Gulf Coast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

05/25/10

Technical Report for

ENCANA

NPR Monthly Sampling

Pond

Accutest Job Number: T52267

Sampling Date: 05/07/10

Report to:

EnCana
2717 Co. Rd. 215
Parachute, CO 81635
daniel.prokop@encana.com; brett.middleton@encana.com;
Kevin.McDowell@encana.com
ATTN: Brett Middleton

Total number of pages in report: **80**

ACCUTEST LABORATORIES 50 YEARS 1956-2006

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Sylvia Garza 713-271-4700

Certifications: TX (T104704220-09C-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

Table of Contents

Sections: 1 2 3 4 5 6 7 8 9 10 11 12 13

Sample Summary

ENCANA

Job No: T52267

NPR Monthly Sampling
Project No: Pond

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
T52267-1	05/07/10	12:40	AS	05/08/10	AQ	Water	POND-050710
T52267-1F	05/07/10	12:40	AS	05/08/10	AQ	Water Filtered	POND-050710 (DISSOLVED)

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	ENCANA	**Job No**	T52267
Site:	NPR Monthly Sampling	**Report Date**	5/20/2010 2:30:09 PM

2 Sample(s), were collected on 05/07/2010 and were received at Accutest on 05/08/2010 properly preserved, at 0.8 Deg. C and intact. These Samples received an Accutest job number of T52267. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** VX545

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1MS, T52269-1MSD were used as the QC samples indicated.

Volatiles by GC By Method RSKSOP-147/175

Matrix AQ **Batch ID:** F:GFF213

- T52267 Analysis performed at Accutest Laboratories, Orlando, FL.

Volatiles by GC By Method SW846 8015

Matrix AQ **Batch ID:** GEE2787

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Volatiles by GC By Method SW846 8015B

Matrix AQ **Batch ID:** F:GXY1826

- T52267: Analysis performed at Accutest Laboratories, Orlando, FL.

Extractables by GC By Method SW846 8015 M

Matrix AQ **Batch ID:** OP14769

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52417-2MS, T52417-2MSD were used as the QC samples indicated.
- Sample(s) T52267-1 have surrogates outside control limits. Outside control limits due to dilution.

Metals By Method SW846 6010B

Matrix	AQ	Batch ID:	MP11766

- All samples were digested within the recommended method holding time.
- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52252-6DUP, T52252-6MS, T52252-6MSD, T52252-6SDL were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Antimony, Lithium, Titanium are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Antimony, Lithium, Titanium are outside control limits. Probable cause due to matrix interference.
- RPD(s) for Serial Dilution for Lead, Lithium, Beryllium, Boron, Cobalt, Nickel, Vanadium, Zinc are outside control limits for sample MP11766-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Matrix	AQ	Batch ID:	N:MP52689

- T52267 for Silicon: Analysis performed at Accutest Laboratories, Dayton, NJ.

Metals By Method SW846 7470A

Matrix	AQ	Batch ID:	MP11825

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52595-16DUP, T52595-16MS, T52595-16MSD were used as the QC samples for metals.
- Matrix Spike Recovery(s) for Mercury are outside control limits. Probable cause due to matrix interference.

Wet Chemistry By Method ASTM DEF

Matrix	AQ	Batch ID:	GN22864

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1DUP were used as the QC samples for Density.

Wet Chemistry By Method EPA 120.1

Matrix	AQ	Batch ID:	GN22830

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T51989-1DUP were used as the QC samples for Specific Conductivity.

Wet Chemistry By Method EPA 1664

Matrix	AQ	Batch ID:	GP8869

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52136-3DUP were used as the QC samples for HEM Oil And Grease.

Wet Chemistry By Method EPA 180.1

Matrix AQ **Batch ID:** GN22743

- All method blanks for this batch meet method specific criteria.
- Sample(s) T52267-1DUP were used as the QC samples for Turbidity.

Wet Chemistry By Method EPA 300/SW846 9056

Matrix AQ **Batch ID:** GN22882

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1MS, T52269-1DUP were used as the QC samples for Nitrogen, Nitrate.
- Matrix Spike Recovery(s) for Nitrogen, Nitrate are outside control limits. Probable cause due to matrix interference.
- RPD(s) for Duplicate for Nitrogen, Nitrate are outside control limits for sample GN22882-D1. High RPD acceptable due to low sample and duplicate concentration.

Matrix AQ **Batch ID:** GP8871

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1DUP, T52269-1MS were used as the QC samples for Chloride.

Matrix AQ **Batch ID:** GP8914

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52665-35DUP, T52665-35MS were used as the QC samples for Sulfate, Bromide, Fluoride, Sulfate.
- Matrix Spike Recovery(s) for Sulfate are outside control limits. Probable cause due to matrix interference.

Wet Chemistry By Method EPA 365.2

Matrix AQ **Batch ID:** GP8841

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52135-1DUP, T52135-1MS were used as the QC samples for Phosphorus, Total.

Wet Chemistry By Method SM 21 4500 NH3D

Matrix AQ **Batch ID:** GP8858

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52039-4DUP, T52039-4MS were used as the QC samples for Nitrogen, Ammonia.

Wet Chemistry By Method SM 2320B

Matrix AQ **Batch ID:** GN22772

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1DUP, T52269-1MS were used as the QC samples for Alkalinity, Total as CaCO3.

Wet Chemistry By Method SM 2340C

Matrix AQ **Batch ID:** GN22870

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1DUP, T52269-1MS were used as the QC samples for Hardness, Total as CaCO3.

Wet Chemistry By Method SM 2540C

Matrix AQ **Batch ID:** GN22748

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52206-1DUP were used as the QC samples for Solids, Total Dissolved.

Wet Chemistry By Method SM 2540D

Matrix AQ **Batch ID:** GN22754

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52366-4DUP were used as the QC samples for Solids, Total Suspended.

Wet Chemistry By Method SM 4500 CO2 D

Matrix AQ **Batch ID:** GN22771

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1DUP were used as the QC samples for Alkalinity, Bicarbonate.

Wet Chemistry By Method SM 4500H+B/9040

Matrix AQ **Batch ID:** GN22716

- Sample(s) T52267-1DUP were used as the QC samples for pH.

Wet Chemistry By Method SM 4500S+F

Matrix AQ **Batch ID:** GN22786

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM 5210B

Matrix AQ **Batch ID:** GP8836

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1DUP were used as the QC samples for BOD, 5 Day.

Wet Chemistry By Method SM 5220D

Matrix AQ **Batch ID:** GP8901

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52524-2DUP, T52524-2MS were used as the QC samples for Chemical Oxygen Demand.

Wet Chemistry By Method SM18 2320B

Matrix AQ **Batch ID:** GN22741

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1DUP were used as the QC samples for Alkalinity, Carbonate.

Wet Chemistry By Method SM18 4500CO2D

Matrix AQ **Batch ID:** GN22941

- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1DUP were used as the QC samples for Carbon Dioxide.

Wet Chemistry By Method SM21 9222B

Matrix AQ **Batch ID:** MB1459

- All method blanks for this batch meet method specific criteria.
- Sample(s) T52269-1DUP were used as the QC samples for Coliform, Total.
- RPD(s) for Duplicate for Coliform, Total are outside control limits for sample MB1459-DUP.

Wet Chemistry By Method SM21 9222D

Matrix AQ **Batch ID:** MB1445

- All method blanks for this batch meet method specific criteria.
- Sample(s) T52204-1DUP were used as the QC samples for Coliform, Fecal.

Wet Chemistry By Method SM21 9223B

Matrix AQ **Batch ID:** MB1447

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52205-1DUP were used as the QC samples for E. coli.

Wet Chemistry By Method SM4500 O C/EPA 360.1

Matrix AQ **Batch ID:** GN22940

- Sample(s) T52267-1DUP were used as the QC samples for Oxygen, Dissolved.

Wet Chemistry By Method SM5310B/9060A

Matrix	AQ	Batch ID:	GP8897

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52373-1DUP, T52373-1MS were used as the QC samples for Total Organic Carbon.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Accutest Laboratories Gulf Coast, Inc.	**Job No**	T52267
Site:	ENCACOP: Project NPR/MF Pond	**Report Date**	5/19/2010 5:12:23 PM

On 05/08/2010, 1 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 3.4 C. Samples were intact and properly preserved, unless noted below. An Accutest Job Number of T52267 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals By Method SW846 6010B

Matrix: AQ **Batch ID:** MP52689

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52267-1MSD, T52267-1SDL, T52267-1MS were used as the QC samples for metals.
- Matrix Spike / Matrix Spike Duplicate Recovery(s) for Silicon are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

Metals By Method SW846 6020

Matrix: AQ **Batch ID:** MP52689A

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T52267-1MS, T52267-1MSD, T52267-1SDL were used as the QC samples for metals.
- T52267-1 for Selenium: Elevated detection limit due to dilution required for matrix interference.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Accutest Laboratories Gulf Coast, Inc. **Job No:** T52267

Site: ENCACOP: Project NPR/MF Pond **Report Date** 5/17/2010 9:32:01 AM

1 Sample was collected on 05/07/2010 and was received at Accutest, SE on 05/12/2010 properly preserved, at 4.8 Deg. C and intact. This Sample received an Accutest job number of T52267. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC By Method RSKSOP-147/175

Matrix: AQ **Batch ID:** GFF213

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F73452-8ADUP, F73452-8AMS were used as the QC samples indicated.

Matrix Spike Recovery(s) for Methane are outside control limits. Outside control limits due to high level in sample relative to spike amount. For method performance in a clean matrix, refer to SB.

Volatiles by GC By Method SW846 8015B

Matrix: AQ **Batch ID:** GXY1826

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F73560-1MS, F73560-1MSD were used as the QC samples indicated.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

_____ Date: May 17, 2010

Lovelie Metzgar, QA Assistant (signature on file)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	POND-050710		
Lab Sample ID:	T52267-1	**Date Sampled:**	05/07/10
Matrix:	AQ - Water	**Date Received:**	05/08/10
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NPR Monthly Sampling		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0061283.D	500	05/13/10	JL	n/a	n/a	VX545
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	4.56	1.0	0.25	mg/l	
108-88-3	Toluene	9.22	1.0	0.22	mg/l	
100-41-4	Ethylbenzene	0.294	1.0	0.27	mg/l	J
1330-20-7	Xylene (total)	5.69	3.0	0.84	mg/l	
141-78-6	Ethyl Acetate	ND	5.0	5.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		79-122%
17060-07-0	1,2-Dichloroethane-D4	87%		75-121%
2037-26-5	Toluene-D8	90%		87-119%
460-00-4	4-Bromofluorobenzene	91%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	POND-050710		
Lab Sample ID:	T52267-1	**Date Sampled:**	05/07/10
Matrix:	AQ - Water	**Date Received:**	05/08/10
Method:	SW846 8015B	**Percent Solids:**	n/a
Project:	NPR Monthly Sampling		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	XY044011.D	1	05/13/10	AFL	n/a	n/a	F:GXY1826
Run #2							

	Initial Volume	Final Volume
Run #1	1.0 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	5.0	2.0	mg/l	
67-56-1	Methanol	76.3	5.0	2.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
111-27-3	Hexanol	90%		51-161%

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	POND-050710		
Lab Sample ID:	T52267-1	**Date Sampled:**	05/07/10
Matrix:	AQ - Water	**Date Received:**	05/08/10
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NPR Monthly Sampling		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	FF04940.D	1	05/13/10	AFL	n/a	n/a	F:GFF213
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.903	0.00050	0.00016	mg/l	

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	POND-050710		
Lab Sample ID:	T52267-1	**Date Sampled:**	05/07/10
Matrix:	AQ - Water	**Date Received:**	05/08/10
Method:	SW846 8015	**Percent Solids:**	n/a
Project:	NPR Monthly Sampling		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE054736.D	250	05/13/10	LB	n/a	n/a	GEE2787
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	79.0	13	1.5	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	112%		42-123%
98-08-8	aaa-Trifluorotoluene	101%		51-130%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	POND-050710		
Lab Sample ID:	T52267-1	**Date Sampled:**	05/07/10
Matrix:	AQ - Water	**Date Received:**	05/08/10
Method:	SW846 8015 M SW846 3510C	**Percent Solids:**	n/a
Project:	NPR Monthly Sampling		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF197228.D	10	05/12/10	EM	05/12/10	OP14769	GIB1003
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	16.7	1.0	0.23	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [a]		25-112%

(a) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: POND-050710
Lab Sample ID: T52267-1
Matrix: AQ - Water
Project: NPR Monthly Sampling

Date Sampled: 05/07/10
Date Received: 05/08/10
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Aluminum	0.654	0.20	0.017	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Antimony	0.015 U	0.025	0.015	mg/l	5	05/12/10	05/18/10	NS	SW846 6010B [4]	SW846 3010A [7]
Arsenic	0.0020 U	0.0050	0.0020	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Barium	46.1	1.0	0.014	mg/l	5	05/12/10	05/18/10	NS	SW846 6010B [4]	SW846 3010A [7]
Beryllium	0.00020 U	0.0050	0.00020	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Boron	6.25	0.10	0.0021	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Cadmium	0.00030 U	0.0040	0.00030	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Calcium	314	5.0	0.035	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Chromium	0.0019 U	0.010	0.0019	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Cobalt	0.0189 B	0.050	0.00080	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Copper	0.0059 U	0.025	0.0059	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Iron	17.9	0.10	0.013	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Lead	0.0017 U	0.0030	0.0017	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Lithium	3.51	0.30	0.0020	mg/l	1	05/12/10	05/18/10	NS	SW846 6010B [3]	SW846 3010A [7]
Magnesium	21.2	5.0	0.0078	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Manganese	0.675	0.015	0.0076	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Mercury	0.00057	0.00020	0.000094	mg/l	1	05/18/10	05/18/10	NS	SW846 7470A [2]	SW846 7470A [8]
Molybdenum	0.0077 B	0.010	0.0013	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Nickel	0.0032 U	0.040	0.0032	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Potassium	97.0	25	0.27	mg/l	5	05/12/10	05/18/10	NS	SW846 6010B [4]	SW846 3010A [7]
Selenium [a]	0.0202	0.0050	0.00028	mg/l	5	05/14/10	05/17/10	ANJ	SW846 6020 [5]	SW846 3010A [10]
Silicon [b]	42.7	0.40	0.029	mg/l	2	05/14/10	05/18/10	ANJ	SW846 6010B [6]	SW846 3010A [9]
Silver	0.00080 U	0.010	0.00080	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Sodium	5330	250	6.7	mg/l	50	05/12/10	05/18/10	NS	SW846 6010B [4]	SW846 3010A [7]
Strontium	29.6	0.20	0.0040	mg/l	10	05/12/10	05/18/10	NS	SW846 6010B [4]	SW846 3010A [7]
Thallium	0.0026 U	0.010	0.0026	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Titanium	0.00030 U	0.020	0.00030	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Vanadium	0.0012 B	0.050	0.00060	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]
Zinc	0.180	0.020	0.0041	mg/l	1	05/12/10	05/16/10	NS	SW846 6010B [1]	SW846 3010A [7]

(1) Instrument QC Batch: MA4747
(2) Instrument QC Batch: MA4750
(3) Instrument QC Batch: MA4751
(4) Instrument QC Batch: MA4752
(5) Instrument QC Batch: N:MA24294
(6) Instrument QC Batch: N:MA24307
(7) Prep QC Batch: MP11766
(8) Prep QC Batch: MP11825
(9) Prep QC Batch: N:MP52689
(10) Prep QC Batch: N:MP52689A

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	POND-050710		
Lab Sample ID:	T52267-1	**Date Sampled:**	05/07/10
Matrix:	AQ - Water	**Date Received:**	05/08/10
		Percent Solids:	n/a
Project:	NPR Monthly Sampling		

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method

(a) Elevated detection limit due to dilution required for matrix interference. Analysis performed at Accutest Laboratories, Dayton, NJ.
(b) Analysis performed at Accutest Laboratories, Dayton, NJ.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: POND-050710
Lab Sample ID: T52267-1
Matrix: AQ - Water
Project: NPR Monthly Sampling

Date Sampled: 05/07/10
Date Received: 05/08/10
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate	632	5.0	0.66	mg/l	1	05/17/10	MC	SM 4500 CO2 D
Alkalinity, Carbonate	0.66 U	5.0	0.66	mg/l	1	05/17/10	MC	SM18 2320B
Alkalinity, Total as CaCO3	632	5.0	1.7	mg/l	1	05/17/10	MC	SM 2320B
BOD, 5 Day	575	300	150	mg/l	1	05/08/10	YT	SM 5210B
Bromide	49.7	10	2.0	mg/l	20	05/20/10 15:51	BF	EPA 300/SW846 9056
Carbon Dioxide	225	5.0		mg/l	1	05/20/10	SS	SM18 4500CO2D
Chemical Oxygen Demand	1130	250	21	mg/l	5	05/18/10	SS	SM 5220D
Chloride	6620	500	190	mg/l	1000	05/14/10 18:19	BF	EPA 300/SW846 9056
Coliform, Fecal [a]	< 2	2		cfu/100ml	1	05/08/10 13:00	KJ	SM21 9222D
Coliform, Total [b]	150	1		cfu/100ml	1	05/10/10 12:00	MS	SM21 9222B
Density	1.0			g/ml	1	05/18/10 13:30	MC	ASTM DEF
E. coli [a]	< 1	1		mpn/100ml	1	05/08/10	KJ	SM21 9223B
Fluoride	32.3	2.5	1.3	mg/l	5	05/18/10 19:13	BF	EPA 300/SW846 9056
HEM Oil And Grease	4.2	2.0	0.90	mg/l	1	05/15/10	MC	EPA 1664
Hardness, Total as CaCO3	1000	50	15	mg/l	10	05/18/10 10:00	CV	SM 2340C
Hydrogen Sulfide	< 2.0	2.0		mg/l	1	05/18/10	CV	SM18 4500/EPA 376.1
Nitrogen, Ammonia [c]	6.0	0.40	0.0060	mg/l	4	05/14/10 10:27	BF	SM 21 4500 NH3D
Nitrogen, Nitrate	0.12 U	0.50	0.12	mg/l	1	05/08/10 20:36	BF	EPA 300/SW846 9056
Oxygen, Dissolved	11.3	1.0		mg/l	1	05/08/10 15:00	CF	SM4500 O C/EPA 360.1
Phosphorus, Total	0.53	0.10	0.050	mg/l	1	05/12/10 16:18	BG	EPA 365.2
Solids, Total Dissolved	15200	170	44	mg/l	1	05/12/10	BG	SM 2540C
Solids, Total Suspended	90.0	6.0	3.0	mg/l	1	05/12/10	CF	SM 2540D
Specific Conductivity	24800	1.0		umhos/cm	1	05/17/10 09:30	MC	EPA 120.1
Sulfate	5.7	2.5	0.75	mg/l	5	05/18/10 19:13	BF	EPA 300/SW846 9056
Total Organic Carbon	242	5.0	1.6	mg/l	5	05/18/10 12:35	MC	SM5310B/9060A
Turbidity	55.2	2.0	0.14	NTU	2	05/12/10 10:00	KD	EPA 180.1
pH	6.99			su	1	05/11/10 16:30	RR	SM 4500H+ B/9040

(a) Sample analyzed beyond hold time per client request.
(b) Analyzed outside holding time per client request.
(c) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	POND-050710 (DISSOLVED)		
Lab Sample ID:	T52267-1F	**Date Sampled:**	05/07/10
Matrix:	AQ - Water Filtered	**Date Received:**	05/08/10
		Percent Solids:	n/a
Project:	NPR Monthly Sampling		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfide	0.15 U	0.20	0.15	mg/l	1	05/14/10 11:00	KD	SM 4500S+ F

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

PAGE 1 OF 1

ACCUTEST Laboratories
10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: T52267

Client / Reporting Information

Company Name: Encana Oil & Gas (USA) Inc.
Street Address: 2717 Cr 215 Suite 100
City: Parachute State: Co. Zip: 81635
Project Contact: Brett Middleton E-mail: brett.middleton@encana.com
Phone #: 970.285.2739 Fax #:
Sampler(s) Name(s): Aaron Stacy Phone #:

Project Information

Project Name: NPR Monthly Sampling
Street:
City: State:
Project #:
Client Purchase Order #:
Project Manager:
Attention:

Billing Information (If different from Report to)

Company Name:
Street Address:
City: State: Zip:

Requested Analyses

See Attached

Accutest Sample #	Field ID / Point of Collection	Collection: Date	Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	ZnAcNaOH	HNO3	H2SO4	NONE	DI Water	MEOH	TSP	NaHSO4	ENCORE	OTHER	See Attached	LAB
	Pond-050710	05/07/10	1240	AS	WW	30	14			3	3	11							X	

Turnaround Time (Business days)
- [x] Standard
- [ ] 5 Day RUSH
- [ ] 4 Day RUSH
- [ ] 3 Day RUSH
- [ ] 2 Day RUSH
- [ ] 1 Day EMERGENCY

Emergency & Rush T/A data available VIA Lablink

Approved By (Accutest PM): / Date:

Data Deliverable Information
- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULT1 (Level 3+4)
- [ ] REDT1 (Level 3+4)
- [ ] Commercial "C"
- [ ] TRRP
- [x] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
Commercial "C" = Results + QC & Surrogate Summary

Comments / Special Instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		05/07/10 1730	1	2 Fed Ex	5/8/10	2
3	Relinquished by Sampler:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Intact / Not Intact	Preserved where applicable: On Ice: Cooler Temp: 0.8

T52267: Chain of Custody
Page 1 of 3

Analyte list

Encana Water Testing Quote - valid through 12/31/10.

Analyte/Test	Method
Metals	
23 TAL Metals, includes Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Na, Ni, Pb, Sb, Tl, V, Zn	6010
Boron	
Lithium	
Molybdenum	
Selenium	6020
Silicon	
Strontium	
Titanium	
Alkalinity	SM 2320B
Bicarbonate	SM 4500 CO2D "Calc"
Carbonate	SM 4500 CO2D "Calc"
Free Carbon Dioxide	SM 4500 CO2D "Calc"
Anions	300
Bromide	
Chloride	
Fluoride	
Nitrate	
Sulfate	
BOD	SM5210B
BTEX	8260
COD	410.4
Coliforms	
E Coli	
Total Coliform	
Fecal Coliform	
Density	2710F
Dissolved Oxygen	360
Dissolved Sulfide	SM 4500-S2 D
H2S Calculation	
Hardness	SM 2340C
Methanol	8015
Ethanol	8015
Ethyl Acetate	8260
Ammonia Nitrogen	350.3
Oil & Grease	1664
pH	9040C
Total Phosphorus	SM 4500 PE
Methane	RSK 175
TDS	SM 2540C
TOC	415.1
TPH	
GRO	8015
DRO	8015
Specific Conductance	120.1
TSS	SM 2540D
Turbidity	180.1

T52267: Chain of Custody
Page 2 of 3

SAMPLE RECEIPT LOG

JOB #: T52267

DATE/TIME RECEIVED: 5/8/11 1000

CLIENT: Enlana Oil & Gas

INITIALS: rf

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	Pond - 050710	05/07/10 1240	W	1 AG	1-2	1 JJ	(1) 2 3 4 5 6 7 8	<2 >12
↓	↓	↓	↓	↓	P500	3-4	"	1 2 (3) 4 5 6 7 8	<2 >12
					PLT	5-9	3R	(1) 2 3 4 5 6 7 8	<2 >12
					LCG	10	↓	(1) 2 3 4 5 6 7 8	<2 >12
					"	11-12		1 2 3 (4) 5 6 7 8	<2 >12
					PLt	13		1 2 3 (4) 5 6 7 8	<2 >12
					40ml	14-25	VR	1 (2) 3 4 5 6 7 8	<2 >12
					"	26-28	3R	1 (2) 3 4 5 6 7 8	<2 >12
					SpcCup	29-31	Micro	1 2 3 4 5 6 7 (8)	<2 >12
	2	Trip Blank	—	W	40ml	1-2	VR	1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
		rf	5/8/10					1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer

Rev 8/13/01 ewp

T52267: Chain of Custody
Page 3 of 3

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T52267
Account: ENCACOP ENCANA
Project: NPR Monthly Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX545-MB	X0061282.D	1	05/13/10	JL	n/a	n/a	VX545

The QC reported here applies to the following samples: **Method:** SW846 8260B

T52267-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	0.50	ug/l	
141-78-6	Ethyl Acetate	ND	10	10	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.55	ug/l	
108-88-3	Toluene	ND	2.0	0.43	ug/l	
1330-20-7	Xylene (total)	ND	6.0	1.7	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	90%	79-122%
17060-07-0	1,2-Dichloroethane-D4	90%	75-121%
2037-26-5	Toluene-D8	92%	87-119%
460-00-4	4-Bromofluorobenzene	91%	80-133%

Blank Spike Summary

Job Number: T52267
Account: ENCACOP ENCANA
Project: NPR Monthly Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX545-BS	X0061280.D	1	05/13/10	JL	n/a	n/a	VX545

The QC reported here applies to the following samples: **Method:** SW846 8260B

T52267-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.2	101	76-118
141-78-6	Ethyl Acetate	125	113	90	70-130
100-41-4	Ethylbenzene	25	26.0	104	75-112
108-88-3	Toluene	25	25.5	102	77-114
1330-20-7	Xylene (total)	75	78.6	105	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	90%	79-122%
17060-07-0	1,2-Dichloroethane-D4	84%	75-121%
2037-26-5	Toluene-D8	92%	87-119%
460-00-4	4-Bromofluorobenzene	91%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T52267
Account: ENCACOP ENCANA
Project: NPR Monthly Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T52269-1MS	X0061286.D	500	05/13/10	JL	n/a	n/a	VX545
T52269-1MSD	X0061287.D	500	05/13/10	JL	n/a	n/a	VX545
T52269-1 [a]	X0061285.D	500	05/13/10	JL	n/a	n/a	VX545

The QC reported here applies to the following samples: **Method:** SW846 8260B

T52267-1

CAS No.	Compound	T52269-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		12500	12900	103	12500	100	3	76-118/16
141-78-6	Ethyl Acetate	ND		62500	56700	91	62100	99	9	70-130/30
100-41-4	Ethylbenzene	ND		12500	13200	106	13000	104	2	75-112/12
108-88-3	Toluene	ND		12500	13100	105	13000	104	1	77-114/12
1330-20-7	Xylene (total)	ND		37500	39800	106	39500	105	1	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T52269-1	Limits
1868-53-7	Dibromofluoromethane	90%	89%	91%	79-122%
17060-07-0	1,2-Dichloroethane-D4	87%	87%	89%	75-121%
2037-26-5	Toluene-D8	92%	92%	91%	87-119%
460-00-4	4-Bromofluorobenzene	90%	90%	90%	80-133%

(a) Reported for QC purposes only.

GC Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T52267
Account: ENCACOP ENCANA
Project: NPR Monthly Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE2787-MB	EE054726.D	1	05/13/10	LB	n/a	n/a	GEE2787

The QC reported here applies to the following samples: **Method:** SW846 8015

T52267-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.050	0.0060	mg/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	77%	42-123%
98-08-8	aaa-Trifluorotoluene	93%	51-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: T52267
Account: ENCACOP ENCANA
Project: NPR Monthly Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE2787-BS	EE054723.D	1	05/13/10	LB	n/a	n/a	GEE2787
GEE2787-BSD	EE054724.D	1	05/13/10	LB	n/a	n/a	GEE2787

The QC reported here applies to the following samples: **Method:** SW846 8015

T52267-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	0.4	0.392	98	0.376	94	4	81-113/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	105%	105%	42-123%
98-08-8	aaa-Trifluorotoluene	102%	101%	51-130%

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T52267
Account: ENCACOP ENCANA
Project: NPR Monthly Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14769-MB	IF197229.D	1	05/12/10	EM	05/12/10	OP14769	GIF1003

The QC reported here applies to the following samples: **Method:** SW846 8015 M

T52267-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.10	0.023	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	68%	25-112%

Blank Spike Summary

Job Number: T52267
Account: ENCACOP ENCANA
Project: NPR Monthly Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14769-BS	IF197211.D	1	05/12/10	EM	05/12/10	OP14769	GIF1003

The QC reported here applies to the following samples: **Method:** SW846 8015 M

T52267-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (C10-C28)	1	0.538	54	22-84

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	66%	25-112%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T52267
Account: ENCACOP ENCANA
Project: NPR Monthly Sampling

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14769-MS	IF197212.D	1	05/12/10	EM	05/12/10	OP14769	GIB1003
OP14769-MSD	IF197213.D	1	05/12/10	EM	05/12/10	OP14769	GIF1003
T52417-2	IF197215.D	1	05/12/10	EM	05/12/10	OP14769	GIF1003

The QC reported here applies to the following samples: **Method:** SW846 8015 M

T52267-1

CAS No.	Compound	T52417-2 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	0.10	U	2	1.65	83	1.65	83	0	22-84/36

CAS No.	Surrogate Recoveries	MS	MSD	T52417-2	Limits
84-15-1	o-Terphenyl	84%	63%	76%	25-112%

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

QC Batch ID: MP11766
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/12/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.3	12	75.5	<200
Antimony	5.0	1	1	1.6	<5.0
Arsenic	5.0	1.7	1	-0.78	<5.0
Barium	200	.14	2.7	0.11	<200
Beryllium	5.0	.056	.16	-0.44	<5.0
Boron	100	1.1	2.1	10.5	<100
Cadmium	4.0	.11	.09	0.050	<4.0
Calcium	5000	5.4	25	3.3	<5000
Chromium	10	.23	.27	-0.62	<10
Cobalt	50	.15	.22	0.22	<50
Copper	25	.58	5.9	-1.5	<25
Iron	100	1.1	13	-31	<100
Lead	3.0	1	1.7	0.82	<3.0
Lithium	300	2	2	2.6	<300
Magnesium	5000	6.7	7.8	1.9	<5000
Manganese	15	.054	1.9	0.0	<15
Molybdenum	10	.39	.2	0.59	<10
Nickel	40	.69	1.4	0.23	<40
Potassium	5000	39	45	-18	<5000
Selenium	5.0	1.5	.98		
Silver	10	.85	.24	-0.54	<10
Sodium	5000	9.2	100	12.8	<5000
Strontium	10	.061	.4	0.42	<20
Thallium	10	.67	1.2	0.38	<10
Tin	20	.69	2.8		
Titanium	20	.29	.3	0.080	<20
Vanadium	50	.3	.3	0.10	<50
Zinc	20	.49	3.5	0.060	<20

Associated samples MP11766: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

QC Batch ID: MP11766
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/12/10 05/12/10

Metal	T52252-6 Original	DUP	RPD	QC Limits	T52252-6 Original	MS	Spikelot MPTW4	% Rec	QC Limits
Aluminum	70500	66400	6.0	0-20	70500	124000	50000	107.0	80-120
Antimony	0.0	0.0	NC	0-20	0.0	143	400	35.8N	80-120
Arsenic	42.5	41.5	2.4	0-20	42.5	407	400	91.1	80-120
Barium	683	664	2.8	0-20	683	1110	400	106.8	80-120
Beryllium	7.8	7.5	3.9	0-20	7.8	386	400	94.6	80-120
Boron	70.2	66.9	4.8	0-20	70.2	1040	1000	97.1	80-120
Cadmium	0.0	0.0	NC	0-20	0.0	380	400	95.0	80-120
Calcium	95300	93200	2.2	0-20	95300	145000	50000	99.4	80-120
Chromium	64.2	61.0	5.1	0-20	64.2	443	400	94.7	80-120
Cobalt	62.7	60.5	3.6	0-20	62.7	430	400	91.8	80-120
Copper	72.4	69.7	3.8	0-20	72.4	466	400	98.4	80-120
Iron	75200	71700	4.8	0-20	75200	121000	50000	91.6	80-120
Lead	44.9	43.7	2.7	0-20	44.9	421	400	94.0	80-120
Lithium	35.9	34.0	5.4	0-	35.9	421	200	192.6N	-
Magnesium	24600	23600	4.1	0-20	24600	73400	50000	97.6	80-120
Manganese	3490	3410	2.3	0-20	3490	3870	400	95.0	80-120
Molybdenum	9.2	8.7	5.6	0-20	9.2	354	400	86.2	80-120
Nickel	101	98.2	2.8	0-20	101	484	400	95.8	80-120
Potassium	7350	6970	5.3	0-20	7350	54500	50000	94.3	80-120
Selenium	anr								
Silver	0.0	0.0	NC	0-20	0.0	388	400	97.0	80-120
Sodium	45400	44400	2.2	0-20	45400	92800	50000	94.8	80-120
Strontium	241	235	2.5	0-	241	587	200	173.0	-
Thallium	0.0	0.0	NC	0-20	0.0	353	400	88.3	80-120
Tin									
Titanium	159	157	1.3	0-20	159	379	400	55.0N	80-120
Vanadium	88.5	84.1	5.1	0-20	88.5	474	400	96.4	80-120
Zinc	76.6	72.3	5.8	0-20	76.6	467	400	97.6	80-120

Associated samples MP11766: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

QC Batch ID: MP11766
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/12/10

Metal	T52252-6 Original	MSD	Spikelot MPTW4	% Rec	MSD RPD	QC Limit
Aluminum	70500	118000	50000	95.0	5.0	20
Antimony	0.0	137	400	34.3N	4.3	20
Arsenic	42.5	395	400	88.1	3.0	20
Barium	683	1070	400	96.8	3.7	20
Beryllium	7.8	378	400	92.6	2.1	20
Boron	70.2	1010	1000	94.0	2.9	20
Cadmium	0.0	371	400	92.8	2.4	20
Calcium	95300	140000	50000	89.4	3.5	20
Chromium	64.2	431	400	91.7	2.7	20
Cobalt	62.7	419	400	89.1	2.6	20
Copper	72.4	452	400	94.9	3.1	20
Iron	75200	116000	50000	81.6	4.2	20
Lead	44.9	409	400	91.0	2.9	20
Lithium	35.9	412	200	188.1N	2.2	
Magnesium	24600	71200	50000	93.2	3.0	20
Manganese	3490	3740	400	62.5 (a)	3.4	20
Molybdenum	9.2	346	400	84.2	2.3	20
Nickel	101	469	400	92.0	3.1	20
Potassium	7350	52500	50000	90.3	3.7	20
Selenium	anr					
Silver	0.0	378	400	94.5	2.6	20
Sodium	45400	89900	50000	89.0	3.2	20
Strontium	241	568	200	163.5	3.3	
Thallium	0.0	347	400	86.8	1.7	20
Tin						
Titanium	159	368	400	52.3N	2.9	20
Vanadium	88.5	459	400	92.6	3.2	20
Zinc	76.6	450	400	93.4	3.7	20

Associated samples MP11766: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

QC Batch ID: MP11766
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/12/10

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum	54300	50000	108.6	80-120
Antimony	398	400	99.5	80-120
Arsenic	400	400	100.0	80-120
Barium	453	400	113.3	80-120
Beryllium	414	400	103.5	80-120
Boron	1070	1000	107.0	80-120
Cadmium	419	400	104.8	80-120
Calcium	52300	50000	104.6	80-120
Chromium	413	400	103.3	80-120
Cobalt	404	400	101.0	80-120
Copper	418	400	104.5	80-120
Iron	51800	50000	103.6	80-120
Lead	412	400	103.0	80-120
Lithium	424	400	106.0	-
Magnesium	52200	50000	104.4	80-120
Manganese	415	400	103.8	80-120
Molybdenum	402	400	100.5	80-120
Nickel	423	400	105.8	80-120
Potassium	50400	50000	100.8	80-120
Selenium	anr			
Silver	417	400	104.3	80-120
Sodium	52000	50000	104.0	80-120
Strontium	365	200	182.5	-
Thallium	385	400	96.3	80-120
Tin				
Titanium	433	400	108.3	80-120
Vanadium	423	400	105.8	80-120
Zinc	428	400	107.0	80-120

Associated samples MP11766: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

QC Batch ID: MP11766
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/12/10

Metal	T52252-6 Original	SDL 1:5	%DIF	QC Limits
Aluminum	70500	75300	6.8	0-10
Antimony	0.00	0.00	NC	0-10
Arsenic	42.5	40.3	5.3	0-10
Barium	683	738	8.0	0-10
Beryllium	7.76	6.91	11.0*(a)	0-10
Boron	70.2	118	68.7*(a)	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium	95300	102000	7.4	0-10
Chromium	64.2	68.6	6.8	0-10
Cobalt	62.7	70.4	12.3*(a)	0-10
Copper	72.4	71.6	1.1	0-10
Iron	75200	81000	7.7	0-10
Lead	44.9	52.1	16.0 (b)	0-10
Lithium	35.9	44.0	22.7 (b)	0-
Magnesium	24600	26400	7.3	0-10
Manganese	3490	3800	9.0	0-10
Molybdenum	9.24	9.18	0.6	0-10
Nickel	101	116	15.1*(a)	0-10
Potassium	7350	7270	1.1	0-10
Selenium	anr			
Silver	0.00	0.00	NC	0-10
Sodium	45400	49500	9.0	0-10
Strontium	241	260	8.1* (a)	0-
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium	159	173	9.0	0-10
Vanadium	88.5	98.3	11.0*(a)	0-10
Zinc	76.6	106	38.8*(a)	0-10

Associated samples MP11766: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.
(b) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

QC Batch ID: MP11825 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/18/10

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.049	.094	-0.046	<0.20

Associated samples MP11825: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

QC Batch ID: MP11825
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 05/18/10 05/18/10

Metal	T52595-16 Original	DUP	RPD	QC Limits	T52595-16 Original	MS	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	0.0	0.0	NC	0-6.6	0.0	2.2	3	73.3N	78-118

Associated samples MP11825: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

QC Batch ID: MP11825 Methods: SW846 7470A
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 05/18/10

Metal	T52595-16 Original	MSD	Spikelot HGTXAQ40	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.5	3	83.3	12.8	

Associated samples MP11825: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

QC Batch ID: MP11825
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 05/18/10

Metal	BSP Result	Spikelot HGTXAQ40	% Rec	QC Limits
Mercury	3.2	3	106.7	80-120

Associated samples MP11825: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate	GN22771	5.0	2.0	mg/l				
Alkalinity, Carbonate	GN22741	5.0	0.0	mg/l				
Alkalinity, Total as CaCO3	GN22772	5.0	2.0	mg/l	2500	2400	96.0	80-120%
BOD, 5 Day	GP8836/GN22757	2.0	0.0	mg/l	400	388	97.0	70-136%
Bromide	GP8983/GN23060	0.50	0.0	mg/l	10	10.2	102.0	90-110%
Carbon Dioxide	GN22941	5.0	<5.0	mg/l				
Chemical Oxygen Demand	GP8901/GN22878	50	0.0	mg/l	500	498	99.6	90-110%
Chloride	GP8871/GN22815	0.50	0.0	mg/l	10	10.1	101.0	90-110%
Chloride	GP8914/GN22920	0.50	0.0	mg/l	10	9.99	99.9	90-110%
Coliform, Fecal	MB1445	2	<2	cfu/100ml	PRESENT	TNTC		-%
Coliform, Fecal	MB1445	2	<2	cfu/100ml				
Coliform, Total	MB1459	1	<1	cfu/100ml		PRESENT	100.0	-%
Density	GN22864		0.99	g/ml				
E. coli	MB1447	1	<1	mpn/100ml		1011.2	100.0	-%
Fluoride	GP8914/GN22920	0.50	0.0	mg/l	10	10.5	105.0	90-110%
HEM Oil And Grease	GP8869/GN22813	2.0	0.0	mg/l	40	36.6	91.5	78-114%
Hardness, Total as CaCO3	GN22870	5.0	0.0	mg/l	100	101	101.0	87-113%
Nitrogen, Ammonia	GP8858/GN22794	0.10	0.010(a)	mg/l	5.0	4.6	92.0(a)	81-121%
Nitrogen, Nitrate	GN22882	0.50	0.0	mg/l	10	10.1	101.0	90-110%
Phosphorus, Total	GP8841/GN22765	0.10	0.0	mg/l	0.5	0.49	97.8	80-120%
Solids, Total Dissolved	GN22748	10	0.0	mg/l	500	502	100.4	80-120%
Solids, Total Suspended	GN22754	2.0	0.0	mg/l	500	432	86.4	80-120%
Specific Conductivity	GN22830	1.0	<1.0	umhos/cm				
Sulfate	GP8914/GN22920	0.50	0.0	mg/l	10	9.96	99.6	90-110%
Sulfide	GN22786	0.20	0.0	mg/l	1600	1580	98.8	80-120%
Total Organic Carbon	GP8897/GN22865	1.0	0.0	mg/l	25	24.4	97.6	80-120%
Turbidity	GN22743	1.0	0.0	NTU				

Associated Samples:
Batch GN22741: T52267-1
Batch GN22743: T52267-1
Batch GN22748: T52267-1
Batch GN22754: T52267-1
Batch GN22771: T52267-1
Batch GN22772: T52267-1
Batch GN22786: T52267-1F
Batch GN22830: T52267-1
Batch GN22864: T52267-1
Batch GN22870: T52267-1
Batch GN22882: T52267-1
Batch GN22941: T52267-1
Batch GP8836: T52267-1
Batch GP8841: T52267-1
Batch GP8858: T52267-1
Batch GP8869: T52267-1
Batch GP8871: T52267-1
Batch GP8897: T52267-1
Batch GP8901: T52267-1
Batch GP8914: T52267-1
Batch GP8983: T52267-1
Batch MB1445: T52267-1
Batch MB1447: T52267-1
Batch MB1459: T52267-1
(*) Outside of QC limits
(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
HEM Oil And Grease	GP8869/GN22813	mg/l	40	38.7	5.6	
Sulfide	GN22786	mg/l	1600	1580	0.0	

Associated Samples:
Batch GN22786: T52267-1F
Batch GP8869: T52267-1
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Bicarbonate	GN22771	T52269-1	mg/l	368	295	0.7	0-20%
Alkalinity, Carbonate	GN22741	T52269-1	mg/l	5.1	5.2	0.8	0-20%
Alkalinity, Total as CaCO3	GN22772	T52269-1	mg/l	298	300	0.7	0-10%
BOD, 5 Day	GP8836/GN22757	T52269-1	mg/l	14.0	14.0	0.0	0-23%
Bromide	GP8983/GN23060	T52269-1	mg/l	0.10 U	0.0	0.0	0-20%
Carbon Dioxide	GN22941	T52269-1	mg/l	3.1 B	<5.0	1.8	0-20%
Chemical Oxygen Demand	GP8901/GN22878	T52524-2	mg/l	374	370	1.1	0-20%
Chloride	GP8871/GN22815	T52269-1	mg/l	542	552	1.8	0-20%
Chloride	GP8914/GN22920	T52665-35	mg/l	224	222	0.9	0-20%
Chloride	GP8914/GN22920	T52665-35	mg/l	224	222	0.9	0-20%
Coliform, Fecal	MB1445	T52204-1	cfu/100ml	<2	<2	0.0	0-20%
Coliform, Total	MB1459	T52269-1	cfu/100ml	280	310	100.0*	0-20%
Density	GN22864	T52269-1	g/ml	0.99	0.99	0.0	0-20%
E. coli	MB1447	T52205-1	mpn/100ml	<1	<1	0.0	0-20%
HEM Oil And Grease	GP8869/GN22813	T52136-3	mg/l	0.90 U	0.0	0.0	0-18%
Hardness, Total as CaCO3	GN22870	T52269-1	mg/l	232	233	0.4	0-10%
Nitrogen, Ammonia	GP8858/GN22794	T52039-4	mg/l	51.2	48.8(a)	4.8(a)	0-20%
Nitrogen, Nitrate	GN22882	T52269-1	mg/l	1.3	0.59	75.1*(b)	0-20%
Oxygen, Dissolved	GN22940	T52267-1	mg/l	11.3	11.3	0.3	0-20%
Phosphorus, Total	GP8841/GN22765	T52135-1	mg/l	0.39	0.39	0.5	0-20%
Solids, Total Dissolved	GN22748	T52206-1	mg/l	1010	1010	0.0	0-5%
Solids, Total Suspended	GN22754	T52366-4	mg/l	308	298	3.3	0-22%
Specific Conductivity	GN22830	T51989-1	umhos/cm	1590	1590	0.1	0-20%
Sulfate	GP8914/GN22920	T52665-35	mg/l	184	169	8.5	0-20%
Sulfate	GP8914/GN22920	T52665-35	mg/l	174	169	8.5	0-20%
Total Organic Carbon	GP8897/GN22865	T52373-1	mg/l	3.1	3.1	0.0	0-20%
Turbidity	GN22743	T52267-1	NTU	55.2	55.2	0.0	0-20%
pH	GN22716	T52267-1	su	6.99	7.01	0.3	0-6.8%

Associated Samples:
Batch GN22716: T52267-1
Batch GN22741: T52267-1
Batch GN22743: T52267-1
Batch GN22748: T52267-1
Batch GN22754: T52267-1
Batch GN22771: T52267-1
Batch GN22772: T52267-1
Batch GN22830: T52267-1
Batch GN22864: T52267-1
Batch GN22870: T52267-1
Batch GN22882: T52267-1
Batch GN22940: T52267-1
Batch GN22941: T52267-1
Batch GP8836: T52267-1
Batch GP8841: T52267-1
Batch GP8858: T52267-1
Batch GP8869: T52267-1
Batch GP8871: T52267-1
Batch GP8897: T52267-1
Batch GP8901: T52267-1
Batch GP8914: T52267-1
Batch GP8983: T52267-1
Batch MB1445: T52267-1
Batch MB1447: T52267-1
Batch MB1459: T52267-1
(*) Outside of QC limits
(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX
(b) High RPD acceptable due to low sample and duplicate concentration.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T52267
Account: ENCACOP - ENCANA
Project: NPR Monthly Sampling

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN22772	T52269-1	mg/l	298	25	324	104.0	79-122%
Bromide	GP8914/GN22920	T52665-35	mg/l	39.6	200	195	94.5	80-120%
Bromide	GP8914/GN22920	T52665-35	mg/l	6.1	200	195	94.5	80-120%
Bromide	GP8983/GN23060	T52269-1	mg/l	0.10 U	10	6.6	66.0N	80-120%
Chemical Oxygen Demand	GP8901/GN22878	T52524-2	mg/l	374	500	859	97.0	90-110%
Chloride	GP8871/GN22815	T52269-1	mg/l	542	100	654	112.0	80-120%
Chloride	GP8914/GN22920	T52665-35	mg/l	224	200	380	78.0N	80-120%
Chloride	GP8914/GN22920	T52665-35	mg/l	224	200	380	78.0N	80-120%
Fluoride	GP8914/GN22920	T52665-35	mg/l	5.0 U	200	189	94.1	80-120%
Fluoride	GP8914/GN22920	T52665-35	mg/l	0.71 B	200	189	94.1	80-120%
Hardness, Total as CaCO3	GN22870	T52269-1	mg/l	232	50	284	104.0	75-125%
Nitrogen, Ammonia	GP8858/GN22794	T52039-4	mg/l	51.2	50	91.8(a)	81.0(a)	66-131%
Nitrogen, Nitrate	GN22882	T52269-1	mg/l	1.3	10	4.8	35.0N	80-120%
Phosphorus, Total	GP8841/GN22765	T52135-1	mg/l	0.39	1.0	1.4	100.7	75-125%
Sulfate	GP8914/GN22920	T52665-35	mg/l	184	200	340	78.0N	80-120%
Sulfate	GP8914/GN22920	T52665-35	mg/l	174	200	340	78.0N	80-120%
Total Organic Carbon	GP8897/GN22865	T52373-1	mg/l	3.1	25	27.7	98.4	75-125%

Associated Samples:
Batch GN22772: T52267-1
Batch GN22870: T52267-1
Batch GN22882: T52267-1
Batch GP8841: T52267-1
Batch GP8858: T52267-1
Batch GP8871: T52267-1
Batch GP8897: T52267-1
Batch GP8901: T52267-1
Batch GP8914: T52267-1
Batch GP8983: T52267-1
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

Misc. Forms

Custody Documents and Other Forms

(Accutest Laboratories Southeast, Inc.)

Includes the following where applicable:

- Chain of Custody

SUBCONTRACT COC

ACCUTEST Laboratories
10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # T52267

Client Information

Company Name: Accutest Gulf Coast
Project Contact: Sylvia Garza
Email:
Address: 10165 Harwin Dr, Suite 150
City: Houston State: TX Zip: 77036
Phone No.: 713-271-4700

Subcontract Information

Subcontract Laboratory: Accutest Southeast
Laboratory Contact:
Email:
Address:
City: State: Zip:
Phone No.:

Requested Analyses

Accutest Sample Number	Collection Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH	HNO3	H2SO4	DI/MeOH	TSP	NONE	OTHER	Ethanol, Methanol	Methane	VGC+UNPR	LAB USE ONLY
T52267-1	05/07/10	1240	SW	6	6								X	X	X	

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Wastewater
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Liquid
SOL - Other Solid

Turnaround Time (Business days)

- [ ] STANDARD — Approved By:/ Date:
- [X] 7 Day
- [ ] 4 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*
- [ ] Other

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] TRRP-13
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

Samples are unpreserved

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		5/11/10 1700	FX	FX	05-12-10	J. Conrad (ACCUTEST) 07:00
2	Relinquished By:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3						
4	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable ☐	On Ice ☐ Cooler Temp. 4.8
5						

10.1 10

T52267: Chain of Custody
Page 1 of 2
Accutest Laboratories Southeast, Inc.

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: T52267 CLIENT: ALGC PROJECT: T52267

DATE/TIME RECEIVED: 05-12-10 0700 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ?

NUMBER OF 5035 FIELD KITS ?

NUMBER OR LAB FILTERED METALS ?

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR +0.4
- [ ] OBSERVED TEMPS: 4.4
- [ ] CORRECTED TEMPS: 4.8

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

(APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE JC 05-12-10 REVIEWER SIGNATURE/DATE PTM 5/12/10

NF 10/09 RECEIPT CONFIRMATION 100609 (2).xls

10.1 10

T52267: Chain of Custody
Page 2 of 2

GC Volatiles

QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T52267
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GXY1826-MB	XY044008.D	1	05/13/10	CW	n/a	n/a	GXY1826

The QC reported here applies to the following samples: **Method:** SW846 8015B

T52267-1

CAS No.	Compound	Result	RL	MDL	Units	Q
64-17-5	Ethanol	ND	5.0	2.0	mg/l	
67-56-1	Methanol	ND	5.0	2.0	mg/l	

CAS No.	Surrogate Recoveries		Limits
111-27-3	Hexanol	102%	51-161%

Method Blank Summary

Job Number: T52267
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF213-MB	FF04935.D	1	05/13/10	WV	n/a	n/a	GFF213

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

T52267-1

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	

Blank Spike Summary

Job Number: T52267
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GXY1826-BS	XY044009.D	1	05/13/10	CW	n/a	n/a	GXY1826

The QC reported here applies to the following samples: **Method:** SW846 8015B

T52267-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
64-17-5	Ethanol	100	101	101	60-150
67-56-1	Methanol	100	98.4	98	58-150

CAS No.	Surrogate Recoveries	BSP	Limits
111-27-3	Hexanol	87%	51-161%

Blank Spike Summary

Job Number: T52267
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF213-BS	FF04936.D	1	05/13/10	WV	n/a	n/a	GFF213

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

T52267-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	112	104	54-149

Matrix Spike Summary

Job Number: T52267
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F73452-8AMS	FF04939.D	1	05/13/10	WV	n/a	n/a	GFF213
F73452-8A	FF04937.D	1	05/13/10	WV	n/a	n/a	GFF213

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

T52267-1

CAS No.	Compound	F73452-8A ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	1150		108	1060	-83* [a]	54-149

(a) Outside control limits due to high level in sample relative to spike amount.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T52267
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GC10961-MS	XY044021.D	1	05/13/10	CW	n/a	n/a	GXY1826
GC10961-MSD	XY044022.D	1	05/13/10	CW	n/a	n/a	GXY1826
F73560-1	XY044010.D	1	05/13/10	CW	n/a	n/a	GXY1826

The QC reported here applies to the following samples: **Method:** SW846 8015B

T52267-1

CAS No.	Compound	F73560-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
64-17-5	Ethanol	54.8		100	157	102	158	103	1	60-150/13
67-56-1	Methanol	5.0	U	100	108	108	104	104	4	58-150/15

CAS No.	Surrogate Recoveries	MS	MSD	F73560-1	Limits
111-27-3	Hexanol	99%	102%	79%	51-161%

Duplicate Summary

Job Number: T52267
Account: ALGC Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F73452-8ADUP	FF04938.D	1	05/13/10	WV	n/a	n/a	GFF213
F73452-8A	FF04937.D	1	05/13/10	WV	n/a	n/a	GFF213

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

T52267-1

CAS No.	Compound	F73452-8A ug/l	Q	DUP ug/l	Q	RPD	Limits
74-82-8	Methane	1150		1190		3	24

Misc. Forms

Custody Documents and Other Forms

(Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody

SW

ACCUTEST Laboratories

SUBCONTRACT COC

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

Page 1 of 1

FED-EX Tracking #	Bottle Order Control #
793532575762	
Accutest Quote #	**Accutest Job #**
	T52267

Client Information			Subcontract Information		
Company Name: Accutest Gulf Coast			Subcontract Laboratory: Accutest New Jersey		
Project Contact: Sylvia Garza	Email:		Laboratory Contact:	Email:	
Address: 10165 Harwin Dr, Suite 150			Address:		
City: Houston	State: TX	Zip: 77036	City:	State:	Zip:
Phone No.: 713-271-4700			Phone No.:		

Accutest Sample Number	Collection Date	Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	DI/MeOH	TSP	NONE	OTHER	SEMS	LAB USE ONLY
T52267-1	05/07/10	1240	SW	1			1						X	ME 23

Matrix Codes
DW - Drinking Water
GW - Ground Water
WW - Wastewater
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Liquid
SOL - Other Solid

Turnaround Time (Business days)

- [ ] STANDARD
- [x] 7 Day
- [ ] 4 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By:/ Date:

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [x] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] TRRP-13
- [ ] EDD Format________
- [ ] Other________

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

MABTRS 5/12/10

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		1	2 [signature]	5/11/10 1750	2 Fedex
Relinquished by: 3 Fedex	Date Time: 5/12/10 0915	Received By: 3 [signature]	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice; Cooler Temp. 3.4°C

TAS 5/12/10

12.1

12

T52267: Chain of Custody
Page 1 of 2
Accutest New Jersey

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: T52267 **Client:** **Immediate Client Services Action Required:** No

Date / Time Received: 5/12/2010 **Delivery Method:** **Client Service Action Required at Login:** No

Project: **No. Coolers:** 1 **Airbill #'s:**

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Metals Analysis

QC Data Summaries

(Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/14/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	76	19		
Antimony	6.0	2.9	2.3		
Arsenic	8.0	4.8	2.6		
Barium	200	.5	.25		
Beryllium	1.0	.5	.21		
Cadmium	3.0	.7	.52		
Calcium	5000	62	13		
Chromium	10	.9	.56		
Cobalt	50	1.1	.52		
Copper	10	.8	.91		
Iron	100	45	24		
Lead	3.0	2.3	1.3		
Magnesium	5000	80	14		
Manganese	15	.5	.19		
Molybdenum	20	1.7	1.7		
Nickel	10	1.2	2		
Palladium	50	2	.69		
Potassium	10000	34	20		
Selenium	10	3.4	2.3		
Silicon	200	11	14	46.8	<200
Silver	10	.8	.52		
Sodium	10000	110	200		
Thallium	10	6.1	4.9		
Tin	10	2.5	2.2		
Vanadium	50	1.2	.78		
Zinc	20	2.8	1		

Associated samples MP52689: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/14/10

Metal	T52267-1 Original MS	Spikelot MPIOW7	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Potassium				
Selenium				
Silicon	42700	49100	2000	320.0(a) 75-125
Silver				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				
Zirconium				

Associated samples MP52689: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/14/10

Metal	T52267-1 Original	MSD	Spikelot MPIOW7	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Palladium						
Potassium						
Selenium						
Silicon	42700	47900	2000	260.0(a)	2.5	20
Silver						
Strontium						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						
Zirconium						

Associated samples MP52689: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:			05/14/10				05/14/10	
Metal	BSP Result	Spikelot MPIOW7	% Rec	QC Limits	LCS Result	Spikelot MPLCW3	% Rec	QC Limits
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Boron								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead								
Magnesium								
Manganese								
Molybdenum								
Nickel								
Palladium								
Potassium								
Selenium								
Silicon	4450	4000	111.0	80-120				
Silver								
Sodium								
Strontium								
Thallium								
Tin								
Titanium								
Tungsten								
Vanadium								
Zinc								
Zirconium								

Associated samples MP52689: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/14/10

Metal	T52267-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Palladium				
Potassium				
Selenium				
Silicon	42700	42200	1.1	0-10
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				
Zirconium				

Associated samples MP52689: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689A
Matrix Type: AQUEOUS

Methods: SW846 6020
Units: ug/l

Prep Date: 05/14/10

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	4.5	2.4		
Antimony	1.0	.034	.16		
Arsenic	2.0	.24	.36		
Barium	2.0	.066	.13		
Beryllium	1.0	.05	.11		
Boron	10	1.2	1.5		
Cadmium	1.0	.04	.13		
Calcium	500	47	16		
Chromium	8.0	.15	.3		
Cobalt	1.0	.016	.072		
Copper	8.0	.096	.46		
Iron	100	14	7.1		
Lead	1.0	.022	.05		
Magnesium	500	4.6	5.7		
Manganese	1.0	.14	.046		
Molybdenum	2.0	.28	.19		
Nickel	8.0	.11	.23		
Potassium	500	10	8.4		
Selenium	2.0	.17	.11	-0.083	<2.0
Silver	4.0	.026	.099		
Sodium	500	24	3		
Strontium	2.0	.05	.03		
Thallium	1.0	.048	.067		
Tin	10	.16	.11		
Titanium	2.0	.16	.21		
Uranium	2.0				
Vanadium	8.0	.98	1.5		
Zinc	8.0	1	1.7		

Associated samples MP52689A: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689A
Matrix Type: AQUEOUS

Methods: SW846 6020
Units: ug/l

Prep Date: 05/14/10

Metal	T52267-1 Original	MS	Spikelot MPIOW7	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	anr				
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead	anr				
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium	20.2	1740	2000	86.0	75-125
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP52689A: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689A
Matrix Type: AQUEOUS

Methods: SW846 6020
Units: ug/l

Prep Date: 05/14/10

Metal	T52267-1 Original	MSD	Spikelot MPIOW7	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	anr					
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead	anr					
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	20.2	1710	2000	84.5	1.7	20
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc						

Associated samples MP52689A: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689A
Matrix Type: AQUEOUS

Methods: SW846 6020
Units: ug/l

Prep Date: 05/14/10

Metal	LCS Result	Spikelot MPLCW3	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	415	500	83.0	80-120
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP52689A: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T52267
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.
Project: ENCACOP: Project NPR/MF Pond

QC Batch ID: MP52689A
Matrix Type: AQUEOUS

Methods: SW846 6020
Units: ug/l

Prep Date: 05/14/10

Metal	T52267-1 Original	SDL 5:10	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	anr			
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	20.2	20.0	1.4	0-10
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP52689A: T52267-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested