

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

JOHN A. YATES  
CHAIRMAN EMERITUS

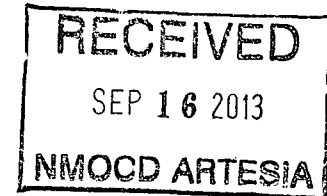
JOHN A. YATES JR.  
CHAIRMAN OF THE BOARD  
PRESIDENT

JOHN D. PERINI  
EXECUTIVE VICE PRESIDENT  
CHIEF FINANCIAL OFFICER

JAMES S. BROWN  
CHIEF OPERATING OFFICER

September 11, 2013

Mr. Mike Bratcher  
NMOCD District II  
811 South First Street  
Artesia, NM 88210



RE: Martha AIK Federal #1  
30-015-26549  
Section 11, T22S-R31E  
Eddy County, New Mexico

Mr. Bratcher,

Yates Petroleum Corporation would like to submit the following plan of work to you regarding the two releases that occurred at the above mentioned facility on April 18, 2013 and April 27, 2013. The April 18, 2013 release was 850 barrels produced water and 33 barrels of oil, with 650 barrels of produced water and 20 barrels of oil recovered. The April 27, 2013 release was 250 barrels of produced water and 1 barrel of oil with no amounts recovered. Both releases occurred in the field to the south of the battery and inside the bermed battery.

Initial TPH/BTEX and Chloride delineation samples were taken and were sent to a NMOCD approved facility, analytical results are enclosed for your review. The release area was split and sampled in four separate sections (MB, MF1, MF2, and MF3).

Yates Petroleum Corporation proposes to do the following work:

1. Excavate 2' from inside the battery, keeping at a safe distance from the tanks to ensure the stability of the tanks stays in place. After this 2' has been removed we would add a layer of caliche back into the battery.
2. Instead of excavating soils from the field, we propose to lay a liner over the impacted area. Yates has already excavated approximately 2' of soils from the release area. On top of the liner we would backfill with a 1.5' layer of caliche and then a 1.5' layer of sand. Yates also proposes to collapse some of the sand dunes in this area and utilize this sand as backfill. In order for trucks to get in and out of the area to drop hauled in caliche, Yates would need to temporarily build two caliche roads to the excavation area (on the attached site diagram I have roughly drawn in our idea for the caliche roads). Once work is finished, Yates would strip the caliche we brought in for the roads and re-seed these disturbances when we re-seed the release area next year.

The site would then be added to our seeding list for 2014, as Yates Petroleum has already completed seeding for 2013. The area would then be monitored for re-vegetation.

KATHY H. PORTER  
SECRETARY

DENNIS G. KINSEY  
TREASURER

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,

A handwritten signature in black ink that reads "Amber Cannon". The signature is written in a cursive, flowing style.

Amber Cannon  
Environmental Regulatory Agent  
Yates Petroleum Corporation

Enclosure(s): 3

cc: Jim Amos, BLM – Carlsbad District Office



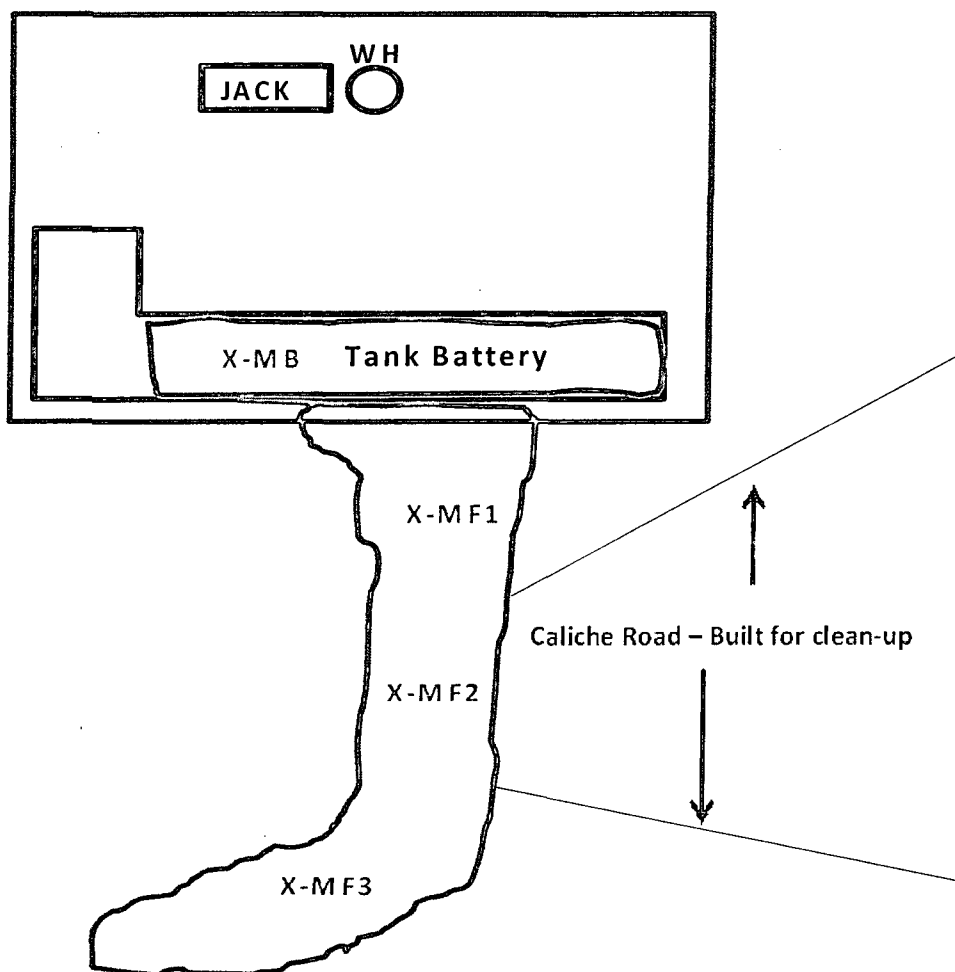
X - MB 1, 2, 3, 4, 5, 6

X - MF 1 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

X - MF 2 1, 2, 3, 4, 5, 6, 7, 8, 9

X - MF 3 1, 2, 3, 4, 5, 6, 7, 8, 9

### Martha AIK Federal #1 Location



Martha AIK Federal #1

30-015-26549

Section 11, T22S-R31E

Eddy County, NM

Prepared by Amber Cannon  
Environmental Regulatory Agent

\*DRAWING NOT TO SCALE\*

**Martha AIK Federal #1**  
**Cardinal Laboratories**

Analytical Report- H301097	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
MB-1'	Release Area	5/6/2013	Grab/Backhoe	1'	ND	ND	ND	ND	5,120
MB-2'	Release Area	5/6/2013	Grab/Backhoe	2'	ND	ND	ND	ND	8,240
MB-3'	Release Area	5/6/2013	Grab/Backhoe	3'	ND	ND	ND	ND	6,000
MB-4'	Release Area	5/6/2013	Grab/Backhoe	4'	ND	ND	ND	ND	6,000
MB-5'	Release Area	5/6/2013	Grab/Backhoe	5'	ND	ND	ND	ND	5,440
MB-6'	Release Area	5/6/2013	Grab/Backhoe	6'	ND	ND	ND	ND	6,080
MF1-1'	Release Area	5/6/2013	Composite/Backhoe	1'	ND	ND	28.3	28.3	5,840
MF1-2'	Release Area	5/6/2013	Composite/Backhoe	2'	ND	ND	41.1	41.1	5,760
MF1-3'	Release Area	5/6/2013	Composite/Backhoe	3'	ND	ND	ND	ND	7,520
MF1-4'	Release Area	5/6/2013	Composite/Backhoe	4'	ND	ND	ND	ND	10,600
MF1-5'	Release Area	5/6/2013	Composite/Backhoe	5'	ND	ND	ND	ND	15,600
MF1-6'	Release Area	5/6/2013	Composite/Backhoe	6'	ND	ND	ND	ND	12,200
MF2-1'	Release Area	5/6/2013	Composite/Backhoe	1'	ND	ND	189	189	6,000
MF2-2'	Release Area	5/6/2013	Composite/Backhoe	2'	ND	ND	ND	ND	6,160
MF2-3'	Release Area	5/6/2013	Composite/Backhoe	3'	ND	ND	ND	ND	8,000
MF2-4'	Release Area	5/6/2013	Composite/Backhoe	4'	ND	ND	ND	ND	21,000
MF2-5'	Release Area	5/6/2013	Composite/Backhoe	5'	ND	ND	ND	ND	21,000
MF2-6'	Release Area	5/6/2013	Composite/Backhoe	6'	ND	ND	ND	ND	22,000
MF3-1'	Release Area	5/6/2013	Composite/Backhoe	1'	ND	ND	ND	ND	6,320
MF3-2'	Release Area	5/6/2013	Composite/Backhoe	2'	ND	ND	ND	ND	5,840
MF3-3'	Release Area	5/6/2013	Composite/Backhoe	3'	ND	ND	ND	ND	15,200
MF3-4'	Release Area	5/6/2013	Composite/Backhoe	4'	ND	ND	ND	ND	18,800
MF3-5'	Release Area	5/6/2013	Composite/Backhoe	5'	ND	ND	ND	ND	7,680
MF3-6'	Release Area	5/6/2013	Composite/Backhoe	6'	ND	ND	ND	ND	6,800

Analytical Report- H302034	Sample Area	Sample Date	Sample Type	Depth	Chlorides
MF1-7	Release Area	8/22/2013	Grab/Backhoe	7'	6,240
MF1-8	Release Area	8/22/2013	Grab/Backhoe	8'	28,400
MF1-9	Release Area	8/22/2013	Grab/Backhoe	9'	30,800
MF1-10	Release Area	8/22/2013	Grab/Backhoe	10'	24,600
MF1-11	Release Area	8/22/2013	Grab/Backhoe	11'	14,600
MF1-12	Release Area	8/22/2013	Grab/Backhoe	12'	11,800
MF2-7	Release Area	8/22/2013	Grab/Backhoe	7'	25,200
MF2-8	Release Area	8/22/2013	Grab/Backhoe	8'	22,200
MF2-9	Release Area	8/22/2013	Grab/Backhoe	9'	17,000
MF3-7	Release Area	8/22/2013	Grab/Backhoe	7'	23,200
MF3-8	Release Area	8/22/2013	Grab/Backhoe	8'	13,900
MF3-9	Release Area	8/22/2013	Grab/Backhoe	9'	28,400

Site Ranking is Zero (0). Depth to Ground Water >100' (approx. 150', Section 11-22S-31E, per Trend Map).

All results are ppm.Chlorides for documentation.

Released: 850 B/PW, 33 B/O; Recovered: 650 B/PW, 20 B/O. Release Date: 4/18/2013

Released: 250 B/PW, 1 B/O; Recovered: 0 B/PW, 0 B/O. Release Date: 4/27/2013



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

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May 13, 2013

AMBER CANNON

Yates Energy Petroleum Corp

105 S 4th Street

Artesia, NM 88210

RE: MARTHA AIK FEDERAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/08/13 11:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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, appearing to read "C. D. Keene", written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 1' (H301097-01)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 110 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/09/2013	ND	210	105	200	0.918		
DRO >C10-C28	189	10.0	05/09/2013	ND	205	102	200	0.533		

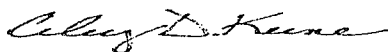
Surrogate: 1-Chlorooctane 109 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

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Caley D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MF2 - 2' (H301097-02)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2013	ND	2.16	108	2.00	4.05	
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 108 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/09/2013	ND	210	105	200	0.918	
DRO >C10-C28	<10.0	10.0	05/09/2013	ND	205	102	200	0.533	

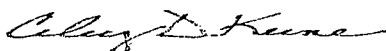
Surrogate: 1-Chlorooctane 99.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 3' (H301097-03)**

BTEx 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/09/2013	ND	210	105	200	0.918		
DRO >C10-C28	<10.0	10.0	05/09/2013	ND	205	102	200	0.533		

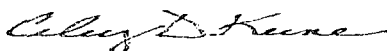
Surrogate: 1-Chlorooctane 99.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

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\*=Accredited Analyte

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Caley D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 4' (H301097-04)**

BTX 8021B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 89.4-126

TPH 8015M			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Arialyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/09/2013	ND	210	105	200	0.918		
DRO >C10-C28	<10.0	10.0	05/09/2013	ND	205	102	200	0.533		

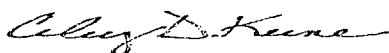
Surrogate: 1-Chlorooctane 92.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 99.4 % 63.6-154

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MF2 - 5' (H301097-05)**

BTEx 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

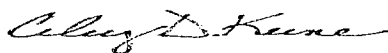
Surrogate: 1-Chlorooctane 90.4 % 65.2-140

Surrogate: 1-Chlorooctadecane 92.3 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MF2 - 6' (H301097-06)**

BTX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2013	ND	2.16	108	2.00	4.05	
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61	
Total BTX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684	
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51	


Surrogate: 1-Chlorooctane 97.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 98.1 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 1' (H301097-07)**

BTEx 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

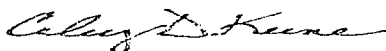
Surrogate: 1-Chlorooctane 100 % 65.2-140

Surrogate: 1-Chlorooctadecane 107 % 63.6-154

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Caley D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MF3 - 2' (H301097-08)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 108 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

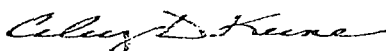
Surrogate: 1-Chlorooctane 93.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.5 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 3' (H301097-09)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PFC) 108 % 89.4-126

TPH 8015M			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

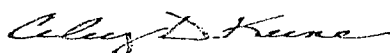
Surrogate: 1-Chlorooctane 85.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 88.4 % 63.6-154

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**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 4' (H301097-10)**

BTEx 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.16	108	2.00	4.05		
Toluene*	<0.050	0.050	05/10/2013	ND	1.98	98.8	2.00	3.36		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.14	107	2.00	2.83		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.19	103	6.00	2.61		
Total BTEx	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 108 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

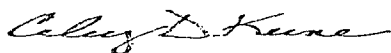
Surrogate: 1-Chlorooctane 86.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 91.8 % 63.6-154

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**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 5' (H301097-11)**

BTX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 108 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

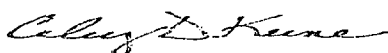
Surrogate: 1-Chlorooctane 90.3 % 65.2-140

Surrogate: 1-Chlorooctadecane 96.4 % 63.6-154

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**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF3 - 6' (H301097-12)**

BTEx 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEx	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

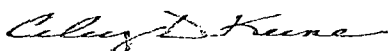
Surrogate: 1-Chlorooctane 91.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 95.7 % 63.6-154

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Caley D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Yates Energy Petroleum Corp  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 1' (H301097-13)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 110 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

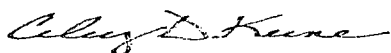
Surrogate: 1-Chlorooctane 98.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 2' (H301097-14)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 109 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

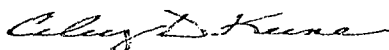
Surrogate: 1-Chlorooctane 93.6 % 65.2-140

Surrogate: 1-Chlorooctadecane 97.9 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 3' (H301097-15)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33	
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 109 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

Surrogate: 1-Chlorooctane 99.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 107 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MB - 4' (H301097-16)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33	
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684	
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51	

Surrogate: 1-Chlorooctane 105 % 65.2-140

Surrogate: 1-Chlorooctadecane 114 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MB - 5' (H301097-17)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 108 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

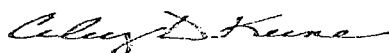
Surrogate: 1-Chlorooctane 103 % 65.2-140

Surrogate: 1-Chlorooctadecane 110 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MB - 6' (H301097-18)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33	
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684	
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51	

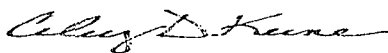
Surrogate: 1-Chlorooctane 96.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 102 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Yates Energy Petroleum Corp  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF1 - 1' (H301097-19)**

BTEx 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33	
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684	
DRO >C10-C28	28.3	10.0	05/10/2013	ND	181	90.7	200	1.51	

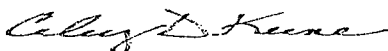
Surrogate: 1-Chlorooctane 106 % 65.2-140

Surrogate: 1-Chlorooctadecane 116 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MF1 - 2' (H301097-20)**

BTEx 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33	
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21	
Total BTEx	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 108 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684	
DRO >C10-C28	41.1	10.0	05/10/2013	ND	181	90.7	200	1.51	

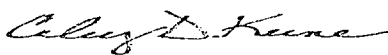
Surrogate: 1-Chlorooctane 100 % 65.2-140

Surrogate: 1-Chlorooctadecane 104 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MF1 - 3' (H301097-21)**

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33		
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29		
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72		
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21		
Total BTEX	<0.300	0.300	05/10/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 109 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684		
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51		

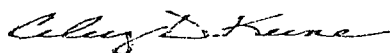
Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 103 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Yates Energy Petroleum Corp  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF1 - 4' (H301097-22)**

BTX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33	
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21	
Total BTX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684	
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51	

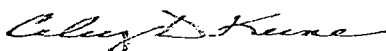
Surrogate: 1-Chlorooctane 107 % 65.2-140

Surrogate: 1-Chlorooctadecane 114 % 63.6-154

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Caley D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MF1 - 5' (H301097-23)**

BTEX 8021B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33	
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 89.4-126

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/10/2013	ND	194	96.9	200	0.684	
DRO >C10-C28	<10.0	10.0	05/10/2013	ND	181	90.7	200	1.51	

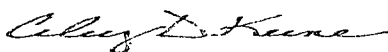
Surrogate: 1-Chlorooctane 96.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 105 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MF1 - 6' (H301097-24)**

BTEX 8021B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/10/2013	ND	2.08	104	2.00	4.33	
Toluene*	<0.050	0.050	05/10/2013	ND	1.90	95.1	2.00	4.29	
Ethylbenzene*	<0.050	0.050	05/10/2013	ND	2.06	103	2.00	4.72	
Total Xylenes*	<0.150	0.150	05/10/2013	ND	6.06	101	6.00	4.21	
Total BTEX	<0.300	0.300	05/10/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIB) 108 % 89.4-126

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/13/2013	ND	213	107	200	0.896	
DRO >C10-C28	<10.0	10.0	05/13/2013	ND	209	104	200	1.12	

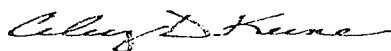
Surrogate: 1-Chlorooctane 110 % 65.2-140

Surrogate: 1-Chlorooctadecane 118 % 63.6-154

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\* = 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 <i>Samples reported on an as received basis (wet) unless otherwise noted on report</i>

---

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\* = Accredited Analyte

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Caley 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

Page 28 of 28

Project Manager: Amber Cannon

Project Name: Martha Aik Federal Battery

Company Name: Yates Petroleum Corporation

Project #: 30-015-26549

Company Address: 105 South 4th Street

Project Loc: Eddy County

City/State/Zip: Artesia, NM 88210

PO #: 1032020

Telephone No: 575-748-4111

Fax No: \_\_\_\_\_

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Amber Cannon

e-mail: acannon@yatespetroleum.com

use only)

ORDER #:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers										Matrix										Analyze For:										RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
								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>8</sub>	None	Other (Specify)	DW=Drinking Water SL=Sludge	GW=Groundwater S=Soil/Solid	NP=Non-Potable Specify Other	TPH: 418.1	8015M	8015M	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
13	MB-1'	1'	1'	5/6/2013	10:00 AM		1	X								S	X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													</

Special Instructions:

TPH: 8015B, BTEX: 8021B & Chlorides. Please show BTEX results as mg/kg. Please put chlorides on a separate report Thank you.

Laboratory Comments:

Sample containers: In tact ☒ Y ☐ N  
VOCs Free of Headspace? ☒ Y ☐ N  
Labels on container(s) ☒ Y ☐ N  
Custody seals on container(s) ☒ Y ☐ N  
Custody seals on cooler(s) ☒ Y ☐ N  
Sample Hand-Delivered ☒ Y ☐ N  
by Sampler/Client Rep? ☒ Y ☐ N  
by Courier? UPS ☒ Y ☐ N DHL ☐ FedEx ☐ Lone Star ☐  
Temperature Upon Receipt: 5 °C

Relinquished by:

Amber Cannon

Date

5/8/13

Time

8:00 A

Received by:

Dan Perry

Date

5/8/13

Time

11:00

Relinquished by:

Date

Time

Received by: ELOT





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

---

May 13, 2013

AMBER CANNON

Yates Energy Petroleum Corp

105 S 4th Street

Artesia, NM 88210

RE: MARTHA AIK FEDERAL BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 05/08/13 11:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 cursive script that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 1' (H301097-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	05/10/2013	ND	432	108	400	0.00	

**Sample ID: MF2 - 2' (H301097-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6160	16.0	05/10/2013	ND	432	108	400	0.00	

**Sample ID: MF2 - 3' (H301097-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8000	16.0	05/10/2013	ND	432	108	400	0.00	

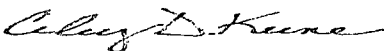
**Sample ID: MF2 - 4' (H301097-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	21000	16.0	05/10/2013	ND	432	108	400	0.00	

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\*=Accredited Analyte

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Caley D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF2 - 5' (H301097-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	21000	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF2 - 6' (H301097-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	22000	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF3 - 1' (H301097-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6320	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF3 - 2' (H301097-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5840	16.0	05/10/2013	ND	432	108	400	0.00	

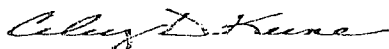
**Sample ID: MF3 - 3' (H301097-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	15200	16.0	05/10/2013	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

 Received: 05/08/2013  
 Reported: 05/13/2013  
 Project Name: MARTHA AIK FEDERAL BATTERY  
 Project Number: 30-015-26549  
 Project Location: EDDY COUNTY, NM

 Sampling Date: 05/06/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: MF3 - 4' (H301097-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	18800	16.0	05/10/2013	ND	432	108	400	0.00	

**Sample ID: MF3 - 5' (H301097-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7680	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MF3 - 6' (H301097-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6800	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MB - 1' (H301097-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5120	16.0	05/10/2013	ND	432	108	400	0.00	

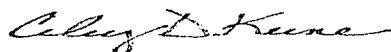
**Sample ID: MB - 2' (H301097-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8240	16.0	05/10/2013	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

Yates Energy Petroleum Corp  
AMBER CANNON  
105 S 4th Street  
Artesia NM, 88210  
Fax To: (505) 748-4635

Received: 05/08/2013  
Reported: 05/13/2013  
Project Name: MARTHA AIK FEDERAL BATTERY  
Project Number: 30-015-26549  
Project Location: EDDY COUNTY, NM

Sampling Date: 05/06/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: MB - 3' (H301097-15)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	05/10/2013	ND	432	108	400	0.00	

**Sample ID: MB - 4' (H301097-16)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6000	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MB - 5' (H301097-17)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5440	16.0	05/10/2013	ND	432	108	400	0.00		

**Sample ID: MB - 6' (H301097-18)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6080	16.0	05/10/2013	ND	432	108	400	0.00		

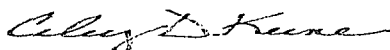
**Sample ID: MF1 - 1' (H301097-19)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5840	16.0	05/10/2013	ND	432	108	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Yates Energy Petroleum Corp  
 AMBER CANNON  
 105 S 4th Street  
 Artesia NM, 88210  
 Fax To: (505) 748-4635

Received:	05/08/2013	Sampling Date:	05/06/2013
Reported:	05/13/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MF1 - 2' (H301097-20)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5760	16.0	05/10/2013	ND	416	104	400	3.77		

**Sample ID: MF1 - 3' (H301097-21)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7520	16.0	05/10/2013	ND	416	104	400	3.77	

**Sample ID: MF1 - 4' (H301097-22)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10600	16.0	05/10/2013	ND	416	104	400	3.77		

**Sample ID: MF1 - 5' (H301097-23)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15600	16.0	05/10/2013	ND	416	104	400	3.77		

**Sample ID: MF1 - 6' (H301097-24)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12200	16.0	05/10/2013	ND	416	104	400	3.77		

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Celest D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

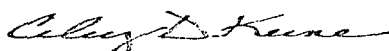
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received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

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Celey D. Keene, Lab Director/Quality Manager



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101 East Marland, Hobbs, NM 88240

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

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Page 8 of 9

Project Manager: Amber Cannon

Project Name: Martha AIK Federal Battery

Company Name: Yates Petroleum Corporation

Project #: 30-015-26549

Company Address: 105 South 4th Street

Project Loc: Eddy County

City/State/Zip: Artesia, NM 88210

PO #: 1032020

Telephone No: 575-748-4111

Fax No: \_\_\_\_\_

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Amber Cannon

e-mail: acannon@yatespetroleum.com

(use only)

ORDER #:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers										Matrix										RUSH TAT (pre-Schedule) 24, 48, 72 hrs	Standard TAT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
								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	8015B	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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
301097-1 098-167-6003 1098-167-6003 11098-167-6003 11098-167-6003	MF2-1'	1'	1'	5/6/2013	11:00 AM		1	X								S	X										X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

Special Instructions:

TPH: 8015B, BTEX: 8021B & Chlorides. Please show BTEX results as mg/kg. Please put chlorides on a separate report Thank you.

Laboratory Comments:

Sample Containers Intact? ☒ Y ☐ N  
 VOCs Free of Headspace? ☒ Y ☐ N  
 Labels on container(s)? ☒ Y ☐ N  
 Custody seals on container(s)? ☒ Y ☐ N  
 Custody seals on cooler(s)? ☒ Y ☐ N  
 Sample Hand Delivered by Sampler/Client Rep.? ☒ Y ☐ N  
 by Courier? ☐ UPS ☐ DHL ☐ FedEx ☐ Lone Star  
 Temperature Upon Receipt: 5 °C

Relinquished by:	Date	Time	Received by:	Date	Time
<u>Amber Cannon</u>	<u>5/8/13</u>	<u>8:00 A</u>			
Relinquished by:	Date	Time	Received by:	Date	Time
			<u>[Signature]</u>	<u>5/8/13</u>	<u>11:00</u>
Relinquished by:	Date	Time	Received by: ELDT	Date	Time



## Estim



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

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August 29, 2013

AMBER CANNON

YATES PETROLEUM CORPORATION

105 S 4th Street

Artesia, NM 88210

RE: MARTHA AIK FEDERAL #1 FIELD

Enclosed are the results of analyses for samples received by the laboratory on 08/23/13 12:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,

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:	08/23/2013	Sampling Date:	08/22/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL #1 FIELD	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MARTHA 1 FIELD 1-7 (H302034-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6240	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 1-8 (H302034-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	28400	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 1-9 (H302034-03)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	30800	16.0	08/29/2013	ND	448	112	400	3.64	

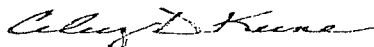
**Sample ID: MARTHA 1 FIELD 1-10 (H302034-04)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	24600	16.0	08/29/2013	ND	448	112	400	3.64	

Cardinal Laboratories

\*=Accredited Analyte

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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:	08/23/2013	Sampling Date:	08/22/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL #1 FIELD	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MARTHA 1 FIELD 1-11 (H302034-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14600	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 1-12 (H302034-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	11800	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 2-7 (H302034-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	25200	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 2-8 (H302034-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	22200	16.0	08/29/2013	ND	448	112	400	3.64	

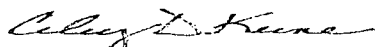
**Sample ID: MARTHA 1 FIELD 2-9 (H302034-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	17000	16.0	08/29/2013	ND	448	112	400	3.64		

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\*=Accredited Analyte

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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:	08/23/2013	Sampling Date:	08/22/2013
Reported:	08/29/2013	Sampling Type:	Soil
Project Name:	MARTHA AIK FEDERAL #1 FIELD	Sampling Condition:	Cool & Intact
Project Number:	30-015-26549	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: MARTHA 1 FIELD 3-7 (H302034-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	23200	16.0	08/29/2013	ND	448	112	400	3.64	

**Sample ID: MARTHA 1 FIELD 3-8 (H302034-11)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	13900	16.0	08/29/2013	ND	448	112	400	3.64	

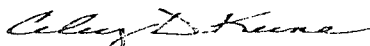
**Sample ID: MARTHA 1 FIELD 3-9 (H302034-12)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	28400	16.0	08/29/2013	ND	448	112	400	3.64	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

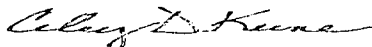
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C <i>Samples reported on an as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

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Celey D. Keene, Lab Director/Quality Manager

Project Manager: Amber Cannon

**Project Name:** Martha AIK Federal #1 Field

Company Name Yates Petroleum Corporation

Project #: 30-015-26549

Company Address: 105 South 4th Street

Project Loc: Eddy County

City/State/Zip:      Artesia, NM 88210

PO #: 103-2020

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

Fax No: 575-748-4131

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Amber Cannon

e-mail: [acannon@yatespetroleum.com](mailto:acannon@yatespetroleum.com)

(lab use only)																															
ORDER #: H302034																															
LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered Total # of Containers	Preservation & # of Containers	Matrix	TCLP:	Total:																					
							Ice	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	NH <sub>4</sub> SCN	Note	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Portable Specify Other	TPH: 418.1 8015M 801SE	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	NORM.	Chlorides	SAR	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT	
1	Martha 1 Field 1-7	7'	7'	8/22/2013	9:00 AM	1																	X						X		
2	Martha 1 Field 1-8	8'	8'	8/22/2013	9:02 AM	1																		X						X	
3	Martha 1 Field 1-9	9'	9'	8/22/2013	9:04 AM	1																		X						X	
4	Martha 1 Field 1-10	10'	10'	8/22/2013	9:06 AM	1																		X						X	
5	Martha 1 Field 1-11	11'	11'	8/22/2013	9:08 AM	1																		X						X	
6	Martha 1 Field 1-12	12'	12'	8/22/2013	9:10 AM	1																		X						X	
7	Martha 1 Field 2-7	7'	7'	8/22/2013	9:15 AM	1																		X						X	
8	Martha 1 Field 2-8	8'	8'	8/22/2013	9:17 AM	1																		X						X	
9	Martha 1 Field 2-9	9'	9'	8/22/2013	9:19 AM	1																		X						X	
10	Martha 1 Field 3-7	7'	7'	8/22/2013	9:24 AM	1																		X						X	
11	Martha 1 Field 3-8	8'	8'	8/22/2013	9:26 AM	1																		X						X	
12	Martha 1 Field 3-9	9'	9'	8/22/2013	9:28 AM	1																		X						X	
Special Instructions:												Laboratory Comments: Sample Containers Intact? Y N VOC's Free of Headspace? Y N Labels on container(s)? Y N Custody seals on container(s)? Y N Custody seals on cooler(s)? Y N Sample Hand Delivered by Sampler/Cient Rep.? Y N by Courier? UPS DHL FedEx Lone Star Temperature Upon Receipt 5 °C																			
Relinquished by:	Date	Time	Received by:	Date	Time																										
Amber Cannon	8/23/13		Jodi Benson	8/23/13	12:45																										
Relinquished by:	Date	Time	Received by:	Date	Time																										
			ELOI																												