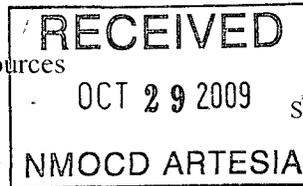


District I  
1625 N French Dr., Hobbs, NM 88240  
District II  
1301 W Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S St Francis Dr., Santa Fe, NM 87505

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 October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

### Release Notification and Corrective Action

*nMLB 0931055985*

#### OPERATOR

Initial Report  Final Report

Name of Company Yates Petroleum Corporation	OGRID Number 25575	Contact Robert Asher
Address 104 S. 4 <sup>TH</sup> Street	Telephone No. 575-748-1471	
Facility Name Rumble AXM State #2	API Number 30-015-31702	Facility Type Battery
Surface Owner Fee	Mineral Owner State	Lease No. V-4801

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	28	18S	25E	1980	South	1980	East	Eddy

Latitude 32.65161 Longitude 104.62956

#### NATURE OF RELEASE

Type of Release Condensate & Produced Water	Volume of Release 73 B/C & 35 B/PW	Volume Recovered 0 B/C & 0 B/PW
Source of Release Production tank	Date and Hour of Occurrence 9/10/2009, AM	Date and Hour of Discovery 9/10/2009, AM
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher/NMOCD Artesia	
By Whom? Robert Asher/YPC Environmental	Date and Hour 9/10/2009, PM (voicemail); 9/11/2009, PM (e-mail)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Hole in bottom of production tank. Crew called and replaced fitting.		
Describe Area Affected and Cleanup Action Taken.* An approximate area of 40' X 15'. No condensate or produced water to recover. Impacted soils excavated and hauled to an OCD approved facility. Will conduct vertical & horizontal delineation to determine extent of contamination. Samples obtained 10/8/2009, sent to an NMOCD approved laboratory. Per NMOCD request, the south half of the battery area was flipped/aerated with a backhoe, Samples obtained 10/27/2009, sent to an NMOCD approved laboratory. <b>Depth to Ground Water: &gt;100' (approx. 300', Section 32, T18S-R25E, per New Mexico Office of the State Engineer), Wellhead Protection Area: No, Distance to Surface Water Body: &gt;1000', SITE RANKING IS 0. Based on enclosed analytical results, requested remediation work/sampling, depth to ground water and 20 mil. liner installation, Yates Petroleum Corporation requests closure.</b>		
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: Robert Asher	Approved by  Signed By	
Title: Environmental Regulatory Agent	Approval Date: <b>NOV 06 2009</b>	Expiration Date: <i>N/A</i>
E-mail Address: boba@yatespetroleum.com	Conditions of Approval: <i>N/A</i>	Attached <input type="checkbox"/>
Date: Thursday, October 29, 2009 Phone: 575-748-4217	2RP- <i>364</i>	

\* Attach Additional Sheets If Necessary

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

JOHN A. YATES  
CHAIRMAN OF THE BOARD  
PRESIDENT  
JOHN A. YATES JR.  
ASSISTANT TO THE PRESIDENT  
JAMES S. BROWN  
CHIEF OPERATING OFFICER  
JOHN D. PERINI  
CHIEF FINANCIAL OFFICER

October 29, 2009

Mr. Mike Bratcher  
NMOCD District II  
1301 West Grand  
Artesia, NM 88210



Re: Rumble AXM State #2  
30-015-31702  
Section 28, T18S-R25E  
Eddy County, New Mexico

Dear Mr. Bratcher,

Enclosed please find a Form C-141, Final Report for the above captioned site regarding the release on September 10, 2009 (73 bbls of condensate and 35 bbls of produced water with no condensate or produced water being recovered). The release was from a hole in the production tank. Impacted soils were excavated to a depth of two (2) feet and taken to an NMOCD approved facility. Samples (e-mailed notification of sampling on 10/7/2009), were taken on 10/8/2009 and sent to an OCD approved laboratory for analysis. Per the request from NMOCD, the south half of the battery area was flipped and aerated with a backhoe to approximate seven (7) feet deep to flash off BTEX contamination. Samples were taken on 10/27/2009 and sent to an OCD approved laboratory for analysis (enclosed sample diagram). Petroleum Corporation requests closure. Upon closure approval Yates will install a 20 mil. liner within the entire battery area before setting production tank(s).

If you have any questions, please call me at 575-748-4217.

Thank you.

YATES PETROLEUM CORPORATION

Robert Asher  
Environmental Regulatory Agent

/rca  
Enclosure(s)

# Analytical Report 350002

for

## Yates Petroleum Corporation

**Project Manager: Robert Asher**

**Rumble AXM State # 2**

**30-015-31702**

**29-OCT-09**



**12600 West I-20 East Odessa, Texas 79765**

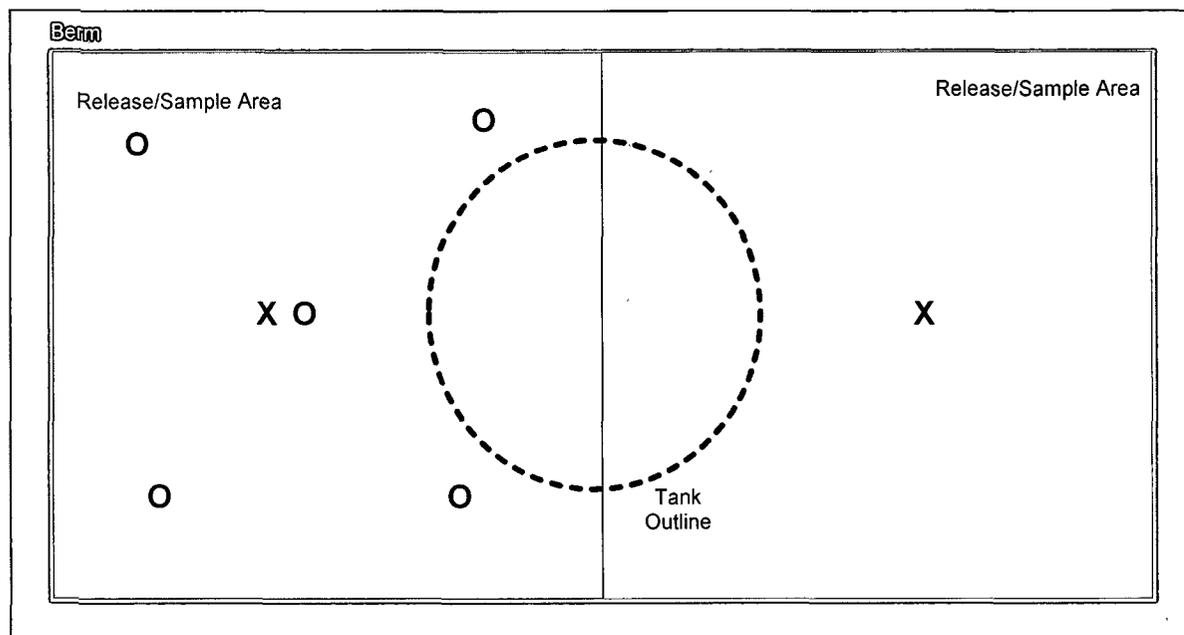
Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)  
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)  
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)  
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)  
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)  
Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),  
South Carolina(96031001), Louisiana(04154), Georgia(917)



Sample ID	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
GS/Comp-001	South 1/2	10/8/2009	Grab/Backhoe	1' (3' BSL)	42.390	1340	4710	6050	21.2
GS/Comp-002	South 1/2	10/8/2009	Grab/Backhoe	3' (5' BSL)	60.750	1450	4140	5590	78.4
GS/Comp-003	South 1/2	10/8/2009	Grab/Backhoe	5' (7' BSL)	0.116	51	550	601	282
GS/Comp-001	South 1/2	10/27/2009	Grab/Shovel	3'-7' BSL	27.200				
GS/Comp-004	North 1/2	10/8/2009	Grab/Backhoe	1' (3' BSL)	13.938	642	1460	2102	91.8
GS/Comp-005	North 1/2	10/8/2009	Grab/Backhoe	3' (5' BSL)	0.203	33.5	134	167.5	181
GS/Comp-006	North 1/2	10/8/2009	Grab/Backhoe	5' (7' BSL)	3.749	208	2030	2238	408

**Site Ranking is Zero (0).** Depth to Ground Water >100' (approx. 300, per New Mexico State Engineer Office).

All results are ppm. Chloride results are for documentation. BSL - Below Subsurface Level.

**X - Sample Points (10/8/2009); O - Sample Points (10/27/2009)**



**Rumble AXM State #2**  
**Section 28, T18S-R25E**  
**Eddy County, NM**

**SAMPLE DIAGRAM (Not to Scale)**  
**Xenco Laboratories: #347819 & 347820**  
**Report Date: 10/14/2009**  
**Xenco Laboratories: #350002**  
**Report Date: 10/29/2009**  
**Prepared by Robert Asher**  
**Environmental Regulatory Agent**



29-OCT-09

Project Manager: **Robert Asher**  
**Yates Petroleum Corporation**  
105 South Fourth St.  
Artesia, NM 88210

Reference: XENCO Report No: **350002**  
**Rumble AXM State # 2**  
Project Address: Eddy County

**Robert Asher:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 350002. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 350002 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

---

**Brent Barron, II**

Odessa Laboratory Manager

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*Certified and approved by numerous States and Agencies.*

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**Sample Cross Reference 350002**



**Yates Petroleum Corporation, Artesia, NM**  
Rumble AXM State # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
GS/Comp-001	S	Oct-27-09 10:00	3 - 7 ft	350002-001



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Rumble AXM State # 2*

*Project ID: 30-015-31702*

*Work Order Number: 350002*

*Report Date: 29-OCT-09*

*Date Received: 10/28/2009*

---

**Sample receipt non conformances and Comments:**

None

---

**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-779311 Percent Moisture

None

Batch: LBA-779343 BTEX by EPA 8021

SW8021BM

Batch 779343, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 350002-001.

4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 350002-001.

SW8021BM

Batch 779343, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 350002-001.

The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits



# Certificate of Analysis Summary 350002

Yates Petroleum Corporation, Artesia, NM

Project Name: Rumble AXM State # 2



Project Id: 30-015-31702

Contact: Robert Asher

Project Location: Eddy County

Date Received in Lab: Wed Oct-28-09 09:35 am

Report Date: 29-OCT-09

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<i>Lab Id:</i>	350002-001				
	<i>Field Id:</i>	GS/Comp-001				
	<i>Depth:</i>	3-7 ft				
	<i>Matrix:</i>	SOIL				
	<i>Sampled:</i>	Oct-27-09 10:00				
<b>BTEX by EPA 8021</b>	<i>Extracted:</i>	Oct-28-09 17:00				
	<i>Analyzed:</i>	Oct-29-09 03:53				
	<i>Units/RL:</i>	mg/kg RL				
Benzene		BRL 0.0559				
Toluene		1.136 0.1118				
Ethylbenzene		1.610 0.0559				
m,p-Xylenes		17.18 0.1118				
o-Xylene		7.274 0.0559				
Xylenes, Total		24.45 0.0559				
Total BTEX		27.20 0.0559				
<b>Percent Moisture</b>	<i>Extracted:</i>	.				
	<i>Analyzed:</i>	Oct-28-09 17:00				
	<i>Units/RL:</i>	% RL				
Percent Moisture		11.3 1.00				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America - Atlanta - Corpus Christi

  
Brent Barron, II  
Odessa Laboratory Manager



# Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
  - B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
  - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
  - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
  - F** RPD exceeded lab control limits.
  - J** The target analyte was positively identified below the MQL and above the SQL.
  - U** Analyte was not detected.
  - L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
  - H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
  - K** Sample analyzed outside of recommended hold time.
  - JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- \* Outside XENCO's scope of NELAC Accreditation.

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	Phone	Fax
4143 Greenbriar Dr, Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



# Environmental Lab of Texas

## Variance/ Corrective Action Report- Sample Log-In

Client: Yates Petroleum  
 Date/ Time: 10.28.09 9:35  
 Lab ID #: 350002 349 AL  
 Initials: AL

### Sample Receipt Checklist

				Client Initials
#1 Temperature of container/ cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	3.6 °C	
#2 Shipping container in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#3 Custody Seals intact on shipping container/ cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Not Present	
#4 Custody Seals intact on sample bottles/ container?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Not Present	
#5 Chain of Custody present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#6 Sample instructions complete of Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#7 Chain of Custody signed when relinquished/ received?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#8 Chain of Custody agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	ID written on Cont./ Lid	
#9 Container label(s) legible and intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#11 Containers supplied by ELOT?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#12 Samples in proper container/ bottle?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	See Below	
#13 Samples properly preserved?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	See Below	
#14 Sample bottles intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#15 Preservations documented on Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#16 Containers documented on Chain of Custody?	<input checked="" type="radio"/> Yes	<input type="radio"/> No		
#17 Sufficient sample amount for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	See Below	
#18 All samples received within sufficient hold time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	See Below	
#19 Subcontract of sample(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<del>Not Applicable</del>	
#20 VOC samples have zero headspace?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	Not Applicable	

### Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event

# Analytical Report 347819

for

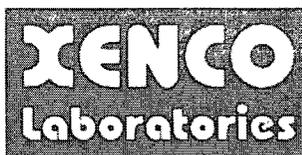
## Yates Petroleum Corporation

**Project Manager: Robert Asher**

**Rumble AXM State # 2**

**30-015-31702**

**15-OCT-09**



**12600 West I-20 East Odessa, Texas 79765**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),

South Carolina(96031001), Louisiana(04154), Georgia(917)



15-OCT-09

Project Manager: **Robert Asher**  
**Yates Petroleum Corporation**  
105 South Fourth St.  
Artesia, NM 88210

Reference: XENCO Report No: **347819**  
**Rumble AXM State # 2**  
Project Address: Eddy County

**Robert Asher:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 347819. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 347819 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

---

**Brent Barron, II**

Odessa Laboratory Manager

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**Sample Cross Reference 347819**



**Yates Petroleum Corporation, Artesia, NM**

Rumble AXM State # 2

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
GS/Comp-001	S	Oct-08-09 09:11	1 - 1 ft	347819-001
GS/Comp-002	S	Oct-08-09 09:15	3 - 3 ft	347819-002
GS/Comp-003	S	Oct-08-09 09:19	5 - 5 ft	347819-003
GS/Comp-004	S	Oct-08-09 09:44	1 - 1 ft	347819-004
GS/Comp-005	S	Oct-08-09 09:49	3 - 3 ft	347819-005
GS/Comp-006	S	Oct-08-09 09:55	5 - 5 ft	347819-006



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Rumble AXM State # 2*

*Project ID: 30-015-31702*

*Work Order Number: 347819*

*Report Date: 15-OCT-09*

*Date Received: 10/09/2009*

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**Sample receipt non conformances and Comments:**

None

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**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-776553 BTEX-MTBE EPA 8021B

SW8021BM

Batch 776553, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 347819-005, -003.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

SW8021BM

Batch 776553, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis

Samples affected are: 347819-005,347819-003.

Batch: LBA-776646 Percent Moisture

AD2216A

Batch 776646, Percent Moisture RPD is outside the QC limit. This is most likely due to sample non-homogeneity.

Samples affected are: 347819-006, -001, -004, -005, -002, -003.

Batch: LBA-777087 TPH by SW 8015B

SW8015B\_NM

Batch 777087, o-Terphenyl recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 347819-002.

1-Chlorooctane recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 347819-001,347819-003,347819-006.

o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis

Samples affected are: 347819-003.



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Rumble AXM State # 2*

*Project ID: 30-015-31702*

*Work Order Number: 347819*

*Report Date: 15-OCT-09*

*Date Received: 10/09/2009*

---

*Batch: LBA-777230 BTEX-MTBE EPA 8021B  
SW8021BM*

*Batch 777230, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis*

*Samples affected are: 347819-006.*

*4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis*

*Samples affected are: 347819-001,347819-002,347819-006,347819-004.*

*SW8021BM*

*Batch 777230, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.*

*Samples affected are: 347819-006, -001, -004, -002.*

*The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits*



# Certificate of Analysis Summary 347819

Yates Petroleum Corporation, Artesia, NM

Project Name: Rumble AXM State # 2



Project Id: 30-015-31702  
 Contact: Robert Asher  
 Project Location: Eddy County

Date Received in Lab: Fri Oct-09-09 11:05 am

Report Date: 15-OCT-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	347819-001	347819-002	347819-003	347819-004	347819-005	347819-006
	<i>Field Id:</i>	GS/Comp-001	GS/Comp-002	GS/Comp-003	GS/Comp-004	GS/Comp-005	GS/Comp-006
	<i>Depth:</i>	1-1 ft	3-3 ft	5-5 ft	1-1 ft	3-3 ft	5-5 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-08-09 09 11	Oct-08-09 09 15	Oct-08-09 09 19	Oct-08-09 09 44	Oct-08-09 09 49	Oct-08-09 09 55
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	Oct-14-09 08 00	Oct-14-09 08 00	Oct-09-09 13 00	Oct-14-09 08 00	Oct-09-09 13 00	Oct-14-09 08 00
	<i>Analyzed:</i>	Oct-14-09 12 51	Oct-14-09 13 12	Oct-09-09 21 08	Oct-14-09 13 34	Oct-09-09 21 51	Oct-14-09 13 55
	<i>Units/RL:</i>	mg/kg    RL					
		ND   0 1061	ND   0 2694	ND   0 0011	ND   0 0540	ND   0 0011	ND   0 0054
Benzene		2 141   0 2121	2 667   0 5388	0 0099   0 0022	0 4192   0 1079	0 0096   0 0022	0 0894   0 0109
Toluene		2 614   0 1061	4 229   0 2694	0 0094   0 0011	0 8060   0 0540	0 0158   0 0011	0 2178   0 0054
Ethylbenzene		25 53   0 2121	38 48   0 5388	0 0765   0 0022	9 007   0 1079	0 1074   0 0022	2 348   0 0109
m,p-Xylenes		12 10   0 1061	15 37   0 2694	0 0197   0 0011	3 706   0 0540	0 0701   0 0011	1 094   0 0054
o-Xylene		37 63   0 1061	53 85   0 2694	0 0962   0 0011	12 713   0 0540	0 1775   0 0011	3 442   0 0054
Total Xylenes		42 39   0 1061	60 75   0 2694	0 1155   0 0011	13 938   0 0540	0 2029   0 0011	3 749   0 0054
Total BTEX							
<b>Percent Moisture</b>	<i>Extracted:</i>	Oct-12-09 14 17					
	<i>Analyzed:</i>	Oct-12-09 14 17					
	<i>Units/RL:</i>	%        RL					
	Percent Moisture		6 10    1 00	7 38    1 00	9 70    1 00	7 50    1 00	9 11    1 00
<b>TPH By SW8015B Mod</b>	<i>Extracted:</i>	Oct-09-09 15 18					
	<i>Analyzed:</i>	Oct-13-09 19 53	Oct-13-09 20 18	Oct-13-09 20 43	Oct-13-09 21 09	Oct-13-09 21 33	Oct-13-09 22 24
	<i>Units/RL:</i>	mg/kg    RL					
	C6-C10 Gasoline Range Hydrocarbons		1340   15 9	1450   16 1	51 0    16 6	642    16 2	33 5    16 5
C10-C28 Diesel Range Hydrocarbons		4710   15 9	4140   16 1	550    16 6	1460   16 2	134    16 5	2030   16 3
Total TPH		6050   15 9	5590   16 1	601    16 6	2102   16 2	168    16 5	2238   16 3

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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 Brent Barron, II  
 Odessa Laboratory Manager



Environmental Lab of Texas  
variance/ Corrective Action Report Sample Log-in

Client Yates Petroleum  
 Date/Time 10-9-09 11:05  
 Job ID # 347319 / 347820  
 Initials GL

**Sample Receipt Checklist**

	Yes	No	Client Initials
#1 Temperature of container/ cooler?	(Yes)	No	GL °C
#2 Shipping container in good condition?	(Yes)	No	
#3 Custody Seals intact on shipping container/ cooler?	(Yes)	No	Not Present
#4 Custody Seals intact on sample bottles/ container?	(Yes)	No	Not Present
#5 Chain of Custody present?	(Yes)	No	
#6 Sample instructions complete of Chain of Custody?	(Yes)	No	
#7 Chain of Custody signed when relinquished/ received?	(Yes)	No	
#8 Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont / Lid
#9 Container label(s) legible and intact?	(Yes)	No	Not Applicable
#10 Sample matrix properties agree with Chain of Custody?	(Yes)	No	
#11 Containers supplied by FLOT?	(Yes)	No	
#12 Samples in proper container/ bottle?	(Yes)	No	See Below
#13 Samples properly preserved?	(Yes)	No	See Below
#14 Sample bottles intact?	(Yes)	No	
#15 Preservations documented on Chain of Custody?	(Yes)	No	
#16 Containers documented on Chain of Custody?	(Yes)	No	
#17 Sufficient sample amount for noticed test(s)?	(Yes)	No	See Below
#18 All samples received within sufficient hold time?	(Yes)	No	See Below
#19 Subcontract of sample(s)?	(Yes)	No	Not Applicable
#20 VOC samples have zero headspace?	(Yes)	No	Not Applicable

**Variance Documentation**

Contact \_\_\_\_\_ Contacted by \_\_\_\_\_ Date/Time \_\_\_\_\_

Regarding \_\_\_\_\_

Corrective Action Taken \_\_\_\_\_

- Check all that Apply.
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event

# Analytical Report 34/820

for

## Yates Petroleum Corporation

**Project Manager: Robert Asher**

**Rumble AXM State # 2**

**30-015-31702**

**14-OCT-09**



**12600 West I-20 East Odessa, Texas 79765**

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),

South Carolina(96031001), Louisiana(04154), Georgia(917)



14-OCT-09

Project Manager: **Robert Asher**  
**Yates Petroleum Corporation**  
105 South Fourth St.  
Artesia, NM 88210

Reference: XENCO Report No: **347820**  
**Rumble AXM State # 2**  
Project Address: Eddy County

**Robert Asher:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 347820. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 347820 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

---

**Brent Barron, II**

Odessa Laboratory Manager

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**Sample Cross Reference 347820**



**Yates Petroleum Corporation, Artesia, NM**  
Rumble AXM State # 2

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
GS/Comp-001	S	Oct-08-09 09:11	1 - 1 ft	347820-001
GS/Comp-002	S	Oct-08-09 09:15	3 - 3 ft	347820-002
GS/Comp-003	S	Oct-08-09 09:19	5 - 5 ft	347820-003
GS/Comp-004	S	Oct-08-09 09:44	1 - 1 ft	347820-004
GS/Comp-005	S	Oct-08-09 09:49	3 - 3 ft	347820-005
GS/Comp-006	S	Oct-08-09 09:54	5 - 5 ft	347820-006



## CASE NARRATIVE

*Client Name: Yates Petroleum Corporation*

*Project Name: Rumble AXM State # 2*

*Project ID: 30-015-31702*

*Work Order Number: 347820*

*Report Date: 14-OCT-09*

*Date Received: 10/09/2009*

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**Sample receipt non conformances and Comments:**

None

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**Sample receipt Non Conformances and Comments per Sample:**

None

**Analytical Non Conformances and Comments:**

Batch: LBA-776636 Percent Moisture

None

Batch: LBA-776646 Percent Moisture

AD2216A

Batch 776646, Percent Moisture RPD is outside the QC limit. This is most likely due to sample non-homogeneity.

Samples affected are: 347820-005, -006, -003, -004.

Batch: LBA-776729 Inorganic Anions by EPA 300

None



# Certificate of Analysis Summary 347820

Yates Petroleum Corporation, Artesia, NM

Project Name: Rumble AXM State # 2



Project Id: 30-015-31702

Contact: Robert Asher

Project Location: Eddy County

Date Received in Lab: Fri Oct-09-09 11:05 am

Report Date: 14-OCT-09

Project Manager: Brent Barron, II

<i>Analysis Requested</i>	<i>Lab Id:</i>	347820-001	347820-002	347820-003	347820-004	347820-005	347820-006
	<i>Field Id:</i>	GS/Comp-001	GS/Comp-002	GS/Comp-003	GS/Comp-004	GS/Comp-005	GS/Comp-006
	<i>Depth:</i>	1-1 ft	3-3 ft	5-5 ft	1-1 ft	3-3 ft	5-5 ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Oct-08-09 09 11	Oct-08-09 09 15	Oct-08-09 09 19	Oct-08-09 09 44	Oct-08-09 09 49	Oct-08-09 09 54
<b>Anions by E300</b>	<i>Extracted:</i>	Oct-12-09 09 32					
	<i>Analyzed:</i>	Oct-12-09 09 32					
	<i>Units/RL:</i>	mg/kg RL					
Chloride		21 2 4 47	78 4 9 07	282 18 6	91 8 9 08	181 9 24	408 18 3
<b>Percent Moisture</b>	<i>Extracted:</i>	Oct-12-09 13 39	Oct-12-09 13 39	Oct-12-09 14 17	Oct-12-09 14 17	Oct-12-09 14 17	Oct-12-09 14 17
	<i>Analyzed:</i>	Oct-12-09 13 39	Oct-12-09 13 39	Oct-12-09 14 17	Oct-12-09 14 17	Oct-12-09 14 17	Oct-12-09 14 17
	<i>Units/RL:</i>	% RL					
Percent Moisture		6 10 1 00	7 38 1 00	9 70 1 00	7 50 1 00	9 11 1 00	7 98 1 00

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Brent Barron, II  
Odessa Laboratory Manager



# Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
  - B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
  - D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
  - E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
  - F** RPD exceeded lab control limits.
  - J** The target analyte was positively identified below the MQL and above the SQL.
  - U** Analyte was not detected.
  - L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
  - H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
  - K** Sample analyzed outside of recommended hold time.
  - JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- \* Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd , Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St, Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Environmental Lab of Texas  
Variance/ Corrective Action Report- Sample Log-In

Client: Yates Petroleum  
 Date/ Time: 10-9-09 11:05  
 Lab ID #: 347819 / 347820  
 Initials: GL

**Sample Receipt Checklist**

				Client Initials	
#1	Temperature of container/ cooler?	<input checked="" type="checkbox"/> Yes	No	0	° C
#2	Shipping container in good condition?	<input checked="" type="checkbox"/> Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	<input checked="" type="checkbox"/> Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	<input checked="" type="checkbox"/> Yes	No	Not Present	
#5	Chain of Custody present?	<input checked="" type="checkbox"/> Yes	No		
#6	Sample instructions complete of Chain of Custody?	<input checked="" type="checkbox"/> Yes	No		
#7	Chain of Custody signed when relinquished/ received?	<input checked="" type="checkbox"/> Yes	No		
#8	Chain of Custody agrees with sample label(s)?	<input checked="" type="checkbox"/> Yes	No	if written on Cont / Lid	
#9	Container label(s) legible and intact?	<input checked="" type="checkbox"/> Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	<input checked="" type="checkbox"/> Yes	No		
#11	Containers supplied by ELOT?	<input checked="" type="checkbox"/> Yes	No		
#12	Samples in proper container/ bottle?	<input checked="" type="checkbox"/> Yes	No	See Below	
#13	Samples properly preserved?	<input checked="" type="checkbox"/> Yes	No	See Below	
#14	Sample bottles intact?	<input checked="" type="checkbox"/> Yes	No		
#15	Preservations documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No		
#16	Containers documented on Chain of Custody?	<input checked="" type="checkbox"/> Yes	No		
#17	Sufficient sample amount for indicated test(s)?	<input checked="" type="checkbox"/> Yes	No	See Below	
#18	All samples received within sufficient hold time?	<input checked="" type="checkbox"/> Yes	No	See Below	
#19	Subcontract of sample(s)?	<input checked="" type="checkbox"/> Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	<input checked="" type="checkbox"/> Yes	No	Not Applicable	

**Variance Documentation**

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding \_\_\_\_\_

Corrective Action Taken \_\_\_\_\_

- Check all that Apply.
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event