

MOSHER ENGINEERING LTD

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Date Received: 01-OCT-10

Report Date: 06-OCT-10 15:42 (MT)

Version: FINAL

Certificate of Analysis

Lab Work Order #: L938488

Project P.O. #: NOT SUBMITTED

Job Reference: RANKIN FARM 171

Legal Site Desc: C of C Numbers:

Robert S. Kitlar Account Manager

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ALS LABORATORY GROUP ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
_938488-1 TANK FARM PROJECT 171							
Sampled By: CLIENT on 27-SEP-10							
Matrix: WATER							
BTEX							
BTX by GCMS							
Benzene	< 0.00050		0.00050	mg/L		05-OCT-10	R1488719
Toluene	<0.0010		0.0010	mg/L		05-OCT-10	R1488719
Ethyl benzene	<0.00050		0.00050	mg/L		05-OCT-10	R1488719
o-Xylene	<0.0010	DLM	0.0010	mg/L		05-OCT-10	R1488719
m+p-Xylenes	<0.00050		0.00050	mg/L		05-OCT-10	R1488719
Xylenes F1 (C6-C10)	<0.0015		0.0015	mg/L		05-OCT-10 05-OCT-10	R1488719
Surrogate: 4-Bromofluorobenzene (SS)	<0.10 93		0.10 N/A	mg/L %		05-OCT-10 05-OCT-10	R1488719 R1488719
Single Metal in Water by ICPMS (Dis)	93		IN/A	/0		03-001-10	K1400719
Dissolved Metals by ICP-MS							
Lead (Pb)-Dissolved	<0.10	DLA	0.000090	mg/L	01-OCT-10	05-OCT-10	R1489584
Miscellaneous Parameters	- ,			3		-	
Total Oil and Grease	<1.0		1.0	mg/L	04-OCT-10	05-OCT-10	R1484791
Total Suspended Solids	<5.0		5.0	mg/L		04-OCT-10	R1488144
рН	7.39		0.10	pH units		01-OCT-10	R1486303

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

RANKIN FARM 171 L938488 CONTD....
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Reference Information

Sample Parameter Qualifier Key:

 Qualifier
 Description

 DLA
 Detection Limit Adjusted For required dilution

 DLM
 Detection Limit Adjusted For Sample Matrix Effects

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTEXS+F1-HSMS-WP	Water	BTX 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.

MET-D-L-MS-WP Water Dissolved Metals by ICP-MS U.S. EPA 200.8-DL

Dissolved 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 3030B for filtration through a 0.45 um filter and analytical procedures adapted from U.S EPA Method 200.8 for analysi of metals by inductively coupled-mass spectrometery.

OGG-IR-WP Water Total Oil and Grease APHA METHOD 5520C

PH-WP Water pH APHA 4500H

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.

SOLIDS-TOTSUS-WP Water Total Suspended Solids APHA 2540

The residue retained by a prepared 1.5 um Whatman 934-AH glass microfibre filter dried at 105 degrees 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 LABORATORY GROUP - WINNIPEG, MANITOBA, CANADA

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.

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ALS Laboratory Group
ANALYTICAL CHENSTRY & TESTING SERVICES

Environmental Division

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Chain of Custody / Analytical Request Form Canada Toll Free: 1 800 668 9878

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(Surcharges apply) For Emergency < 1 Day, ASAP or Weekend - Contact ALS Service Requested: (Rush subject to availability) Emergency (1 Business Day) - 100% Surcharge (Indicate Filtered or Preserved, F/P) Page Analysis Request Regular (Standard Turnaround Times)) 551 Priority, Date Req'd: 50 8TX 250 Sample Type Fax (hh:mm) www.alsglobal.com Time Digital Sampler: Other (specify): Job# Ran Kin Farm Report Format / Distribution Client / Project Information 37-9-16 (dd-mmm-yy) Excel Date Select: PDF PO / AFE: Standard: Contact: Quote #: Email 1: B37 159 Email 2: ALS LSD: Same as Report ? (circle) (es) or No (if No, provide details) (This description will appear on the report) Orosect Copy of Invoice with Report? (circle) respor No Sample Identification brt 10b Suite AH 202 869 Upper Water 61-419 0172 Fax: Fax:

Number of Containers

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

Special Instruction / Regulations / Hazardove Details

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. Verified by: Temperature: Time: Received by: 100 COS 100 Colo as

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