (C6-C10)</b>								
Xylenes	0.00067		0.00050	mg/L	16-JUL-08	15-JUL-08	AJK	R694702
F1(C6-C10)	<0.1		0.1	mg/L	16-JUL-08	15-JUL-08	AJK	R694702
F1-BTEX	<0.1		0.1	mg/L	16-JUL-08	15-JUL-08	AJK	R694702
<b>F2, F3, F4</b>								
F2 (>C10-C16)	0.12		0.05	mg/L	15-JUL-08	15-JUL-08	VRP	R693832
F3 (C16-C34)	0.15		0.05	mg/L	15-JUL-08	15-JUL-08	VRP	R693832
F4 (C34-C50)	<0.05		0.05	mg/L	15-JUL-08	15-JUL-08	VRP	R693832
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	55.8		0.5	mg/L		16-JUL-08	BOC	R694551
Potassium (K)	4.8		0.1	mg/L		16-JUL-08	BOC	R694551
Magnesium (Mg)	18.4		0.1	mg/L		16-JUL-08	BOC	R694551
Sodium (Na)	54		1	mg/L		16-JUL-08	BOC	R694551
Iron (Fe)	3.36		0.005	mg/L		16-JUL-08	BOC	R694551
Manganese (Mn)	1.88		0.001	mg/L		16-JUL-08	BOC	R694551
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		16-JUL-08	CVM	R695179
Aluminum (Al)	0.08		0.02	mg/L		16-JUL-08	CVM	R695179
Arsenic (As)	0.0011		0.0004	mg/L		16-JUL-08	CVM	R695179
Boron (B)	0.03		0.02	mg/L		16-JUL-08	CVM	R695179
Barium (Ba)	0.0143		0.0002	mg/L		16-JUL-08	CVM	R695179
Beryllium (Be)	<0.001		0.001	mg/L		16-JUL-08	CVM	R695179
Bismuth (Bi)	0.0001		0.0001	mg/L		16-JUL-08	CVM	R695179
Cadmium (Cd)	<0.0002		0.0002	mg/L		16-JUL-08	CVM	R695179
Cobalt (Co)	0.0051		0.0002	mg/L		16-JUL-08	CVM	R695179
Chromium (Cr)	<0.0008		0.0008	mg/L		16-JUL-08	CVM	R695179
Copper (Cu)	0.004		0.001	mg/L		16-JUL-08	CVM	R695179
Molybdenum (Mo)	0.0011		0.0001	mg/L		16-JUL-08	CVM	R695179
Nickel (Ni)	0.0041		0.0002	mg/L		16-JUL-08	CVM	R695179
Lead (Pb)	0.0004		0.0001	mg/L		16-JUL-08	CVM	R695179
Antimony (Sb)	<0.0004		0.0004	mg/L		16-JUL-08	CVM	R695179
Selenium (Se)	0.0009		0.0004	mg/L		16-JUL-08	CVM	R695179
Tin (Sn)	<0.0004		0.0004	mg/L		16-JUL-08	CVM	R695179
Strontium (Sr)	0.125		0.0002	mg/L		16-JUL-08	CVM	R695179
Titanium (Ti)	<0.005		0.005	mg/L		16-JUL-08	CVM	R695179
Thallium (Tl)	0.0003		0.0001	mg/L		16-JUL-08	CVM	R695179
Uranium (U)	0.0005		0.0001	mg/L		16-JUL-08	CVM	R695179
Vanadium (V)	0.0006		0.0002	mg/L		16-JUL-08	CVM	R695179
Zinc (Zn)	0.007		0.004	mg/L		16-JUL-08	CVM	R695179
Oil and Grease	<2		2	mg/L		15-JUL-08	FOD	R694221
Phenols (4AAP)	0.070		0.001	mg/L		16-JUL-08	LIW	R695106
Total Suspended Solids	12		3	mg/L		15-JUL-08	SVG	R694349
pH	7.3		0.1	pH		15-JUL-08	WYA	R694231
L654816-4 ROBERTS BAY DRAINAGE Sampled By: JILL TURK / MATT KAW on 05-JUL-08 @ 14:45 Matrix: WATER								
Chemical Oxygen Demand	86		5	mg/L		15-JUL-08	LJD	R694384
Phosphorus, Total	<0.02	SP	0.02	mg/L	15-JUL-08	15-JUL-08	AYX	R694505



## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L654816-4    ROBERTS BAY DRAINAGE Sampled By: JILL TURK / MATT KAW on 05-JUL-08 @ 14:45 Matrix:        WATER								
<b>Total Nitrogen</b>								
Nitrate+Nitrite-N	<0.1		0.1	mg/L		15-JUL-08	JXD	R694305
Nitrogen, Total	2.3		0.2	mg/L		17-JUL-08		
Total Kjeldahl Nitrogen	2.3	SP	0.2	mg/L	16-JUL-08	16-JUL-08	LMK	R694911
L654816-5    DORIS-A Sampled By: JILL TURK / MATT KAW on 05-JUL-08 @ 13:00 Matrix:        WATER								
<b>Total Metals</b>								
<b>Total Major Metals</b>								
Calcium (Ca)	8.1		0.5	mg/L		16-JUL-08	BOC	R695163
Potassium (K)	2.1		0.1	mg/L		16-JUL-08	BOC	R695163
Magnesium (Mg)	6.2		0.1	mg/L		16-JUL-08	BOC	R695163
Sodium (Na)	31		1	mg/L		16-JUL-08	BOC	R695163
Iron (Fe)	0.149		0.005	mg/L		16-JUL-08	BOC	R695163
Manganese (Mn)	0.014		0.001	mg/L		16-JUL-08	BOC	R695163
<b>Total Trace Metals (Low Level)</b>								
Silver (Ag)	<0.0004		0.0004	mg/L		16-JUL-08	CVM	R695179
Aluminum (Al)	0.07		0.02	mg/L		16-JUL-08	CVM	R695179
Arsenic (As)	0.0004		0.0004	mg/L		16-JUL-08	CVM	R695179
Boron (B)	0.02		0.02	mg/L		16-JUL-08	CVM	R695179
Barium (Ba)	0.0035		0.0002	mg/L		16-JUL-08	CVM	R695179
Beryllium (Be)	<0.001		0.001	mg/L		16-JUL-08	CVM	R695179
Bismuth (Bi)	<0.0001		0.0001	mg/L		16-JUL-08	CVM	R695179
Cadmium (Cd)	<0.0002		0.0002	mg/L		16-JUL-08	CVM	R695179
Cobalt (Co)	<0.0002		0.0002	mg/L		16-JUL-08	CVM	R695179
Chromium (Cr)	<0.0008		0.0008	mg/L		16-JUL-08	CVM	R695179
Copper (Cu)	0.002		0.001	mg/L		16-JUL-08	CVM	R695179
Molybdenum (Mo)	<0.0001		0.0001	mg/L		16-JUL-08	CVM	R695179
Nickel (Ni)	0.0012		0.0002	mg/L		16-JUL-08	CVM	R695179
Lead (Pb)	0.0001		0.0001	mg/L		16-JUL-08	CVM	R695179
Antimony (Sb)	<0.0004		0.0004	mg/L		16-JUL-08	CVM	R695179
Selenium (Se)	<0.0004		0.0004	mg/L		16-JUL-08	CVM	R695179
Tin (Sn)	<0.0004		0.0004	mg/L		16-JUL-08	CVM	R695179
Strontium (Sr)	0.0408		0.0002	mg/L		16-JUL-08	CVM	R695179
Titanium (Ti)	<0.005		0.005	mg/L		16-JUL-08	CVM	R695179
Thallium (Tl)	0.0001		0.0001	mg/L		16-JUL-08	CVM	R695179
Uranium (U)	<0.0001		0.0001	mg/L		16-JUL-08	CVM	R695179
Vanadium (V)	<0.0002		0.0002	mg/L		16-JUL-08	CVM	R695179
Zinc (Zn)	0.005		0.004	mg/L		16-JUL-08	CVM	R695179
Oil and Grease	<2		2	mg/L		15-JUL-08	FOD	R694221
Total Suspended Solids	7		3	mg/L		15-JUL-08	SVG	R694349
pH	7.1		0.1	pH		15-JUL-08	WYA	R694231
* Refer to Referenced Information for Qualifiers (if any) and Methodology.								

## Reference Information

**Qualifiers for Individual Samples Listed:**

Sample Number	Client ID	Qualifier	Description
L654816-4	ROBERTS BAY DRAINAGE	SPL	TP - Sample was Preserved at the laboratory

**Sample Parameter Qualifier key listed:**

Qualifier	Description
DLA	Detection Limit Adjusted For Dilution
DLM	Detection Limit Adjustment For Sample Matrix Effects
RRVAP	Reported Result Verified by Alternate Process
SOL:MI	Surrogate recovery outside acceptable limits due to matrix interference
SP	Sample was Preserved at the laboratory

**Methods Listed (if applicable):**

ALS 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
COD-ED	Water	Chemical Oxygen Demand		APHA 5220 D-Micro Colorimetry
ETL-N-TOT-CALC-ED	Water	Nitrogen, Total		APHA 4500 N-Calculated
F2,F3,F4-CL	Water	F2, F3, F4	EPA 3510C	EPA 3510/8000-GC-FID
MET1-TOT-LOW-ED	Water	Total Trace Metals (Low Level)		EPA 6020
MET2-TOT-LOW-ED	Water	Total Major Metals		EPA 200.7
N-TOTKJ-ED	Water	Total Kjeldahl Nitrogen		APHA 4500N-C -Dig.-Auto-Colorimetry
N2N3-ED	Water	Nitrate+Nitrite-N		APHA 4500 NO3-H - COLORIMETRY
OGG-ED	Water	Oil and Grease-Gravimetric		APHA 5520 G HEXANE MTBE EXT. GRAVIME
P-TOTAL-ED	Water	Phosphorus, Total		APHA 4500 P B,E-Auto-Colorimetry
PAH-CCME-ED	Water	CCME PAHs		EPA 3510/8270-GC/MS
PH-ED	Water	pH		APHA 4500 H-Electrode
PHENOLS-4AAP-ED	Water	Phenols (4AAP)		AB ENV.06537-COLORIMETRIC
SOLIDS-TOTSUS-ED	Water	Total Suspended Solids		APHA 2540 D-Gravimetric

\*\* 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	ALS LABORATORY GROUP - CALGARY, ALBERTA, CANADA	ED	ALS LABORATORY GROUP - 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 control limits 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. - The reporting 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.*

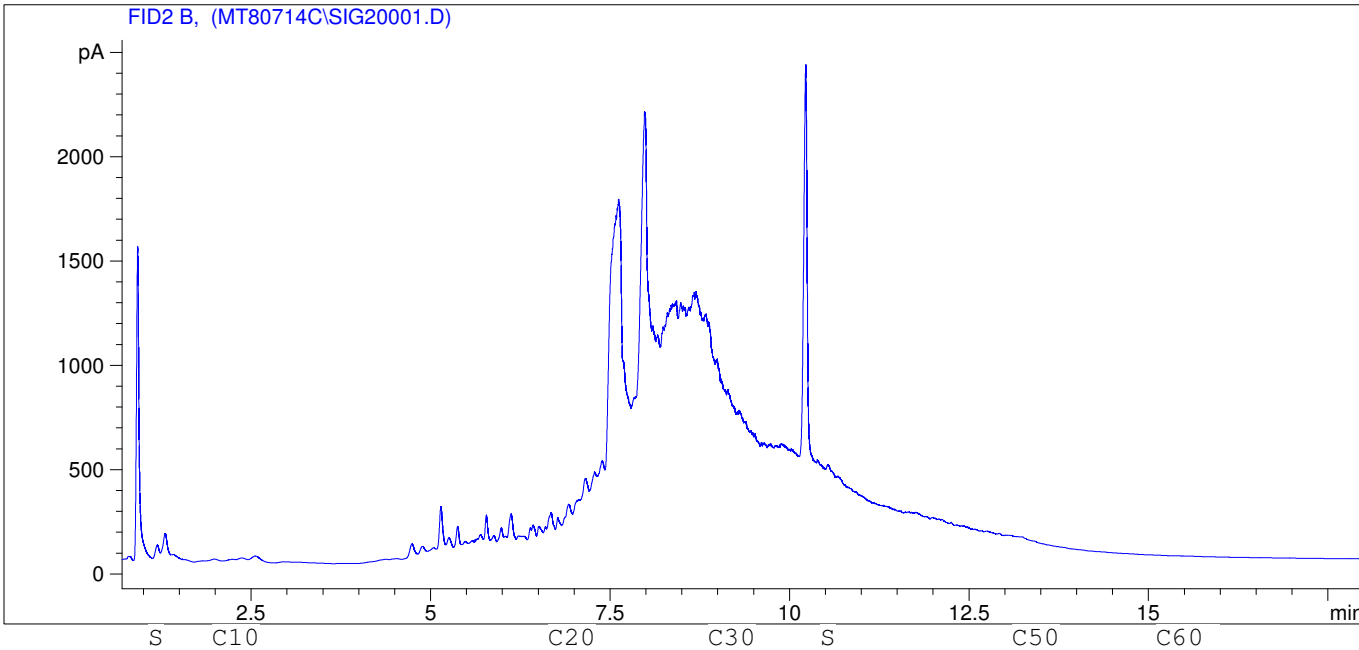
*UNLESS OTHERWISE STATED, SAMPLES ARE NOT CORRECTED FOR CLIENT FIELD BLANKS.*

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

*ALS Laboratory Group 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, ALS Laboratory Group assumes no liability for the use or interpretation of the results.*

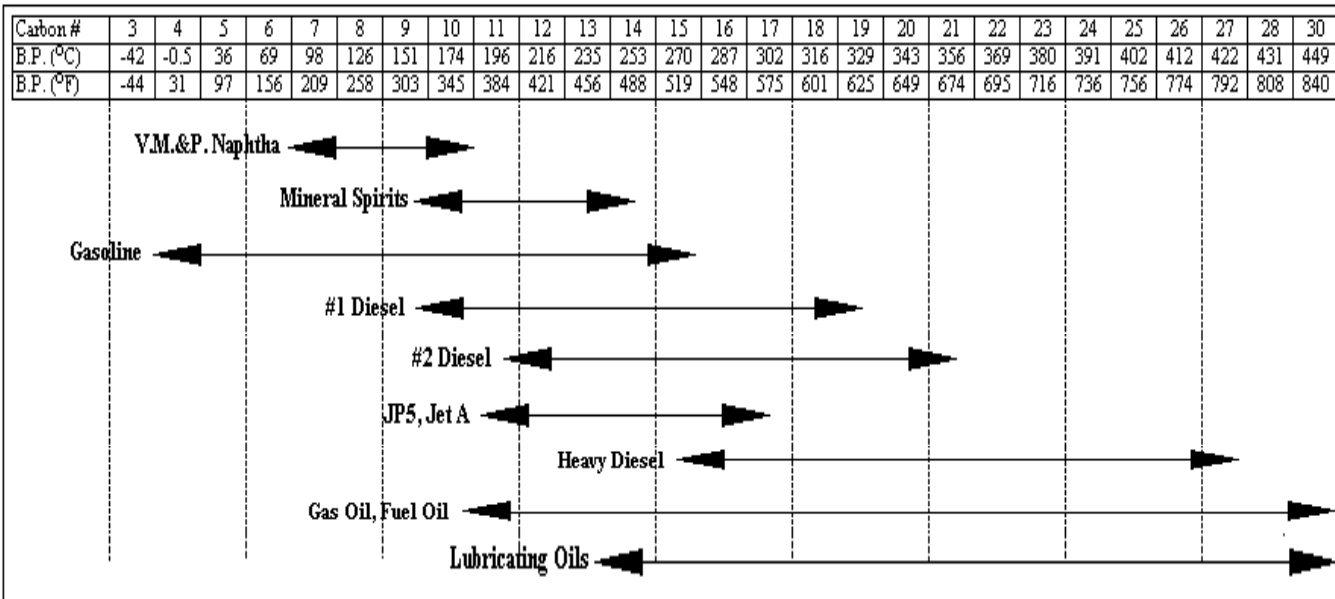


Sample ID: L654816-1 V3F23  
 Injection Date: 7/15/2008 2:24:25 PM  
 Injection Time: 7/15/2008 2:24:25 PM  
 Instrument ID: 6890HP6  
 Operator: organics



S=Surrogate

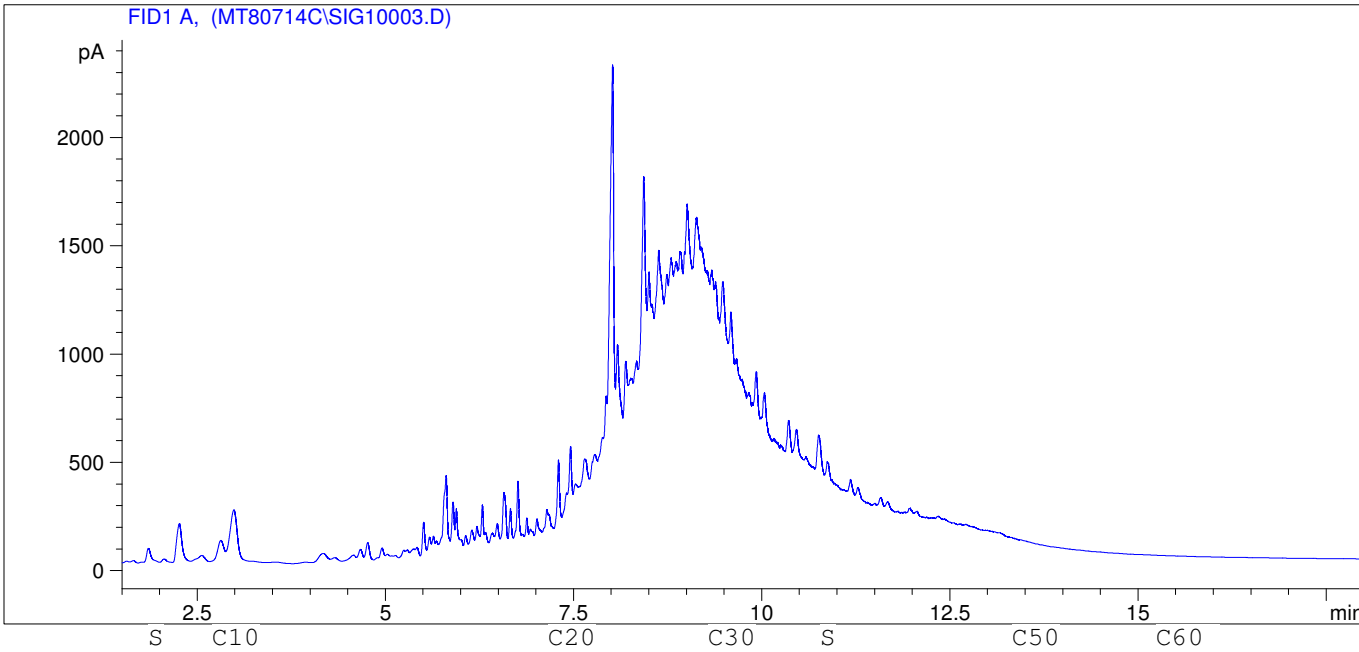
Boiling Point Distribution Range for Petroleum Based Fuel Products



Adapted from: Drews, A.W., ED. Manual on Hydrocarbon Analysis, 4th ed.; American Society for Testing and Materials: Philadelphia, PA., 1989: p XVIII.

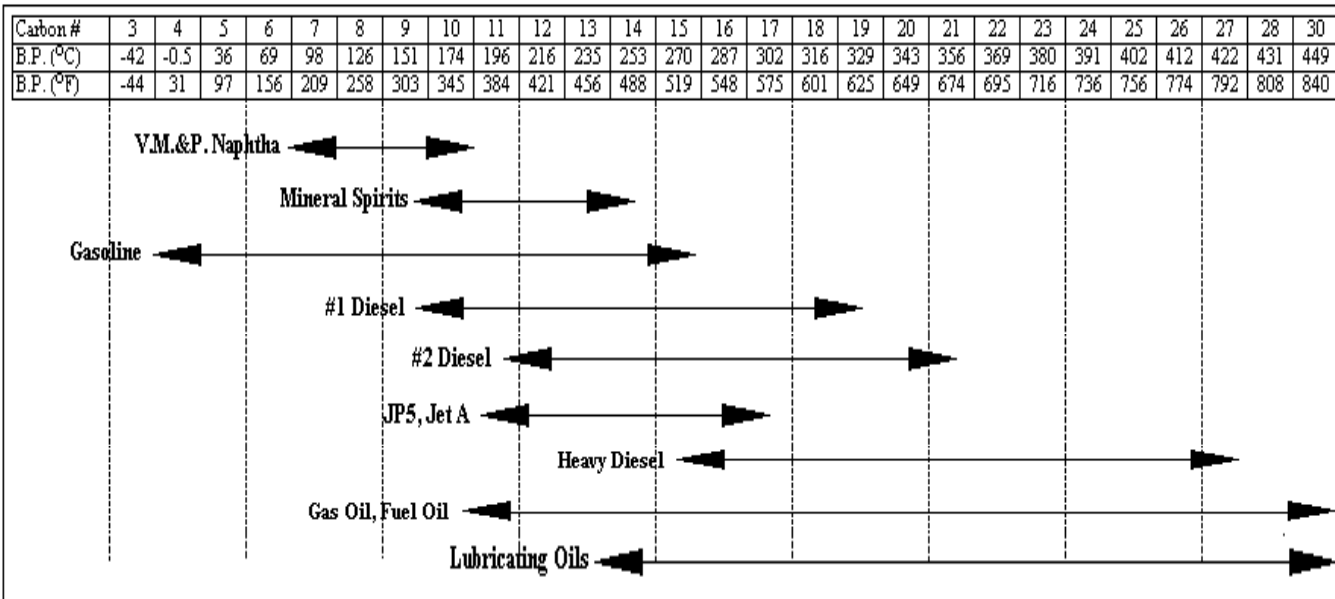


Sample ID: L654816-2 V30F23  
 Injection Date: 7/15/2008 3:26:04 PM  
 Injection Time: 7/15/2008 3:26:04 PM  
 Instrument ID: 6890HP6  
 Operator: organics



S=Surrogate

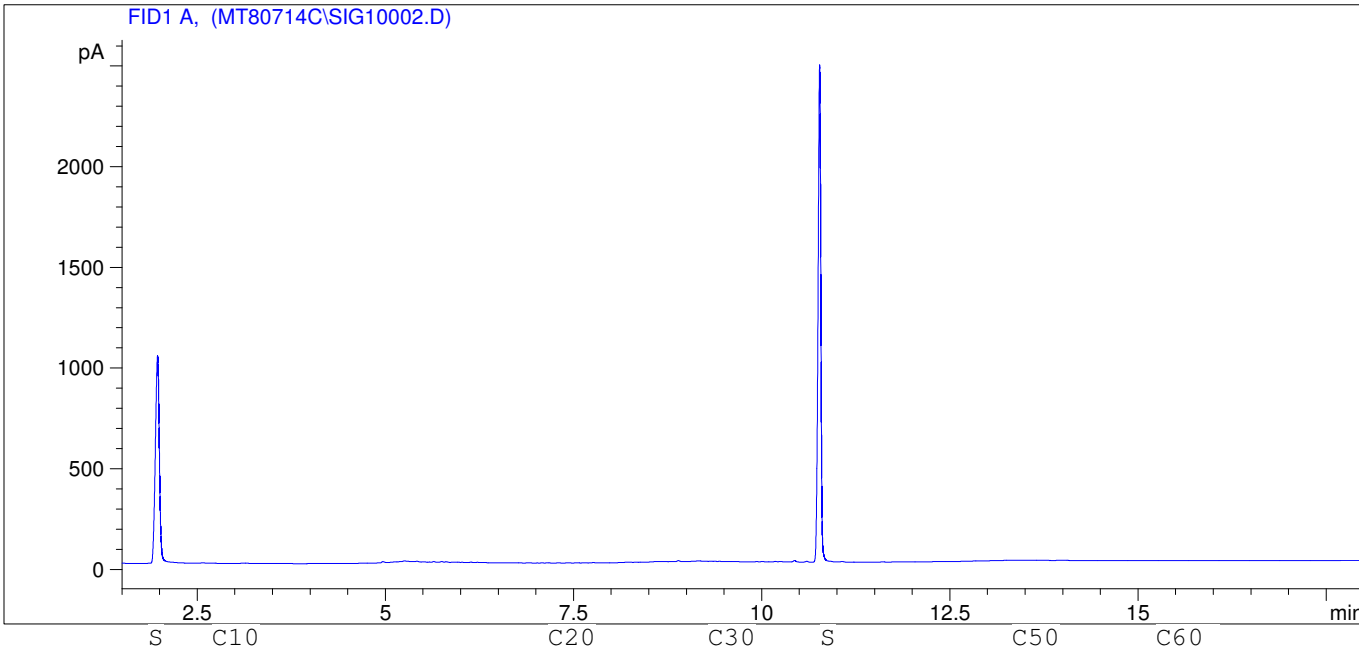
Boiling Point Distribution Range for Petroleum Based Fuel Products



Adapted from: Drews, A.W., ED. Manual on Hydrocarbon Analysis, 4th ed.; American Society for Testing and Materials: Philadelphia, PA., 1989: p XVIII.

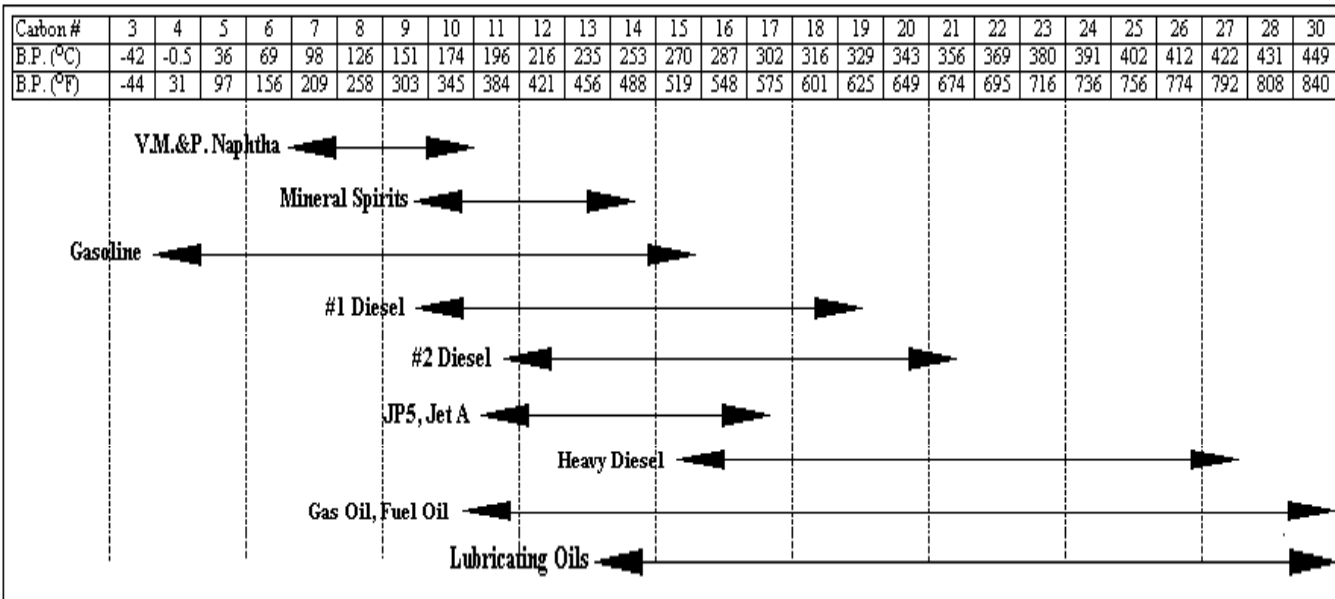


Sample ID: L654816-3RE V3F2  
 Injection Date: 7/15/2008 2:55:15 PM  
 Injection Time: 7/15/2008 2:55:15 PM  
 Instrument ID: 6890HP6  
 Operator: organics



S=Surrogate

Boiling Point Distribution Range for Petroleum Based Fuel Products



Adapted from: Drews, A.W., ED. Manual on Hydrocarbon Analysis, 4th ed.; American Society for Testing and Materials: Philadelphia, PA., 1989: p XVIII.



Vancouver BC, 1888 Triumph Street, V5L 1K5, Tel: 604-253-4198, Toll Free: 1-800-985-0243 Fax: 604-253-8700  
 Fort St. John BC, Box 256, 9831 - 98A Avenue, V1J 8W7, Tel: 250-281-5517 Fax: 250-281-5587  
 Grand Prairie AB, 9505 - 111 Street, T8V 8W1, Tel: 780-539-5198 Toll Free: 1-800-668-9878 Fax: 780-513-2181  
 Fort McMurray AB, Bay 1, 245 Macdonald Ct, T9H 4B5, Tel: 780-791-1524 Fax: 780-791-1588  
 Edmonton AB, 8936 - 67th Avenue, T6E 0P5, Tel: 780-413-5227 Toll Free: 1-800-668-9878 Fax: 780-437-2311  
 Calgary AB, Bay 7, 1313 - 44th Avenue NE, T2E 0L5, Tel: 403-281-8897 Toll Free: 1-800-668-9878 Fax: 403-281-0288  
 Saskatoon SK, 819 - 58th Street East, S7K 6X5, Tel: 306-688-8370 Toll Free: 1-800-987-7945 Fax: 306-688-8383

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SEND REPORT TO:

CHAIN OF CUSTODY FORM

PAGE 1 OF 2

ANALYSIS REQUESTED:

General (pH, TSS)  
 Total Metals (36 ICP Scan)  
 PAH & TPH  
 Oil & Grease  
 BTEX  
 Fractions (F1-F4)  
 Phenols

COMPANY: Newmont Hope Bay Limited  
 ADDRESS: 300-889 Habbourside Drive  
 CITY: North Vancouver  
 TEL: 1-604-985-2572  
 PROJECT NAME AND NO.: Compliance Water Samples  
 PO NO.: M00356\_L1  
 REPORT FORMAT:  HARDCOPY  FAX  EXCEL  PDF  OTHER:

ATTN: Matt Kawai  
 PROV: British Columbia  
 POSTAL CODE: V7P 3S1  
 SAMPLER: Jill Turk  
 QUOTE NO.:  
 ALS CONTACT: Randy Fournier  
 EMAIL ADDRESS: mkawai@miranmining.com

WQ#	SAMPLE IDENTIFICATION	DATE / TIME COLLECTED		MATRIX	General (pH, TSS)	Total Metals (36 ICP Scan)	PAH & TPH	Oil & Grease	BTEX	Fractions (F1-F4)	Phenols	NOTES (sample specific comments, due dates, etc.)
		YYYY-MM-DD	TIME									
1	HOP-4B	2008-07-09	16:15	water	X							5 ml 20% Nitric Acid
	HOP-4B	2008-07-09	16:15	water		X						Not preserved
	HOP-4B	2008-07-09	16:15	water			X					
	HOP-4B	2008-07-09	16:15	water				X				
	HOP-4B	2008-07-09	16:15	water					X			
	HOP-4B	2008-07-09	16:15	water						X		
	HOP-4B	2008-07-09	16:15	water							X	
	HOP-4A	2008-07-09	16:15	water								5 ml 20% Nitric Acid
	HOP-4A	2008-07-09	16:15	water			X					Not preserved
	HOP-4A	2008-07-09	16:15	water				X				
	HOP-4A	2008-07-09	16:15	water					X			
	HOP-4A	2008-07-09	16:15	water						X		

TURN AROUND REQUIRED:  ROUTINE  RUSH SPECIFY DATE: (surcharge may apply)

SEND INVOICE TO:  SAME AS REPORT  DIFFERENT FROM REPORT (provide details below)

INVOICE FORMAT:  HARDCOPY  PDF  FAX

SPECIAL INSTRUCTIONS: Please send invoice to Attention: HBM Accounting Section using the above address. Please quote this Project Cost Centre: PO#M00356 Line # 1 on your invoice unless stated differently on the next Chain of Custody. Electronic results to: mkawai@miranmining.com

FOR LAB USE ONLY

REINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
REINQUISHED BY:	DATE:	RECEIVED BY:	DATE:

Cooler Seal Intact? Yes No N/A Sample Temperature: 4.0 °C Cooling Method? Ice None

L 654816



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Vancouver BC, 1998 Triumph Street, V6L 1K5, Tel: 604-253-4188 Toll Free: 1-800-865-0243 Fax: 604-253-6700  
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Grand Prairie AB, 9505 - 111 Street, T8V 5W1, Tel: 780-539-5198 Toll Free: 1-800-888-9878 Fax: 780-513-2191  
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Edmonton AB, 9836 - 67th Avenue, T6E 0P5, Tel: 780-413-5227 Toll Free: 1-800-588-9878 Fax: 780-437-2311  
Calgary AB, Bay 7, 1313 - 44th Avenue NE, T2E 6L5, Tel: 403-281-9897 Toll Free: 1-800-888-9878 Fax: 403-281-0298  
Saskatoon SK, 819 - 68th Street East, S7K 6X5, Tel: 306-698-8370 Toll Free: 1-800-667-7645 Fax: 306-698-8393

L 654 816

SEND REPORT TO:

CHAIN OF CUSTODY FORM

PAGE 2 OF 2

COMPANY:	Newmont Hope Bay Limited	ATTN:	Matt Kavel	ANALYSIS REQUESTED:	General (pH, TSS)	<input type="checkbox"/>	Total Metals (36 ICP Scan)	<input type="checkbox"/>	PAH & TPH	<input type="checkbox"/>	Oil & Grease	<input checked="" type="checkbox"/>	BTEX	<input type="checkbox"/>	Fractions (F1-F4)	<input type="checkbox"/>	Phenols	<input type="checkbox"/>	TC, FC, EC	<input type="checkbox"/>	Biochemical Oxygen Demand	<input type="checkbox"/>	Nutrient/COD	<input checked="" type="checkbox"/>	NOTES (sample specific comments, due dates, etc.)
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ADDRESS:	300-889 Hapourside Drive	PROV:	British Columbia	POSTAL CODE:	V7P 3S1	SAMPLE #:	Matt Kavel/Jill Turk	QUOTE NO.:		REPORT FORMAT:	<input checked="" type="checkbox"/> HARDCOPY <input type="checkbox"/> EMAIL - ADDRESS: mkavel@milantrimining.com <input type="checkbox"/> FAX <input type="checkbox"/> EXCEL <input type="checkbox"/> PDF <input type="checkbox"/> OTHER:
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CITY:	North Vancouver	TEL:	1-800-985-2572	FAX:	1-800-980-0731
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PROJECT NAME AND NO.:	M00356_L1	ALS CONTACT:	Randy Fournier
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PO NO.:	
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FOR LAB USE ONLY

SAMPLE IDENTIFICATION	DATE / TIME COLLECTED		MATRIX	ANALYSIS REQUESTED:																							
	YYYY-MM-DD	TIME		General (pH, TSS)	Total Metals (36 ICP Scan)	PAH & TPH	Oil & Grease	BTEX	Fractions (F1-F4)	Phenols	TC, FC, EC	Biochemical Oxygen Demand	Nutrient/COD	20% nitric acid	no preservative	20% nitric acid	no preservative										
Roberts Bay RBD-A	2008-07-05	14:45	water	X																					20% nitric acid		
Roberts Bay RBD-A	2008-07-05	14:45	water		X																					20% nitric acid	
Roberts Bay RBD-A	2008-07-05	14:45	water				X																			no preservative	
Roberts Bay Drainage	2008-07-05	14:45	water					X																		no preservative	
Roberts Bay RBD-A	2008-07-05	14:45	water						X																		
Roberts Bay RBD-A	2008-07-06	14:45	water							X																	
Roberts Bay RBD-A	2008-07-05	14:45	water		X																						
Roberts Bay RBD-A	2008-07-05	13:00	water				X																				
Doris-A	2008-07-05	13:00	water					X																			
Doris-A	2008-07-05	13:00	water					X																			
Doris-A	2008-07-05	13:00	water						X																		20% nitric acid

TURN AROUND REQUIRED:  ROUTINE  RUSH SPECIFY DATE: \_\_\_\_\_ (surcharge may apply)

SEND INVOICE TO:  SAME AS REPORT  DIFFERENT FROM REPORT (provide details below)

INVOICE FORMAT:  HARDCOPY  PDF  FAX

SPECIAL INSTRUCTIONS: Please send invoice to Attention: HBM Accounting Section using the above address. Please quote this Project Cost Centre: PO#M00356 Line # 1 on your invoice unless stated differently on the next Chain of Custody. Electronic results to: mkavel@milantrimining.com

FOR LAB USE ONLY  
RELINQUISHED BY: R. Fournier DATE: 08/12/08  
RECEIVED BY: R. Fournier DATE: 08/12/08  
Cooler Seal Intact? Yes No N/A Sample Temperature: °C Cooling Method? ice None





Environmental Division

**Certificate of Analysis**

HOPE BAY MINING LTD

ATTN: MATT KAWEI

300, 889 HARBOURSIDE DRIVE

NORTH VANCOUVER BC V7P 3S1

Reported On: 10-NOV-08 11:34 AM

Lab Work Order #: **L703160**

Date Received: **31-OCT-08**

Project P.O. #: M00357\_LINE#2

Job Reference: WINDY LTA SOIL SAMPLES

Legal Site Desc:

CofC Numbers:

Other Information:

Comments:

JESSICA SPIRA  
Senior Account Manager

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

**ALS Canada Ltd. (formerly ETL Chemspec Analytical Ltd.)**  
Part of the **ALS Laboratory Group**

9936-67 Avenue, Edmonton, AB T6E 0P5  
Phone: +1 780 413 5227 Fax: +1 780 437 2311 [www.alsglobal.com](http://www.alsglobal.com)  
A Campbell Brothers Limited Company

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L703160-1 WLTA-S01								
Sampled By: M KAWEI on 30-OCT-08 @ 15:00								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Toluene	<0.01		0.01	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Ethylbenzene	<0.01		0.01	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Xylenes	<0.02		0.02	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	98		25-175	%	04-NOV-08	04-NOV-08	CVC	R752539
Surr: Hexatriacontane	97		25-175	%	04-NOV-08	04-NOV-08	CVC	R752539
Prep/Analysis Dates					04-NOV-08	04-NOV-08	CVC	R752539
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5		5	mg/kg		06-NOV-08		
F1-BTEX	<5		5	mg/kg		06-NOV-08		
F2 (C10-C16)	<20		20	mg/kg		06-NOV-08		
F2-Naphth	<20		20	mg/kg		06-NOV-08		
F3 (C16-C34)	50		20	mg/kg		06-NOV-08		
F3-PAH	50		20	mg/kg		06-NOV-08		
F4 (C34-C50)	30		20	mg/kg		06-NOV-08		
Total Hydrocarbons (C6-C50)	80		20	mg/kg		06-NOV-08		
Chromatogram to baseline at nC50	YES					06-NOV-08		
% Moisture	15		0.1	%		04-NOV-08	CFS	R751983
<b>CCME PAHs</b>								
Naphthalene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Quinoline	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Phenanthrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(a)anthracene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(b&j)fluoranthene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(k)fluoranthene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(a)pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Indeno(1,2,3-cd)pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Dibenzo(a,h)anthracene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Surr: Nitrobenzene d5	47		20-140	%	04-NOV-08	06-NOV-08	PCL	R751447
Surr: 2-Fluorobiphenyl	64		34-136	%	04-NOV-08	06-NOV-08	PCL	R751447
Surr: p-Terphenyl d14	97		41-150	%	04-NOV-08	06-NOV-08	PCL	R751447
<b>Metals in Soil - CCME List</b>								
Silver (Ag)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Arsenic (As)	1.7		0.2	mg/kg		06-NOV-08	MSP	R753422
Barium (Ba)	27		5	mg/kg		06-NOV-08	MSP	R753422
Beryllium (Be)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Cadmium (Cd)	<0.5		0.5	mg/kg		06-NOV-08	MSP	R753422
Cobalt (Co)	5		1	mg/kg		06-NOV-08	MSP	R753422
Chromium (Cr)	21.1		0.5	mg/kg		06-NOV-08	MSP	R753422
Copper (Cu)	17		2	mg/kg		06-NOV-08	MSP	R753422
Mercury (Hg)	<0.05		0.05	mg/kg		06-NOV-08	MSP	R753422
Molybdenum (Mo)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Nickel (Ni)	13		2	mg/kg		06-NOV-08	MSP	R753422
Lead (Pb)	<5		5	mg/kg		06-NOV-08	MSP	R753422
Antimony (Sb)	<0.2		0.2	mg/kg		06-NOV-08	MSP	R753422
Selenium (Se)	<0.2		0.2	mg/kg		06-NOV-08	MSP	R753422
Tin (Sn)	<5		5	mg/kg		06-NOV-08	MSP	R753422
Thallium (Tl)	<1		1	mg/kg		06-NOV-08	MSP	R753422

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L703160-1 WLTA-S01 Sampled By: M KAWEI on 30-OCT-08 @ 15:00 Matrix: SOIL								
<b>Metals in Soil - CCME List</b>								
Uranium (U)	<2		2	mg/kg		06-NOV-08	MSP	R753422
Vanadium (V)	25		1	mg/kg		06-NOV-08	MSP	R753422
Zinc (Zn)	30		10	mg/kg		06-NOV-08	MSP	R753422
Phenols (4AAP)	0.10		0.05	mg/kg	07-NOV-08	07-NOV-08	MRS	R753710
pH	6.4		0.1	pH		05-NOV-08	SRJ	R752404
L703160-2 WLTA-S02 Sampled By: M KAWEI on 30-OCT-08 @ 15:30 Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Toluene	<0.01		0.01	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Ethylbenzene	<0.01		0.01	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Xylenes	<0.02		0.02	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	101		25-175	%	04-NOV-08	04-NOV-08	CVC	R752539
Surr: Hexatriacontane	104		25-175	%	04-NOV-08	04-NOV-08	CVC	R752539
Prep/Analysis Dates					04-NOV-08	04-NOV-08	CVC	R752539
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5		5	mg/kg		06-NOV-08		
F1-BTEX	<5		5	mg/kg		06-NOV-08		
F2 (C10-C16)	<20	RAMB	20	mg/kg		06-NOV-08		
F2-Naphth	<20		20	mg/kg		06-NOV-08		
F3 (C16-C34)	140		20	mg/kg		06-NOV-08		
F3-PAH	140		20	mg/kg		06-NOV-08		
F4 (C34-C50)	50		20	mg/kg		06-NOV-08		
Total Hydrocarbons (C6-C50)	190		20	mg/kg		06-NOV-08		
Chromatogram to baseline at nC50	YES					06-NOV-08		
% Moisture	12		0.1	%		04-NOV-08	CFS	R751983
<b>CCME PAHs</b>								
Naphthalene	0.12		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Quinoline	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Phenanthrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(a)anthracene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(b&j)fluoranthene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(k)fluoranthene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(a)pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Indeno(1,2,3-cd)pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Dibenzo(a,h)anthracene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Surr: Nitrobenzene d5	35		20-140	%	04-NOV-08	06-NOV-08	PCL	R751447
Surr: 2-Fluorobiphenyl	60		34-136	%	04-NOV-08	06-NOV-08	PCL	R751447
Surr: p-Terphenyl d14	93		41-150	%	04-NOV-08	06-NOV-08	PCL	R751447
<b>Metals in Soil - CCME List</b>								
Silver (Ag)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Arsenic (As)	2.5		0.2	mg/kg		06-NOV-08	MSP	R753422
Barium (Ba)	17		5	mg/kg		06-NOV-08	MSP	R753422
Beryllium (Be)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Cadmium (Cd)	<0.5		0.5	mg/kg		06-NOV-08	MSP	R753422

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L703160-2 WLTA-S02 Sampled By: M KAWEI on 30-OCT-08 @ 15:30 Matrix: SOIL								
<b>Metals in Soil - CCME List</b>								
Cobalt (Co)	5		1	mg/kg		06-NOV-08	MSP	R753422
Chromium (Cr)	16.8		0.5	mg/kg		06-NOV-08	MSP	R753422
Copper (Cu)	19		2	mg/kg		06-NOV-08	MSP	R753422
Mercury (Hg)	<0.05		0.05	mg/kg		06-NOV-08	MSP	R753422
Molybdenum (Mo)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Nickel (Ni)	12		2	mg/kg		06-NOV-08	MSP	R753422
Lead (Pb)	<5		5	mg/kg		06-NOV-08	MSP	R753422
Antimony (Sb)	0.2		0.2	mg/kg		06-NOV-08	MSP	R753422
Selenium (Se)	<0.2		0.2	mg/kg		06-NOV-08	MSP	R753422
Tin (Sn)	<5		5	mg/kg		06-NOV-08	MSP	R753422
Thallium (Tl)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Uranium (U)	<2		2	mg/kg		06-NOV-08	MSP	R753422
Vanadium (V)	20		1	mg/kg		06-NOV-08	MSP	R753422
Zinc (Zn)	20		10	mg/kg		06-NOV-08	MSP	R753422
Phenols (4AAP)	0.10		0.05	mg/kg	07-NOV-08	07-NOV-08	MRS	R753710
pH	7.5		0.1	pH		05-NOV-08	SRJ	R752404
L703160-3 WLTA-S03 Sampled By: M KAWEI on 30-OCT-08 @ 16:00 Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Toluene	<0.01		0.01	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Ethylbenzene	<0.01		0.01	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Xylenes	<0.02		0.02	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	92		25-175	%	04-NOV-08	04-NOV-08	CVC	R752539
Surr: Hexatriacontane	91		25-175	%	04-NOV-08	04-NOV-08	CVC	R752539
Prep/Analysis Dates					04-NOV-08	04-NOV-08	CVC	R752539
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5		5	mg/kg		06-NOV-08		
F1-BTEX	<5		5	mg/kg		06-NOV-08		
F2 (C10-C16)	<20		20	mg/kg		06-NOV-08		
F2-Naphth	<20		20	mg/kg		06-NOV-08		
F3 (C16-C34)	30		20	mg/kg		06-NOV-08		
F3-PAH	30		20	mg/kg		06-NOV-08		
F4 (C34-C50)	30		20	mg/kg		06-NOV-08		
Total Hydrocarbons (C6-C50)	60		20	mg/kg		06-NOV-08		
Chromatogram to baseline at nC50	YES					06-NOV-08		
% Moisture	16		0.1	%		04-NOV-08	CFS	R751983
<b>CCME PAHs</b>								
Naphthalene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Quinoline	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Phenanthrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(a)anthracene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(b&j)fluoranthene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(k)fluoranthene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(a)pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L703160-3 WLTA-S03								
Sampled By: M KAWEI on 30-OCT-08 @ 16:00								
Matrix: SOIL								
<b>CCME PAHs</b>								
Indeno(1,2,3-cd)pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Dibenzo(a,h)anthracene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Surr: Nitrobenzene d5	39		20-140	%	04-NOV-08	06-NOV-08	PCL	R751447
Surr: 2-Fluorobiphenyl	57		34-136	%	04-NOV-08	06-NOV-08	PCL	R751447
Surr: p-Terphenyl d14	94		41-150	%	04-NOV-08	06-NOV-08	PCL	R751447
<b>Metals in Soil - CCME List</b>								
Silver (Ag)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Arsenic (As)	1.5		0.2	mg/kg		06-NOV-08	MSP	R753422
Barium (Ba)	23		5	mg/kg		06-NOV-08	MSP	R753422
Beryllium (Be)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Cadmium (Cd)	<0.5		0.5	mg/kg		06-NOV-08	MSP	R753422
Cobalt (Co)	4		1	mg/kg		06-NOV-08	MSP	R753422
Chromium (Cr)	19.6		0.5	mg/kg		06-NOV-08	MSP	R753422
Copper (Cu)	12		2	mg/kg		06-NOV-08	MSP	R753422
Mercury (Hg)	<0.05		0.05	mg/kg		06-NOV-08	MSP	R753422
Molybdenum (Mo)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Nickel (Ni)	11		2	mg/kg		06-NOV-08	MSP	R753422
Lead (Pb)	<5		5	mg/kg		06-NOV-08	MSP	R753422
Antimony (Sb)	<0.2		0.2	mg/kg		06-NOV-08	MSP	R753422
Selenium (Se)	<0.2		0.2	mg/kg		06-NOV-08	MSP	R753422
Tin (Sn)	<5		5	mg/kg		06-NOV-08	MSP	R753422
Thallium (Tl)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Uranium (U)	<2		2	mg/kg		06-NOV-08	MSP	R753422
Vanadium (V)	25		1	mg/kg		06-NOV-08	MSP	R753422
Zinc (Zn)	30		10	mg/kg		06-NOV-08	MSP	R753422
Phenols (4AAP)	0.15		0.05	mg/kg	07-NOV-08	07-NOV-08	MRS	R753710
pH	8.0		0.1	pH		05-NOV-08	SRJ	R752404
L703160-4 WLTA-S04								
Sampled By: M KAWEI on 30-OCT-08 @ 16:30								
Matrix: SOIL								
<b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Toluene	<0.01		0.01	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Ethylbenzene	<0.01		0.01	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Xylenes	<0.02		0.02	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	97		25-175	%	04-NOV-08	04-NOV-08	CVC	R752539
Surr: Hexatriacontane	95		25-175	%	04-NOV-08	04-NOV-08	CVC	R752539
Prep/Analysis Dates					04-NOV-08	04-NOV-08	CVC	R752539
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	8		5	mg/kg		06-NOV-08		
F1-BTEX	8		5	mg/kg		06-NOV-08		
F2 (C10-C16)	<20		20	mg/kg		06-NOV-08		
F2-Naphth	<20		20	mg/kg		06-NOV-08		
F3 (C16-C34)	30		20	mg/kg		06-NOV-08		
F3-PAH	30		20	mg/kg		06-NOV-08		
F4 (C34-C50)	40		20	mg/kg		06-NOV-08		
Total Hydrocarbons (C6-C50)	80		20	mg/kg		06-NOV-08		
Chromatogram to baseline at nC50	YES					06-NOV-08		

## ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	By	Batch
L703160-4 WLTA-S04 Sampled By: M KAWEI on 30-OCT-08 @ 16:30 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b>								
% Moisture	17		0.1	%		04-NOV-08	CFS	R751983
<b>CCME PAHs</b>								
Naphthalene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Quinoline	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Phenanthrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(a)anthracene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(b&j)fluoranthene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(k)fluoranthene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Benzo(a)pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Indeno(1,2,3-cd)pyrene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Dibenzo(a,h)anthracene	<0.01		0.01	mg/kg	04-NOV-08	06-NOV-08	PCL	R751447
Surr: Nitrobenzene d5	59		20-140	%	04-NOV-08	06-NOV-08	PCL	R751447
Surr: 2-Fluorobiphenyl	65		34-136	%	04-NOV-08	06-NOV-08	PCL	R751447
Surr: p-Terphenyl d14	98		41-150	%	04-NOV-08	06-NOV-08	PCL	R751447
<b>Metals in Soil - CCME List</b>								
Silver (Ag)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Arsenic (As)	1.9		0.2	mg/kg		06-NOV-08	MSP	R753422
Barium (Ba)	29		5	mg/kg		06-NOV-08	MSP	R753422
Beryllium (Be)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Cadmium (Cd)	<0.5		0.5	mg/kg		06-NOV-08	MSP	R753422
Cobalt (Co)	5		1	mg/kg		06-NOV-08	MSP	R753422
Chromium (Cr)	23.2		0.5	mg/kg		06-NOV-08	MSP	R753422
Copper (Cu)	15		2	mg/kg		06-NOV-08	MSP	R753422
Mercury (Hg)	<0.05		0.05	mg/kg		06-NOV-08	MSP	R753422
Molybdenum (Mo)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Nickel (Ni)	13		2	mg/kg		06-NOV-08	MSP	R753422
Lead (Pb)	<5		5	mg/kg		06-NOV-08	MSP	R753422
Antimony (Sb)	<0.2		0.2	mg/kg		06-NOV-08	MSP	R753422
Selenium (Se)	<0.2		0.2	mg/kg		06-NOV-08	MSP	R753422
Tin (Sn)	<5		5	mg/kg		06-NOV-08	MSP	R753422
Thallium (Tl)	<1		1	mg/kg		06-NOV-08	MSP	R753422
Uranium (U)	<2		2	mg/kg		06-NOV-08	MSP	R753422
Vanadium (V)	27		1	mg/kg		06-NOV-08	MSP	R753422
Zinc (Zn)	30		10	mg/kg		06-NOV-08	MSP	R753422
Phenols (4AAP)	0.08		0.05	mg/kg	07-NOV-08	07-NOV-08	MRS	R753710
pH	6.0		0.1	pH		05-NOV-08	SRJ	R752404
L703160-5 WLTA-S05 Sampled By: M KAWEI on 30-OCT-08 @ 17:00 Matrix: SOIL <b>CCME BTEX, TVHs and TEHs</b>								
<b>CCME BTEX</b>								
Benzene	<0.005		0.005	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Toluene	<0.01		0.01	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Ethylbenzene	<0.01		0.01	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
Xylenes	<0.02		0.02	mg/kg	04-NOV-08	04-NOV-08	SPA	R752076
<b>CCME Total Extractable Hydrocarbons</b>								
Surr: 2-Bromobenzotrifluoride	93		25-175	%	04-NOV-08	04-NOV-08	CVC	R752539
Surr: Hexatriacontane	97		25-175	%	04-NOV-08	04-NOV-08	CVC	R752539
Prep/Analysis Dates					04-NOV-08	04-NOV-08	CVC	R752539



## Reference Information

**Sample Parameter Qualifier key listed:**

Qualifier	Description
RAMB	Result Adjusted For Method Blank

**Methods Listed (if applicable):**

ALS Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
ETL-BTX,TVH-CCME-ED	Soil	CCME BTEX	EPA 5030	CCME CWS-PHC Dec-2000 - Pub# 1310
ETL-TVH,TEH-CCME-ED	Soil	CCME Total Hydrocarbons		CCME CWS-PHC Dec-2000 - Pub# 1310

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-4-TMB-ED	Soil	CCME Total Extractable Hydrocarbons		CCME CWS-PHC Dec-2000 - Pub# 1310
METAL-CCME-ED	Soil	Metals in Soil - CCME List	EPA 3050	EPA 6020
PAH-CCME-ED	Soil	CCME PAHs	EPA 3540C	EPA 3540/8270-GC/MS
PH-ED	Soil	pH		CSSS 16.3 - pH of 1:2 water extract
PHENOLS-CL	Soil	Phenols (4AAP)		EPA 9066

This analysis is carried out using procedures adapted from EPA METHOD 9065. Samples are steam distilled using Micro-distillation apparatus and the resulting distillate is analyzed for total phenolics colorimetrically using the 4-AAP method. Any color produced by the reaction of phenolic compounds is reported as phenol. Because substitution generally reduces response, this value represents the minimum concentration of phenolic compounds present.

PREP-MOISTURE-ED	Soil	% Moisture		Oven dry 105C-Gravimetric
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\*\* 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	ALS LABORATORY GROUP - CALGARY, ALBERTA, CANADA	ED	ALS LABORATORY GROUP - 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 control limits 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. - The reporting 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.*

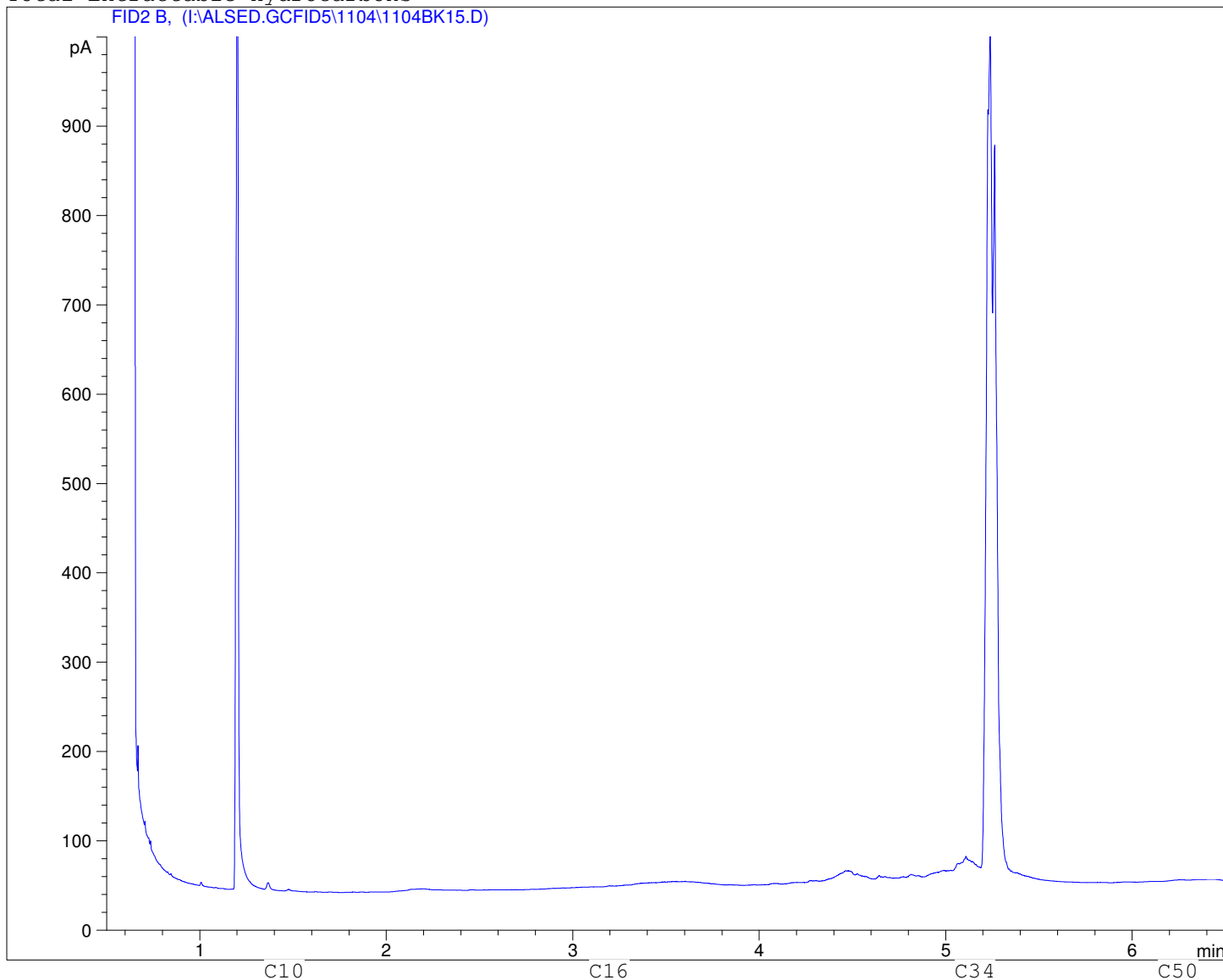
*ALS Laboratory Group has an extensive QA/QC program where all analytical data reported is analyzed using approved referenced procedures followed by checks and reviews by senior managers and quality assurance personnel. However, since the results are obtained from chemical measurements and thus cannot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

Client ID: WLTA-S01  
 Sample ID: L703160-1 30  
 Injection Date: 11/5/2008 12:41:46 AM  
 Instrument: 6890

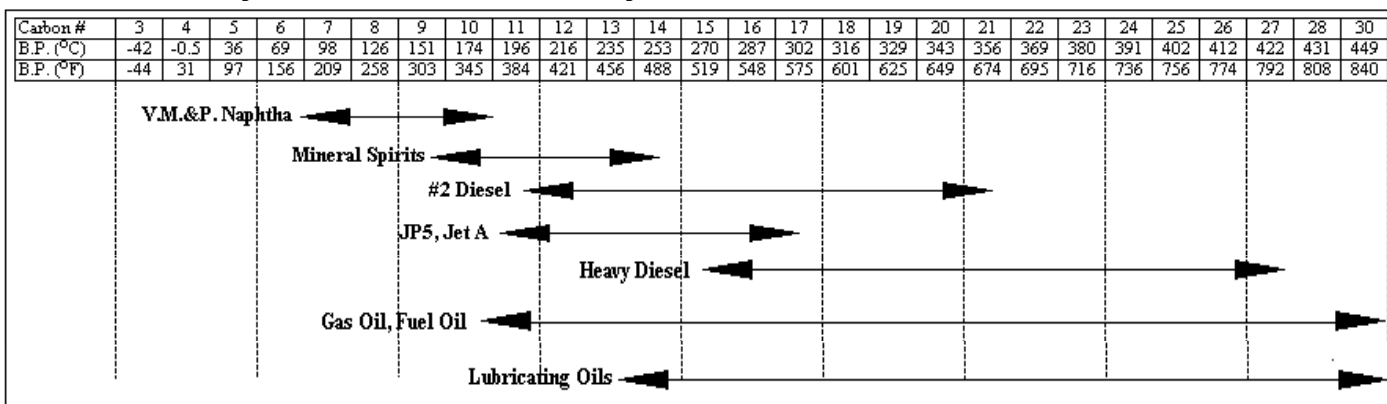


Total Extractable Hydrocarbons

FID2 B, (I:\ALSED.GCFID5\1104\1104BK15.D)



Boiling Point Distribution Range of Petroleum Based Fuel Products



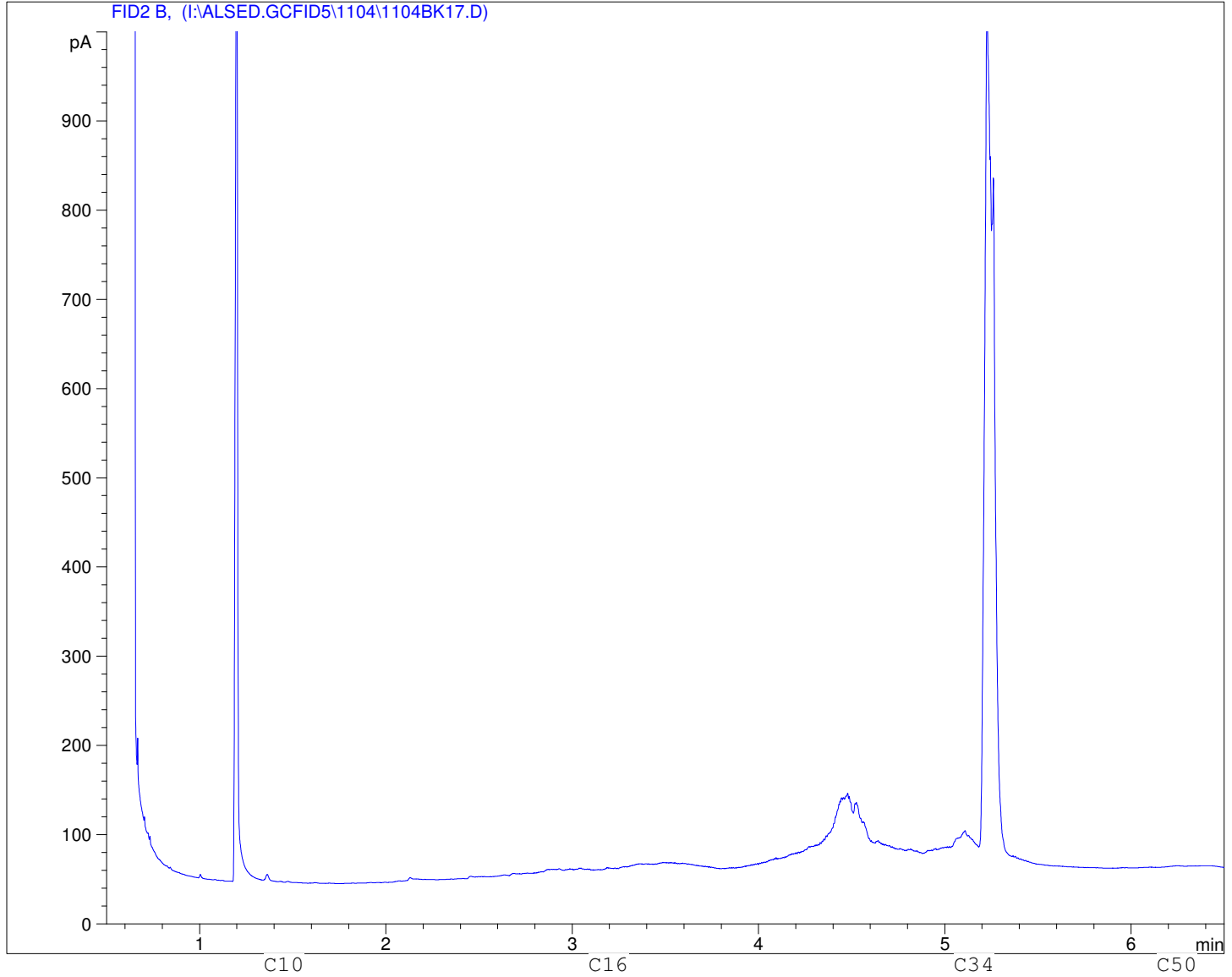
Adapted from: Drews, A.W., ED. Manual on Hydrocarbon Analysis, 4th ed.; American Society for Testing and Materials: Philadelphia, PA., 1989: p XVIII

Client ID: WLTA-S02  
 Sample ID: L703160-2 30  
 Injection Date: 11/5/2008 1:16:55 AM  
 Instrument: 6890



Total Extractable Hydrocarbons

FID2 B, (I:\ALSED.GCFID5\1104\1104BK17.D)



Boiling Point Distribution Range of Petroleum Based Fuel Products

Carbon #	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	30
B.P. (°C)	-42	-0.5	36	69	98	126	151	174	196	216	235	253	270	287	302	316	329	343	356	369	380	391	402	412	422	431	449
B.P. (°F)	-44	31	97	156	209	258	303	345	384	421	456	488	519	548	575	601	625	649	674	695	716	736	756	774	792	808	840

The diagram below the table shows the boiling point distribution ranges for various petroleum products, indicated by horizontal arrows and vertical dashed lines:

- V.M.&P. Naphtha:** Carbon 3 to 10
- Mineral Spirits:** Carbon 4 to 14
- #2 Diesel:** Carbon 6 to 21
- JP5, Jet A:** Carbon 8 to 17
- Heavy Diesel:** Carbon 10 to 26
- Gas Oil, Fuel Oil:** Carbon 12 to 30
- Lubricating Oils:** Carbon 14 to 30

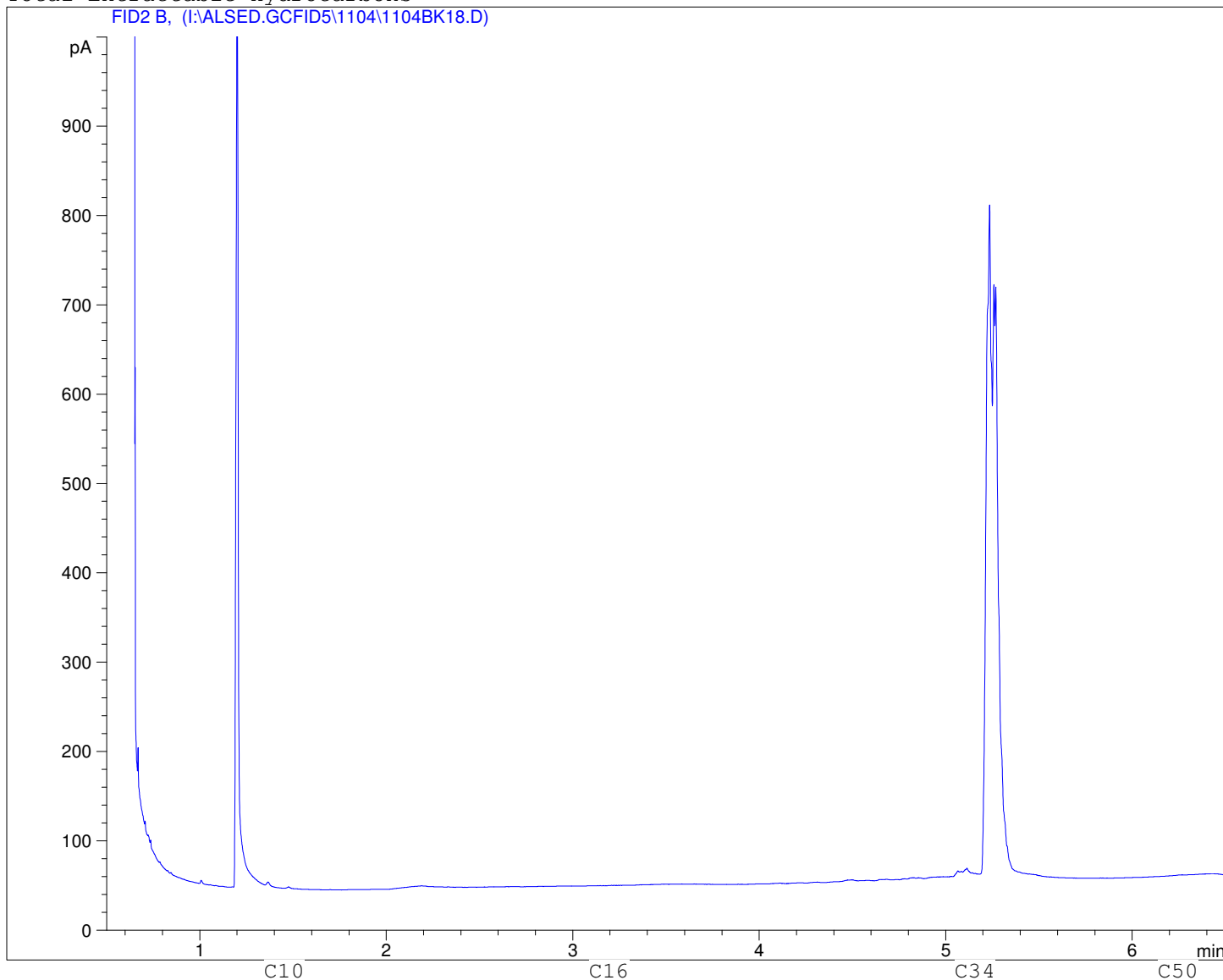
Adapted from: Drews, A.W., ED. Manual on Hydrocarbon Analysis, 4th ed.; American Society for Testing and Materials: Philadelphia, PA., 1989: p XVIII

Client ID: WLTA-S03  
 Sample ID: L703160-3 30  
 Injection Date: 11/5/2008 1:34:20 AM  
 Instrument: 6890



Total Extractable Hydrocarbons

FID2 B, (I:\ALSED.GCFID5\1104\1104BK18.D)



Boiling Point Distribution Range of Petroleum Based Fuel Products

Carbon #	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	30
B.P. (°C)	-42	-0.5	36	69	98	126	151	174	196	216	235	253	270	287	302	316	329	343	356	369	380	391	402	412	422	431	449
B.P. (°F)	-44	31	97	156	209	258	303	345	384	421	456	488	519	548	575	601	625	649	674	695	716	736	756	774	792	808	840

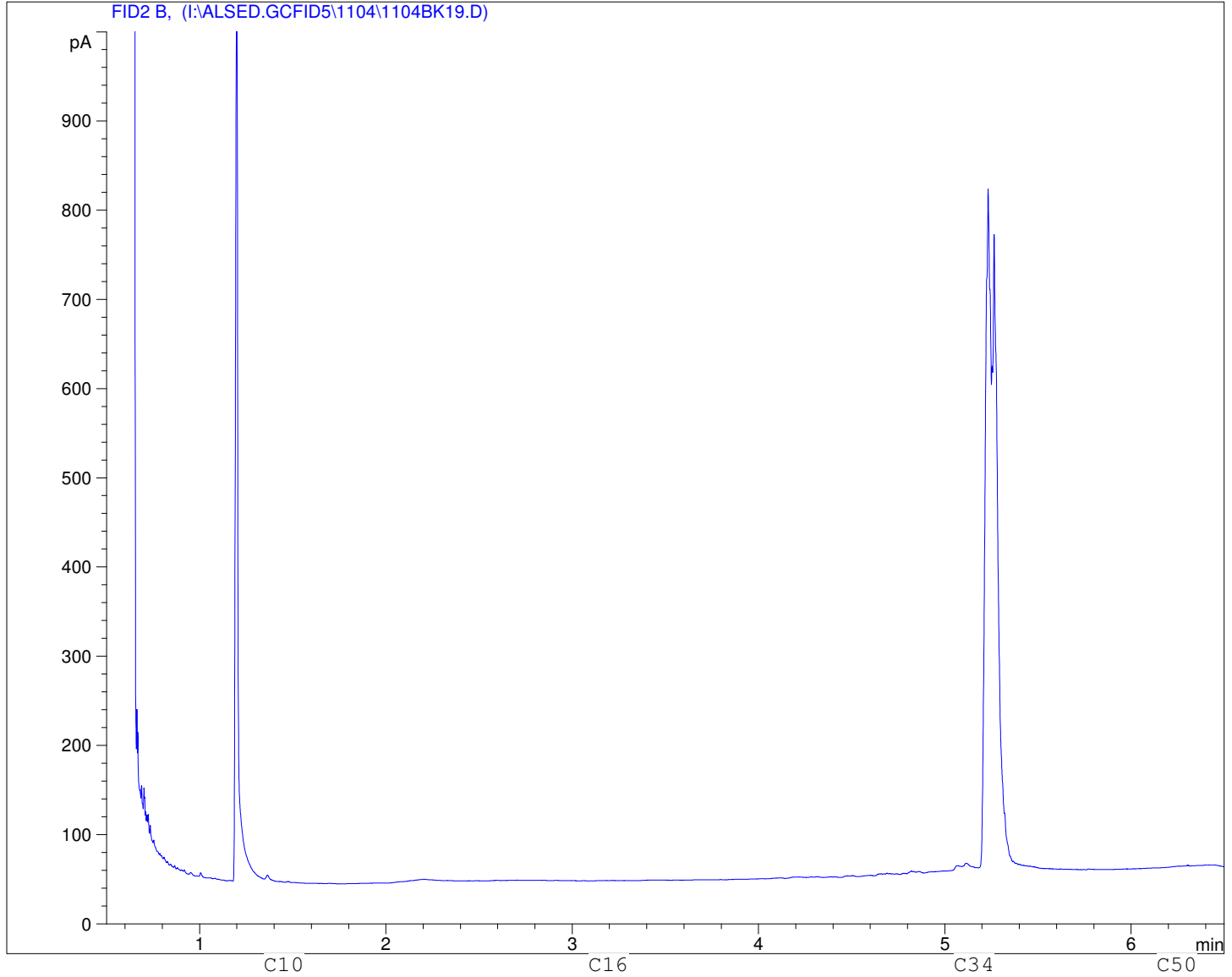
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 Sample ID: L703160-4 30  
 Injection Date: 11/5/2008 1:51:47 AM  
 Instrument: 6890

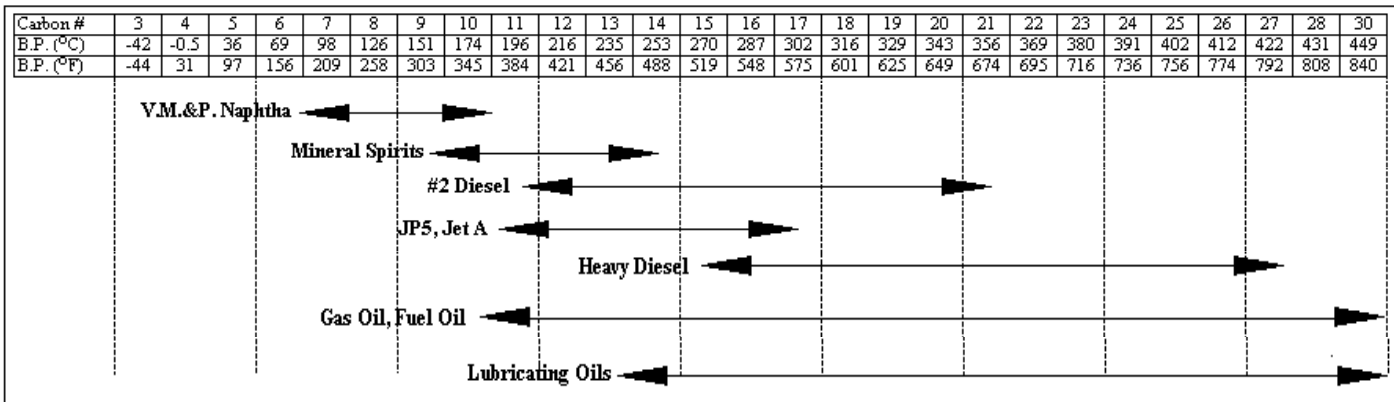


Total Extractable Hydrocarbons

FID2 B, (I:\ALSED.GCFID5\1104\1104BK19.D)



Boiling Point Distribution Range of Petroleum Based Fuel Products



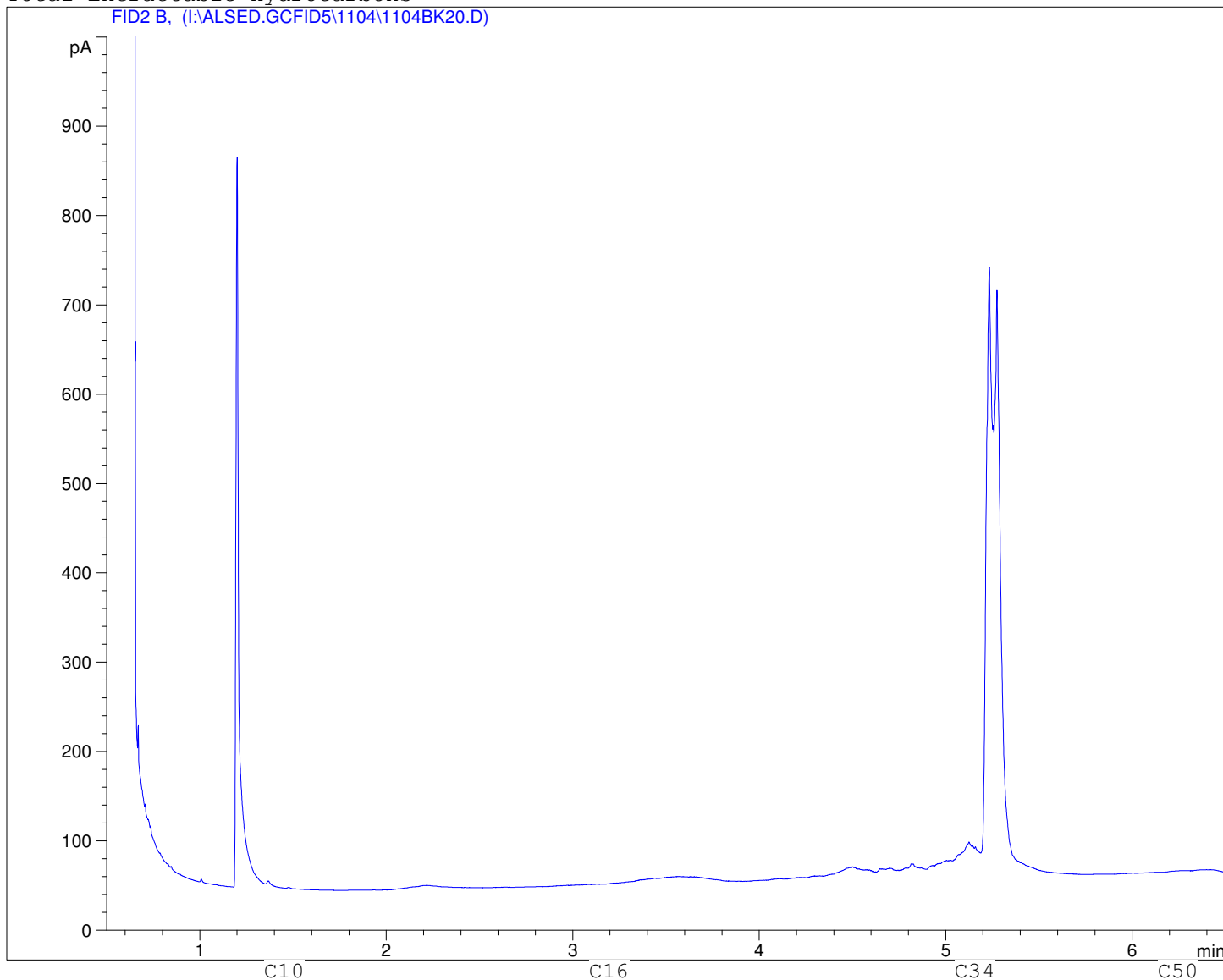
Adapted from: Drews, A.W., ED. Manual on Hydrocarbon Analysis, 4th ed.; American Society for Testing and Materials: Philadelphia, PA., 1989: p XVIII

Client ID: WLTA-S05  
 Sample ID: L703160-5 30  
 Injection Date: 11/5/2008 2:09:15 AM  
 Instrument: 6890



Total Extractable Hydrocarbons

FID2 B, (I:\ALSED.GCFID5\1104\1104BK20.D)



Boiling Point Distribution Range of Petroleum Based Fuel Products

Carbon #	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	30
B.P. (°C)	-42	-0.5	36	69	98	126	151	174	196	216	235	253	270	287	302	316	329	343	356	369	380	391	402	412	422	431	449
B.P. (°F)	-44	31	97	156	209	258	303	345	384	421	456	488	519	548	575	601	625	649	674	695	716	736	756	774	792	808	840

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- Mineral Spirits:** Carbon 4 to 14
- #2 Diesel:** Carbon 6 to 21
- JP5, Jet A:** Carbon 8 to 17
- Heavy Diesel:** Carbon 10 to 26
- Gas Oil, Fuel Oil:** Carbon 12 to 30
- Lubricating Oils:** Carbon 14 to 30

Adapted from: Drews, A.W., ED. Manual on Hydrocarbon Analysis, 4th ed.; American Society for Testing and Materials: Philadelphia, PA., 1989: p XVIII



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 Saskatoon SK, 819 - 58th Street East, S7K 6X5, Tel: 306-666-8370 Toll Free: 1-800-667-7645 Fax: 306-666-8383

2703160

**CHAIN OF CUSTODY FORM**

SEND REPORT TO:		Newmont Hope Bay Limited		ATTN: Matt Kawei							
COMPANY:		300-889 Habourside Drive									
ADDRESS:		North Vancouver		POSTAL CODE: V7P 3S1							
CITY:		British Columbia		PROV:							
TEL:		1-604-985-2572		FAX: 1-604-980-0731							
PROJECT NAME AND NO.:		Windy LTA Soil Samples		SAMPLER: Matt Kawei							
PO NO.:		M00357_Line#2		ALS CONTACT: Randy Fournier							
REPORT FORMAT:		<input checked="" type="checkbox"/> HARD COPY <input type="checkbox"/> EMAIL - ADDRESS: Matthew.Kawei@Newmont.com <input type="checkbox"/> FAX <input type="checkbox"/> EXCEL <input checked="" type="checkbox"/> PDF <input type="checkbox"/> OTHER:									
WO#	SAMPLE IDENTIFICATION	DATE / TIME COLLECTED	MATRIX	PH	Total Metals (36 ICP Scan)	PAH & TPH	Fractions (F1-F4)	BTEX	Phenols	NOTES (sample specific comments, due dates, etc.)	
1	WLTA-s01	2008-10-30 3:00	sediment/soil	X	X	X	X	X	X		
	WLTA-s01	2008-10-30 3:00	sediment/soil								
	WLTA-s01	2008-10-30 3:00	sediment/soil								
	WLTA-s02	2008-10-30 3:30	sediment/soil	X	X	X	X	X	X		
	WLTA-s02	2008-10-30 3:30	sediment/soil								
	WLTA-s02	2008-10-30 3:30	sediment/soil								
	WLTA-s03	2008-10-30 4:00	sediment/soil	X	X	X	X	X	X		
	WLTA-s03	2008-10-30 4:00	sediment/soil								
	WLTA-s03	2008-10-30 4:00	sediment/soil								
	WLTA-s04	2008-10-30 4:30	sediment/soil	X	X	X	X	X	X		
	WLTA-s04	2008-10-30 4:30	sediment/soil								
	WLTA-s04	2008-10-30 4:30	sediment/soil								
	WLTA-s05	2008-10-30 5:00	sediment/soil	X	X	X	X	X	X		
	WLTA-s05	2008-10-30 5:00	sediment/soil								
	WLTA-s05	2008-10-30 5:00	sediment/soil								
FOR LAB USE ONLY											
TURN AROUND REQUIRED:		SPECIFY DATE: Nov 10 2008 (surcharge may apply)		RELINQUISHED BY:		DATE:		RECEIVED BY:		DATE:	
SEND INVOICE TO:								R.F.		Oct 31 / 08	
INVOICE FORMAT:		<input checked="" type="checkbox"/> SAME AS REPORT <input type="checkbox"/> DIFFERENT FROM REPORT (provide details below) <input checked="" type="checkbox"/> HARD COPY <input type="checkbox"/> PDF <input type="checkbox"/> FAX								TIME: 1700h	
SPECIAL INSTRUCTIONS:		Please send invoice to Attention: HBM Accounting Section using the above address. Please quote this Project Cost Centre: PO#M00357 Line # 2 on your invoice. Electronic results to: Matthew.Kawei@Newmont.com									
				FOR LAB USE ONLY		Cooler Seal Intact? Yes ___ No ___ N/A		Sample Temperature: ___ °C		Cooling Method? Icepacks ___ Ice ___ None ___	