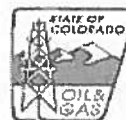
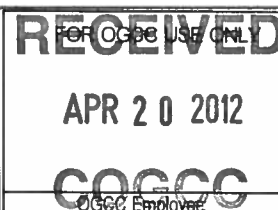


State of Colorado  
**Oil and Gas Conservation Commission**

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax: (303)894-2109



#7033



**SITE INVESTIGATION AND REMEDIATION WORKPLAN**

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

**CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED**

☐ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☒ Other (describe): Request to close out pit

OGCC Operator Number: 90450	Contact Name and Telephone: Erich J. Schmidt
Name of Operator: True Oil LLC	No: 307-266-0243
Address: P.O. Box 2360	Fax: 307-266-0252
City: Casper State: WY Zip: 82602	
API Number: 05-107-06240	County: Routt
Facility Name:	Facility Number: <u>Location ID = 418521</u>
Well Name: Breeze Unit	Well Number: 23-15
Location: (QtrQtr, Sec, Twp, Rng, Meridian): NESW Sec. 15, T6N- R89W 6th Latitude: 40.4732 Longitude: -107.3634	

**TECHNICAL CONDITIONS**

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Drill Cuttings/Soil

**Site Conditions:** Is location within a sensitive area (according to Rule 901e)? ☐ Y ☒ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Grazing

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Clay Loam

Potential receptors (water wells within 1/4 mi, surface waters, etc.): None

**Description of Impact** (if previously provided, refer to that form or document):

Impacted Media (check):	Extent of Impact:	How Determined:
<input checked="" type="checkbox"/> Soils	per analysis submitted to GOGCC	Nov 2011 Lab Analysis
<input type="checkbox"/> Vegetation		
<input type="checkbox"/> Groundwater		
<input type="checkbox"/> Surface Water		

**REMEDIALTION WORKPLAN**

**Describe initial action taken** (if previously provided, refer to that form or document):

Removed all contaminated soil. Resampled/tested soil samples.  
Per guidance from COGCC all contaminated soils/cuttings were disposed of at Twin Enviro landfill. Confirmation soil samples were then collected on 02/17/2012 and final laboratory analysis indicated that all associated parameters were within Table 910-1 threshold limits.

**Describe how source is to be removed:**

N/A

**Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, Insitu bioremediation, burning of oily vegetation, etc.:**

N/A



REMEDIAL WORKPLAN (Cont.)

Tracking Number: \_\_\_\_\_

Name of Operator: \_\_\_\_\_

OGCC Operator No: \_\_\_\_\_

Received Date: \_\_\_\_\_

Well Name & No: \_\_\_\_\_

Facility Name & No: \_\_\_\_\_

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COGCC

OGCC Employee: \_\_\_\_\_

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

None- not impacted.

**Describe reclamation plan.** Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

Reserve/Cuttings pit will be filled in to existing ground level as per COGCC regulations.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☐ Y ☒ N If yes, describe:

Baseline soil samples were tested from off location of the Breeze Unit 34-8 and arsenic levels were found to range from 3.9-7.1 mg/kg on 10/20/2010. Current tested samples from pit location are consistent with these levels.

**Final disposition of E&P waste** (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

Drill cuttings and contaminated soil removed and taken to Twin Enviro land fill in Milner CO.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: Sept 2010

Date Site Investigation Completed: \_\_\_\_\_

Date Remediation Plan Submitted: 13 July 2011

Remediation Start Date: Dec. 2011

Anticipated Completion Date: May 2012

Actual Completion Date: \_\_\_\_\_

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Erich J Schmidt

Signed: Erich J. Schmidt

Title: Petroleum Engineer

Date: 4/17/12

OGCC Approved: \_\_\_\_\_

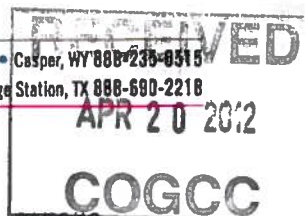
Title: Gene. Sup.

Date: 5/10/12



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## LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: True Oil Company  
Project: Breeze 23-15  
Lab ID: C12020362-001  
Client Sample ID: NW Corner

Report Date: 03/08/12  
Collection Date: 02/07/12 10:45  
Date Received: 02/08/12  
Matrix: Soil

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL CHARACTERISTICS</b>							
Moisture	11.7	%		0.1		D2974	02/09/12 16:16 / rw
<b>1:X SOIL:WATER</b>							
pH, 1:1	8.0	s.u.		0.1		ASA10-3	02/10/12 11:03 / jes
<b>SATURATED PASTE EXTRACT</b>							
Conductivity, sat. paste	0.51	mmhos/cm		0.01		ASAM10-3	02/14/12 11:41 / rw
Calcium, sat. paste	2.12	meq/L		0.05		SW6010B	02/21/12 17:34 / cp
Magnesium, sat. paste	1.43	meq/L		0.08		SW6010B	02/21/12 17:34 / cp
Sodium, sat. paste	1.72	meq/L		0.04		SW6010B	02/21/12 17:34 / cp
Sodium Adsorption Ratio (SAR)	1.3	unitless		0.1		Calculation	02/22/12 09:40 / bal
<b>METALS - TOTAL</b>							
Arsenic	7.6	mg/kg-dry		1.0		SW6020	02/14/12 01:09 / sml
Barium	202	mg/kg-dry		1.0		SW6020	02/14/12 01:09 / sml
Cadmium	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:09 / sml
Chromium	17.1	mg/kg		1.0		SW6020	02/14/12 01:09 / sml
Chromium, Hexavalent	ND	mg/kg		0.1		SW7196A	02/10/12 15:08 / lr
Chromium, Trivalent	17.1	mg/kg		1.0		Calculation	03/08/12 09:03 / sdw
Copper	20.6	mg/kg-dry		1.0		SW6020	02/14/12 01:09 / sml
Lead	16.5	mg/kg-dry		1.0		SW6020	02/14/12 01:09 / sml
Mercury	ND	mg/kg-dry		0.05		SW7471A	02/16/12 14:04 / rdw
Nickel, soluble	ND	mg/kg-dry		1.0		SW6010B	02/26/12 15:28 / sec
Selenium	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:09 / sml
Silver	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:09 / sml
Zinc	77.9	mg/kg-dry	D	4.6		SW6020	02/14/12 01:09 / sml
<b>METALS - CaCl<sub>2</sub> EXTRACTABLE</b>							
Boron	0.4	mg/kg-dry		0.2		SW6010B	02/21/12 20:25 / cp
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Benzene	ND	mg/kg		0.2		SW8260B	02/16/12 01:21 / jlr
Ethylbenzene	ND	mg/kg		0.2		SW8260B	02/16/12 01:21 / jlr
m+p-Xylenes	ND	mg/kg		0.2		SW8260B	02/16/12 01:21 / jlr
o-Xylene	ND	mg/kg		0.2		SW8260B	02/16/12 01:21 / jlr
Toluene	ND	mg/kg		0.2		SW8260B	02/16/12 01:21 / jlr
Xylenes, Total	ND	mg/kg		0.2		SW8260B	02/16/12 01:21 / jlr
Surr: 1,2-Dichlorobenzene-d4	96.0	%REC		70-130		SW8260B	02/16/12 01:21 / jlr
Surr: Dibromofluoromethane	101	%REC		70-130		SW8260B	02/16/12 01:21 / jlr
Surr: p-Bromofluorobenzene	101	%REC		70-130		SW8260B	02/16/12 01:21 / jlr
Surr: Toluene-d8	85.0	%REC		70-130		SW8260B	02/16/12 01:21 / jlr

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



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# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

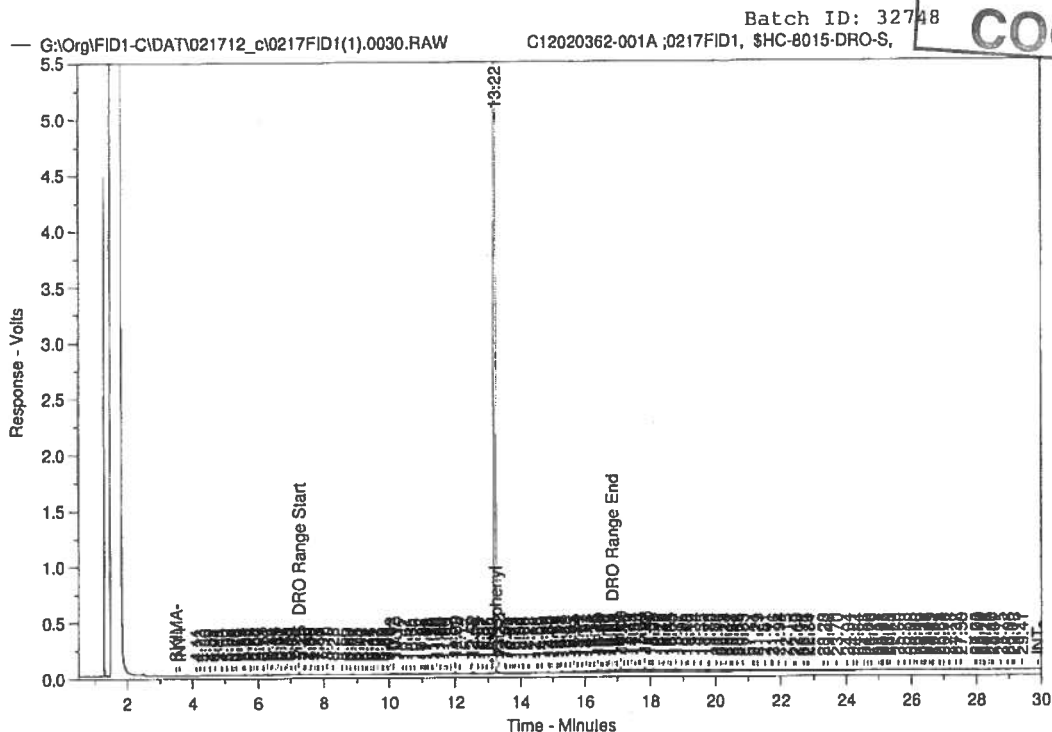
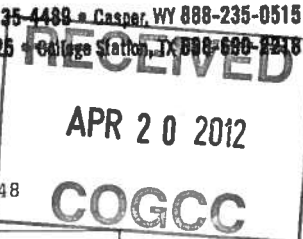
Client: True Oil Company  
Project: Breeze 23-15  
Lab ID: C12020362-001  
Client Sample ID: NW Corner

Report Date: 03/08/12  
Collection Date: 02/07/12 10:45  
Date Received: 02/08/12  
Matrix: Soil

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>ORGANIC CHARACTERISTICS</b>							
Diesel Range Organics (DRO)	ND	mg/kg		10		SW8015B	02/20/12 23:00 / bah
Total Extractable Hydrocarbons	ND	mg/kg		10		SW8015B	02/20/12 23:00 / bah
Surr: o-Terphenyl	70.0	%REC		50-150		SW8015B	02/20/12 23:00 / bah
Gasoline Range Organics (GRO)	ND	mg/kg		4.0		SW8015B	02/15/12 14:48 / jk
Total Purgeable Hydrocarbons	ND	mg/kg		4.0		SW8015B	02/15/12 14:48 / jk
Surr: Trifluorotoluene	93.0	%REC		50-115		SW8015B	02/15/12 14:48 / jk

Report Definitions: RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



**DIESEL RANGE ORGANICS CHROMATOGRAM**

Sample Name: C12020362-001A ;0217FID1, \$HC-8015-DRO-S,  
Raw File: G:\Org\FID1-C\DAT\021712\_c\0217FID1(1).0030.RAW  
Date & Time Acquired: 2/20/2012 23:00:01  
Method File: G:\org\FID1-C\Methods\FID1\_BASE\_CAL\_111111\_R7.met  
Calibration File: \\cxmgx\DRO\org\FID1-C\Cals\FID1\_111111\_R7.CAL  
Sample Weight: 30.2 Dilution: 1 S.A.: 1

Mean RF for Hydrocarbon Range Calculations: 33378.7  
Rt range for Diesel Range Organics (C10 to C28): 7.18 to 16.92  
Rt range for Oil Range Organics (C28 to C40+): 16.78 to End Time

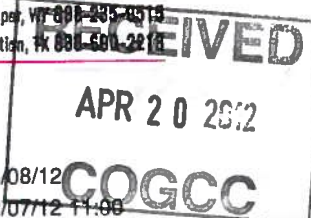
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	13.225	66.225	46.091	69.6

DRO Area:2004257	DRO AMOUNT: 1.988277
TEH Area:8532696	TEH AMOUNT: 8.464666
Oil Area:6434698	OIL AMOUNT: 6.383396



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# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: True Oil Company  
Project: Breeze 23-15  
Lab ID: C12020362-002  
Client Sample ID: SW Corner

Report Date: 03/08/12  
Collection Date: 02/07/12 11:00  
Date Received: 02/08/12  
Matrix: Soil

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL CHARACTERISTICS</b>							
Moisture	18.2	%		0.1		D2974	02/09/12 16:16 / rw
<b>1:X SOIL:WATER</b>							
pH, 1:1	8.0	s.u.		0.1		ASA10-3	02/10/12 11:03 / jes
<b>SATURATED PASTE EXTRACT</b>							
Conductivity, sat. paste	0.35	mmhos/cm		0.01		ASAM10-3	02/14/12 11:41 / rw
Calcium, sat. paste	1.53	meq/L		0.05		SW6010B	02/21/12 17:39 / cp
Magnesium, sat. paste	0.87	meq/L		0.08		SW6010B	02/21/12 17:39 / cp
Sodium, sat. paste	1.33	meq/L		0.04		SW6010B	02/21/12 17:39 / cp
Sodium Adsorption Ratio (SAR)	1.2	unitless		0.1		Calculation	02/22/12 09:40 / bal
<b>METALS - TOTAL</b>							
Arsenic	10.2	mg/kg-dry		1.0		SW6020	02/14/12 01:28 / sml
Barium	211	mg/kg-dry		1.0		SW6020	02/14/12 01:28 / sml
Cadmium	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:28 / sml
Chromium	14.8	mg/kg		1.0		SW6020	02/14/12 01:28 / sml
Chromium, Hexavalent	ND	mg/kg		0.1		SW7196A	02/10/12 15:08 / lr
Chromium, Trivalent	14.8	mg/kg		1.0		Calculation	03/08/12 09:03 / sdw
Copper	31.8	mg/kg-dry		1.0		SW6020	02/14/12 01:28 / sml
Lead	19.0	mg/kg-dry		1.0		SW6020	02/14/12 01:28 / sml
Mercury	ND	mg/kg-dry		0.05		SW7471A	02/16/12 14:10 / rdw
Nickel, soluble	ND	mg/kg-dry		1.0		SW6010B	02/26/12 15:28 / sec
Selenium	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:28 / sml
Silver	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:28 / sml
Zinc	83.1	mg/kg-dry	D	5.0		SW6020	02/14/12 01:28 / sml
<b>METALS - CACL2 EXTRACTABLE</b>							
Boron	0.5	mg/kg-dry		0.2		SW6010B	02/21/12 20:38 / cp
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Benzene	ND	mg/kg		0.2		SW8260B	02/16/12 01:57 / jlr
Ethylbenzene	ND	mg/kg		0.2		SW8260B	02/16/12 01:57 / jlr
m+p-Xylenes	ND	mg/kg		0.2		SW8260B	02/16/12 01:57 / jlr
o-Xylene	ND	mg/kg		0.2		SW8260B	02/16/12 01:57 / jlr
Toluene	ND	mg/kg		0.2		SW8260B	02/16/12 01:57 / jlr
Xylenes, Total	ND	mg/kg		0.2		SW8260B	02/16/12 01:57 / jlr
Surr: 1,2-Dichlorobenzene-d4	91.0	%REC		70-130		SW8260B	02/16/12 01:57 / jlr
Surr: Dibromofluoromethane	100	%REC		70-130		SW8260B	02/16/12 01:57 / jlr
Surr: p-Bromofluorobenzene	95.0	%REC		70-130		SW8260B	02/16/12 01:57 / jlr
Surr: Toluene-d8	73.0	%REC		70-130		SW8260B	02/16/12 01:57 / jlr

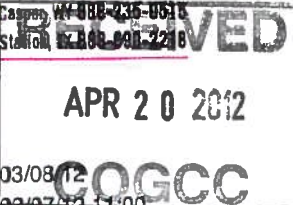
**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



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# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: True Oil Company  
Project: Breeze 23-15  
Lab ID: C12020362-002  
Client Sample ID: SW Corner

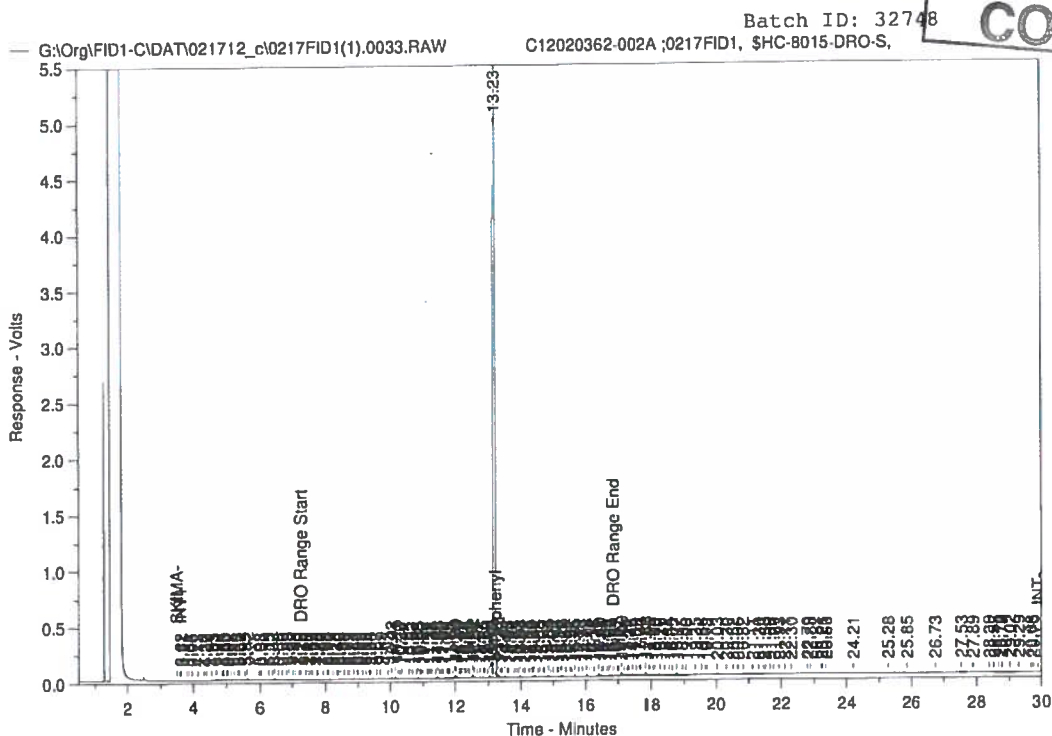
Report Date: 03/08/12  
Collection Date: 02/07/12 11:00  
Date Received: 02/08/12  
Matrix: Soil

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>ORGANIC CHARACTERISTICS</b>							
Diesel Range Organics (DRO)	ND	mg/kg		10		SW8015B	02/21/12 01:17 / bah
Total Extractable Hydrocarbons	ND	mg/kg		10		SW8015B	02/21/12 01:17 / bah
Surr: o-Terphenyl	80.0	%REC		50-150		SW8015B	02/21/12 01:17 / bah
Gasoline Range Organics (GRO)	ND	mg/kg		4.0		SW8015B	02/15/12 15:25 / jk
Total Purgeable Hydrocarbons	ND	mg/kg		4.0		SW8015B	02/15/12 15:25 / jk
Surr: Trifluorotoluene	83.0	%REC		50-115		SW8015B	02/15/12 15:25 / jk

Report Definitions: RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.





**DIESEL RANGE ORGANICS CHROMATOGRAM**

Sample Name: C12020362-002A ;0217FID1, \$HC-8015-DRO-S,  
Raw File: G:\Org\FID1-C\DAT\021712\_c\0217FID1(1).0033.RAW  
Date & Time Acquired: 2/21/2012 01:17:47  
Method File: G:\org\FID1-C\Methods\FID1\_BASE\_CAL\_111111\_R7.met  
Calibration File: \\cxmgx\DRO\org\FID1-C\Cals\FID1\_111111\_R7.CAL  
Sample Weight: 30.2 Dilution: 1 S.A.: 1

Mean RF for Hydrocarbon Range Calculations: 33378.7  
Rt range for Diesel Range Organics (C10 to C28): 7.18 to 16.92  
Rt range for Oil Range Organics (C28 to C40+): 16.78 to End Time

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	13.229	66.225	53.09	80.17

DRO Area:1486043	DRO AMOUNT: 1.474195
TEH Area:4486764	TEH AMOUNT: 4.450992
Oil Area:2704163	OIL AMOUNT: 2.682603





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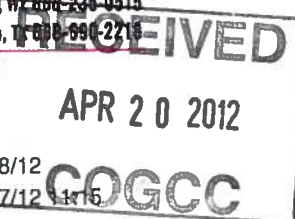
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## LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: True Oil Company  
Project: Breeze 23-15  
Lab ID: C12020362-003  
Client Sample ID: Middle

Report Date: 03/08/12  
Collection Date: 02/07/12  
Date Received: 02/08/12  
Matrix: Soil



Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL CHARACTERISTICS</b>							
Moisture	20.2	%		0.1		D2974	02/09/12 16:16 / rw
<b>1:X SOIL:WATER</b>							
pH, 1:1	8.0	s.u.		0.1		ASA10-3	02/10/12 11:03 / jes
<b>SATURATED PASTE EXTRACT</b>							
Conductivity, sat. paste	0.56	mmhos/cm		0.01		ASAM10-3	02/14/12 11:42 / rw
Calcium, sat. paste	2.69	meq/L		0.05		SW6010B	02/21/12 17:43 / cp
Magnesium, sat. paste	1.60	meq/L		0.08		SW6010B	02/21/12 17:43 / cp
Sodium, sat. paste	1.84	meq/L		0.04		SW6010B	02/21/12 17:43 / cp
Sodium Adsorption Ratio (SAR)	1.3	unitless		0.1		Calculation	02/22/12 09:40 / bal
<b>METALS - TOTAL</b>							
Arsenic	6.5	mg/kg-dry		1.0		SW6020	02/14/12 01:52 / sml
Barium	346	mg/kg-dry		1.0		SW6020	02/14/12 01:52 / sml
Cadmium	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:52 / sml
Chromium	11.1	mg/kg		1.0		SW6020	02/14/12 01:52 / sml
Chromium, Hexavalent	ND	mg/kg		0.1		SW7196A	02/10/12 15:08 / lr
Chromium, Trivalent	11.1	mg/kg		1.0		Calculation	03/08/12 09:03 / sdw
Copper	28.6	mg/kg-dry		1.0		SW6020	02/14/12 01:52 / sml
Lead	20.8	mg/kg-dry		1.0		SW6020	02/14/12 01:52 / sml
Mercury	ND	mg/kg-dry		0.05		SW7471A	02/16/12 14:11 / rdw
Nickel, soluble	ND	mg/kg-dry		1.0		SW6010B	02/26/12 15:28 / sec
Selenium	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:52 / sml
Silver	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:52 / sml
Zinc	78.3	mg/kg-dry	D	5.1		SW6020	02/14/12 01:52 / sml
<b>METALS - CaCl2 EXTRACTABLE</b>							
Boron	0.4	mg/kg-dry		0.2		SW6010B	02/21/12 20:46 / cp
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Benzene	ND	mg/kg		0.2		SW8260B	02/16/12 02:32 / jlr
Ethylbenzene	ND	mg/kg		0.2		SW8260B	02/16/12 02:32 / jlr
m+p-Xylenes	ND	mg/kg		0.2		SW8260B	02/16/12 02:32 / jlr
o-Xylene	ND	mg/kg		0.2		SW8260B	02/16/12 02:32 / jlr
Toluene	ND	mg/kg		0.2		SW8260B	02/16/12 02:32 / jlr
Xylenes, Total	ND	mg/kg		0.2		SW8260B	02/16/12 02:32 / jlr
Surr: 1,2-Dichlorobenzene-d4	102	%REC		70-130		SW8260B	02/16/12 02:32 / jlr
Surr: Dibromofluoromethane	112	%REC		70-130		SW8260B	02/16/12 02:32 / jlr
Surr: p-Bromofluorobenzene	108	%REC		70-130		SW8260B	02/16/12 02:32 / jlr
Surr: Toluene-d8	82.0	%REC		70-130		SW8260B	02/16/12 02:32 / jlr

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



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## LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

APR 20 2012

COGCC

Client: True Oil Company  
Project: Breeze 23-15  
Lab ID: C12020362-003  
Client Sample ID: Middle

Report Date: 03/08/12  
Collection Date: 02/07/12 14:15  
Date Received: 02/08/12  
Matrix: Soil

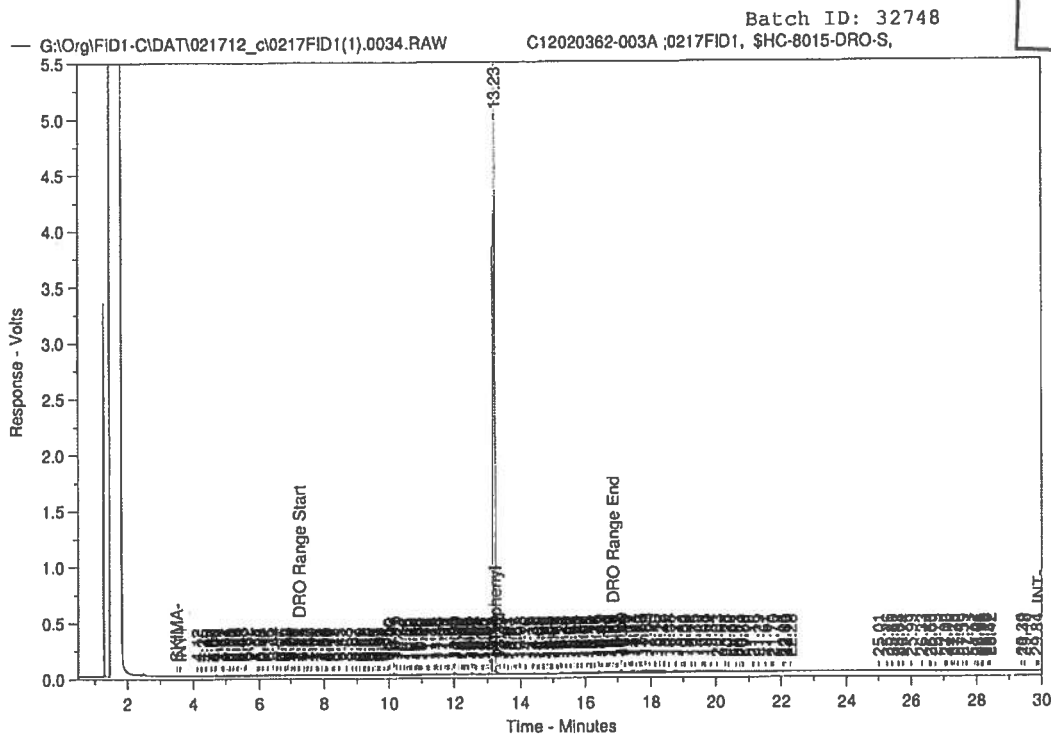
Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>ORGANIC CHARACTERISTICS</b>							
Diesel Range Organics (DRO)	ND	mg/kg		10		SW8015B	02/21/12 02:03 / bah
Total Extractable Hydrocarbons	ND	mg/kg		10		SW8015B	02/21/12 02:03 / bah
Surr: o-Terphenyl	76.0	%REC		50-150		SW8015B	02/21/12 02:03 / bah
Gasoline Range Organics (GRO)	ND	mg/kg		4.0		SW8015B	02/15/12 16:02 / jk
Total Purgeable Hydrocarbons	ND	mg/kg		4.0		SW8015B	02/15/12 16:02 / jk
Surr: Trifluorotoluene	83.0	%REC		50-115		SW8015B	02/15/12 16:02 / jk

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

APR 20 2012

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**DIESEL RANGE ORGANICS CHROMATOGRAM**

Sample Name: C12020362-003A ;0217FID1, \$HC-8015-DRO-S,  
Raw File: G:\Org\FID1-C\DAT\021712\_c\0217FID1(1).0034.RAW  
Date & Time Acquired: 2/21/2012 02:03:40  
Method File: G:\org\FID1-C\Methods\FID1\_BASE\_CAL\_111111\_R7.met  
Calibration File: \\cxmgx\DRO\org\FID1-C\Cals\FID1\_111111\_R7.CAL  
Sample Weight: 30.3 Dilution: 1 S.A.: 1

Mean RF for Hydrocarbon Range Calculations: 33378.7  
Rt range for Diesel Range Organics (C10 to C28): 7.18 to 16.92  
Rt range for Oil Range Organics (C28 to C40+): 16.78 to End Time

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	13.227	66.007	50.029	75.79

DRO Area:1533836	DRO AMOUNT: 1.516585
TEH Area:4878606	TEH AMOUNT: 4.823737
Oil Area:3083345	OIL AMOUNT: 3.048667



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# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: True Oil Company  
Project: Breeze 23-15  
Lab ID: C12020362-004  
Client Sample ID: NE Corner

Report Date: 03/08/12  
Collection Date: 02/07/12 11:30  
Date Received: 02/08/12  
Matrix: Soil

APR 20 2012

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Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL CHARACTERISTICS</b>							
Molsture	11.4	%		0.1		D2974	02/09/12 16:17 / rw
<b>1:X SOIL:WATER</b>							
pH, 1:1	7.8	s.u.		0.1		ASA10-3	02/10/12 11:03 / jes
<b>SATURATED PASTE EXTRACT</b>							
Conductivity, sat. paste	1.76	mmhos/cm		0.01		ASAM10-3	02/14/12 11:42 / rw
Calcium, sat. paste	5.70	meq/L		0.05		SW6010B	02/21/12 17:47 / cp
Magnesium, sat. paste	5.56	meq/L		0.08		SW6010B	02/21/12 17:47 / cp
Sodium, sat. paste	6.14	meq/L		0.04		SW6010B	02/21/12 17:47 / cp
Sodium Adsorption Ratio (SAR)	2.6	unitless		0.1		Calculation	02/22/12 09:40 / bal
<b>METALS - TOTAL</b>							
Arsenic	6.9	mg/kg-dry		1.0		SW6020	02/14/12 01:57 / sml
Barium	258	mg/kg-dry		1.0		SW6020	02/14/12 01:57 / sml
Cadmium	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:57 / sml
Chromium	18.5	mg/kg		1.0		SW6020	02/14/12 01:57 / sml
Chromium, Hexavalent	ND	mg/kg		0.1		SW7196A	02/10/12 15:08 / lr
Chromium, Trivalent	18.5	mg/kg		1.0		Calculation	03/08/12 09:03 / sdw
Copper	18.5	mg/kg-dry		1.0		SW6020	02/14/12 01:57 / sml
Lead	15.3	mg/kg-dry		1.0		SW6020	02/14/12 01:57 / sml
Mercury	ND	mg/kg-dry		0.05		SW7471A	02/16/12 14:12 / rdw
Nickel, soluble	ND	mg/kg-dry		1.0		SW6010B	02/26/12 15:28 / sec
Selenium	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:57 / sml
Silver	ND	mg/kg-dry		1.0		SW6020	02/14/12 01:57 / sml
Zinc	66.6	mg/kg-dry	D	4.6		SW6020	02/14/12 01:57 / sml
<b>METALS - CaCl2 EXTRACTABLE</b>							
Boron	0.4	mg/kg-dry		0.2		SW6010B	02/21/12 20:50 / cp
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Benzene	ND	mg/kg		0.2		SW8260B	02/16/12 03:08 / jlr
Ethylbenzene	ND	mg/kg		0.2		SW8260B	02/16/12 03:08 / jlr
m+p-Xylenes	ND	mg/kg		0.2		SW8260B	02/16/12 03:08 / jlr
o-Xylene	ND	mg/kg		0.2		SW8260B	02/16/12 03:08 / jlr
Toluene	ND	mg/kg		0.2		SW8260B	02/16/12 03:08 / jlr
Xylenes, Total	ND	mg/kg		0.2		SW8260B	02/16/12 03:08 / jlr
Surr: 1,2-Dichlorobenzene-d4	103	%REC		70-130		SW8260B	02/16/12 03:08 / jlr
Surr: Dibromofluoromethane	111	%REC		70-130		SW8260B	02/16/12 03:08 / jlr
Surr: p-Bromofluorobenzene	110	%REC		70-130		SW8260B	02/16/12 03:08 / jlr
Surr: Toluene-d8	84.0	%REC		70-130		SW8260B	02/16/12 03:08 / jlr

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



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# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

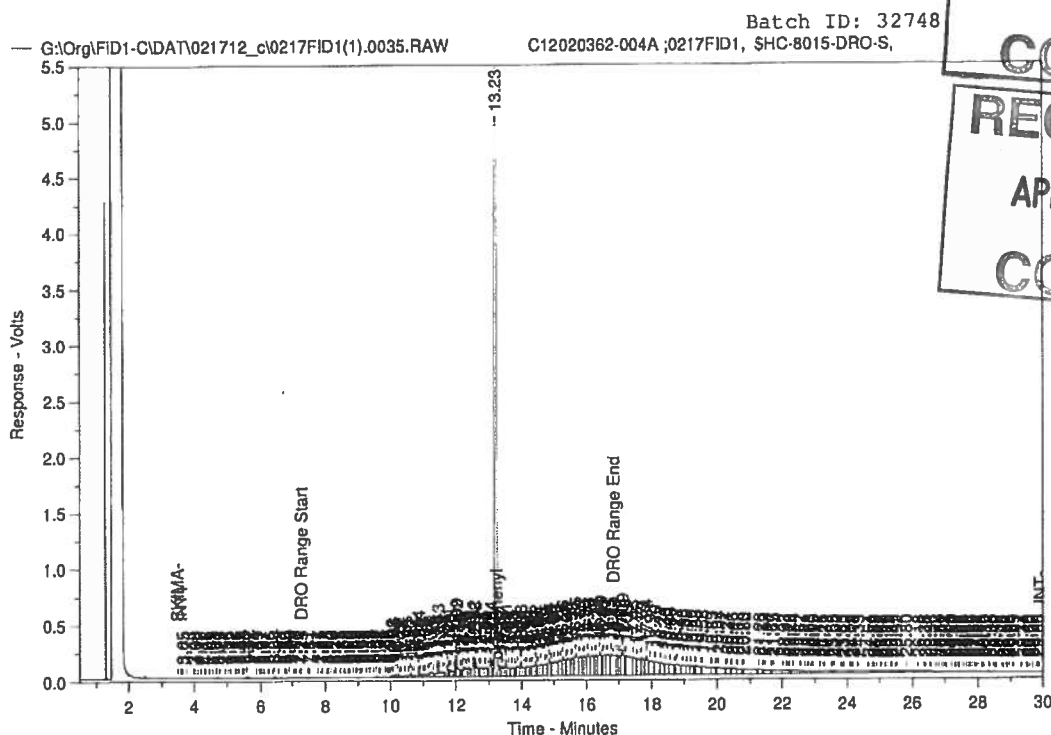
Client: True Oil Company  
Project: Breeze 23-15  
Lab ID: C12020362-004  
Client Sample ID: NE Corner

Report Date: 03/08/12  
Collection Date: 02/07/12 11:30  
Date Received: 02/08/12  
Matrix: Soil

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>ORGANIC CHARACTERISTICS</b>							
Diesel Range Organics (DRO)	37	mg/kg		10		SW8015B	02/21/12 02:49 / bah
Total Extractable Hydrocarbons	67	mg/kg		10		SW8015B	02/21/12 02:49 / bah
Surr: o-Terphenyl	85.0	%REC		50-150		SW8015B	02/21/12 02:49 / bah
Gasoline Range Organics (GRO)	ND	mg/kg		2.0		SW8015B	02/17/12 05:15 / jk
Total Purgeable Hydrocarbons	ND	mg/kg		2.0		SW8015B	02/17/12 05:15 / jk
Surr: Trifluorotoluene	71.0	%REC		50-115		SW8015B	02/17/12 05:15 / jk

Report Definitions: RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



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**DIESEL RANGE ORGANICS CHROMATOGRAM**

Sample Name: C12020362-004A ;0217FID1, \$HC-8015-DRO-S,  
Raw File: G:\Org\FID1-C\DAT\021712\_c\0217FID1(1).0035.RAW  
Date & Time Acquired: 2/21/2012 02:49:30  
Method File: G:\org\FID1-C\Methods\FID1\_BASE\_CAL\_111111\_R7.met  
Calibration File: \\cxmgx\DRO\org\FID1-C\Cals\FID1\_111111\_R7.CAL  
Sample Weight: 30.3 Dilution: 1 S.A.: 1

Mean RF for Hydrocarbon Range Calculations: 33378.7  
Rt range for Diesel Range Organics (C10 to C28): 7.18 to 16.92  
Rt range for Oil Range Organics (C28 to C40+): 16.78 to End Time

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.23	66.007	56.515	85.62	-

DRO Area: 3.773715E+07 DRO AMOUNT: 37.31273  
TEH Area: 6.79967E+07 TEH AMOUNT: 67.23196  
Oil Area: 3.057889E+07 OIL AMOUNT: 30.23497



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# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

APR 20 2012

Client: True Oil Company  
Project: Breeze 23-15  
Lab ID: C12020362-005  
Client Sample ID: SE Corner

Report Date: 03/08/12  
Collection Date: 02/07/12 11:45  
Date Received: 02/08/12  
Matrix: Soil

COGCC

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL CHARACTERISTICS</b>							
Moisture	9.0	%		0.1		D2974	02/09/12 16:17 / rw
<b>1:X SOIL:WATER</b>							
pH, 1:1	7.9	s.u.		0.1		ASA10-3	02/10/12 11:03 / jes
<b>SATURATED PASTE EXTRACT</b>							
Conductivity, sat. paste	1.89	mmhos/cm		0.01		ASAM10-3	02/14/12 11:43 / rv
Calcium, sat. paste	5.77	meq/L		0.05		SW6010B	02/21/12 18:03 / cp
Magnesium, sat. paste	4.30	meq/L		0.08		SW6010B	02/21/12 18:03 / cp
Sodium, sat. paste	8.33	meq/L		0.04		SW6010B	02/21/12 18:03 / cp
Sodium Adsorption Ratio (SAR)	3.7	unitless		0.1		Calculation	02/22/12 09:40 / bal
<b>METALS - TOTAL</b>							
Arsenic	6.7	mg/kg-dry		1.0		SW6020	02/14/12 02:01 / sml
Barium	148	mg/kg-dry		1.0		SW6020	02/14/12 02:01 / sml
Cadmium	ND	mg/kg-dry		1.0		SW6020	02/14/12 02:01 / sml
Chromium	19.0	mg/kg		1.0		SW6020	02/14/12 02:01 / sml
Chromium, Hexavalent	ND	mg/kg		0.1		SW7196A	02/10/12 15:08 / lr
Chromium, Trivalent	19.0	mg/kg		1.0		Calculation	03/08/12 09:03 / sdw
Copper	16.7	mg/kg-dry		1.0		SW6020	02/14/12 02:01 / sml
Lead	12.9	mg/kg-dry		1.0		SW6020	02/14/12 02:01 / sml
Mercury	ND	mg/kg-dry		0.05		SW7471A	02/16/12 14:16 / rdw
Nickel, soluble	ND	mg/kg-dry		1.0		SW6010B	02/26/12 15:28 / sec
Selenium	ND	mg/kg-dry		1.0		SW6020	02/14/12 02:01 / sml
Silver	ND	mg/kg-dry		1.0		SW6020	02/14/12 02:01 / sml
Zinc	58.8	mg/kg-dry	D	4.5		SW6020	02/14/12 02:01 / sml
<b>METALS - CaCl2 EXTRACTABLE</b>							
Boron	0.4	mg/kg-dry		0.2		SW6010B	02/21/12 20:54 / cp
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Benzene	ND	mg/kg		0.2		SW8260B	02/16/12 03:43 / jlr
Ethylbenzene	ND	mg/kg		0.2		SW8260B	02/16/12 03:43 / jlr
m+p-Xylenes	ND	mg/kg		0.2		SW8260B	02/16/12 03:43 / jlr
o-Xylene	ND	mg/kg		0.2		SW8260B	02/16/12 03:43 / jlr
Toluene	ND	mg/kg		0.2		SW8260B	02/16/12 03:43 / jlr
Xylenes, Total	ND	mg/kg		0.2		SW8260B	02/16/12 03:43 / jlr
Surr: 1,2-Dichlorobenzene-d4	103	%REC		70-130		SW8260B	02/16/12 03:43 / jlr
Surr: Dibromofluoromethane	110	%REC		70-130		SW8260B	02/16/12 03:43 / jlr
Surr: p-Bromofluorobenzene	110	%REC		70-130		SW8260B	02/16/12 03:43 / jlr
Surr: Toluene-d8	92.0	%REC		70-130		SW8260B	02/16/12 03:43 / jlr

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.  
D - RL increased due to sample matrix.

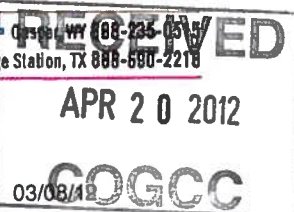
MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.





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# LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: True Oil Company  
Project: Breeze 23-15  
Lab ID: C12020362-005  
Client Sample ID: SE Corner

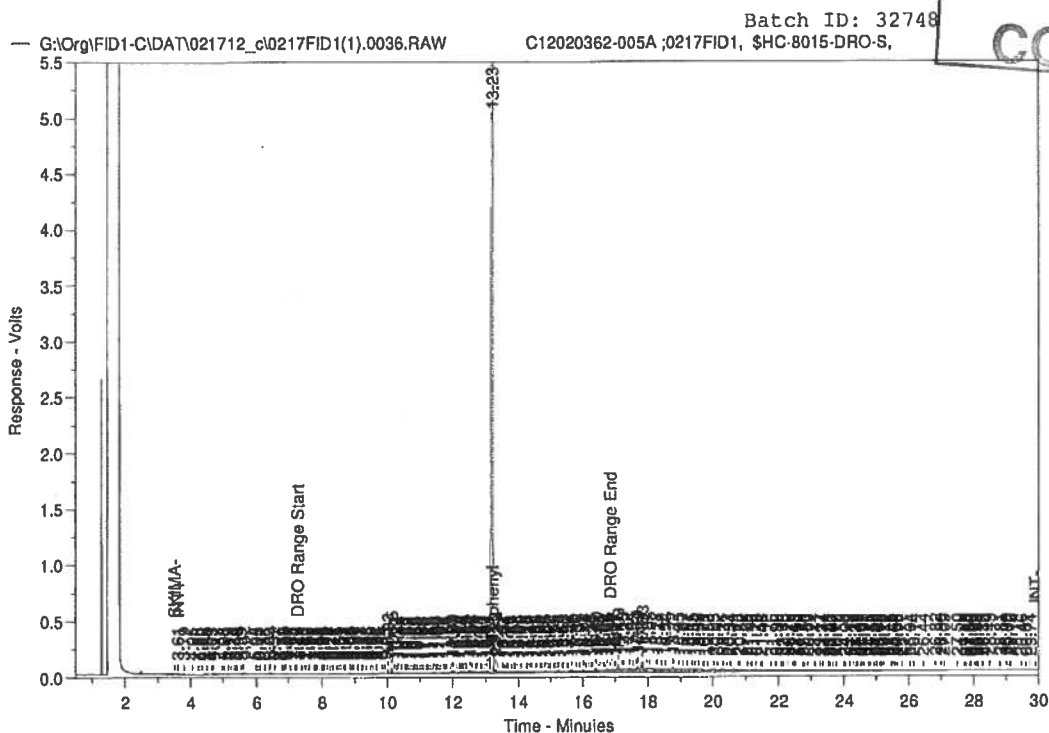
Report Date: 03/08/12  
Collection Date: 02/07/12 11:45  
Date Received: 02/08/12  
Matrix: Soil

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
<b>ORGANIC CHARACTERISTICS</b>							
Diesel Range Organics (DRO)	ND	mg/kg		10		SW8015B	02/21/12 03:35 / bah
Total Extractable Hydrocarbons	13	mg/kg		10		SW8015B	02/21/12 03:35 / bah
Surr: o-Terphenyl	79.0	%REC		50-150		SW8015B	02/21/12 03:35 / bah
Gasoline Range Organics (GRO)	ND	mg/kg		4.0		SW8015B	02/15/12 17:15 / jk
Total Purgeable Hydrocarbons	ND	mg/kg		4.0		SW8015B	02/15/12 17:15 / jk
Surr: Trifluorotoluene	87.0	%REC		50-115		SW8015B	02/15/12 17:15 / jk

Report Definitions: RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

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**DIESEL RANGE ORGANICS CHROMATOGRAM**

Sample Name: C12020362-005A ; 0217FID1, \$HC-8015-DRO-S,  
Raw File: G:\Org\FID1-C\DAT\021712\_c\0217FID1(1).0036.RAW  
Date & Time Acquired: 2/21/2012 03:35:25  
Method File: G:\org\FID1-C\Methods\FID1\_BASE\_CAL\_111111\_R7.met  
Calibration File: \\cxmgx\DRO\org\FID1-C\Cals\FID1\_111111\_R7.CAL  
Sample Weight: 30.4 Dilution: 1 S.A.: 1

Mean RF for Hydrocarbon Range Calculations: 33378.7  
Rt range for Diesel Range Organics (C10 to C28): 7.18 to 16.92  
Rt range for Oil Range Organics (C28 to C40+): 16.78 to End Time

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	13.229	65.789	52.262	79.44	-

DRO Area: 3485554	DRO AMOUNT: 3.435016
TEH Area: 1.278651E+07	TEH AMOUNT: 12.60112
Oil Area: 9179897	OIL AMOUNT: 9.046796