

MARTIN YATES, III  
1912-1985

FRANK W. YATES  
1936-1986

S.P. YATES  
1914-2008



105 SOUTH FOURTH STREET  
ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471

[www.yatespetroleum.com](http://www.yatespetroleum.com)

JOHN A. YATES  
CHAIRMAN EMERITUS

JOHN A. YATES JR.  
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May 21, 2015

Dr. Tomáš 'Doc' Oberding, PhD  
NMOCD District I  
1625 N. French Dr.  
Hobbs, NM 88240

**RECEIVED**

*By OCD; Dr. Oberding at 10:58 am, May 21, 2015*

RE: Date BTB State Com #4H  
30-025-41377  
Section 14, T21S-R33E  
Lea County, New Mexico

**APPROVED**

*By OCD; Dr. Oberding at 10:59 am, May 21, 2015*

Dr. Oberding,

Yates Petroleum Corporation would like to submit the following closure letter and documentation to you regarding the release that occurred at the above mentioned facility on February 19, 2015 (1RP-3545).

The release was 20 barrels of crude oil with 0 barrels of oil recovered. The release occurred when production was setting a packer in the well, and while circulating packer fluid a hose that was connected to a vacuum truck busted. The release was contained on the production well pad and is represented by the red outline on the attached site diagram (please note that this drawing is not to scale). Photo documentation and all analytical results are also attached to this letter for your review.

The site was initially visited on March 4, 2015 and site pictures were taken of the release area. On March 12, 2015 initial samples were taken from the surface of the production pad. Due to the compaction of the caliche, personnel were not able to sample past the surface. The surface sample was sent to a NMOCD approved laboratory on March 13, 2015. Analytical results (H500699) for this sample was received on March 20, 2015 and it was determined that TPH was above NMCOCD RRAL's with a result of 7,686 mg/kg. Personnel returned to the site on March 26, 2015 and further sampled the release area to 6" and 1' below the surface level. Analytical results (H500822) for these samples were received on March 31, 2015 and showed TPH levels to be below NMCOCD RRAL's with results of 45.7 mg/kg at 6" and 27.2 mg/kg at 1'.

On April 7, 2015 Yates personnel had a phone conversation with Dr. Tomáš Oberding concerning this site. Since this spill was only crude oil, Yates proposed to spray the impacted well pad area with a microblaze solution. An email confirmation was sent to Dr. Oberding of the phone conversation and he conditionally approved what had been proposed by Yates.

On April 16, 2015 Yates had a dirt work contractor out on location to scrape/rip the release area with a box blade and rippers. The release area was ripped to a depth of approximately 3" below surface level. Once the area was ripped it was sprayed with a microblaze solution and then the area was once again ripped to mix the soils with the microblaze solution.

Yates returned to the location on May 6, 2015 to re-sample the location for TPH. The sample was a 10-point composite that consisted of depths between 1" and 3". The analytical results (H501194) after microblaze treatment show that the TPH was remediated to below NMOCD RRAL's with a result of 21.8 mg/kg.

Based off confirmation analytical results showing the remediation of TPH levels to be below RRAL's, Yates is requesting closure of the release.

If you have any questions or concerns, I can be reached at (575) 748-4111 or by email at [acannon@yatespetroleum.com](mailto:acannon@yatespetroleum.com).

Thank You,



Amber Cannon  
Environmental Regulatory Agent  
Yates Petroleum Corporation



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

## Release Notification and Corrective Action

### OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Yates Petroleum Corporation	Contact Amber Cannon
Address 104 S. 4 <sup>th</sup> Street	Telephone No. 575-748-1471
Facility Name Date BTB State Com #4-H	Facility Type Wellhead

Surface Owner State	Mineral Owner State	API No. 30-025-41377
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### LOCATION OF RELEASE

Unit Letter P	Section 14	Township 21S	Range 33E	Feet from the 15	North/South Line North	Feet from the 510	East/West Line East	County Lea
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Latitude 32.48648 Longitude 103.53667

### NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 20 B/O	Volume Recovered 0 B/O
Source of Release Vacuum truck hose	Date and Hour of Occurrence 2/19/2015; AM	Date and Hour of Discovery 2/19/2015; AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Tomas Oberding, PhD/NMOCD I	
By Whom? Robert Asher/Yates Petroleum Corporation	Date and Hour: 2/19/2015; AM (Email)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*


Describe Cause of Problem and Remedial Action Taken.\*

Production was setting a packer in the well and, while circulating the packer fluid, a hose that was connected to a vacuum truck busted, releasing crude oil. Valves were shut and the release was stopped.

Describe Area Affected and Cleanup Action Taken.\*

The release stayed on the production pad. Excavated soils will be hauled to a NMOCD approved facility. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX. If initial analytical results for TPH & BTEX are under RRAL's (site ranking is 0) a Final Report, C-141 will be submitted to the OCD requesting closure. If the analytical results are above the RRAL's a work plan will be submitted to the OCD. **Depth to Ground Water: > 100' (approximately 125', Section 14, T21S-R33E, per Trend Map), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 0. Yates Petroleum is requesting closure of this site based on the information as described in the letter and attachments included with this Final C-141.**

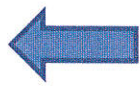
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Amber Cannon	Approved by:		
Title: NM Environmental Regulatory Agent	Approval Date:	Expiration Date:	
E-mail Address: ACannon@yatespetroleum.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: May 20, 2015	Phone: 575-748-4111	1RP-3545	

Yates Petroleum Corporation  
Release Date: 2/19/2015  
20 B/O Released, 0 Recovered

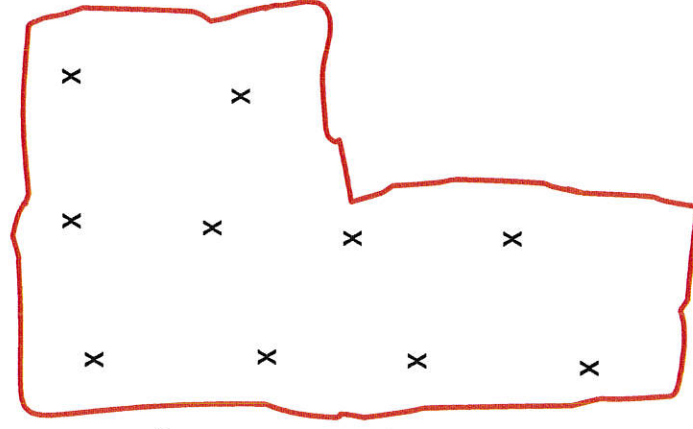
Date BTB State Com #4  
IRP-3545

30-025-41377  
14-21S-33E, Lea County



North

Access Road



Cranberry BSU State  
#5H Wellhead



Cranberry BSU State  
#1H Wellhead



Date BTB State Com  
#8H Wellhead



Date BTB State Com  
#4H Wellhead

**DRAWING IS NOT TO SCALE**



March 20, 2015

AMBER CANNON

YATES PETROLEUM CORPORATION

105 S 4th Street

Artesia, NM 88210

RE: DATE BTB STATE COM #4H

Enclosed are the results of analyses for samples received by the laboratory on 03/13/15 11:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

YATES PETROLEUM CORPORATION  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received:	03/13/2015	Sampling Date:	03/12/2015
Reported:	03/20/2015	Sampling Type:	Soil
Project Name:	DATE BTB STATE COM #4H	Sampling Condition:	Cool & Intact
Project Number:	1RP-3545	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SURFACE COMPOSITE (H500699-01)**

BTEX 8021B		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	03/18/2015	ND	2.17	109	2.00	5.29	
Toluene*	2.61	0.200	03/18/2015	ND	1.99	99.3	2.00	4.00	
Ethylbenzene*	2.68	0.200	03/18/2015	ND	1.91	95.3	2.00	6.10	
Total Xylenes*	11.3	0.600	03/18/2015	ND	5.69	94.9	6.00	7.55	
Total BTEX	16.6	1.20	03/18/2015	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 61-154

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	356	10.0	03/17/2015	ND	200	100	200	0.434	
DRO >C10-C28	7330	10.0	03/17/2015	ND	213	106	200	1.78	

Surrogate: 1-Chlorooctane 138 % 47.2-157

Surrogate: 1-Chlorooctadecane 181 % 52.1-176

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





Project Name: \_\_\_\_\_ Date BTB State Com #4H \_\_\_\_\_

Project #: 1RP-3545

Project Loc: Lea County

PO #: 205-2020

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Analyze For:

Page 4 of 4



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

March 31, 2015

AMBER CANNON

YATES PETROLEUM CORPORATION

105 S 4th Street

Artesia, NM 88210

RE: DATE BTB STATE COM #4H

Enclosed are the results of analyses for samples received by the laboratory on 03/27/15 11:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Total Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

YATES PETROLEUM CORPORATION  
105 S 4th Street  
Artesia NM, 88210

Project: DATE BTB STATE COM #4H  
Project Number: 1RP-3545  
Project Manager: AMBER CANNON  
Fax To: (505) 748-4635

Reported:  
31-Mar-15 16:05

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
6 " COMP	H500822-01	Soil	26-Mar-15 11:00	27-Mar-15 11:15
1 ' COMP	H500822-02	Soil	26-Mar-15 11:30	27-Mar-15 11:15

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**YATES PETROLEUM CORPORATION  
105 S 4th Street  
Artesia NM, 88210Project: DATE BTB STATE COM #4H  
Project Number: 1RP-3545  
Project Manager: AMBER CANNON  
Fax To: (505) 748-4635Reported:  
31-Mar-15 16:05**6 " COMP**  
**H500822-01 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID**

GRO C6-C10	ND	10.0	mg/kg	1	5032706	MS	27-Mar-15	8015B	
DRO >C10-C28	45.7	10.0	mg/kg	1	5032706	MS	27-Mar-15	8015B	
Surrogate: 1-Chlorooctane		96.3 %	47.2-157		5032706	MS	27-Mar-15	8015B	
Surrogate: 1-Chlorooctadecane		103 %	52.1-176		5032706	MS	27-Mar-15	8015B	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**YATES PETROLEUM CORPORATION  
105 S 4th Street  
Artesia NM, 88210Project: DATE BTB STATE COM #4H  
Project Number: 1RP-3545  
Project Manager: AMBER CANNON  
Fax To: (505) 748-4635Reported:  
31-Mar-15 16:05**1' COMP**  
**H500822-02 (Soil)**

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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**Cardinal Laboratories****Petroleum Hydrocarbons by GC FID**

GRO C6-C10	ND	10.0	mg/kg	1	5032706	MS	27-Mar-15	8015B
DRO >C10-C28	27.2	10.0	mg/kg	1	5032706	MS	27-Mar-15	8015B
Surrogate: 1-Chlorooctane		101 %	47.2-157		5032706	MS	27-Mar-15	8015B
Surrogate: 1-Chlorooctadecane		114 %	52.1-176		5032706	MS	27-Mar-15	8015B

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Analytical Results For:

YATES PETROLEUM CORPORATION  
105 S 4th Street  
Artesia NM, 88210

Project: DATE BTB STATE COM #4H  
Project Number: 1RP-3545  
Project Manager: AMBER CANNON  
Fax To: (505) 748-4635

Reported:  
31-Mar-15 16:05

### Petroleum Hydrocarbons by GC FID - Quality Control

#### Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch 5032706 - General Prep - Organics

##### Blank (5032706-BLK1)

Prepared & Analyzed: 27-Mar-15

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	52.7		mg/kg	50.0		105	47.2-157			
Surrogate: 1-Chlorooctadecane	54.1		mg/kg	50.0		108	52.1-176			

##### LCS (5032706-BS1)

Prepared & Analyzed: 27-Mar-15

GRO C6-C10	192	10.0	mg/kg	200		96.2	72.5-115			
DRO >C10-C28	204	10.0	mg/kg	200		102	81.3-118			
Total TPH C6-C28	397	10.0	mg/kg	400		99.1	80-113			
Surrogate: 1-Chlorooctane	54.2		mg/kg	50.0		108	47.2-157			
Surrogate: 1-Chlorooctadecane	59.4		mg/kg	50.0		119	52.1-176			

##### LCS Dup (5032706-BSD1)

Prepared & Analyzed: 27-Mar-15

GRO C6-C10	190	10.0	mg/kg	200		94.8	72.5-115	1.47	10.1	
DRO >C10-C28	193	10.0	mg/kg	200		96.6	81.3-118	5.54	15.3	
Total TPH C6-C28	383	10.0	mg/kg	400		95.7	80-113	3.55	12.1	
Surrogate: 1-Chlorooctane	53.4		mg/kg	50.0		107	47.2-157			
Surrogate: 1-Chlorooctadecane	57.5		mg/kg	50.0		115	52.1-176			

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



**ARDINAL LABORATORIES**  
101 East Marland, Hobbs, NM 88240

(505) 393-2326 FAX (505) 393-2476

**CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**

Project Manager: Amber Cannon

Company Name: Yates Petroleum Corporation

Company Address: 105 South 4th Street

City/State/Zip: Artesia, NM 88210

Telephone No: 575-748-4111 or 575-513-8799

Sampler Signature: Amber Cannon

Fax No: 575-748-4131  
e-mail: [acannon@yatespetroleum.com](mailto:acannon@yatespetroleum.com)

Project Name: Date BTB State Com #4H

Project #: 1RP-3545

Project Loc: Lea County

PO #: 205-2020

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

ORDER #: H500822

ab use only)

LAB # (lab use only)

FIELD CODE

Beginning Depth

Ending Depth

Date Sampled

Time Sampled

Field Filtered

Total #. of Containers

Ice

HNO<sub>3</sub>

HCl

H<sub>2</sub>SO<sub>4</sub>

NaOH

Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

None

Other (Specify)

DW=Drinking Water SL=Sludge

GW = Groundwater S=Soil/Solid

NP=Non-Potable Specify Other

TPH: 418.1 8015M

TPH: TX 1005 TX 1006

Cations (Ca, Mg, Na, K)

Anions (Cl, SO<sub>4</sub>, Alkalinity)

SAR / ESP / CEC

Metals: As Ag Ba Cd Cr Pb Hg Se

Volatiles

Semivolatiles

BTEX 8021B/5030 or BTEX 8260

RCI

N.O.R.M.

Chlorides

SAR

RUSH TAT (Pre-Schedule) 24, 48, 72 hrs

Standard TAT

Preservation & # of Containers

Matrix

Analyze For:

TCLP:

TOTAL:

Special Instructions:

TPH: 8015B

Relinquished by:

Relinquished by:

Relinquished by:

Date

Date

Date

Time

Time

Time

Received by:

Received by:

Received by ELOT:

Date

Date

Date

Time

Time

Time

Laboratory Comments:

Sample Containers Intact?

VOCS Free of Headspace?

Labels on containers?

Custody seals on containers?

Custody seals on cooler(s)

Sample Hand Delivered

by Sampler/Client Rep.?

by Courier? UPS DHL

Temperature Upon Receipt:

1.4 °C



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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May 14, 2015

AMBER CANNON

YATES PETROLEUM CORPORATION

105 S 4th Street

Artesia, NM 88210

RE: DATE BTB STATE COM #4H

Enclosed are the results of analyses for samples received by the laboratory on 05/08/15 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



**Analytical Results For:**

YATES PETROLEUM CORPORATION  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received: 05/08/2015  
Reported: 05/14/2015  
Project Name: DATE BTB STATE COM #4H  
Project Number: 1RP-3545  
Project Location: LEA COUNTY, NM

Sampling Date: 05/06/2015  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: CONFIRMATION 1" - 3" (H501194-01)**

TPH 8015M	mg/kg	Analyzed By: CK							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/09/2015	ND	193	96.7	200	2.72	
<b>DRO &gt;C10-C28</b>	<b>21.8</b>	10.0	05/09/2015	ND	201	101	200	3.93	
<hr/>									
Surrogate: 1-Chlorooctane	99.6 %	47.2-157							
Surrogate: 1-Chlorooctadecane	106 %	52.1-176							

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





Photo Documentation: Date BTB State Com #4H, 1RP-3545, 32.48648, -103.53667  
14-21S-33E, Lea County



This photo was taken 3/4/2015 of well site sign.



This photo was taken 3/4/2015 and is of the spill area looking to the northeast from the Date BTB State Com #4H wellhead. The wellhead seen in the photo is the Cranberry BSU State #1H (which is on the same production pad as the Date BTB State Com #4H).



This photo was taken 3/4/2015 and is of the spill area looking to the east near the Date BTB State Com #4H wellhead. The wellhead seen in the photo (left hand side) is the Cranberry BSU State #1H. You can see the wellhead cellar for the Date BTB State Com #4H (right hand side).



Photo Documentation: Date BTB State Com #4H, 1RP-3545, 32.48648, -103.53667  
14-21S-33E, Lea County



This photo was taken 3/4/2015 and is of the spill area looking to the southeast near the Date BTB State Com #4H wellhead. The wellhead seen in the photo is the Date BTB State Com #4H.



This photo was taken 3/4/2015 and is of the spill area looking to the south, southeast. Photo was taken near the Date BTB State Com #4H wellhead.



This photo was taken 3/4/2015 and is of the spill area looking to the south. Photo was taken near the Date BTB State Com #4H wellhead.





This photo was taken 4/16/2015 of well site sign.



This photo was taken 4/16/2015 after the location had been scraped with a box blade and rippers and sprayed with a microblaze solution. This photo was taken near the Date BTB State Com #4H wellhead and is looking to the northeast.



This photo was taken 4/16/2015 after the location had been scraped with a box blade and rippers and sprayed with a microblaze solution. This photo was taken near the Date BTB State Com #4H wellhead and is looking to the east.





This photo was taken 4/16/2015 after the location had been scraped with a box blade and rippers and sprayed with a microblaze solution. This photo was taken near the Date BTB State Com #4H wellhead and is looking to the southeast.



This photo was taken 4/16/2015 after the location had been scraped with a box blade and rippers and sprayed with a microblaze solution. This photo is looking to the west, southwest.



This photo was taken 4/16/2015 after the location had been scraped with a box blade and rippers and sprayed with a microblaze solution. This photo is looking to the west, northwest.



This photo was taken 4/16/2015 after the location had been scraped with a box blade and rippers and sprayed with a microblaze solution. This photo is looking to the northwest.



This photo was taken 4/16/2015 after the location had been scraped with a box blade and rippers and sprayed with a microblaze solution. This photo is looking to the north.





This photo was taken 5/6/2015 of well site sign.

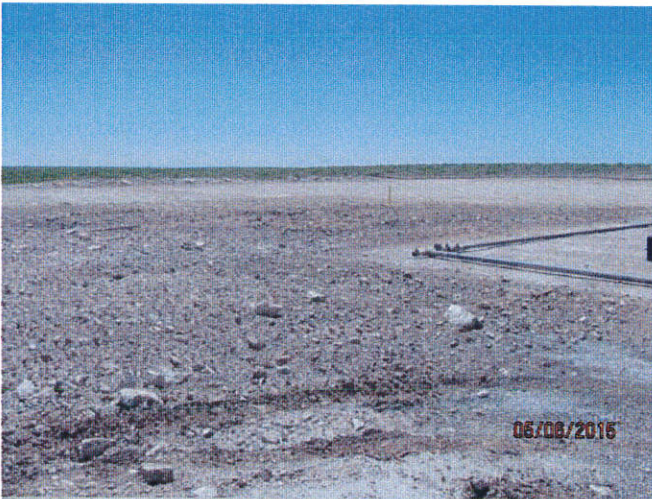


This photo was taken 5/6/2015 of the release area to be re-sampled again, 20 days after microblaze solution was applied to release. This photo is looking to the northeast from the west side of the release.



This photo was taken 5/6/2015 of the release area to be re-sampled again, 20 days after microblaze solution was applied to release. This photo is looking to the east from the west side of the release.





This photo was taken 5/6/2015 of the release area to be re-sampled again, 20 days after microblaze solution was applied to release. This photo is looking to the southeast from the west side of the release.



This photo was taken 5/6/2015 of my shovel which was contaminated from another job.



This photo was taken 5/6/2015 of my shovel after being cleaned with ALCONOX, Inc. Alcotabs® and distilled water.





This photo was taken 5/6/2015 of the release area to be re-sampled again, 20 days after microblaze solution was applied to release. This photo is looking to the south from the north side of the release.



This photo was taken 5/6/2015 of the release area to be re-sampled again, 20 days after microblaze solution was applied to release. This photo is looking to the southwest from the northeast side of the release.

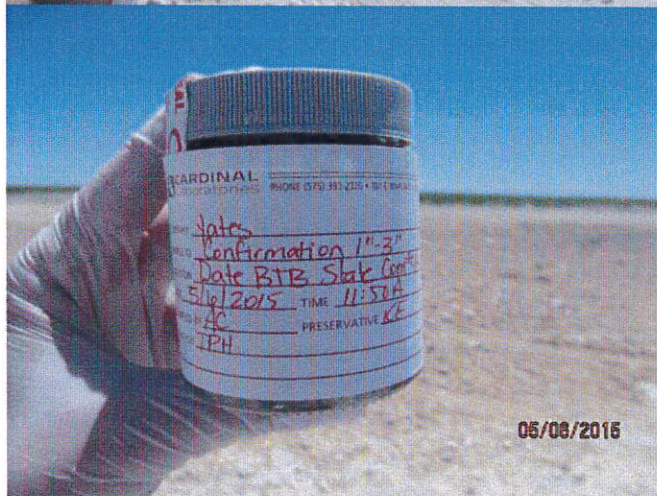


This photo was taken 5/6/2015 of the clean and empty sample jar.





This photo was taken 5/6/2015 of the sample jar filled on location where the soil was pulled from.



This photo was taken 5/6/2015 of the sample jar filled with the sample label attached.



This photo was taken 5/6/2015 of the sample jar filled with the custody seal attached.





This photo was taken 5/6/2015 of the sample jar, filled with soil being put on ice packs.



This photo was taken 5/6/2015 of the sample jar, filled with soil being covered by more ice packs.