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**APPENDIX G**

**ANALYTICAL RESULTS**

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**ENVIRO-TEST FAXED ANALYSIS REPORT**

PROJECT INFORMATION:

COMPANY: DILLON CONSULTING LTD  
ATTENTION: MICHAEL GILL  
LAB WORK ORDER #: L134451  
PROJECT REFERENCE: 032374-1000  
PROJECT P.O.#: NA  
SAMPLED BY: MFG  
DATE RECEIVED: 07-OCT-03  
FAX NUMBER: 403-215-8889  
TECHNICAL QUESTIONS: KELLY JONES  
# of PAGES: 7

MESSAGE: Preliminary Results

Soils passed through 2mm sieve to remove coarse gravels; salinity performed on fines. Proportion of fines as follows:

sample # 3 39% fines

If you require results couriered immediately, check  and return by fax.

All results will be mailed unless otherwise notified.

All couriered results will be billed directly at cost.

If you did not receive all pages, Please notify 1-800-668-9878 as soon as possible

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17-OCT-03 06:32 PM

**ENVIRO-TEST ANALYTICAL REPORT**

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L134451-1 BH3@3.0								
Sample Date: 04-OCT-03 12:00								
Matrix: SOIL								
CCME TVHs and TEHs								
CCME Total Hydrocarbons								
F1 (C6-C10)	<5		5	mg/kg		13-OCT-03		
F1-BTEX	<5		5	mg/kg		13-OCT-03		
F2 (C10-C16)	<5		5	mg/kg		13-OCT-03		
F3 (C16-C34)	56		5	mg/kg		13-OCT-03		
F4 (C34-C50)	16		5	mg/kg		13-OCT-03		
Total Hydrocarbons (C6-C50)	72		5	mg/kg		13-OCT-03		
Chromatogram to baseline at nC50	YES					13-OCT-03		
CCME Total Extractable Hydrocarbons								
Prep/Analysis Dates					10-OCT-03	12-OCT-03	LDR	R148687
CCME BTEX								
Benzene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Toluene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Ethylbenzene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Xylenes	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
% Moisture	12		0.1	%	10-OCT-03	11-OCT-03	JPL	R148586
Metals (ICP/MS)								
Silver (Ag)	<0.2		0.2	mg/kg		10-OCT-03	MX	R148436
Aluminum (Al)	7880		50	mg/kg		10-OCT-03	MX	R148436
Arsenic (As)	4.4		0.1	mg/kg		10-OCT-03	MX	R148436
Boron (B)	7		2	mg/kg		10-OCT-03	MX	R148436
Barium (Ba)	125		0.5	mg/kg		10-OCT-03	MX	R148436
Beryllium (Be)	0.5		0.2	mg/kg		10-OCT-03	MX	R148436
Bismuth (Bi)	<0.5		0.5	mg/kg		10-OCT-03	MX	R148436
Calcium (Ca)	96700		100	mg/kg		10-OCT-03	MX	R148436
Cadmium (Cd)	0.3		0.1	mg/kg		10-OCT-03	MX	R148436
Cobalt (Co)	8.7		0.1	mg/kg		10-OCT-03	MX	R148436
Chromium (Cr)	16.5		0.2	mg/kg		10-OCT-03	MX	R148436
Copper (Cu)	18.9		0.5	mg/kg		10-OCT-03	MX	R148436
Iron (Fe)	20500		200	mg/kg		10-OCT-03	MX	R148436
Potassium (K)	1650		50	mg/kg		10-OCT-03	MX	R148436
Magnesium (Mg)	13600		20	mg/kg		10-OCT-03	MX	R148436
Manganese (Mn)	447		1	mg/kg		10-OCT-03	MX	R148436
Molybdenum (Mo)	1.4		0.1	mg/kg		10-OCT-03	MX	R148436
Sodium (Na)	200		100	mg/kg		10-OCT-03	MX	R148436
Nickel (Ni)	26.9		0.5	mg/kg		10-OCT-03	MX	R148436
Lead (Pb)	9.1		0.5	mg/kg		10-OCT-03	MX	R148436
Selenium (Se)	0.3		0.2	mg/kg		10-OCT-03	MX	R148436
Tin (Sn)	<2		2	mg/kg		10-OCT-03	MX	R148436
Strontium (Sr)	159		1	mg/kg		10-OCT-03	MX	R148436
Titanium (Ti)	46		1	mg/kg		10-OCT-03	MX	R148436
Thallium (Tl)	0.20		0.05	mg/kg		10-OCT-03	MX	R148436
Uranium (U)	1.02		0.05	mg/kg		10-OCT-03	MX	R148436
Vanadium (V)	22.6		0.2	mg/kg		10-OCT-03	MX	R148436
Zinc (Zn)	60		5	mg/kg		10-OCT-03	MX	R148436
L134451-2 BH6@3.0								
Sample Date: 04-OCT-03 12:00								
Matrix: SOIL								
CCME TVHs and TEHs								
CCME Total Hydrocarbons								

## ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L134451-2 BH6@3.0								
Sample Date: 04-OCT-03 12:00								
Matrix: SOIL								
<b>CCME TVHs and TEHs</b>								
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5		5	mg/kg		13-OCT-03		
F1-BTEX	<5		5	mg/kg		13-OCT-03		
F2 (C10-C16)	12		5	mg/kg		13-OCT-03		
F3 (C16-C34)	81		5	mg/kg		13-OCT-03		
F4 (C34-C50)	31		5	mg/kg		13-OCT-03		
Total Hydrocarbons (C6-C50)	120		5	mg/kg		13-OCT-03		
Chromatogram to baseline at nC50	YES					13-OCT-03		
<b>CCME Total Extractable Hydrocarbons</b>								
Prep/Analysis Dates					10-OCT-03	12-OCT-03	LDR	R148687
<b>CCME BTEX</b>								
Benzene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Toluene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Ethylbenzene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Xylenes	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
% Moisture	14		0.1	%	10-OCT-03	11-OCT-03	JPL	R148586
<b>Metals (ICP/MS)</b>								
Silver (Ag)	<0.2		0.2	mg/kg		10-OCT-03	MX	R148436
Aluminum (Al)	7080		50	mg/kg		10-OCT-03	MX	R148436
Arsenic (As)	4.4		0.1	mg/kg		10-OCT-03	MX	R148436
Boron (B)	7		2	mg/kg		10-OCT-03	MX	R148436
Barium (Ba)	139		0.5	mg/kg		10-OCT-03	MX	R148436
Beryllium (Be)	0.4		0.2	mg/kg		10-OCT-03	MX	R148436
Bismuth (Bi)	<0.5		0.5	mg/kg		10-OCT-03	MX	R148436
Calcium (Ca)	84200		100	mg/kg		10-OCT-03	MX	R148436
Cadmium (Cd)	0.2		0.1	mg/kg		10-OCT-03	MX	R148436
Cobalt (Co)	8.1		0.1	mg/kg		10-OCT-03	MX	R148436
Chromium (Cr)	19.2		0.2	mg/kg		10-OCT-03	MX	R148436
Copper (Cu)	19.2		0.5	mg/kg		10-OCT-03	MX	R148436
Iron (Fe)	16700		200	mg/kg		10-OCT-03	MX	R148436
Potassium (K)	1440		50	mg/kg		10-OCT-03	MX	R148436
Magnesium (Mg)	14000		20	mg/kg		10-OCT-03	MX	R148436
Manganese (Mn)	327		1	mg/kg		10-OCT-03	MX	R148436
Molybdenum (Mo)	1.2		0.1	mg/kg		10-OCT-03	MX	R148436
Sodium (Na)	200		100	mg/kg		10-OCT-03	MX	R148436
Nickel (Ni)	26.0		0.5	mg/kg		10-OCT-03	MX	R148436
Lead (Pb)	9.2		0.5	mg/kg		10-OCT-03	MX	R148436
Selenium (Se)	0.6		0.2	mg/kg		10-OCT-03	MX	R148436
Tin (Sn)	<2		2	mg/kg		10-OCT-03	MX	R148436
Strontium (Sr)	132		1	mg/kg		10-OCT-03	MX	R148436
Titanium (Ti)	63		1	mg/kg		10-OCT-03	MX	R148436
Thallium (Tl)	0.20		0.05	mg/kg		10-OCT-03	MX	R148436
Uranium (U)	1.28		0.05	mg/kg		10-OCT-03	MX	R148436
Vanadium (V)	22.2		0.2	mg/kg		10-OCT-03	MX	R148436
Zinc (Zn)	63		5	mg/kg		10-OCT-03	MX	R148436
L134451-3 BH6@0.3								
Sample Date: 04-OCT-03 12:00								
Matrix: SOIL								
<b>Basic Salinity</b>								

# ENVIRO-TEST ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
<b>L134451-3 BH8@0.3</b> Sample Date: 04-OCT-03 12:00 Matrix: SOIL								
<b>Basic Salinity</b>								
<b>pH and EC (Saturated Paste)</b>								
% Saturation	28.7		0.1	%		16-OCT-03	DHS	R149472
pH in Saturated Paste	7.6		0.1	pH		16-OCT-03	DHS	R149472
Conductivity Sat. Paste	3.61		0.03	dS m-1		16-OCT-03	DHS	R149472
<b>SAR</b>								
Calcium (Ca)	300		0.5	mg/L		16-OCT-03	KG	R149373
Potassium (K)	11.7		0.1	mg/L		16-OCT-03	KG	R149373
Magnesium (Mg)	70.1		0.1	mg/L		16-OCT-03	KG	R149373
Sodium (Na)	321		1	mg/L		16-OCT-03	KG	R149373
SAR	4.3			SAR		16-OCT-03	KG	R149373
<b>L134451-4 BH9@3.0</b> Sample Date: 04-OCT-03 12:00 Matrix: SOIL								
<b>CCME TVHs and TEHs</b>								
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5		5	mg/kg		13-OCT-03		
F1-BTEX	<5		5	mg/kg		13-OCT-03		
F2 (C10-C16)	11		5	mg/kg		13-OCT-03		
F3 (C16-C34)	99		5	mg/kg		13-OCT-03		
F4 (C34-C50)	35		5	mg/kg		13-OCT-03		
Total Hydrocarbons (C6-C50)	150		5	mg/kg		13-OCT-03		
Chromatogram to baseline at nC50	YES					13-OCT-03		
<b>CCME Total Extractable Hydrocarbons</b> Prep/Analysis Dates								
					10-OCT-03	12-OCT-03	LDR	R148687
<b>CCME BTEX</b>								
Benzene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Toluene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Ethylbenzene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Xylenes	0.02		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
% Moisture	16		0.1	%	10-OCT-03	11-OCT-03	JPL	R148586
<b>Metals (ICP/MS)</b>								
Silver (Ag)	<0.2		0.2	mg/kg		10-OCT-03	MX	R148436
Aluminum (Al)	8540		50	mg/kg		10-OCT-03	MX	R148436
Arsenic (As)	5.7		0.1	mg/kg		10-OCT-03	MX	R148436
Boron (B)	8		2	mg/kg		10-OCT-03	MX	R148436
Barium (Ba)	173		0.5	mg/kg		10-OCT-03	MX	R148436
Beryllium (Be)	0.5		0.2	mg/kg		10-OCT-03	MX	R148436
Bismuth (Bi)	<0.5		0.5	mg/kg		10-OCT-03	MX	R148436
Calcium (Ca)	77000		100	mg/kg		10-OCT-03	MX	R148436
Cadmium (Cd)	0.3		0.1	mg/kg		10-OCT-03	MX	R148436
Cobalt (Co)	9.1		0.1	mg/kg		10-OCT-03	MX	R148436
Chromium (Cr)	21.8		0.2	mg/kg		10-OCT-03	MX	R148436
Copper (Cu)	21.4		0.5	mg/kg		10-OCT-03	MX	R148436
Iron (Fe)	20300		200	mg/kg		10-OCT-03	MX	R148436
Potassium (K)	1770		50	mg/kg		10-OCT-03	MX	R148436
Magnesium (Mg)	11000		20	mg/kg		10-OCT-03	MX	R148436
Manganese (Mn)	338		1	mg/kg		10-OCT-03	MX	R148436
Molybdenum (Mo)	1.1		0.1	mg/kg		10-OCT-03	MX	R148436
Sodium (Na)	300		100	mg/kg		10-OCT-03	MX	R148436
Nickel (Ni)	30.2		0.5	mg/kg		10-OCT-03	MX	R148436

**ENVIRO-TEST ANALYTICAL REPORT**

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L134451-4 BH9@3.0 Sample Date: 04-OCT-03 12:00 Matrix: SOIL								
<b>Metals (ICP/MS)</b>								
Lead (Pb)	9.6		0.5	mg/kg		10-OCT-03	MX	R148436
Selenium (Se)	0.7		0.2	mg/kg		10-OCT-03	MX	R148436
Tin (Sn)	<2		2	mg/kg		10-OCT-03	MX	R148436
Strontium (Sr)	181		1	mg/kg		10-OCT-03	MX	R148436
Titanium (Ti)	26		1	mg/kg		10-OCT-03	MX	R148436
Thallium (Tl)	0.19		0.05	mg/kg		10-OCT-03	MX	R148436
Uranium (U)	1.12		0.05	mg/kg		10-OCT-03	MX	R148436
Vanadium (V)	23.2		0.2	mg/kg		10-OCT-03	MX	R148436
Zinc (Zn)	72		5	mg/kg		10-OCT-03	MX	R148436
L134451-6 BH12@0.3 Sample Date: 04-OCT-03 12:00 Matrix: SOIL								
<b>CCME TVHs and TEHs</b>								
<b>CCME Total Hydrocarbons</b>								
F1 (C6-C10)	<5		5	mg/kg		13-OCT-03		
F1-BTEX	<5		5	mg/kg		13-OCT-03		
F2 (C10-C16)	47		5	mg/kg		13-OCT-03		
F3 (C16-C34)	740		5	mg/kg		13-OCT-03		
F4 (C34-C50)	120		5	mg/kg		13-OCT-03		
Total Hydrocarbons (C6-C50)	910		5	mg/kg		13-OCT-03		
Chromatogram to baseline at nC50	YES					13-OCT-03		
<b>CCME Total Extractable Hydrocarbons</b>								
Prep/Analysis Dates					10-OCT-03	12-OCT-03	LDR	R148687
<b>CCME BTEX</b>								
Benzene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Toluene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Ethylbenzene	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
Xylenes	<0.01		0.01	mg/kg	10-OCT-03	11-OCT-03	JAG	R148686
% Moisture	9.5		0.1	%	10-OCT-03	11-OCT-03	JPL	R148586
<b>Metals (ICP/MS)</b>								
Silver (Ag)	<0.2		0.2	mg/kg		10-OCT-03	MX	R148436
Aluminum (Al)	7960		50	mg/kg		10-OCT-03	MX	R148436
Arsenic (As)	6.3		0.1	mg/kg		10-OCT-03	MX	R148436
Boron (B)	10		2	mg/kg		10-OCT-03	MX	R148436
Barium (Ba)	142		0.5	mg/kg		10-OCT-03	MX	R148436
Beryllium (Be)	0.5		0.2	mg/kg		10-OCT-03	MX	R148436
Bismuth (Bi)	<0.5		0.5	mg/kg		10-OCT-03	MX	R148436
Calcium (Ca)	92300		100	mg/kg		10-OCT-03	MX	R148436
Cadmium (Cd)	0.4		0.1	mg/kg		10-OCT-03	MX	R148436
Cobalt (Co)	8.3		0.1	mg/kg		10-OCT-03	MX	R148436
Chromium (Cr)	18.4		0.2	mg/kg		10-OCT-03	MX	R148436
Copper (Cu)	20.3		0.5	mg/kg		10-OCT-03	MX	R148436
Iron (Fe)	19100		200	mg/kg		10-OCT-03	MX	R148436
Potassium (K)	1900		50	mg/kg		10-OCT-03	MX	R148436
Magnesium (Mg)	11400		20	mg/kg		10-OCT-03	MX	R148436
Manganese (Mn)	345		1	mg/kg		10-OCT-03	MX	R148436
Molybdenum (Mo)	1.6		0.1	mg/kg		10-OCT-03	MX	R148436
Sodium (Na)	200		100	mg/kg		10-OCT-03	MX	R148436
Nickel (Ni)	26.4		0.5	mg/kg		10-OCT-03	MX	R148436

**ENVIRO-TEST ANALYTICAL REPORT**

Sample Details/Parameters	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By	Batch
L134451-6      BH12@0.3 Sample Date: 04-OCT-03 12:00 Matrix:        SOIL								
<b>Metals (ICP/MS)</b>								
Lead (Pb)	9.9		0.5	mg/kg		10-OCT-03	MX	R148436
Selenium (Se)	0.8		0.2	mg/kg		10-OCT-03	MX	R148436
Tin (Sn)	<2		2	mg/kg		10-OCT-03	MX	R148436
Strontium (Sr)	183		1	mg/kg		10-OCT-03	MX	R148436
Titanium (Ti)	59		1	mg/kg		10-OCT-03	MX	R148436
Thallium (Tl)	0.23		0.05	mg/kg		10-OCT-03	MX	R148436
Uranium (U)	1.28		0.05	mg/kg		10-OCT-03	MX	R148436
Vanadium (V)	23.5		0.2	mg/kg		10-OCT-03	MX	R148436
Zinc (Zn)	77		5	mg/kg		10-OCT-03	MX	R148436
Refer to Referenced Information for Qualifiers (if any) and Methodology.								

Reference Information

## Methods Listed (if applicable):

ETL Test Code	Matrix	Test Description	Preparation Method Reference(Based On)	Analytical Method Reference(Based On)
ETL-BTX,TVH-CCME-CL	Soil	CCME BTEX	CCME CWS-PHC DEC2000	CCME CWS-PHC Dec-2000 - Pub# 1310
ETL-TEH-CCME-CL	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC DEC2000	CCME CWS-PHC Dec-2000 - Pub# 1310
METAL-LOW-EXD-ED	Soil	Metals (ICP/MS)	EPA 3050	EPA 6020
PREP-MOISTURE-CL	Soil	% Moisture		Oven dry 105C-Gravimetric
SAR-CALC-CL	Soil	SAR		CSSS 18.4-Calculation
SAT/PH/EC-CL	Soil	pH and EC (Saturated Paste)		CSSS, Chp. 18 - Saturation Extract

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

Chain of Custody numbers:

L134451

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

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

Samples Requiring Regular Turnaround

Sample #	Client sample ID	Sample #	Client sample ID
L134451-1	BH3@3.0		
L134451-2	BH6@3.0		
L134451-3	BH8@0.3		
L134451-4	BH9@3.0		
L134451-5	BH11@0.3		
L134451-6	BH12@0.3		
L134451-7	BH7@0.3		
L134451-8	BH12@3.0		

GLOSSARY OF REPORT TERMS

*Surr* - A surrogate is an organic compound that is similar to the target analyte(s) in chemical composition and behavior but not normally detected in environmental samples. Prior to sample processing, samples are fortified with one or more surrogate compounds.

The reported surrogate recovery value provides a measure of method efficiency. The Laboratory warning units are determined under column heading D.L.

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

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

< - Less than

D.L. - Detection Limit

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

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

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

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

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

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