Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O Box 119, Gjoa Haven, Nunavut
X0B 1J0
Phone (867) 360-6338 ext. 27 Fax (867) 360-6369
Email licensing@nunavutwaterboard.org

Date: March 28th 2013

RE: Water License 3BM-COR 0813 Hamlet of Coral Harbour Annual Report 2013

Good afternoon Phyllis,

Please find attached the annual report for the above mentioned license, you will also find attachments with respect to the sample results as well as any other related information pertaining to the license requirements.

Please contact me should you have any questions, comments, or concerns.

Thanks

Jason Tologanak
Regional Director, Kivalliq Region
Community & Government Services
Rankin Inlet, Nunavut
X0C 0G0
Phone (867) 645-8101
Fax (867) 645- 8197
Cell (867) 645-7255

ANNUAL REPORT
FOR THE HAMLET OF CORAL HARBOUR, 2012

YEAR BEING REPORTED: 2012

The following information is compiled pursuant to the requirements of Part B, Item 1 of Water License # 3BM -COR 0813 issued to the Hamlet of Coral Harbour.

i) - iii) tabular summaries of all data generated under the "Monitoring Program"; monthly and annual quantities in cubic metres of freshwater obtained from all sources; monthly and annual quantities in cubic metres of each and all wastes discharged;

Attached are quantities of water used as reported in our On Tap Water Delivery System and the estimated discharge of sewage waste based on quantities used.

Month Reported	Quantity of Water Obtained from all sources (litres)	Quantity of Sewage Waste Discharged (Estimated)
January 2012	3,147,189.50	Same
February 2012	2,832,658.30	Same
March 2012	3,195,594.90	Same
April 2012	2,830,422.30	Same
May 2012	2,756,866.30	Same
June 2012	2,634,167.40	Same
July 2012	2,597,919.60	Same
August 2012	2,858,225.00	Same
September 2012	2,847,252.70	Same
October 2012	2,994,914.40	Same
November 2012	3,005,399.00	Same
December 2012	3,077,218.00	Same
ANNUAL TOTAL	34,778,827.40	34,778,827.40

Note: There is no meter existing at the discharge pipe. Therefore the monthly discharge is considered as equal to the monthly water consumption.

iv. a summary of modifications and/or major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities;

The existing Water Truck Fill Station is being updated. CGS has retained a consultant to complete design for optimization by February 2013.The Construction is scheduled starting fall of 2013 with a completion date fall of 2014. No Plan works were scheduled for wastewater treatment and waste management facilities in 2012.

v. a list of unauthorized discharges and summary of follow-up action taken;

No unauthorized discharge was recorded. The Lagoon berm showed natural exfiltration. Water was noted pooled below the waste metals area.

vi. a summary of any abandonment and restoration work completed during the year and an outline of any work anticipated for the next year;

No abandonment and restoration work was planned/completed in 2012 and there is no anticipation in the next year.

vii. a summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;

- Arktis Solutions Inc. recently completed feasibility study across Nunavut including Coral Harbour waste management facility. They recommended new guidelines. CGS is planning to implement these new standards and criteria in Coral Harbour future waste management facility.
- CGS has retained William Engineering Ltd to conduct bathymetric surveys in the existing water source and in the proposed secondary source. This project is scheduled to be completed in 2014.

viii. any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and

- Record water volume extracted
- Record raw sewage pumped out
- Monitor sewage lagoon effluent quality at the final point of discharge
- Monitor leachate quality of the runoff from the solid waste facility

ix. updates or revisions to the approved Operation and Maintenance Plans.

The updated O&M manual of the water Truck fill station will be ready in 2014. Revisions for the O&M manuals for waste water and solid wastes facilities are to be submitted once revised and updated as required.

ADDITIONAL INFORMATION THAT THE LICENSEE DEEMS USEFUL:

The Licensee will start extended sampling and testing program for water, wastewater and leachate samples from 2013 to satisfy the monitoring program Part H of the water License.

FOLLOW-UP REGARDING INSPECTION/COMPLIANCE CONCERNS:

The Licensee is working closely with CGS to satisfy the requirements of the Water License and the demand of the AANDC inspector including the Compliance Plan following the inspection dated August 9, 2011.

- The Lab Test Results for 2012


L1228282_COA.PDF


L1167507_COA.PDF

Hamlet of Coral Harbour
ATTN: LEONIE PAMEOLIK
PO Box 30
Coral Harbour MB X0C 0C0

Date Received: 24-OCT-12
Report Date: 02-NOV-12 09:47 (MT)
Version: FINAL

Client Phone: 867-925-8867

Certificate of Analysis

Lab Work Order #: **L1228282**
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

Paul Nicolas
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1228282-1 COR 4A							
Sampled By: C.P on 19-OCT-12 @ 11:00							
Matrix: WASTE WATER							
Miscellaneous Parameters							
Ammonia, Total (as N)	11.7	DLA	1.0	mg/L		29-OCT-12	R2465250
Biochemical Oxygen Demand	9.8		6.0	mg/L		30-OCT-12	R2465147
BOD Carbonaceous	<6.0		6.0	mg/L		30-OCT-12	R2465147
Fecal Coliforms	<3		3	MPN/100mL		28-OCT-12	R2464339
Oil and Grease, Total	<2.0		2.0	mg/L	26-OCT-12	26-OCT-12	R2464113
Phenols (4AAP)	0.0020		0.0010	mg/L	31-OCT-12	31-OCT-12	R2467230
Phosphorus (P)-Total	0.416		0.010	mg/L		26-OCT-12	R2463370
Total Kjeldahl Nitrogen	18.8		0.20	mg/L	24-OCT-12	29-OCT-12	R2464798
Total Organic Carbon	99.6		1.0	mg/L		26-OCT-12	R2464085
Total Suspended Solids	21.0		5.0	mg/L		25-OCT-12	R2463019
Routine Soluble + Metal scan							
Alkalinity							
Alkalinity, Total (as CaCO3)	876		20	mg/L		25-OCT-12	R2462990
Bicarbonate (HCO3)	1070		24	mg/L		25-OCT-12	R2462990
Carbonate (CO3)	<12		12	mg/L		25-OCT-12	R2462990
Hydroxide (OH)	<6.8		6.8	mg/L		25-OCT-12	R2462990
Chloride by Ion Chromatography							
Chloride	266		2.5	mg/L		25-OCT-12	R2465025
Conductivity							
Conductivity	2750		20	umhos/cm		25-OCT-12	R2462990
Hardness Calculated							
Hardness (as CaCO3)	979		0.30	mg/L		31-OCT-12	
Nitrate as N by Ion Chromatography							
Nitrate-N	<0.25	DLM	0.25	mg/L		25-OCT-12	R2465025
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.35		0.35	mg/L		30-OCT-12	
Nitrite as N by Ion Chromatography							
Nitrite-N	<0.25	DLM	0.25	mg/L		25-OCT-12	R2465025
Sulfate by Ion Chromatography							
Sulfate	366		2.5	mg/L		25-OCT-12	R2465025
TDS calculated							
TDS (Calculated)	1810		5.0	mg/L		31-OCT-12	
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.047		0.020	mg/L	26-OCT-12	26-OCT-12	R2464133
Antimony (Sb)-Total	0.0076		0.0010	mg/L	26-OCT-12	26-OCT-12	R2464133
Arsenic (As)-Total	0.0037		0.0010	mg/L	26-OCT-12	26-OCT-12	R2464133
Barium (Ba)-Total	0.0831		0.00050	mg/L	26-OCT-12	26-OCT-12	R2464133
Beryllium (Be)-Total	<0.0010		0.0010	mg/L	26-OCT-12	26-OCT-12	R2464133
Bismuth (Bi)-Total	<0.00050		0.00050	mg/L	26-OCT-12	26-OCT-12	R2464133
Boron (B)-Total	1.03		0.030	mg/L	26-OCT-12	26-OCT-12	R2464133
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L	26-OCT-12	26-OCT-12	R2464133
Calcium (Ca)-Total	306		0.20	mg/L	26-OCT-12	26-OCT-12	R2464133
Cesium (Cs)-Total	<0.00050		0.00050	mg/L	26-OCT-12	26-OCT-12	R2464133
Chromium (Cr)-Total	0.0026		0.0020	mg/L	26-OCT-12	26-OCT-12	R2464133
Cobalt (Co)-Total	0.00098		0.00050	mg/L	26-OCT-12	26-OCT-12	R2464133
Copper (Cu)-Total	0.0093		0.0020	mg/L	26-OCT-12	26-OCT-12	R2464133
Iron (Fe)-Total	1.80		0.10	mg/L	26-OCT-12	26-OCT-12	R2464133
Lead (Pb)-Total	<0.0010		0.0010	mg/L	26-OCT-12	26-OCT-12	R2464133
Lithium (Li)-Total	0.0413		0.0020	mg/L	26-OCT-12	26-OCT-12	R2464133
Magnesium (Mg)-Total	52.3		0.050	mg/L	26-OCT-12	26-OCT-12	R2464133
Manganese (Mn)-Total	0.390		0.0010	mg/L	26-OCT-12	26-OCT-12	R2464133

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1228282-1 COR 4A							
Sampled By: C.P on 19-OCT-12 @ 11:00							
Matrix: WASTE WATER							
Total Metals by ICP-MS							
Molybdenum (Mo)-Total	0.00055		0.00050	mg/L	26-OCT-12	26-OCT-12	R2464133
Nickel (Ni)-Total	0.0096		0.0020	mg/L	26-OCT-12	26-OCT-12	R2464133
Phosphorus (P)-Total	<0.50		0.50	mg/L	26-OCT-12	26-OCT-12	R2464133
Potassium (K)-Total	64.8		0.10	mg/L	26-OCT-12	26-OCT-12	R2464133
Rubidium (Rb)-Total	0.0262		0.00050	mg/L	26-OCT-12	26-OCT-12	R2464133
Selenium (Se)-Total	<0.0050		0.0050	mg/L	26-OCT-12	26-OCT-12	R2464133
Silicon (Si)-Total	7.08		0.30	mg/L	26-OCT-12	26-OCT-12	R2464133
Silver (Ag)-Total	<0.0010		0.0010	mg/L	26-OCT-12	26-OCT-12	R2464133
Sodium (Na)-Total	231	DLA	0.50	mg/L	26-OCT-12	30-OCT-12	R2465652
Strontium (Sr)-Total	0.891		0.00050	mg/L	26-OCT-12	26-OCT-12	R2464133
Tellurium (Te)-Total	<0.0010		0.0010	mg/L	26-OCT-12	26-OCT-12	R2464133
Thallium (Tl)-Total	<0.0050		0.0050	mg/L	26-OCT-12	26-OCT-12	R2464133
Thorium (Th)-Total	<0.0010		0.0010	mg/L	26-OCT-12	26-OCT-12	R2464133
Tin (Sn)-Total	0.00093		0.00060	mg/L	26-OCT-12	26-OCT-12	R2464133
Titanium (Ti)-Total	0.0094		0.0010	mg/L	26-OCT-12	26-OCT-12	R2464133
Tungsten (W)-Total	<0.0020		0.0020	mg/L	26-OCT-12	26-OCT-12	R2464133
Uranium (U)-Total	0.00081		0.00050	mg/L	26-OCT-12	26-OCT-12	R2464133
Vanadium (V)-Total	<0.0020		0.0020	mg/L	26-OCT-12	26-OCT-12	R2464133
Zinc (Zn)-Total	0.028		0.020	mg/L	26-OCT-12	26-OCT-12	R2464133
Zirconium (Zr)-Total	0.0026		0.0010	mg/L	26-OCT-12	26-OCT-12	R2464133
pH							
pH	7.31		0.10	pH units		25-OCT-12	R2462990

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

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit Adjusted For required dilution
DLM	Detection Limit Adjusted For Sample Matrix Effects
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-TOT-WP	Water	Alkalinity	APHA 2320B

Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. It is determined by titration with a standard solution of strong mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.

BOD-CBOD-WP	Water	Carbonaceous BOD	APHA 5210 B-5 day Incub.-O2 electrode

A sample of water is incubated for 5 days at 20 degrees Celcius. Comparison of dissolved oxygen content at beginning and end of incubation provides a measure of Biochemical oxygen demand. If carbonaceous BOD is requested, TCMP is added to the sample to chemically inhibit nitrogenous oxygen demand. If soluble BOD is requested, the sample is filtered prior to analysis.

BOD-WP	Water	Biochemical Oxygen Demand (BOD)	APHA 5210 B

The sample is incubated for 5 days at 20 degrees Celcius. Comparison of dissolved oxygen content at the beginning and end of incubation provides a measure of biochemical oxygen demand. If carbonaceous BOD is requested, TCMP is added to the sample to chemically inhibit nitrogenous oxygen demand. If soluble BOD is requested, the sample is filtered prior to analysis. Surface waters have a DL of 1 mg/L. Effluents are diluted according to their history and will have a sample DL of 6 mg/L or greater, depending on the dilutions used.

C-TOT-ORG-WP	Water	Total Organic Carbon	APHA 5310 B-INSTRUMENTAL-WP

This method is applicable to the analysis of ground water, wastewater, and surface water samples. The form detected depends upon sample pretreatment: Unfiltered sample = TC, 0.45um filtered = TDC. Samples are injected into a combustion tube containing an oxidation catalyst. The carrier gas containing the combustion product from the combustion tube flows through an inorganic carbon reactor vessel and is then sent through a halogen scrubber into a sample cell set in a non-dispersive infrared gas analyzer (NDIR) where carbon dioxide is detected. For total inorganic carbon and dissolved inorganic carbon, the sample is injected into an IC reactor vessel where only the IC component is decomposed to become carbon dioxide.

The peak area generated by the NDIR indicates the TC/TDC or TIC/DIC as applicable. The total organic carbon content of the sample is calculated by subtracting the TIC from the TC.
TOC = TC-TIC, DOC = TDC-DIC, Particulate = Total - Dissolved.

CL-IC-WP	Water	Chloride by Ion Chromatography	EPA 300.1 (modified)

Anions in aqueous matrices are analyzed using ion chromatography with conductivity and/or UV absorbance detectors.

EC-WP	Water	Conductivity	APHA 2510B

Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.

ETL-HARDNESS-TOT-WP	Water	Hardness Calculated	HARDNESS CALCULATED
ETL-SOLIDS-CALC-WP	Water	TDS calculated	CALCULATION
FC-MPN-WP	Water	Fecal Coliform	APHA 9221A-C

The Most Probable Number (MPN) method is based on the Multiple Tube Fermentation technique. The results of examination of replicate tubes and dilutions of a sample are reported after confirmations specific to total coliform, fecal coliform and E. coli are performed. Results are reported in MPN/100 mL for water and MPN/gram for food and solid samples.

IONBALANCE-OP05-WP	Water	Ion Balance Calculation No Reporting	APHA 1030E
MET-T-MS-WP	Water	Total Metals by ICP-MS	U.S. EPA 200.8-T

Total Metals by ICP-MS: This analysis is carried out using sample preparation procedures adapted from Standard Methods for the examination of Water and Wastewater Method 3030E and analytical procedures adapted from U.S EPA Method 200.8 for analyis of metals by inductively coupled-mass spectrometery.

N-TOTKJ-WP	Water	Total Kjeldahl Nitrogen	Quickchem method 10-107-06-2-E Lachat

Samples are digested with a sulphuric acid solution, cooled, diluted with water, and analyzed for ammonia. Total Kjeldahl nitrogen is the sum of free-ammonia and organic nitrogen compounds which are converted to ammonium sulphate through this digestion process. Analysis is performed by Flow

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
Injection Analysis (FIA). The pH of the digested sample is raised to a known, basic pH by neutralization with a concentrated buffer solution. This neutralization converts the ammonium cation to ammonia. The ammonia produced is heated with saliclyate and hypochlorite to produce blue colour which is proportional to the ammonia concentration.			
NH3-COL-WP	Water	Ammonia by colour	APHA 4500 NH3 F
Ammonia in water samples forms indophenol when reacted with hypochlorite and phenol. The intensity is amplified by the addition of sodium nitroprusside and measured colourmetrically.			
NO2+NO3-CALC-WP	Water	Nitrate+Nitrite	CALCULATION
NO2-IC-WP	Water	Nitrite as N by Ion Chromatography	EPA 300.1 (modified)
Anions in aqueous matrices are analyzed using ion chromatography with conductivity and/or UV absorbance detectors.			
NO3-IC-WP	Water	Nitrate as N by Ion Chromatography	EPA 300.1 (modified)
Anions in aqueous matrices are analyzed using ion chromatography with conductivity and/or UV absorbance detectors.			
OGG-TOT-WT	Water	Oil and Grease, Total	APHA 5520 B
Sample is extracted with hexane, extract is then evaporated and the residue is weighed to determine total oil and grease.			
P-T-COL-WP	Water	Phosphorus, Total	APHA 4500 P PHOSPHORUS
This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorous is determined colourimetrically after persulphate digestion of the sample.			
PH-WP	Water	pH	APHA 4500H
The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.			
PHENOLS-4AAP-WT	Water	Phenol (4AAP)	EPA 9066
An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.			
SO4-IC-WP	Water	Sulfate by Ion Chromatography	EPA 300.1 (modified)
Anions in aqueous matrices are analyzed using ion chromatography with conductivity and/or UV absorbance detectors.			
SOLIDS-TOTSUS-WP	Water	Total Suspended Solids	APHA 2540 D (modified)
Total suspended solids in aquesous matrices is determined gravimetrically after drying the residue at 103 105 C.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

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
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Chain of Custody Numbers:

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - 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.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

Chain of Custody / Analytical Re
Canada Toll Free: 1 800 66
www.alsglobal.com

L1228282-COFC

10-052580

Page 1 of 1

Report To	W10622	Report Format / Distribution		bject to availability)
Company:	HAmLet of Coral Harbour	Standard: ____ Other (specify): ____		Regular (Standard Turnaround Times))
Contact:	Leonie Pameolik	Select: PDF ____ Excel ____ Digital ____ Fax		Priority, Date Req'd: ____ (Surcharges apply)
Address:	PO Box 30 Coral Harbour, Nu X0C0C0	Email 1: Munch4@qiniq.com		Emergency (1 Business Day) - 100% Surcharge
		Email 2:		For Emergency < 1 Day, ASAP or Weekend - Contact ALS
Phone:	867 925 8867 Fax: 925 8233			**Analysis Request**
Invoice To	Same as Report ? (circle) Yes or No (if No, provide details)	**Client / Project Information**		(Indicate Filtered or Preserved, F/P)
	Copy of Invoice with Report? (circle) Yes or No	Job #:		
Company:		PO / AFE:		
Contact:		LSD:		
Address:				
Phone:	Fax:	Quote #:		
Lab Work Order # (lab use only)	[redacted]	**ALS Contact:**	**Sampler:** Casey Pamplin	

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	1	Routine	Bold	Nutrients	Total metals	TOC	Oil & grease	Fecal Coliforms	Total Phenols				Number of Containers
[redacted]																	
[redacted]	Cor 4 [redacted]	19 10 12	1100	Wastewater	x	x	x	x	x	x	x	x	x				8
[redacted]	Cor 4 [redacted] Nil dry end up																
[redacted]																	
[redacted]																	
[redacted]																	
[redacted]																	
[redacted]																	
[redacted]																	
[redacted]																	
[redacted]																	
[redacted]																	

Special Instructions / Regulations / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
Casey Pamplin	19 10 12	1100	[redacted]	24 OCT 12	13:20	5 °C				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION | WHITE - LABORATORY COPY | YELLOW - CLIENT COPY | GENF 18.01 Front

L1228282-COFC

Field Log

Name of Sampler: Casey Pawlik

Date of Sampling: Oct 19/12

Time of Sampling: 1100

Monitoring Station Number: Cor A

GPS Coordinates: N 64° 9' 45.5" W 83° 11' 27.6"

Weather Conditions: Sunny

Preservations used for Samples: 8 bottles Preservations

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

A 6.7 Snow and Ice.

Field Log

L1228282-COFC

Name of Sampler: Cassandra C

Date of Sampling: Oct 19/12

Time of Sampling: 1120

Monitoring Station Number: Cor 46

GPS Coordinates: N64° 99 48 55 W 83 11 19

Weather Conditions: Sunny

Preservations used for Samples: 8 bottles

Other Notes: (any unusual conditions, any deviation from standard procedures, etc.)

The lake is dry up so we didn't get samples from it.

Hamlet of Coral Harbour
ATTN: LEONIE PAMEOLIK
PO Box 30
Coral Harbour MB X0C 0C0

Date Received: 25-JUN-12
Report Date: 25-JUL-12 11:40 (MT)
Version: FINAL

Client Phone: 867-925-8867

Certificate of Analysis

Lab Work Order #: L1167507

Project P.O. #: NOT SUBMITTED
Job Reference: CORAL HARBOUR WASTEWATER MONITORING
C of C Numbers:
Legal Site Desc:

Paul Nicolas
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1167507-1 CORAL HARBOUR 3							
Sampled By: LP on 20-JUN-12 @ 15:00							
Matrix: WASTEWATER							
Miscellaneous Parameters							
Ammonia, Total (as N)	8.7	DLA	1.0	mg/L		09-JUL-12	R2395252
Biochemical Oxygen Demand	26.0		6.0	mg/L	27-JUN-12	02-JUL-12	R2391233
BOD Carbonaceous	24.6		6.0	mg/L	27-JUN-12	02-JUL-12	R2391232
Fecal Coliforms	1500		3	MPN/100mL		29-JUN-12	R2391018
Oil and Grease, Total	<2.0		2.0	mg/L	27-JUN-12	27-JUN-12	R2390276
Phenols (4AAP)	0.0220		0.0010	mg/L	03-JUL-12	03-JUL-12	R2392373
Phosphorus (P)-Total	1.51		0.010	mg/L		29-JUN-12	R2390202
Total Organic Carbon	81.0		1.0	mg/L	05-JUL-12	05-JUL-12	R2393620
Total Suspended Solids	219		5.0	mg/L		28-JUN-12	R2392806
Routine Soluble + Metal scan							
Alkalinity							
Alkalinity, Total (as CaCO3)	198		20	mg/L		26-JUN-12	R2389717
Bicarbonate (HCO3)	242		24	mg/L		26-JUN-12	R2389717
Carbonate (CO3)	<12		12	mg/L		26-JUN-12	R2389717
Hydroxide (OH)	<6.8		6.8	mg/L		26-JUN-12	R2389717
Chloride by Ion Chromatography							
Chloride	20.6		0.50	mg/L		26-JUN-12	R2390269
Conductivity							
Conductivity	450		20	umhos/cm		26-JUN-12	R2389717
Hardness Calculated							
Hardness (as CaCO3)	161		0.30	mg/L		28-JUN-12	
Nitrate as N by Ion Chromatography							
Nitrate-N	<0.050		0.050	mg/L		26-JUN-12	R2390269
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.071		0.071	mg/L		25-JUN-12	
Nitrite as N by Ion Chromatography							
Nitrite-N	<0.050		0.050	mg/L		26-JUN-12	R2390269
Sulfate by Ion Chromatography							
Sulfate	4.48		0.50	mg/L		26-JUN-12	R2390269
TDS calculated							
TDS (Calculated)	244		5.0	mg/L		29-JUN-12	
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.049		0.020	mg/L	27-JUN-12	27-JUN-12	R2389525
Antimony (Sb)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Arsenic (As)-Total	0.0013		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Barium (Ba)-Total	0.0198		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Beryllium (Be)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Bismuth (Bi)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Boron (B)-Total	0.187		0.030	mg/L	27-JUN-12	27-JUN-12	R2389525
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L	27-JUN-12	27-JUN-12	R2389525
Calcium (Ca)-Total	58.4		0.20	mg/L	27-JUN-12	27-JUN-12	R2389525
Cesium (Cs)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Chromium (Cr)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Cobalt (Co)-Total	0.00217		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Copper (Cu)-Total	0.0088		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Iron (Fe)-Total	3.04		0.10	mg/L	27-JUN-12	27-JUN-12	R2389525
Lead (Pb)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Lithium (Li)-Total	0.0056		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Magnesium (Mg)-Total	3.59		0.050	mg/L	27-JUN-12	27-JUN-12	R2389525
Manganese (Mn)-Total	0.522		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Molybdenum (Mo)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1167507-1 CORAL HARBOUR 3							
Sampled By: LP on 20-JUN-12 @ 15:00							
Matrix: WASTEWATER							
Total Metals by ICP-MS							
Nickel (Ni)-Total	0.0040		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Phosphorus (P)-Total	1.75		0.50	mg/L	27-JUN-12	27-JUN-12	R2389525
Potassium (K)-Total	13.3		0.10	mg/L	27-JUN-12	27-JUN-12	R2389525
Rubidium (Rb)-Total	0.00516		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Selenium (Se)-Total	<0.0050		0.0050	mg/L	27-JUN-12	27-JUN-12	R2389525
Silicon (Si)-Total	1.15		0.30	mg/L	27-JUN-12	27-JUN-12	R2389525
Silver (Ag)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Sodium (Na)-Total	24.3		0.050	mg/L	27-JUN-12	27-JUN-12	R2389525
Strontium (Sr)-Total	0.0709		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Tellurium (Te)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Thallium (Tl)-Total	<0.0050		0.0050	mg/L	27-JUN-12	27-JUN-12	R2389525
Thorium (Th)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Tin (Sn)-Total	<0.00060		0.00060	mg/L	27-JUN-12	27-JUN-12	R2389525
Titanium (Ti)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Tungsten (W)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Uranium (U)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Vanadium (V)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Zinc (Zn)-Total	<0.020		0.020	mg/L	27-JUN-12	27-JUN-12	R2389525
Zirconium (Zr)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
pH							
pH	7.28		0.10	pH units		26-JUN-12	R2389717
L1167507-2 CORAL HARBOUR 4							
Sampled By: LP on 20-JUN-12 @ 15:20							
Matrix: WASTEWATER							
Miscellaneous Parameters							
Ammonia, Total (as N)	28.4	DLA	1.0	mg/L		09-JUL-12	R2395252
Biochemical Oxygen Demand	49.0		6.0	mg/L	27-JUN-12	02-JUL-12	R2391233
BOD Carbonaceous	23.1		6.0	mg/L	27-JUN-12	02-JUL-12	R2391232
Fecal Coliforms	>110000		3	MPN/100mL		29-JUN-12	R2391018
Oil and Grease, Total	<2.0		2.0	mg/L	27-JUN-12	27-JUN-12	R2390276
Phenols (4AAP)	0.140		0.0010	mg/L	03-JUL-12	03-JUL-12	R2392373
Phosphorus (P)-Total	4.46		0.010	mg/L		29-JUN-12	R2390202
Total Organic Carbon	70.5		1.0	mg/L	05-JUL-12	05-JUL-12	R2393620
Total Suspended Solids	42.0		5.0	mg/L		28-JUN-12	R2392806
Routine Soluble + Metal scan							
Alkalinity							
Alkalinity, Total (as CaCO3)	160		20	mg/L		26-JUN-12	R2389717
Bicarbonate (HCO3)	196		24	mg/L		26-JUN-12	R2389717
Carbonate (CO3)	<12		12	mg/L		26-JUN-12	R2389717
Hydroxide (OH)	<6.8		6.8	mg/L		26-JUN-12	R2389717
Chloride by Ion Chromatography							
Chloride	22.0		0.50	mg/L		26-JUN-12	R2390269
Conductivity							
Conductivity	431		20	umhos/cm		26-JUN-12	R2389717
Hardness Calculated							
Hardness (as CaCO3)	50.2		0.30	mg/L		28-JUN-12	
Nitrate as N by Ion Chromatography							
Nitrate-N	<0.050		0.050	mg/L		26-JUN-12	R2390269
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.071		0.071	mg/L		25-JUN-12	
Nitrite as N by Ion Chromatography							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1167507-2 CORAL HARBOUR 4							
Sampled By: LP on 20-JUN-12 @ 15:20							
Matrix: WASTEWATER							
Nitrite as N by Ion Chromatography							
Nitrite-N	<0.050		0.050	mg/L		26-JUN-12	R2390269
Sulfate by Ion Chromatography							
Sulfate	9.18		0.50	mg/L		26-JUN-12	R2390269
TDS calculated							
TDS (Calculated)	178		5.0	mg/L		29-JUN-12	
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.131		0.020	mg/L	27-JUN-12	27-JUN-12	R2389525
Antimony (Sb)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Arsenic (As)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Barium (Ba)-Total	0.00266		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Beryllium (Be)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Bismuth (Bi)-Total	0.00070		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Boron (B)-Total	0.175		0.030	mg/L	27-JUN-12	27-JUN-12	R2389525
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L	27-JUN-12	27-JUN-12	R2389525
Calcium (Ca)-Total	16.7		0.20	mg/L	27-JUN-12	27-JUN-12	R2389525
Cesium (Cs)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Chromium (Cr)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Cobalt (Co)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Copper (Cu)-Total	0.0225		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Iron (Fe)-Total	0.46		0.10	mg/L	27-JUN-12	27-JUN-12	R2389525
Lead (Pb)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Lithium (Li)-Total	0.0092		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Magnesium (Mg)-Total	2.06		0.050	mg/L	27-JUN-12	27-JUN-12	R2389525
Manganese (Mn)-Total	0.0437		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Molybdenum (Mo)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Phosphorus (P)-Total	4.15		0.50	mg/L	27-JUN-12	27-JUN-12	R2389525
Potassium (K)-Total	8.57		0.10	mg/L	27-JUN-12	27-JUN-12	R2389525
Rubidium (Rb)-Total	0.0109		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Selenium (Se)-Total	<0.0050		0.0050	mg/L	27-JUN-12	27-JUN-12	R2389525
Silicon (Si)-Total	1.11		0.30	mg/L	27-JUN-12	27-JUN-12	R2389525
Silver (Ag)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Sodium (Na)-Total	22.8		0.050	mg/L	27-JUN-12	27-JUN-12	R2389525
Strontium (Sr)-Total	0.0249		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Tellurium (Te)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Thallium (Tl)-Total	<0.0050		0.0050	mg/L	27-JUN-12	27-JUN-12	R2389525
Thorium (Th)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Tin (Sn)-Total	0.00089		0.00060	mg/L	27-JUN-12	27-JUN-12	R2389525
Titanium (Ti)-Total	0.0011		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Tungsten (W)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Uranium (U)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Vanadium (V)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Zinc (Zn)-Total	0.036		0.020	mg/L	27-JUN-12	27-JUN-12	R2389525
Zirconium (Zr)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
pH							
pH	7.16		0.10	pH units		26-JUN-12	R2389717
L1167507-3 CORAL HARBOUR 6							
Sampled By: LP on 20-JUN-12 @ 14:15							
Matrix: WASTEWATER							
BTEX plus F1-F4							
BTX plus F1 by GCMS							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1167507-3 CORAL HARBOUR 6							
Sampled By: LP on 20-JUN-12 @ 14:15							
Matrix: WASTEWATER							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		06-JUL-12	R2392044
Toluene	<0.0010		0.0010	mg/L		06-JUL-12	R2392044
Ethyl benzene	<0.00050		0.00050	mg/L		06-JUL-12	R2392044
o-Xylene	<0.00050		0.00050	mg/L		06-JUL-12	R2392044
m+p-Xylenes	<0.00050		0.00050	mg/L		06-JUL-12	R2392044
Xylenes	<0.0015		0.0015	mg/L		06-JUL-12	R2392044
F1 (C6-C10)	<0.10		0.10	mg/L		06-JUL-12	R2392044
Surrogate: 4-Bromofluorobenzene (SS)	108.5		70-130	%		06-JUL-12	R2392044
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		09-JUL-12	
F2-Naphth	<0.25		0.25	mg/L		09-JUL-12	
F3-PAH	<0.25		0.25	mg/L		09-JUL-12	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		09-JUL-12	
F2-F4 PHC method							
F2 (C10-C16)	<0.25		0.25	mg/L	27-JUN-12	29-JUN-12	R2391034
F3 (C16-C34)	<0.25		0.25	mg/L	27-JUN-12	29-JUN-12	R2391034
F4 (C34-C50)	<0.25		0.25	mg/L	27-JUN-12	29-JUN-12	R2391034
Surrogate: 2-Bromobenzotrifluoride	82.0		65-135	%	27-JUN-12	29-JUN-12	R2391034
Miscellaneous Parameters							
Ammonia, Total (as N)	1.20	DLA	0.10	mg/L		09-JUL-12	R2395252
Biochemical Oxygen Demand	21.5		6.0	mg/L	27-JUN-12	02-JUL-12	R2391233
BOD Carbonaceous	19.0		6.0	mg/L	27-JUN-12	02-JUL-12	R2391232
Fecal Coliforms	<3		3	MPN/100mL		29-JUN-12	R2391018
Oil and Grease, Total	<2.0		2.0	mg/L	27-JUN-12	27-JUN-12	R2390276
Phenols (4AAP)	<0.0010		0.0010	mg/L	03-JUL-12	03-JUL-12	R2392373
Phosphorus (P)-Total	0.516		0.010	mg/L		29-JUN-12	R2390202
Total Organic Carbon	71.5		1.0	mg/L	05-JUL-12	05-JUL-12	R2393620
Total Suspended Solids	7.0		5.0	mg/L		28-JUN-12	R2392806
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Acenaphthene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Acenaphthylene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Anthracene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Acridine	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Benzo(a)anthracene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	29-JUN-12	04-JUL-12	R2393064
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Chrysene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	29-JUN-12	04-JUL-12	R2393064
Fluoranthene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Fluorene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Naphthalene	<0.000050		0.000050	mg/L	29-JUN-12	04-JUL-12	R2393064
Phenanthrene	<0.000050		0.000050	mg/L	29-JUN-12	04-JUL-12	R2393064
Pyrene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Quinoline	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	29-JUN-12	04-JUL-12	R2393064
Surrogate: Acenaphthene d10	68.9		50-150	%	29-JUN-12	04-JUL-12	R2393064

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1167507-3 CORAL HARBOUR 6							
Sampled By: LP on 20-JUN-12 @ 14:15							
Matrix: WASTEWATER							
Polyaromatic Hydrocarbons (PAHs)							
Surrogate: Acridine d9	88.9		50-150	%	29-JUN-12	04-JUL-12	R2393064
Surrogate: Chrysene d12	81.0		50-150	%	29-JUN-12	04-JUL-12	R2393064
Surrogate: Naphthalene d8	50.3		50-150	%	29-JUN-12	04-JUL-12	R2393064
Surrogate: Phenanthrene d10	86.6		50-150	%	29-JUN-12	04-JUL-12	R2393064
Routine Soluble + Metal scan							
Alkalinity							
Alkalinity, Total (as CaCO3)	118		20	mg/L		26-JUN-12	R2389717
Bicarbonate (HCO3)	144		24	mg/L		26-JUN-12	R2389717
Carbonate (CO3)	<12		12	mg/L		26-JUN-12	R2389717
Hydroxide (OH)	<6.8		6.8	mg/L		26-JUN-12	R2389717
Chloride by Ion Chromatography							
Chloride	6.32		0.50	mg/L		26-JUN-12	R2390269
Conductivity							
Conductivity	179		20	umhos/cm		26-JUN-12	R2389717
Hardness Calculated							
Hardness (as CaCO3)	151		0.30	mg/L		28-JUN-12	
Nitrate as N by Ion Chromatography							
Nitrate-N	<0.050		0.050	mg/L		26-JUN-12	R2390269
Nitrate+Nitrite							
Nitrate and Nitrite as N	<0.071		0.071	mg/L		25-JUN-12	
Nitrite as N by Ion Chromatography							
Nitrite-N	<0.050		0.050	mg/L		26-JUN-12	R2390269
Sulfate by Ion Chromatography							
Sulfate	5.59		0.50	mg/L		26-JUN-12	R2390269
TDS calculated							
TDS (Calculated)	170		5.0	mg/L		24-JUL-12	
Total Metals by ICP-MS							
Aluminum (Al)-Total	<0.020		0.020	mg/L	27-JUN-12	27-JUN-12	R2389525
Antimony (Sb)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Arsenic (As)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Barium (Ba)-Total	0.0202		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Beryllium (Be)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Bismuth (Bi)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Boron (B)-Total	0.196		0.030	mg/L	27-JUN-12	27-JUN-12	R2389525
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L	27-JUN-12	27-JUN-12	R2389525
Calcium (Ca)-Total	51.5		0.20	mg/L	27-JUN-12	27-JUN-12	R2389525
Cesium (Cs)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Chromium (Cr)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Cobalt (Co)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Copper (Cu)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Iron (Fe)-Total	1.94		0.10	mg/L	27-JUN-12	27-JUN-12	R2389525
Lead (Pb)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Lithium (Li)-Total	0.0061		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Magnesium (Mg)-Total	5.49		0.050	mg/L	27-JUN-12	27-JUN-12	R2389525
Manganese (Mn)-Total	0.249		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Molybdenum (Mo)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Phosphorus (P)-Total	0.51		0.50	mg/L	27-JUN-12	27-JUN-12	R2389525
Potassium (K)-Total	13.1		0.10	mg/L	27-JUN-12	27-JUN-12	R2389525
Rubidium (Rb)-Total	0.00851		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Selenium (Se)-Total	<0.0050		0.0050	mg/L	27-JUN-12	27-JUN-12	R2389525
Silicon (Si)-Total	0.76		0.30	mg/L	27-JUN-12	27-JUN-12	R2389525

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1167507-3 CORAL HARBOUR 6							
Sampled By: LP on 20-JUN-12 @ 14:15							
Matrix: WASTEWATER							
Total Metals by ICP-MS							
Silver (Ag)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Sodium (Na)-Total	17.4		0.050	mg/L	27-JUN-12	27-JUN-12	R2389525
Strontium (Sr)-Total	0.0792		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Tellurium (Te)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Thallium (Tl)-Total	<0.0050		0.0050	mg/L	27-JUN-12	27-JUN-12	R2389525
Thorium (Th)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Tin (Sn)-Total	<0.00060		0.00060	mg/L	27-JUN-12	27-JUN-12	R2389525
Titanium (Ti)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Tungsten (W)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Uranium (U)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Vanadium (V)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Zinc (Zn)-Total	<0.020		0.020	mg/L	27-JUN-12	27-JUN-12	R2389525
Zirconium (Zr)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
pH							
pH	7.67		0.10	pH units		26-JUN-12	R2389717
L1167507-4 CORAL HARBOUR 7							
Sampled By: LP on 20-JUN-12 @ 14:00							
Matrix: WASTEWATER							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	<0.00050		0.00050	mg/L		06-JUL-12	R2392044
Toluene	<0.0010		0.0010	mg/L		06-JUL-12	R2392044
Ethyl benzene	<0.00050		0.00050	mg/L		06-JUL-12	R2392044
o-Xylene	<0.00050		0.00050	mg/L		06-JUL-12	R2392044
m+p-Xylenes	<0.00050		0.00050	mg/L		06-JUL-12	R2392044
Xylenes	<0.0015		0.0015	mg/L		06-JUL-12	R2392044
F1 (C6-C10)	<0.10		0.10	mg/L		06-JUL-12	R2392044
Surrogate: 4-Bromofluorobenzene (SS)	105.5		70-130	%		06-JUL-12	R2392044
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		09-JUL-12	
F2-Naphth	<0.25		0.25	mg/L		09-JUL-12	
F3-PAH	<0.25		0.25	mg/L		09-JUL-12	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		09-JUL-12	
F2-F4 PHC method							
F2 (C10-C16)	<0.25		0.25	mg/L	27-JUN-12	29-JUN-12	R2391034
F3 (C16-C34)	<0.25		0.25	mg/L	27-JUN-12	29-JUN-12	R2391034
F4 (C34-C50)	<0.25		0.25	mg/L	27-JUN-12	29-JUN-12	R2391034
Surrogate: 2-Bromobenzotrifluoride	83.2		65-135	%	27-JUN-12	29-JUN-12	R2391034
Miscellaneous Parameters							
Ammonia, Total (as N)	0.103		0.010	mg/L		09-JUL-12	R2395252
Biochemical Oxygen Demand	<6.0		6.0	mg/L	27-JUN-12	02-JUL-12	R2391233
BOD Carbonaceous	<6.0		6.0	mg/L	27-JUN-12	02-JUL-12	R2391232
Fecal Coliforms	<3		3	MPN/100mL		29-JUN-12	R2391018
Oil and Grease, Total	<2.0		2.0	mg/L	27-JUN-12	27-JUN-12	R2390276
Phenols (4AAP)	0.0010		0.0010	mg/L	03-JUL-12	03-JUL-12	R2392373
Phosphorus (P)-Total	0.092		0.010	mg/L		29-JUN-12	R2390202
Total Organic Carbon	13.8		1.0	mg/L	05-JUL-12	05-JUL-12	R2393620
Total Suspended Solids	<5.0		5.0	mg/L		28-JUN-12	R2392806
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1167507-4 CORAL HARBOUR 7							
Sampled By: LP on 20-JUN-12 @ 14:00							
Matrix: WASTEWATER							
Polyaromatic Hydrocarbons (PAHs)							
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Acenaphthene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Acenaphthylene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Anthracene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Acridine	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Benzo(a)anthracene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	29-JUN-12	04-JUL-12	R2393064
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Chrysene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	29-JUN-12	04-JUL-12	R2393064
Fluoranthene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Fluorene	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Naphthalene	<0.000050		0.000050	mg/L	29-JUN-12	04-JUL-12	R2393064
Phenanthrene	<0.000050		0.000050	mg/L	29-JUN-12	04-JUL-12	R2393064
Pyrene	<0.000010		0.000010	mg/L	29-JUN-12	04-JUL-12	R2393064
Quinoline	<0.000020		0.000020	mg/L	29-JUN-12	04-JUL-12	R2393064
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	29-JUN-12	04-JUL-12	R2393064
Surrogate: Acenaphthene d10	66.2		50-150	%	29-JUN-12	04-JUL-12	R2393064
Surrogate: Acridine d9	88.3		50-150	%	29-JUN-12	04-JUL-12	R2393064
Surrogate: Chrysene d12	91.2		50-150	%	29-JUN-12	04-JUL-12	R2393064
Surrogate: Naphthalene d8	52.6		50-150	%	29-JUN-12	04-JUL-12	R2393064
Surrogate: Phenanthrene d10	84.6		50-150	%	29-JUN-12	04-JUL-12	R2393064
Routine Soluble + Metal scan							
Alkalinity							
Alkalinity, Total (as CaCO3)	62		20	mg/L		26-JUN-12	R2389717
Bicarbonate (HCO3)	75		24	mg/L		26-JUN-12	R2389717
Carbonate (CO3)	<12		12	mg/L		26-JUN-12	R2389717
Hydroxide (OH)	<6.8		6.8	mg/L		26-JUN-12	R2389717
Chloride by Ion Chromatography							
Chloride	2.42		0.50	mg/L		26-JUN-12	R2390269
Conductivity							
Conductivity	157		20	umhos/cm		26-JUN-12	R2389717
Hardness Calculated							
Hardness (as CaCO3)	80.8		0.30	mg/L		28-JUN-12	
Nitrate as N by Ion Chromatography							
Nitrate-N	0.242		0.050	mg/L		26-JUN-12	R2390269
Nitrate+Nitrite							
Nitrate and Nitrite as N	0.242		0.071	mg/L		25-JUN-12	
Nitrite as N by Ion Chromatography							
Nitrite-N	<0.050		0.050	mg/L		26-JUN-12	R2390269
Sulfate by Ion Chromatography							
Sulfate	14.4		0.50	mg/L		26-JUN-12	R2390269
TDS calculated							
TDS (Calculated)	90.3		5.0	mg/L		29-JUN-12	
Total Metals by ICP-MS							
Aluminum (Al)-Total	0.028		0.020	mg/L	27-JUN-12	27-JUN-12	R2389525
Antimony (Sb)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Arsenic (As)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Barium (Ba)-Total	0.00466		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1167507-4 CORAL HARBOUR 7							
Sampled By: LP on 20-JUN-12 @ 14:00							
Matrix: WASTEWATER							
Total Metals by ICP-MS							
Beryllium (Be)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Bismuth (Bi)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Boron (B)-Total	0.141		0.030	mg/L	27-JUN-12	27-JUN-12	R2389525
Cadmium (Cd)-Total	<0.00020		0.00020	mg/L	27-JUN-12	27-JUN-12	R2389525
Calcium (Ca)-Total	30.0		0.20	mg/L	27-JUN-12	27-JUN-12	R2389525
Cesium (Cs)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Chromium (Cr)-Total	0.0033		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Cobalt (Co)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Copper (Cu)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Iron (Fe)-Total	0.57		0.10	mg/L	27-JUN-12	27-JUN-12	R2389525
Lead (Pb)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Lithium (Li)-Total	0.0052		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Magnesium (Mg)-Total	1.41		0.050	mg/L	27-JUN-12	27-JUN-12	R2389525
Manganese (Mn)-Total	0.0723		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Molybdenum (Mo)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Nickel (Ni)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Phosphorus (P)-Total	<0.50		0.50	mg/L	27-JUN-12	27-JUN-12	R2389525
Potassium (K)-Total	2.19		0.10	mg/L	27-JUN-12	27-JUN-12	R2389525
Rubidium (Rb)-Total	0.00176		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Selenium (Se)-Total	<0.0050		0.0050	mg/L	27-JUN-12	27-JUN-12	R2389525
Silicon (Si)-Total	0.80		0.30	mg/L	27-JUN-12	27-JUN-12	R2389525
Silver (Ag)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Sodium (Na)-Total	2.75		0.050	mg/L	27-JUN-12	27-JUN-12	R2389525
Strontium (Sr)-Total	0.0896		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Tellurium (Te)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Thallium (Tl)-Total	<0.0050		0.0050	mg/L	27-JUN-12	27-JUN-12	R2389525
Thorium (Th)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Tin (Sn)-Total	<0.00060		0.00060	mg/L	27-JUN-12	27-JUN-12	R2389525
Titanium (Ti)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
Tungsten (W)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Uranium (U)-Total	<0.00050		0.00050	mg/L	27-JUN-12	27-JUN-12	R2389525
Vanadium (V)-Total	<0.0020		0.0020	mg/L	27-JUN-12	27-JUN-12	R2389525
Zinc (Zn)-Total	0.038		0.020	mg/L	27-JUN-12	27-JUN-12	R2389525
Zirconium (Zr)-Total	<0.0010		0.0010	mg/L	27-JUN-12	27-JUN-12	R2389525
pH							
pH	7.81		0.10	pH units		26-JUN-12	R2389717

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

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit Adjusted For required dilution
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-TOT-WP	Water	Alkalinity	APHA 2320B

Alkalinity of water is a measure of its acid neutralizing capacity. Alkalinity is imparted by bicarbonate, carbonate and hydroxide components of water. It is determined by titration with a standard solution of strong mineral acid to the successive HCO3- and H2CO3 endpoints indicated electrometrically.

BOD-CBOD-WP	Water	Carbonaceous BOD	APHA 5210 B-5 day Incub.-O2 electrode

A sample of water is incubated for 5 days at 20 degrees Celcius. Comparison of dissolved oxygen content at beginning and end of incubation provides a measure of Biochemical oxygen demand. If carbonaceous BOD is requested, TCMP is added to the sample to chemically inhibit nitrogenous oxygen demand. If soluble BOD is requested, the sample is filtered prior to analysis.

BOD-WP	Water	Biochemical Oxygen Demand (BOD)	APHA 5210 B

The sample is incubated for 5 days at 20 degrees Celcius. Comparison of dissolved oxygen content at the beginning and end of incubation provides a measure of biochemical oxygen demand. If carbonaceous BOD is requested, TCMP is added to the sample to chemically inhibit nitrogenous oxygen demand. If soluble BOD is requested, the sample is filtered prior to analysis. Surface waters have a DL of 1 mg/L. Effluents are diluted according to their history and will have a sample DL of 6 mg/L or greater, depending on the dilutions used.

BTEXS+F1-HSMS-WP	Water	BTX plus F1 by GCMS	EPA SW846 8260B REV 2 SEPT 1994

The water sample, with added reagents, is heated in a sealed vial to equilibrium. The headspace from the vial is transfered into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

CL-IC-WP	Water	Chloride by Ion Chromatography	EPA 300.1 (modified)

Anions in aqueous matrices are analyzed using ion chromatography with conductivity and/or UV absorbance detectors.

EC-WP	Water	Conductivity	APHA 2510B

Conductivity of an aqueous solution refers to its ability to carry an electric current. Conductance of a solution is measured between two spatially fixed and chemically inert electrodes.

ETL-HARDNESS-TOT-WP	Water	Hardness Calculated	HARDNESS CALCULATED
ETL-SOLIDS-CALC-WP	Water	TDS calculated	CALCULATION
F1-F4-CALC-WP	Water	CCME Total Hydrocarbons	CCME CWS-PHC DEC-2000 - PUB# 1310-L

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

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-F4-WS-WP	Water	F2-F4 PHC method	EPA 3510/8000

This is the determination of the Petroleum Hydrocarbon fractions in water (F2, F3 and F4). A water sample volume of 200 mL in a 250 mL glass amber bottle is shaken with 10 mL hexane for two hours on a wrist action shaker, and then sonicated for 5 minutes. After extraction, the solvent layer is drawn off and analyzed against C10, C16 and C34 standards on a gas chromatograph equipped with a flame ionization detector.

FC-MPN-WP	Water	Fecal Coliform	APHA 9221A-C

The Most Probable Number (MPN) method is based on the Multiple Tube Fermentation technique. The results of examination of replicate tubes and

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
		dilutions of a sample are reported after confirmations specific to total coliform, fecal coliform and E. coli are performed. Results are reported in MPN/100 mL for water and MPN/gram for food and solid samples.	
IONBALANCE-OP05-WP	Water	Ion Balance Calculation No Reporting	APHA 1030E
MET-T-MS-WP	Water	Total Metals by ICP-MS	U.S. EPA 200.8-T
		Total Metals by ICP-MS: This analysis is carried out using sample preparation procedures adapted from Standard Methods for the examination of Water and Wastewater Method 3030E and analytical procedures adapted from U.S EPA Method 200.8 for analyis of metals by inductively coupled-mass spectrometery.	
NH3-COL-WP	Water	Ammonia by colour	APHA 4500 NH3 F
		Ammonia in water samples forms indophenol when reacted with hypochlorite and phenol. The intensity is amplified by the addition of sodium nitroprusside and measured colourmetrically.	
NO2+NO3-CALC-WP	Water	Nitrate+Nitrite	CALCULATION
NO2-IC-WP	Water	Nitrite as N by Ion Chromatography	EPA 300.1 (modified)
		Anions in aqueous matrices are analyzed using ion chromatography with conductivity and/or UV absorbance detectors.	
NO3-IC-WP	Water	Nitrate as N by Ion Chromatography	EPA 300.1 (modified)
		Anions in aqueous matrices are analyzed using ion chromatography with conductivity and/or UV absorbance detectors.	
OGG-TOT-WT	Water	Oil and Grease, Total	APHA 5520 B
		Sample is extracted with hexane, extract is then evaporated and the residue is weighed to determine total oil and grease.	
P-T-COL-WP	Water	Phosphorus, Total	APHA 4500 P PHOSPHORUS
		This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorous is determined colourimetrically after persulphate digestion of the sample.	
PAH,PANH-WP	Water	Polyaromatic Hydrocarbons (PAHs)	EPA SW 846/8270-GC/MS
		Water is spiked with a surrogate spike mix and extracted using solvent extraction techniques. Analysis is performed by GC/MS in the selected ion monitoring (SIM) mode.	
PH-WP	Water	pH	APHA 4500H
		The pH of a sample is the determination of the activity of the hydrogen ions by potentiometric measurement using a standard hydrogen electrode and a reference electrode.	
PHENOLS-4AAP-WT	Water	Phenol (4AAP)	EPA 9066
		An automated method is used to distill the sample. The distillate is then buffered to pH 9.4 which reacts with 4AAP and potassium ferricyanide to form a red complex which is measured colorimetrically.	
SO4-IC-WP	Water	Sulfate by Ion Chromatography	EPA 300.1 (modified)
		Anions in aqueous matrices are analyzed using ion chromatography with conductivity and/or UV absorbance detectors.	
SOLIDS-TOTSUS-WP	Water	Total Suspended Solids	APHA 2540 D (modified)
		Total suspended solids in aquesous matrices is determined gravimetrically after drying the residue at 103 105 C.	
TOC-WT	Water	Total Organic Carbon	APHA 5310B
		Sample is injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic cabon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.	

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

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
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

Chain of Custody Numbers:

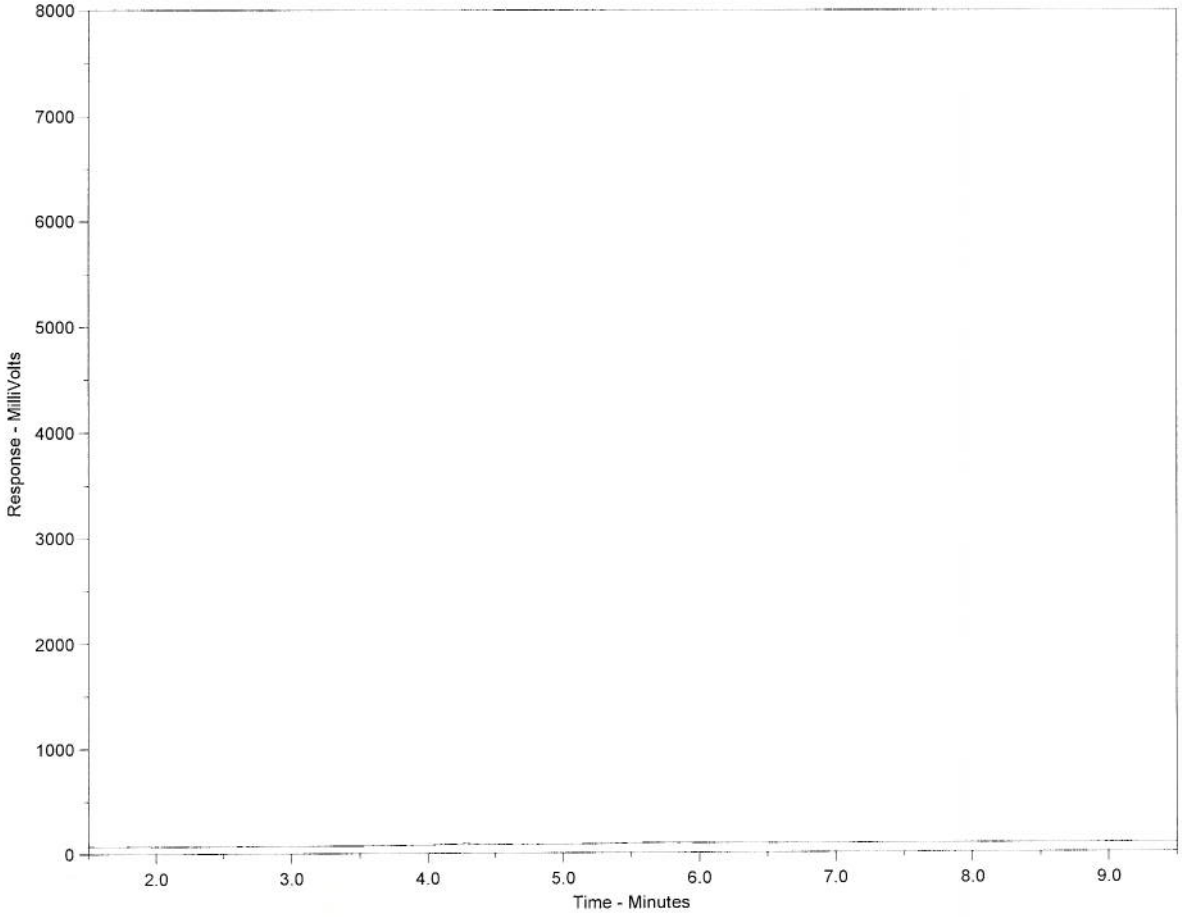
GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - 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.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Hydrocarbon Distribution Report

ALS Sample ID: L1167507-3
Client ID: CORAL HARBOUR 6



<-nC10---------nC16-------------------------nC34------------------nC50-------------------------------->
<-------nC11----------------------nC30-->
<----Gasoline--------------> <------------------Heavy Oils-->
|----------------Diesel----------------|

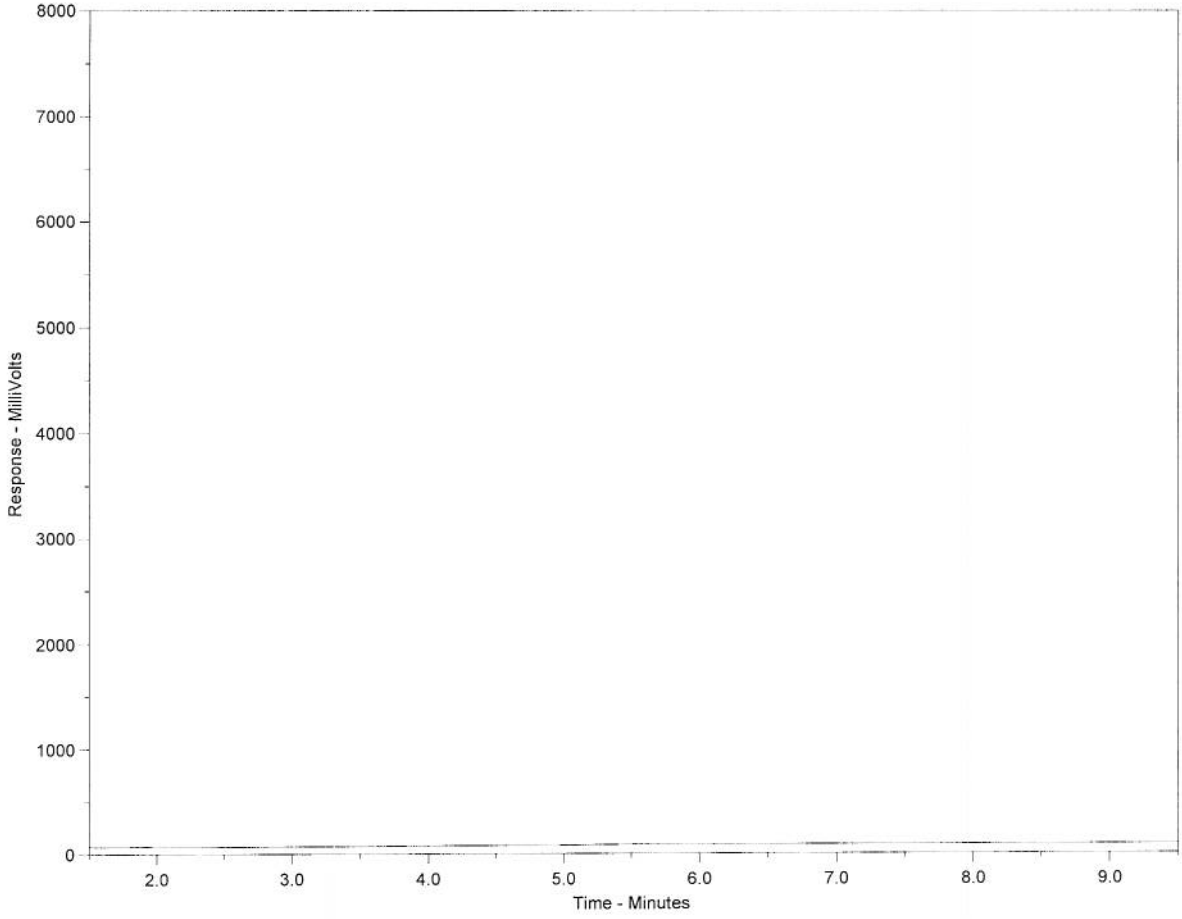
The Canada Wide Standard Hydrocarbon Distribution Report is intended to assist you in characterizing hydrocarbon products that may be present in your sample. The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products as well as a number of specified n-alkane hydrocarbon marker compounds. Comparison of this report with those of reference standards may also assist in characterizing hydrocarbons present in the sample.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced with a high temperature GC method that is specific to the Canada-Wide Standard method (December 2007 version). Note that retention times and distribution profiles from reports produced using different GC programs will differ.

Hydrocarbon Distribution Report

ALS Sample ID: L1167507-4
Client ID: CORAL HARBOUR 7



<-nC10---------nC16-------------------------nC34------------------nC50------------------------------>
<-------nC11----------------------nC30-->
<----Gasoline-------------> <-------------------Heavy Oils-->
|----------------Diesel----------------|

The Canada Wide Standard Hydrocarbon Distribution Report is intended to assist you in characterizing hydrocarbon products that may be present in your sample. The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products as well as a number of specified n-alkane hydrocarbon marker compounds. Comparison of this report with those of reference standards may also assist in characterizing hydrocarbons present in the sample.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced with a high temperature GC method that is specific to the Canada-Wide Standard method (December 2007 version). Note that retention times and distribution profiles from reports produced using different GC programs will differ.

L1167507-COFC

Chain of Custody / Analytical Request Form

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

COC # _____

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Report To		Report Format / Distribution	Service Requested (Rush for routine analysis subject to availability)
Company:	Hamlet of Coral Harbour	☑ Standard ☐ Other	◉ Regular (Standard Turnaround Times - Business Days)
Contact:	Leonie Pameolik	☑ PDF ☐ Excel ☐ Digital ☑ Fax	○ Priority (2-4 Business Days) - 50% Surcharge - Contact ALS to Confirm TAT
Address:	P.O. Box 30, Coral Harbour, NU X0C 0C0	Email 1: munch@qiniq.com	○ Emergency (1-2 Bus. Days) - 100% Surcharge - Contact ALS to Confirm TAT
		Email 2: mlusty@gov.nu.ca	○ Same Day or Weekend Emergency - Contact ALS to Confirm TAT
Phone:	(867) 925-8867 Fax: (867) 925-8233	Email 3:	
Invoice To	Same as Report ? ☑ Yes ☐ No	Client / Project Information	
Hardcopy of Invoice with Report?	☑ Yes ☐ No	Job #: Coral Harbour Monitoring Program	
Company:		PO / AFE:	
Contact:		LSD:	
Address:			
Phone:	Fax:	Quote #:	
Lab Work Order # (lab use only)		ALS Contact: Paul Nicolas	Sampler: Casey Pamenik

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Routine	BOD	Nutrients	Total Metals	Fecal Coliforms	Oil + Grease	Total Phenols	TOC	BTEX	TEH	PAH's		Number of Containers
	[redacted]	[redacted]															
	COR-4a	20-06-12	15:00	wastewater	X	X	P	P	P	P	P	P					8
	COR-4b	20-06-12	15:20	wastewater	X	X	P	P	P	P	P.	P					8
	~~COR-4c~~																
	[redacted]																
	COR-6	20-06-12	14:15	wastewater	X	X	P	P	P	P	P	P	P	P	P		15
	~~Field Blank~~																
	COR-7	20-06-12	14:00	wastewater	X	X	P	P	P	P	P	P	P	P	P		15

Analysis Request

Please indicate below Filtered, Preserved or both (F, P, F/P)

Special Instructions / Regulations with water or land use (CCME-Freshwater Aquatic Life/BC CSR - Commercial/AB Tier 1 - Natural, etc) / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as provided on a separate Excel tab.

Also provided on another Excel tab are the ALS location addresses, phone numbers and sample container / preservation / holding time table for common analyses.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date (dd-mmm-yy)	Time (hh-mm)	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
Casey Pamenik	June 20/2012	16:00	[redacted]	25 Jun 12	1511	11.8 °C				

GENF 20.00 Front