MARTIN YATES, III

FRANK W. YATES 1936-1986

8.P. YATES



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (575) 748-1471

JOHN A YATES

JOHN A. YATES JR.

SCOTT M. YATES

JAMES S. BROWN CHIEF OPERATING OFFICER

JOHN D. PERINI
CHIEF FINANCIAL DEFICER

JORGE S. MENDOZA
CHIEF ADMINISTRATIVE DEFICER

FEB 07 2012

NMOCD ARTESIA

February 1, 2012

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

Re: Martha AIK Federal #1

30-015-26549

Section 11, T22S-R31E 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 July 8, 2011 (30 B/PW released with 0 B/PW recovered and 5 B/O released with 5 B/O recovered). The C-141 Initial Report was submitted to your office on July 22, 2011. Impacted soils within the battery around the separation equipment was excavated and hauled to an NMOCD approved facility. Vertical and horizontal delineation samples were taken on 8/24/2011, 11/22/2011 and 12/13/2011 and sent to an NMOCD approved laboratory. Enclosed are the analytical reports, results show TPH and BTEX, to be below RRAL's, based on a site ranking of zero; Yates Petroleum Corporation requests closure based on impacted soils excavated/hauled and analytical results.

If you have any questions, please call me at 575-748-4111.

Thank you.

YATES PETROLEUM CORPORATION

Amber Cannon

Environmental Regulatory Agent

/anc

Enclosure(s)

Martha AIK Federal #1

Analytical Report- 425342 & 425341	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlondes
Comp-01.0	Release Area	8/24/2011	Comp/Auger	1'	ND	ND	87	87	2,590
Comp-02.0	Release Area	8/24/2011	Comp/Auger	2'	ND	ND	46.2	46.2	3,460
Comp-03.0	Release Area	8/24/2011	Comp/Auger	3'	· ND	ND	19.4	19.4	2,920

Analytical Report- 426916	Sample Area -	Sample Date	Sample Type	Depth	BTEX	GRO DI	RO TOTAL	Chlorides
Grab N4	Release Area	11/22/2011	Grab/Backhoe	4'				593
Grab N5	Release Area	11/22/2011	Grab/Backhoe	5'		in the state of th		780
Grab N6	Release Area	11/22/2011	Grab/Backhoe	6'				1,710
Grab S4	Release Area	11/22/2011	Grab/Backhoe	4'				200
Grab S5	Release Area	11/22/2011	Grab/Backhoe	5'				164
Grab S6	Release Area	11/22/2011	Grab/Backhoe	6'				77

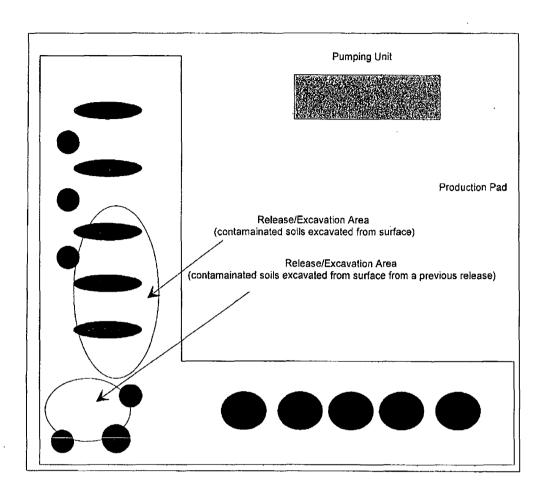
Analytical Report- H102700	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	TOTAL	Chlorides
Grab N1	Release Area	12/13/2011	Grab/Backhoe	1'					576
Grab N2	Release Area	12/13/2011	Grab/Backhoe	2'					448
Grab N3	Release Area	12/13/2011	Grab/Backhoe	3'					1,090
Grab N7	Release Area	12/13/2011	Grab/Backhoe	7'			a a		336
Grab N8	Release Area	12/13/2011	Grab/Backhoe	8'					160
Grab S1	Release Area	12/13/2011	Grab/Backhoe	1'					576
Grab \$2	Release Area	12/13/2011	Grab/Backhoe	2'			1, 2, 1		64
Grab S3	Release Area	12/13/2011	Grab/Backhoe	3'	المرابع		v ***		48

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: 30 B/PW, 5 B/O; Recovered: 0 B/PW, 5 B/O. Release Date: 7/8/2011





NOTE: Comp 01.0, Comp 02.0, and Comp 03.0 consisted of composite samples from both yellow areas above. Grab N1, N2, N3, N4, N5, N6, N7 and N8 consisted of Grab Samples taken from the northern area. Grab S1, S2, S3, S4, S5, and Grab S6 consisted of Grab Samples taken from the southern area.



Martha AIK Federal #1

30-015-26549

Section 11, T22S-R31E

Eddy County, NM

SAMPLE DIAGRAM(Not to Scale)

Xenco Laboratories# See Attached Sample Table and Sample Results

Prepared by Amber Cannon Environmental Regulatory Agent



December 17, 2011

AMBER CANNON
Yates Energy Petroleum Corp
105 S 4th Street
Artesia, NM 88210

RE: MARTHA AIK FEDERAL #1

Enclosed are the results of analyses for samples received by the laboratory on 12/15/11 13:30.

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/ga/lab accredited certif,html.

Cardinal Laboratories is accreditated 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.

Celeg D. Keine

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 Energy Petroleum Corp AMBER CANNON 105 S 4th Street Artesia NM, 88210

Fax To:

(505) 748-4635

Received:

12/15/2011

Sampling Date:

12/13/2011

Reported:

Sampling Type:

Soil

Project Name:

12/17/2011

Sampling Condition:

** (See Notes)

Project Number:

MARTHA AIK FEDERAL #1

Sample Received By:

Jodi Henson

Project Location:

30-015-26549 EDDY COUNTY

Sample ID: S1 1' (H102700-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifler
Chloride	576	16.0	12/16/2011	ND	416	104	400	3.77	

Sample ID: S2 2' (H102700-02)

Chloride, SM4500Cl-B	mg.	/kg	Analyze	d By: HM					
Analyte	Result Reportin		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	12/16/2011	ND	416	104	400	3.77	

Sample ID: \$3 3' (H102700-03)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	12/16/2011	ND	4 1 6	104	400	3.77	

Sample ID: N1 1' (H102700-04)

Chloride, SM4500Cl-B	Analyze	d By: HM				_			
Analyte	Result Reportir		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576		12/16/2011	ND	416	104	400	3.77	

Cardinal Laboratories

*=Accredited Analyte

PLEASE MOTE, Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim arking, whether based in contract or tort, shall be limited to the ameciant paid by client for analyses. All claims, including those for negligence and any other cause inhalponer shall be deemed waveed unless made in writing and received by Curdinal within thirty (30) days after completion of the applicable service. In no revert shall Cardinal be liable for incidental or consequential damages, melastics, within the maskings, when seemed in the services, long out of or leaded to the performance of the services horeunder by Cardinal, reguraless of whether such claim is based upon any of the above Resides relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laborationss.

Celeg 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 (505) 748-4635 Fax To:

Received:

12/15/2011

Sampling Date:

12/13/2011

Reported:

12/17/2011

Sampling Type:

Soil

Project Name:

MARTHA AIK FEDERAL #1

Sampling Condition:

** (See Notes)

Project Number:

30-015-26549

Sample Received By:

Jodi Henson

Project Location:

EDDY COUNTY

Sample ID: N2 2' (H102700-05)

Chloride, SM4500Cl-B	/kg	Analyze	d By: HM						
Analyte	Result	Reporting Limit Analyzed		Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	12/16/2011	ND	432	108	400	0.00	

Sample ID: N3 3' (H102700-06)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM			·		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1090 16.0		12/16/2011	ND	432	108	400	0.00	

Sample ID: N7 7' (H102700-07)

Chloride, SM4500Cl-B	Analyze	d By: HM		·					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336 16.0		12/16/2011	ND	432	108	400	0.00	

Sample ID: N8 8' (H102700-08)

Chloride, SM4500CI-B	/kg	Analyze	d By: HM						
∧nalyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160 16.0		12/16/2011	ND	432	108	400	00,0	

*=Accredited Analyte Cardinal Laboratories

PLEASE NOTE: Unbitey and Damages. Cardinal's habitity and cleam's exclusive remarks for any claim arising, whether based in contract or tort, shall be limited to the amount paid by cleak for analyses. All claims, including those for neglegance and any other cause whatsoever shall be deemed waver unless made in writing and reserved by Cardinal within thirty (20) days after completion of the applicable service in no event shall Cardinal be fastle for incidental or consequential danages, melading, webset irration, business interruptions, loss of use, or loss of profits incurred by clear, its subsidiance, afficiates or successors anding out of or related to the performance of the survices horounder by Cardinal, regardless of whether such claims is based upon any of the above stated remains or orderwise. Results clearly to the survices of which it is under the order of the profit of the performance of the survices horounder by Cardinal, regardless of whether such claims is based upon any of the above stated remains or orderwise. Results called not be applicable service.

Celeg Diteens

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-8 does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE. Liability and Damages. Cardinal's liability and client's exclusive remody for any claim among, whether based in contract or tort, shall be learned to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be determed walved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service in no event shall Cardinal be lable for incidencal or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, as subsidiaries, affiliates or successors aroung out of or related to the performance of the services hereunder by Cardinal, regardless of whicher such claims based upon any of this above stated reasons or otherwise. Results relate only to the samples derithed above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & Keene

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST



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

	Project Manager:	Amber Cannon										Project Name: Martha AIK Federal #1							_													
	Company Name	Yates Petroleum Corporati	on		*													Pro	jec	t #:_				:	30-0	15-2	265	49				_
	Company Address:	105 South 4th Street															P	roje	ct L	oc:_					Edd	у Сс	วนก	ty				_
	City/State/Zip:	Artesia, NM 88210																	PC	#:_					10	320	20					_
-	Telephone No:	575-748-4111				Fax No:		575	5-74	8-41	31		·			R	eport	For	mat	: [х	Stan	dard	l		TRI	RP.	ľ		NPDE	ES	
	Sampler Signature:	ambu Ca		1251		e-mail:		<u>ac</u>	an	noı	n@	<u>yat</u>	esp	etro	oleu	ım.c	om															
(lab use d	only)																	┝			TC	LP:	Ana	ilyze	For:	Τ				\dashv		
ORDER	₹#:								Γ-	Prese	rvatio	n 8 #	of Ca	nlaine	·s	Ma	atrix				TOT	AL:	7	_	F					2 Pr	3	
LAB # (lab use only)	102700 FIEL	.D CODE	Beginning Depth	Ending Depth	Date Sampled	Тіте Sampled	Field Filtered	Total # of Containers					NaOH Na S. O.			SL=Sludge	Specify Cilhar	418.1 801	TPH: TX 1005 TX 1008	Cations (Ca, Mg, Na, K)	Anions (CI, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Voletiles Sembotatiles	ETEX 0.0242 /5030 or BTEX 8260	RCI	N.O.R.M.	Cnlorides	SAR	RUSH TAT (Pre-Schedule) 24. 48. 72 hrs	Standard TAT	
]		S1	1'	1'	12/13/2011	9:50 AM		1								,	S											х			Х	7
2		\$2	2'	2'	12/13/2011	9:55 AM		1								Š	S						\prod			L		Х		\perp	Х]
3		S3 .	3.	3'	12/13/2011	10:00 AM	_	1				\perp				,	3		_	\bot	\perp			\bot	1	_		X	Ц	ᆚ	<u> </u> x	
니		N1	1'	1'	12/13/2011	10:05 AM		1			_	_		_		Š	3			\perp						L		X		\perp	X	
3	2	N2	2'	2'	12/13/2011	10:10 AM		1						_			3						1	\perp		_		X		\perp	X	
6		N3	3'	3,	12/13/2011	10:15 AM		1	Ш			_		_	Ш		3		_		\perp			\perp	\perp			X	\sqcup	4	Х	
7		N7	7'	7'	12/13/2011	10:25 AM		1			_ }	_	\perp	1_	<u> </u>		3	Ш	_				_	\perp	_			X			X	
ලි		N8	8'	8'	12/13/2011	10:30 AM		1			-	4		-	Ш		3		_	\dashv	4	4	\perp	_ _	\downarrow		_	X			X	4
		· · · · · · · · · · · · · · · · · · ·						_			-	\dashv	+	+				H	-	-	\dashv	+	+	+	-	-		\vdash	\vdash	+	+	$\frac{1}{2}$
Relinquist	7 3	Date :		me	Received by:	· "[,]	A							<u>-</u>	Da			Time		Sam VOC Làbe	nple Os Fi els ö	Contree o	aine of He ofair	nmer ers in eadsp ner(s r con	tact? ace?	, , .	I	(1 DOOD TO	- - -	1	
Relinquish	ned by:	iZ/15/2011 Date	Ti	AM me	Received by ELC		U)	0	<u> </u>					1	Da Da			Time		Cuş Sam	tody iple by S by C	sea Hand ampi ourie	s or I De er/C er?	r cooi livere lient l U	er(s) ed Rep. PS	? DH	L		•	N N N Lone	1	
comiquisi		230			The state of the s															Tem	рега	ature	Upo	on Re	sceip	1: 2	£	<u>e</u> F	'ag∈	÷ 5 o	c of 5	1

Analytical Report 432251

for Yates Petroleum Corporation

Project Manager: Amber Cannon
Martha AIK Federal # 1
30-015-26549
01-DEC-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), 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 (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), 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-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





01-DEC-11

Project Manager: Amber Cannon Yates Petroleum Corporation 105 South Fourth St. Artesia, NM 88210

Reference: XENCO Report No: 432251

Martha AIK Federal # 1

Project Address: Eddy County

Amber Cannon:

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 432251. 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. 432251 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 432251

Yates Petroleum Corporation, Artesia, NM

Martha AIK Federal # 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Grab N4	S	11-22-11 09:30	4 - 4 ft	432251-001
Grab N5	S	11-22-11 09:40	5 - 5 ft	432251-002
Grab N6	S	11-22-11 09:50	6 - 6 ft	432251-003
Grab S4	S	11-22-11 10:00	4 - 4 ft	432251-004
Grab S5	S	11-22-11 10:10	5 - 5 ft	432251-005
Grab S6	S	11-22-11 10:20	6 - 6 ft	432251-006





Client Name: Yates Petroleum Corporation

Project Name: Martha AIK Federal # 1



Project ID:

30-015-26549

Work Order Number: 432251

Report Date: 01-DEC-11 Date Received: 11/29/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Project Id: 30-015-26549

Project Location: Eddy County

Contact: Amber Cannon

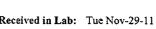
Certificate of Analysis Summary 432251

Yates Petroleum Corporation, Artesia, NM

Project Name: Martha AIK Federal #1

Date Received in Lab: Tue Nov-29-11 12:15 pm

Report Date: 01-DEC-11



								Project Ma	nager:	Brent Barron I	n		
	Lab Id:	432251-	001	432251-0	002	432251-0	03	432251-0	004	432251-0	05	432251-0	06
Analysis Requested	Field Id:	Grab N	:4	Grab N	5	Grab No	5	Grab S	4	Grab S	5	Grab Se	6
Anutysis Kequesteu	Depth:	4-4 ft	:	5-5 ft		6-6 ft		4-4 ft		5-5 ft		6-6 ft	
	Matrix:	SOIL	.	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Nov-22-11	09:30	Nov-22-11	09:40	Nov-22-11 (09:50	Nov-22-11	10.00	Nov-22-11	10:10	Nov-22-11	10:20
Anions by E300	Extracted:							· · · · · · · · · · · · · · · · · · ·		······································		<u>`</u>	
	Analyzed:	Nov-29-11	17:45	Nov-29-11	17 45	Nov-29-11	17:45	Nov-29-11	17:45	Nov-29-11	17.45	Nov-29-11	17:45
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		593	8.63	780	8.61	1710	21.6	200	4.31	164	4.31	77.4	4.31
Percent Moisture	Extracted:									···············			
	Analyzed:	Nov-29-11	14:40	Nov-29-11	14 40	Nov-29-11 1	14:40	Nov-29-11	14:55	Nov-29-11	14.55	Nov-29-11	14:55
	Units/RL:	%	RL	%	RL	%	RL	% .	RL	%	RL	%	RL
Percent Moisture		2.62	1.00	2.45	1.00	2.64	1.00	2.64	1.00	2.65	1.00	2.57	1.00

This analytical report, and the entire data package it represents, bus 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.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - 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 affect the recovery of the spike concentration. This condition could also affect 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 quantiation limit and above the detection limit.
- 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.
- * Surrogate recovered outside laboratory control limit.
- **BRL** Below Reporting Limit.
- **RL** Reporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

^ NELAC or State program does not offer Accreditation at this time.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Miami - Phoenix - Latin America

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 6017 Financial Drive, Norcross, GA 30071 3725 E Atlanta Avc, Phoenix, AZ 85040 (770) 449-8800 (770) 449-5477 (602) 437-0330



BS/BSD Recoveries



Project Name: Martha AIK Federal #1

Work Order #: 432251

Project ID: 30-015-26549

Analyst: BRB

Date Prepared: 11/29/2011

Date Analyzed: 11/29/2011

Lab Batch ID: 875947

Sample: 875947-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Anions by E300	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Coutrol Limits %R	Control Limits %RPD	Flag
Analytes		(B)	{C}	[D]	{E}	Result [F]	[G]			1	}
Chloride	<0 840	20.0	19.9	100	20.0	20.3	102	2	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries

Project Name: Martha AIK Federal # 1

Work Order #: 432251

Lab Batch #: 875947

Project ID: 30-015-26549

Date Analyzed: 11/29/2011

Date Prepared: 11/29/2011

Analyst: BRB

QC- Sample ID: 432251-002 S

Batch #: Matrix: Soil

Reporting Units: mg/kg	MATE	UX / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes	(A)	(B)				
Chloride	780	205	971	93	75-125	

Lab Batch #: 875947

Date Analyzed: 11/29/2011

Date Prepared: 11/29/2011

Analyst: BRB

QC- Sample ID: 432252-001 S

Batch #:

Matrix: Soil

Reporting Units: mg/kg	MATE	RIX / MA	TRIX SPIKE	IX SPIKE RECOVERY STUDY iked Sample Result [C] MR Limits Flag %R					
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]		%R	Limits	Flag			
Chloride	4730	2210	7220	113	75-125				

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Martha AIK Federal # 1

Work Order #: 432251

Lab Batch #: 875947

Project ID: 30-015-26549

Date Analyzed: 11/29/2011 17:45

Date Prepared: 11/29/2011

Analyst: BRB

QC- Sample ID: 432252-001 D

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	4730	5430	14	20	

Lab Batch #: 875863

Date Analyzed: 11/29/2011 10:25

Date Prepared: 11/29/2011

Analyst: BRB

QC-Sample ID: 432217-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY

Reporting Omis: 70	SAM DET SAMI DE DOTEICATE RECOVERT									
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag					
Analyte		[B]								
Percent Moisture	1.79	1.94	8	20						

age 10 of 11

XENCO-Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

	Project Manager:	Amber Cannon															_	Pro	ject	Nam	e: <u>N</u>	iart	<u>ha</u>	Alk	<u> </u>	<u>ade</u>	ral	#1			
	Company Name	Yates Petroleum C	Corporati	on													-		Pro	ject	#: <u>3(</u>	<u>)-01</u>	5-26	6549	<u>) </u>						
	Company Address:	105 South 4th Stre	et														_	P	roje	at Lo	c: <u>E</u> c	idy C)oun	ty							
	City/State/Zip:	Artesia, NM 8821	0														_			PO	#: <u>10</u>	3202	20								
	Telephone No:	575-748-4111	,				Fax No:	:	575	5-74	8-45	85					R	eport	For	mat:	×	Sta	ında	ırd	Ε	٦т	RRP	ı		NPDE	S
	Sampler Signature:	ambe		av	γv	٧٠	e-mail:			ac	anı	non	<u>@</u>	/ate	esp	etro	leun	1.00	m												
(lab use	only)		7				•													_		TCLP:	_	nalyz	e Fo		_	_		7	7
ORDE	" 1127	251									Prese	rvatio	08#	of C	ontau	ACR.	I Ma	trix				JATC.		H	7	7		{ }		. 48, 72 hrs	
01.02			_!	Г	1	T		Т			1000			Ť	7	Ť	 		80158	90		1	Hg 58			8260	1			24, 45,	H
LAB # (lab use only)	FIE	LD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	S)	HNO,	HG	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃	None Other (Specify)	D/Ne Darking Water St.=Sludge		418.1 8015M	TPH: TX 1005 TX 10	Anions (Cl. SO4, Alkalinity)	SAR / ESP / CEC	Metals. As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 80216/5030 or BTEX 8260	NO RM.	Chlorides		RUSH TAT (Pre-Schedute) 2	Standard TAT
01	G	rab N4		4'	4'	11/22/2011	9·30 AM		1									3	\Box					\Box	\perp	I	I	X	$oxed{oxed}$	I	x
02	G	rab N5		5'	5'	11/22/2011	9:40 AM	<u> </u>	1				\perp					<u> </u>	_	\perp	<u> </u>	L	Ш	Ш	\bot	\perp	\perp	x	\perp	\perp	x
うろ	G	rab N6		6'	6'	11/22/2011	9:50 AM		1			\perp	4	4	4	_		<u>:</u>	4	_ _	\perp		Ш		\rightarrow		\bot	x	\dashv	\bot	x
04	G	rab S4		4'	4'	11/22/2011	10:00 AM	_	1	Ш		\dashv	_	4	4	_		3_	4	\bot	丄	\perp	Ш		4	\bot		X	\bot		x
55	G	rab 55		5'	5'	11/22/2011	10:10 AM	<u> </u>	1				\downarrow	1	\perp				4	_	1	L		\sqcup	\perp	丄	1	X	1	\perp	x
<u>00</u>	G	rab S6		6'	6'	11/22/2011	10:20 AM	L	1			4	4	\perp	\perp	4			_	4	\perp		Ш	\sqcup	4	\bot	\perp	X	\perp		x
								_	_	Ш			4	4	4	4-		_	4	_				1	4	1	1	\perp	\perp		L
									Ц	Ц		\dashv		4	1	_	_		\downarrow	1		Ш	Ш	\dashv		\perp		Ц	_	\perp	L
								L	Ц	Ц		_	_ļ	4	1	_		_	4	1	\downarrow				\bot		\perp	\sqcup			L
								L				-	4	4	Ļ	_	<u> </u>		4	+	\perp		\square		4	\bot		Щ	\bot	丰	Ĺ
										_	_	_	4	1	4		ļ		_		╄	_			4	\bot	1	\coprod		1_	Ĺ
. ,								<u> </u>			\dashv	_	4	4	_	1	_	_	_			Ш		_	4	\bot	↓_	\sqcup	_		
				Ĺ				Ц			1	1	\perp	4	\perp	4	<u> </u>	\dashv	4	_	1_	\sqcup		4	4	4	4	Ц			L
												{		丄	\perp		<u> </u>			<u> </u>	<u> </u>	Щ	لي			ᆚ		Ш		\perp	
Special I	nstructions.																			S	mole	Cor	Con niëin	mme ers li	nts: ntact	29	5	1	D:	N:	ا يائد
			·····													D٤	10	T	ime		DCs I	Free	of H	leads	pace			Ş	31	=(7)
Relinquis	1	1.15	ate		70P	Received by.										שט	ne	'	11116	C	ıstod	y sea	als or	n cor	ntain	er(s)		بح د	Tr"	. 14 	17.12
Relinquisi	hed bγ:	Ē	Dete	_O ∵ Til	TIE	Received by.									\dagger	Da	te	1	ime	Si Si	mple by S	Har Samp	nd De ster/C	eliver Client	red Rep.			چ رچہ		N Z	g
Relinguist	ned by:	- 5	ate	Tir	ne	Received by ELC	or.		_	7/3					+	Da			me	1	ъγ	Court	$\tilde{7}_i$	יב(1PS 9K1	S. Pt.	•	FedE	-	one Sta	ar
	Fedex					as	drea	_	4	W	2	~~	_		11	·2	9-11	113	Ţ	ጎ™	mpe	atur	e Up	on R	ece!	ρĿ		14	ء،	• •C	ı



ŒNCO	Laboratories	
------	--------------	--

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Clients Vates	Ditraleura		•		•		
11 0	LE MOICONI						
Date/Time: 11 2	7.11 10.13						
LabID#:	432251			•			
Initials:	231 242 4			4 7/3			
	Sa	ample Receipt Ch	neckii	st			
1. Samples on ice?				Blue	Water	No	
2. Shipping container in	good condition?			Yes	No	None /	
3. Custody seals intact o	n shipping container (co	oler) and bottles?		Yes	No	NA	
4. Chain of Custody pres	ent?		{,	Yes	No		
5. Sample instructions of	omplete on chain of cust	ody?		Yes	No		
6. Any missing / extra sa	mples?			Yes	(No)		
7. Chain of custody sign	ed when relinquished/ n	eceived?		Yes	No		
8. Chain of custody agre	es with sample label(s)?	4		Yes	No		
9. Container labels legib	le and intact?			Yes	No		
10. Sample matrix / prop	erties agree with chain o	f custody?		Yes	No -		
11. Samples in proper co	ontainer / bottle?			Yes	No		
12. Samples property pro	conved?	· · · · · · · · · · · · · · · · · · ·		Yes	No	N/A	
13. Sample container int	act?			Yes	No		
14. Sufficient sample am	ount for indicated test(s)?		Yes	No		
15. All samples received	within sufficient hold tir	ne?		Yes	No		
16. Subcontract of samp	le(s)?			Yes	No	(NA)	
17. VOC sample have ze	ro head space?			Yes	No	<na< td=""><td></td></na<>	
18. Cooler 1 No.	Cooler 2 No.	Cooler 3 No.		Cooler 4 No		Cooler 5 No.	·
10s 14.5°C	lbs °C	lbs	°C	lbs	2°	lbs	<u>°c</u>
	Nonc	conformance Doc	ume	ntation			•
Contact:	Contacted by	۲			Date/Time:_		
Regarding:				•			
		, , , , , , , , , , , , , , , , , , , ,					
Corrective Action Taker	a:						
							<u> </u>
							
Check all that apply:	Cooling process has b condition accept	egun shortly after say able by NELAC 5.5.8.			out of tempe	rature	•
	⊡hifial and Backup Ten □ Client understands and				nditions		

Analytical Report 426558

for Yates Petroleum Corporation

Project Manager: Amber Cannon
Martha AIK Federal #1
30-015-26549
08-SEP-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-10-6-TX), Arizona (AZ0765), 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 (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALII), 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-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





08-SEP-11

Project Manager: Amber Cannon Yates Petroleum Corporation 105 South Fourth St. Artesia, NM 88210

Reference: XENCO Report No: 426558

Martha AIK Federal #1
Project Address: Eddy County

Amber Cannon:

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 426558. 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. 426558 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 426558



Yates Petroleum Corporation, Artesia, NM

Martha AIK Federal #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Comp-01.0	S	08-24-11 10:56	1 - 1 ft	426558-001
Comp-02.0	S	08-24-11 11:38	2 - 2 ft	426558-002
Comp-03.0	· s	08-24-11 12:20	3 - 3 ft	426558-003





Client Name: Yates Petroleum Corporation Project Name: Martha AIK Federal #1



Project ID:

30-015-26549

Work Order Number: 426558

Report Date: 08-SEP-11

Date Received: 08/26/2011

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non nonformances and comments:

Batch: LBA-868829 BTEX by EPA 8021B

SW8021BM

Batch 868829, o-Xylene recovered below QC limits in the Matrix Spike.

Samples affected are: 426558-003, -001, -002.

The Laboratory Control Sample for o-Xylene is within laboratory Control Limits

Batch: LBA-869315 TPH By SW8015B Mod

SW8015B NM

Batch 869315, C6-C10 Gasoline Range Hydrocarbons recovered below QC limits in the Matrix Spike Duplicate.

Samples affected are: 426558-003, -001, -002.

The Laboratory Control Sample for C6-C10 Gasoline Range Hydrocarbons is within laboratory

Control Limits



Certificate of Analysis Summary 426558

Yates Petroleum Corporation, Artesia, NM

Project Name: Martha AIK Federal #1



Project Id: 30-015-26549 Date Received in Lab: Fri Aug-26-11 09:30 am Contact: Amber Cannon

Report Date: 08-SEP-11 Project Location: Eddy County

Project Manager: Brent Barron II

								Project Manager:	Brent Barron II	
	Lab Id:	426558-	001	426558-	002	426558-	003			
Analysis Requested	Field Id;	Comp-0	1.0	Comp-0	2.0	Comp-0	3.0			
Anulysis Nequesteu	Depth:	1-1 ft	:	2-2 ft		3-3 ft	:			
	Matrix:	SOIL	,	SOIL	SOIL		,			
	Sampled:	Aug-24-11	10:56	Aug-24-11	11:38	Aug-24-11	12:20			
BTEX by EPA 8021B	Extracted:	Aug-29-11	14:00	Aug-29-11	14:00	Aug-29-11	14:00			
	Analyzed:	Aug-30-11	00:40	Aug-30-11	01:03	Aug-30-11	01:26			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Benzene		ND	0.00103	ND	0.00103	ND	0.00103			
Toluene		ND	0.00205	ND	0.00205	ND	0.00205			
Ethylbenzene		ND	0.00103	ND	0.00103	ND	0.00103			
m_p-Xylenes		ND	0.00205	ND	0.00205	ND	0.00205			
o-Xylone		ND	0.00103	ND	0 00103	ND	0.00103			
Total Xylones		ND	0.00103	ND	0.00103	ND	0.00103			
Total BTEX		ND	0.00103	ND	0.00103	ND	0.00103			
Percent Moisture	Extracted:									
	Analyzed:	Aug-26-11	12:25	Aug-26-11	12:25	Aug-26-11	12:30			
	Units/RL:	%	RL	%	RL	%	RL			
Percent Moisture		2 75	1.00	2.97	1.00	2.99	1.00			
TPH By SW8015B Mod	Extracted:	Aug-26-11	12:25	Aug-26-11	12:25	Aug-26-11	12:25			
	Analyzed:	Sep-04-11	00:57	Sep-04-11	01:27	Sep-04-11	01:59			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
C6-C10 Gasoline Range Hydrocarbons		ND	15.4	ND	15.4	ND	15.4			
C10-C28 Diesel Range Hydrocarbons		87 0	15.4	46.2	15.4	194	15.4			
Total TPH		87.0	15.4	46.2	15.4	19.4	15.4			

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.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Version, 1.%

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 affect the recovery of the spike concentration. This condition could also affect 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 quantiation limit and above the detection limit.
- 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

MDL Method Detection Limit SDL Sample Detection Limit LOI

LOD Limit of Detection

PQL Practical Quantitation Limit

MQL Method Quantitation Limit

LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Miami - Phoenix - Latin America

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) 509-3335 (210) 509-3334 2505 North Falkenburg Rd, Tampa, FL 33619 (813) 620-2000 (813) 620-2033 5757 NW 158th St, Miami Lakes, FL 33014 (305) 823-8500 (432) 563-1800 (305) 823-8555 12600 West I-20 East, Odessa, TX 79765 (432) 563-1713 6017 Financial Drive, Norcross, GA 30071 (770) 449-8800 (770) 449-5477 3725 E. Atlanta Ave, Phoenix, AZ 85040 (602) 437-0330



Form 2 - Surrogate Recoveries

Project Name: Martha AIK Federal #1

Work Orders: 426558,

Project ID: 30-015-26549

Lab Batch #: 868829

Sample: 426558-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg	Date Analyzed: 08/30/11 00:40	SURROGATE RECOVERY STUDY						
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1,4-Difluorobenzene		0.0278	0.0300	93	80-120			
4-Bromofluorobenzene		0.0261	0.0300	87	80-120			

Lab Batch #: 868829

Sample: 426558-002 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 08/30/11 01:03	SU	RROGATE F	RECOVERY	STUDY	
вте	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1.4-Difluorobenzene	Analytes	0.0283	0.0700	[D]	PO 170	
4-Bromofluorobenzene		0.0285	0.0300 0.0300	95	80-120 80-120	

Lab Batch #: 868829

Sample: 426558-003 / SMP

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 08/30/11 01:26	SURROGATE RECOVERY STUDY					
ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			[D]			
1,4-Difluorobenzene		0.0281	0.0300	94	80-120	-	
4-Bromofluorobenzene		0 0281	0.0300	94	80-120		

Lab Batch #: 869315

Sample: 426558-001 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 09/04/11 00:57	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015B Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		[-1	[D]		
1-Chlorooctane	90.3	99.9	90	70-135	
o-Terphenyi	41.5	50.0	83	70-135	***************************************

Lab Batch #: 869315

Sample: 426558-002 / SMP

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 09/04/11 01:27	SU	RROGATE R	ECOVERY S	STUDY	
TPH By SW8015B Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes	L		ID1		
1-Chlorooctane	91.4	99.7	92	70-135	
o-Terphenyl	42.0	49.9	84	70-135	

^{*} Surrogate outside of Laboratory QC limits

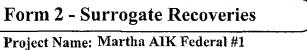
Surrogate Recovery [D] = 100 * A/B

All results are based on MDL and validated for QC purposes.

^{**} Surrogates outside limits; data and surrogates confinued by reanalysis

^{***} Poor recoveries due to dilution





Work Orders: 426558,

Project ID: 30-015-26549

Lab Batch #: 869315

Sample: 426558-003 / SMP

Matrix: Soil Batch:

Units: mg/kg Date Analyzed: 09/04/11 01:59	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	87.0	99.5	87	70-135	
o-Terphenyl	40.6	49.8	82	70-135	

Lab Batch #: 868829

Sample: 610727-1-BLK/BLK

Batch: 1

Matrix: Solid

Units: mg/kg	Date Analyzed: 08/29/11 17:28	SU	RROGATE R	RECOVERY	STUDY	
ВТЕ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0265	0.0300	88	80-120	
4-Bromofluorobenzene		0.0257	0 0300	86	80-120	

Lab Batch #: 869315

Sample: 610991-1-BLK/BLK

Batch:

Matrix: Solid

Units: mg/kg Date Analyzed: 09/04/11 00:25	SU	RROGATE R	RECOVERY	STUDY	
TPH By SW8015B Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]	}	
1-Chlorooctane	91 8	99.9	92	70-135	
o-Terphenyl	42.7	50.0	85	70-135	

Lab Batch #: 868829

Sample: 610727-1-BKS/BKS

Batch: 1

Matrix: Solid

Units: mg/kg	Date Analyzed: 08/29/11 15:57	SU	RROGATE R	ECOVERY	STUDY	
втех	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Centrol Limits %R	Flags
	Analytes			[D]		
1,4-Dıfluorobenzene		0.0304	0.0300	101	80-120	
4-Biomofluorobenzene		0.0283	0.0300	94	80-120	,

Lab Batch #: 869315

Sample: 610991-1-BKS/BKS

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 09/03/11 23:24	SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015B Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.9	109	70-135	
o-Terphenyl	46.0	50.0	92	70-135	

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Version: 1.%

Final 1.000

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: Martha AIK Federal #1

Work Orders: 426558,

Project ID: 30-015-26549

Lab Batch #: 868829

Sample: 610727-1-BSD/BSD

Batch: 1 Matrix: Solid

Units: mg/kg Date Analy	zed: 08/29/11 16:20	SU	RROGATE R	ECOVERY	STUDY	
BTEX by EPA 802	21B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes		• •		[D]		
1,4-Difluorobenzene		0.0293	0.0300	98	80-120	
4-Bromofluorobenzene		0.0284	0.0300	95	80-120	

Lab Batch #: 869315

Sample: 610991-1-BSD / BSD

Batch: 1

Matrix: Solid

Units: mg/kg Date Analyzed: 09/03/11	23:54 SU	RROGATE R	ECOVERY	STUDY	
TPH By SW8015B Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
Analytes			[D]		
1-Chloroctane	116	99.8	116	70-135	
o-Terphenyl	46.2	49.9	93	70-135	

Lab Batch #: 868829

Sample: 426147-004 S / MS

Batch: 1

Matrix: Soil

Units: mg/kg	Date Analyzed: 08/29/11 21:37	SURROGATE RECOVERY STUDY												
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1,4-Diffuorobenzene		0.0301	0.0300	100	80-120									
4-Bromofluorobenzene		0.0300	0.0300	100	80-120									

Lab Batch #: 869315

Sample: 426561-003 S / MS

Batch:

Matrix: Soil

Units: mg/kg Date Analyzed: 09/04/11 04:06	SURROGATE RECOVERY STUDY												
TPH By SW8015B Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags								
Analytes			[D]										
1-Chlorooctane	104	100	104	70-135									
o-Terphenyl	43.6	50.0	87	70-135									

Lab Batch #: 868829

Sample: 426147-004 SD / MSD

Batch: 1

Matrix: Soil

Units: mg/kg Date Analyzed: 08/29/11 22:00	SURROGATE RECOVERY STUDY												
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1,4-Difluorobenzene	0.0298	0.0300	99	80-120									
4-Bromofluorobenzene	0 0298	0.0300	99	80-120									

^{*} Surrogate outside of Laboratory QC limits

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

^{**} Sun ogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



Form 2 - Surrogate Recoveries

Project Name: Martha AIK Federal #1

Work Orders: 426558,

Project ID: 30-015-26549

Lab Batch #: 869315

Sample: 426561-003 SD / MSD

Matrix: Soil Batch: 1

Units: mg/kg Date Analyzed: 09/04/11 04:36	SURROGATE RECOVERY STUDY												
TPH By SW8015B Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags								
Analytes			[D]										
I-Chlorooctane	99.7	101	99	70-135									
o-Terphenyl	43.0	50.3	85	70-135									

Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

^{*} Surrogate outside of Laboratory QC limits

^{**} Surrogates outside limits; data and surrogates confirmed by reanalysis

^{***} Poor recoveries due to dilution



BS / BSD Recoveries



35

35

35

Project Name: Martha AIK Federal #1

Work Order #: 426558

Analyst: ASA Date Prepared: 08/29/2011

Project ID: 30-015-26549

Date Analyzed: 08/29/2011

Lab Batch ID: 868829

Sample: 610727-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY														
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag				
Analytes		[B]	[C]	[D]	(E)	Result [F]	[G]								
Benzene	<0.00100	0.100	0.114	114	0.100	0.113	113	1	70-130	35					
Toluene	<0.00200	0.100	0.104	104	0.100	0.103	103	1	70-130	35					

115

121

107

0.100

0.200

0.100

0.116

0.242

0.107

0.115

0.241

0.107

Analyst: BBH

Ethylbenzene

m p-Xylenes

o-Xylene

Date Prepared: 08/26/2011

Date Analyzed: 09/03/2011

1

0

116

121

107

Lab Batch ID: 869315

Sample: 610991-1-BKS

< 0.00100

< 0.00200

< 0.00100

Batch #: 1

0.100

0.200

0.100

Matrix: Solid

71-129

70-135

71-133

Units: mg/kg		BLAN	K /BLANK S	SPIKE / I	BLANK S	PIKE DUPI	LICATE 1	RECOVI	ERY STUD	Y	
TPH By SW8015B Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Bik. Spk Dup. %R [C]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C10 Gasoline Range Hydrocarbons	<15.0	999	750	75	998	794	80	6	70-135	35	
C10-C28 Diesel Range Hydrocarbons	<15.0	9 99	881	88	998	919	92	4	70-135	35	

Relative Percent Difference RPD = 200*[(C-F)/(C+F)]
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries



Project Name: Martha AIK Federal #1

Work Order #: 426558

Project ID: 30-015-26549

Lab Batch ID: 868829

QC-Sample ID: 426147-004 S

Batch #:

Matrix: Soil

Date Analyzed: 08/29/2011

Date Prepared: 08/29/2011

ASA Analyst:

Reporting Units: mg/kg

Reporting Onics: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Benzene	<0.00105	0.105	0.0802	76	0.105	0 0899	86	11	70-130	35	
Toluene	<0.00209	0.105	0.0737	70	0 105	0 0806	77	9	70-130	35	
Ethylbenzene	<0.00105	0.105	0.0826	79	0.105	0.0886	84	7	71-129	35	
m_p-Xylenes	<0.00209	0.209	0 163	78	0 209	0.176	84	8	70-135	35	
o-Xylene	<0.00105	0.105	0.0718	68	0.105	0.0787	75	9	71-133	35	х

Lab Batch ID: 869315

QC-Sample ID: 426561-003 S

Batch #:

Matrix: Soil

Date Analyzed: 09/04/2011

Date Prepared: 08/26/2011

Analyst: BBH

1

Reporting Units: mg/kg		TE RECOVERY	STUDY		
	Parent	Smiled Sample Smiled	Ounlingto	Cnilsad	Control

TPH By SW8015B Mod	Parent Sample Result	Spike	Spiked Sample Result	Sample	•	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag	
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD		
C6-C10 Gasoline Range Hydrocarbons	<16.9	1130	797	71	1130	778	69	2	70-135	35	х	
C10-C28 Diesel Range Hydrocarbons	<16.9	1130	903	80	1130	903	80	0	70-135	35		

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*[(C-F)/(C+F)] Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Version 1.%

Final 1.000



Sample Duplicate Recovery



Project Name: Martha AIK Federal #1

Work Order #: 426558

Lab Batch #: 868531

Date Prepared: 08/26/2011

Project ID: 30-015-26549

Date Analyzed: 08/26/2011 10:50 **QC-Sample ID:** 426524-001 D

Percent Moisture

Analyte

Batch #: 1

Analyst: BRB Matrix: Soil

Reporting Units: %

Percent Moisture

Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
2.90	2.92	1	20	

Spike Relative Difference RPD 200 * [(B-A)/(B+A) [All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

Page 14 of 15

XENCO-Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

	Project Manager:	Amber Cannon															Pr	ojed	t Na	me:	Ma	artl	ha /	<u>Al</u>	<u>(F</u>	ede	ral	#1				
	Company Name	Yates Petroleum Corpora	ation															P	roje	ct #:	30	-01	5-26	5549	<u> </u>					······································		
	Company Address:	105 South 4th Street													_		1	Proj	ect	-oc:	Edo	dy C	ount	<u>y</u>								
	City/State/Zip:	Artesia, NM 88210					_												Þ	O #:	103	3202	0									
	Telephone No:	575-748-4111			**	_ Fax No:		57	5-74	18-4 <u>5</u>	85						Repor	t Fc	orma	t:	×	Sta	ndar	ď	[□ ¹	rrp	,		NPC	ES	i
	Sampler Signature:	amber Car	MUN	۸_		e-mail:			ag	cani	nor	ൂ@	yate	esr	<u>oet</u> i	ole	um.co	<u>m</u>														
(lab use	an!v)	N .																⊦			Tr	CLP	An	alyz	e Fo	<u>r:</u>		_	_	-		
ORDE		416559							_	Prese	evatio	on & i	# of C	conta	iners	_	Matrix	-		1		TAL:		7	す	7		ļ	}		72 hrs	
								Τ	T					T	T	\top		8015B	1005				Hg Se			8260					24, 48	
LAB#(lab use only)	FIEI	LD CODE	Beginning Depth	Ending Depth	Date Sempled	Time Sampled	Field Filtered	Total # of Containers	lce	HNO3	НСІ	⁵SO,	NaOH	Na ₂ S ₂ O ₃	None		DVF=LAINKING VARIET SESSIVING GW = Groundwater S=SolVSold NP=Non-Polable Specify Other	1	XT 2001 XT	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalmity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg	Votatites	Sentivoletiles	BTEX 80218/5030 or BTEX	NO B.W.	Chlorides			RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
001	Co	mp-01.0	1'	1'	8/24/2011	10:56 AM		1	X							T	s	X					\Box	\Box	J	x		X	$oxed{\Box}$	П	\Box	х
002	Car	mp-02.0	2'	2'	8/24/2011	11:38 AM		1	X						_		s	Х					\dashv	_	_	x	\perp	X	_	Ц		×
003	Co	mp-03.0	3,	3'	8/24/2011	12.20 PM		1	×				\dashv	_	-	4	S	X	-		$\vdash \mid$	$\vdash \vdash$	\dashv	_	4	×	\downarrow	x	1	$\vdash \downarrow$	4	×
<u> </u>			-				\vdash	╁	╀				+	\dashv	\dashv	+		H	+		\vdash	\vdash	\dashv	\dashv	+	+	+	+	╁	┼╌╂	┥	\vdash
 -			 	-			-	╀╌	-				+	\dashv	\dashv	+		\vdash	\vdash	\vdash	Н	\dashv	\dashv	\dashv	+	+	+	+	+	\vdash	\dashv	_
 			_	 			_		H	\vdash	-		_	7	+	+		┞	╁╌		П		\pm	+	+	+	+	十	+	\vdash	┪	_
			 					T						7	1	十			T		\Box		\top	\forall	-	\top	+	t	1	\sqcap	7	Γ
									Γ					1	7	1							一	7	\top	1	1	T	Τ	\sqcap	╛	_
																							\Box	\Box		floor		$oxed{L}$		\prod	floor	
															\perp								\Box			\perp	\perp	L			\perp	_
								L	L				_	_	_			_	_				\perp	\perp	\bot	\perp		\perp	<u> </u>	\sqcup	╛	_
	PLEASE P	UT CHLORIDES	ļ					_			\dashv	_		_	_	_		L	<u> </u>			_	_	\downarrow	\downarrow	4	\bot	\perp	_	\sqcup	_	_
		RATE REPORT						L						_L	4			L	L			ᆚ	ᆚ	_	ᆚ	Д.	丄	丄	丄		_	
Pbeciai i	nstructions:	TPH: 8015B, B1	EX: 8)21B	& Chlorides.	Please show	/ B :	IEX	(res	sults	as	mg/	kg.	1 h	апк	you	•					-	Con					,	(Y.)	ر (بــــــلا	~
Rekaquist	and by:	Date	l Ti	me	Received by:		_	_						_		Date		Tim	e				of He ontain			e?			Ŕ	, ና	毕	مر
1 / 1	ber Cann		3:3:														ļ		-	Çus	tody	/ sea		n ço	ntalr	ner(s 's))	(8	1	ı	
Relinquis		Date	Ti	me	Received by:		-									Date		Tim		San	nple by S by C	Han Sampl	nd De iler/C er?	elive Hent L	red Rep JPS	o. ? D	HL	/ Fe		Lone	i Sta	35
Relinquist	ned by:	Date	Til	ne	Received by ELC	Murdon	L	/								Date	11 9	Tim	0	Теп	ıper:	ature	J Sp	ζη F	G/	ipt:	-	2			С	



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dailas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist,

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 c

Prelogin / Nonconformance Report - Sample Log-In

Client: Yates				
Date/Time: %-20-11 9:30				
Lab ID#: 426558/426559-C1				
Initials:				
Sample Receipt Check	dist			
1. Samples on ice?	Blue	Water	No	
2. Shipping container in good condition?	Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Y98	No	N/A	
4. Chain of Custody present?	Yes	No		
5. Sample instructions complete on chain of custody?	Yes	No		
6. Any missing / extra samples?	Yes	No		
7. Chain of custody signed when relinquished / received?	Yes	No		
8. Chain of custody agrees with sample label(s)?	(YES)	No		
9. Container labels legible and intact?	Yes	No		
10. Sample matrix / properties agree with chain of custody?	Yes	No ·		
11. Samples in proper container / bottle?	Yes	No		
12. Samples properly preserved?	Yes	No	N/A	
13. Sample container intact?	Yes	No		
14. Sufficient sample amount for indicated test(s)?	Yes	No	<u> </u>	
15. All samples received within sufficient hold time?	Yes	No		
16. Subcontract of sample(s)?	Yes	No	N/A	
17. VOC sample have zero head space?	Yes	No	NA	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.	Cooler 4 N	0.	Cooler 5 No.	
lbs 2.1 °C lbs °C lbs °C	lbs	<u>°c</u>	lbs	°C
Nonconformance Docume	entation			
Contacted by:		Date/Time:_		
Regarding:				
Corrective Action Taken:				
			<u> </u>	
Check all that apply: Cooling process has begun shortly after sampling condition acceptable by NELAC 5.5.8.3.1.a. Clinitial and Backup Temperature confirm out of ter	i. nperature co		rature	

Final 1.000

Analytical Report 426559

for
Yates Petroleum Corporation

Project Manager: Amber Cannon
Martha AIK Federal #1
30-015-26549
07-SEP-11

Collected By: Client



Celebrating 20 Years of commitment to excellence in Environmental Testing Services



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0765), 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 (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), 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-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code: AZ000989): Arizona (AZ0758)





07-SEP-11

Project Manager: Amber Cannon Yates Petroleum Corporation 105 South Fourth St. Artesia, NM 88210

Reference: XENCO Report No: 426559

Martha AIK Federal #1
Project Address: Eddy County

Amber Cannon:

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 426559. 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. 426559 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

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



Sample Cross Reference 426559



Yates Petroleum Corporation, Artesia, NM

Martha AIK Federal #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Comp-01.0	S	08-24-11 10:56	1 - 1 ft	426559-001
Comp-02.0	S	08-24-11 11:38	2 - 2 ft	426559-002
Comp-03.0	S	08-24-11 12:20	3 - 3 ft	426559-003

CASE NARRATIVE

Client Name: Yates Petroleum Corporation

Project Name: Martha AIK Federal #1



Project ID: 30-015-26549 Report Date: 07-SEP-11 Work Order Number: 426559 Date Received: 08/26/2011 Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

None



Certificate of Analysis Summary 426559

Yates Petroleum Corporation, Artesia, NM





Project Id: 30-015-26549

Contact: Amber Cannon

Project Location: Eddy County

Date Received in Lab: Fri Aug-26-11 09:30 am

Report Date: 07-SEP-11

Project Manager:	Brent Barron II

								Troject Manager.		
	Lab Id:	426559-0	001	426559-0	02	426559-0	03			
Analysis Requested	Field Id:	Comp-0	Comp-01.0		Comp-02.0		.0			
Anatysis Kequesteu	Depth:	1-1 ft		2-2 ft		3-3 ft		,	1	
	Matrix:	SOIL		SOIL		SOIL				
	Sampled:	Aug-24-11	g-24-11 10:56 Au		1:38	Aug-24-11 12:20				
Anions by E300	Extracted:									
	Analyzed:	Aug-27-11	17·31	Aug-27-11	7:31	Aug-27-11 1	17:31			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Chloride		2590	43.2	3460	43.3	2920	43.3			
Percent Moisture	Extracted:									
	Analyzed:	Aug-26-11	12:30	Aug-26-11	2:30	Aug-26-11 1	12:30			
	Units/RL:	%	RL	%	RL	%	RL			
Percent Moisture		2.75	1 00	2.97	1.00	2.99	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 Itability is limited to the amount involced for this work order unless otherwise agreed to in writing

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - 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 affect the recovery of the spike concentration. This condition could also affect 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 quantiation limit and above the detection limit.
- 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

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit

MQL Method Quantitation Limit

LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ Outside XENCO's scope of NELAC Accreditation.

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - San Antonio - Atlanta - Midland/Odessa - Tampa/Lakeland - Miami - Phoenix - Latin America

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 J-20 East, Odessa, TX 79765 (432) 563-1800 (432) 563-1713 6017 Financial Drive, Norcross, GA 30071 (770) 449-8800 (770) 449-5477 3725 E Atlanta Ave, Phoenix, AZ 85040 (602) 437-0330



BS / BSD Recoveries



Project Name: Martha AIK Federal #1

Work Order #: 426559

Analyst: BRB

Date Prepared: 08/27/2011

Project ID: 30-015-26549

Date Analyzed: 08/27/2011

Lab Batch ID: 868506

Sample: 868506-1-BKS

Batch #: 1

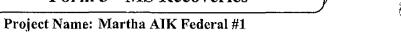
Matrix: Solid

Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY													
Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag				
Chloride	<0 840	20.0	22.8	114	20.0	23.1	116	1	75-125	20					

Relative Percent Difference RPD = 200*[(C-F)/(C+F)] Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Work Order #: 426559

Lab Batch #: 868506

Date Analyzed: 08/27/2011

Date Prepared: 08/27/2011

Project ID: 30-015-26549

Analyst: BRB

QC- Sample ID: 426524-002 S

Batch #:

Matrix: Soil

Reporting Units: mg/kg	MATRIX / MATRIX SPIKE RECOVERY STUDY													
Inorganic Anions by EPA 300 Analytes	Parent- Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag								
Chloride	30.2	100	135	105	75-125									

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference [E] = 200*(C-A)/(C+B) All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



sample Duplicate Recovery



Project Name: Martha AIK Federal #1

Work Order #: 426559

Lab Batch #: 868506

Date Prepared: 08/27/2011

Project ID: 30-015-26549

Date Analyzed: 08/27/2011 17:31 **QC- Sample ID:** 426524-002 D

Anions by E300

Analyte

Batch #: 1

Analyst: BRB Matrix: Soil

Reporting Units: mg/kg

SAMPLE / SAMPLE DUPLICATE RECOVERY												
 Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag								
30.2	29.2	3	20									

Lab Batch #: 868531

Date Analyzed: 08/26/2011 10:50

Date Prepared: 08/26/2011

Analyst: BRB

QC-Sample ID: 426524-001 D

Batch #:

Matrix: Soil

Reporting Units: %

Chloride

SAMPLE / SAMPLE DUPLICATE RECOVERY

Reporting Units: 70	SAMPLE/	SAMPLE SAMPLE DUPLICATE RECOVERY													
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag										
Analyte		[B]													
Percent Moisture	2.90	2.92	1	20											

Page 10 of 11

XENCO-Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East Odessa, Texas 79765 Phone: 432-563-1800 Fax: 432-563-1713

	Project Manager:	Amber Cannon							<u>.</u>								_	Pro	ject	Nar	ne:	Ma	rth	a A	<u>iK</u>	Fe	der	al t	<u>#1</u>				_
	Company Name	Yates Petroleum C	orpora	tion				_									_		Pr	ojec	t#:_	30-0	01 <u>5</u> -	-265	49	_							_
	Company Address:	105 South 4th Stre	et														_	₽	roje	ct L	oc: _	Eddy	y Co	unty									
	City/State/Zip:	Artesia, N.M 8821	0														_			PC) #:_	1032	2020	<u> </u>									_
	Telephone No:	575-748-4111					_ Fax No:		575	5-74	8-45	85					R	eport	For	mat	: [× (Stan	.dard			TF	RRP			NPDE	ES	
	Sampler Signature:	amber C	ar	men	1		e-mail:			ac	anr	nor	1@	yate	spe	etrol	eun	1.CO	m														
50.4	1.3		7				_											_						Anal	yze	For:	_	_		\equiv	\exists	7	
(lab use ORDEF		/426559									Prese	ovatio	on & s	of Co	ntain	415	1 Ma	itrix	- B		 	TOT	AL:	#	‡	\pm	1				17 hrs		
	1	100051	-l			T		Γ								Ť	 		8015B	1006			- 1	Se Se		8260	3		'		8 2	<i>:</i> -	-
LAB # (lab use only)	FIE	LD CODE		Beginning Depth	Ending Depth	Date Sempled	Time Sampled	Field Filtored	Total #. of Containers	lce	HND	нсі	H2SO4	NaOH No.c.O.	None	Other (Specify)	DW=Drnkng Water SL=Skinge	NP=Non Politible Specify Dither	TPH: 418.1 8015M		Cettons (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Volatiles	Semivolatifes	STEX 8021B/5030 or BTFX	RCI	NO.R.M	Chlorides		RUSH TAT (Pre-Schadule) 24 48 12 hrs	Conduct TAT	Standard IA
001	Co	mp-01.0		1'	1'	8/24/2011	10:56 AM		1	Х							į	5	x		\Box		\prod	\perp	I	х	Œ		х	\Box	\perp	\perp	X
002	Co	mp-02.0		2'	2'	8/24/2011	11:38 AM	L	1	X				\perp				3	x						\perp	X	<u>. </u>		x		丄	_[:	X
002 003	Co	mp-03.0		3,	3'	8/24/2011	12:20 PM		1	х		\perp	_		1	\perp		5	X	_		1	\perp	\perp	\perp	X	_	\perp	х	\dashv	4	<u></u> ‡	X
					ļ					L		\dashv	_	_	↓_	↓_				\dashv	_	4	4	_	\downarrow	\bot	\bot	1	\sqcup	_	_	1	_
											_	_	_	_	\perp		<u> </u>				4	_	_	_	_	_	\bot	1	Ш		_	╁	_
				ļ	ļ				Ш		_	4	\dashv	\perp	+			_			_	4	4		1	\bot	╄	\perp	\sqcup	_	4	+	_
				<u> </u>	ļ				Ц		_	_	_	_	ļ.,	╄	<u> </u>	_	_	_	4	4	\downarrow	\bot	╀	\downarrow	╀	╀	\sqcup	\dashv	4	+	_
									Ц		_	_	_	_	1	-		\dashv	4		-	1	4	\bot	1	_	4	┼	\sqcup	\dashv	+	∔	_
				ļ											\perp				_	4	_	_	_	\bot	1	\bot	\bot	╀	\sqcup	\dashv	4	╀	_
				<u> </u>	<u> </u>				\dashv		4	_	4		+	-			4	4	4	4	4		4	+	╄	+	\sqcup	\dashv	+	╀	
				ļ							-	_	_	_	1	-					4	4	+	\bot	4	+	 -		\sqcup	-	+	╁	_
				<u> </u>	L					_	_	_	_		+-	1			_	-	\dashv	4	+	+	\downarrow	+	╀-	┿	┦	-	_	+	_
	PLEASE PI	UT CHLORIDES		1						_	_	_	_	_ _	-	ļ	ļ		_	_	\perp	4	4	\bot	\downarrow	+	4	↓_	Ш	-	_	+	_
		RATE REPORT														<u> </u>			_			Ļ	Ц,	丄	丄		丄	┸-			丄	上	_
Special (nstructions:	TPH: 8015	B, BT	FEX: 80)21B &	& Chlorides.	Please show	/B1	EX	res	ults	as	mg/	kg.	har	ık yo	ou.							Comr ainer			?		1	7.)	Ŋ	_	
				1 4-											_			T			voc	s Fr	ee o	f Hea	adsp	ace'				₹	N	4	>
Relinquist	1 11	_	ate 25/11	1	me Nova	Received by										Da	te	'	îme	- 14	Cust	ody:	seals	ntaine s on e	cont	taine			ζ	之	N		
Relinquish	NOON COMMO	016	ate	3:30	me Mili	Received by									-	Da	te		lime:		Sam b	pte I y Sa	Hand Imple	s on a d Deli edCla	ivere	ed Rep.		3 1	((\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	N N N N N N N N N N N N N N N N N N N	Star	
Relinquist	hed by:	D	ate	Ti	me	Received by ELO	Murda	f	/ -			_			18	210		9	ime				urie Li iture	(P)				il.	2.		•C		



XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa Document Title: Sample Receipt Checklist.

Document No.: SYS-SRC

Revision/Date: No. 01, 5/27/2010

Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client:	tes							
Date/Time: 8-26-	9:30	······································						
Lab ID#: 4265	38/42659	39-CI						
Initials:	4							
		S	ample Receip	t Check	list			
1. Samples on Ice?					Blue	(Water)	No	
2. Shipping container	in good condit	ion?			Yes	No	None	
3. Custody seals intac	t on shipping (container (co	oler) and bottles	?	Y98	No	N/A	
4. Chain of Custody p	resent?				Yes	No		
5. Sample instructions	complete on	chain of cust	ody?		Yes	No		·~
6. Any missing / extra	samples?				Yes	No		
7. Chain of custody si	gned when reli	nguished / r	eceived?		Yes	No		
8. Chain of custody ac	rees with sam	ple label(s)?			(Yes)	No		
9. Container labels let	ible and intact	?	-		Yes	No		
10. Sample matrix / pr	operties agree	with chain o	f custody?		(Ygg)	No .		
11. Samples in proper	container / bo	ttle?			Yes	No		
12. Samples properly	preserved?				Yes	No	N/A	
13. Sample container	intact?				(Yes	No		
14. Sufficient sample	amount for ind	icated test(s)?		Yes	No		
15. All samples receiv	ed within suffi	cient hold tir	ne?		Yes	No		
16. Subcontract of sai	nple(s)?	·····			Yes	No	N/A	
17. VOC sample have	zero head spa	ce?			Yes	No	NIA	
18. Cooler 1 No.	Cooler 2 No).	Cooler 3 No.	,	Cooler 4 N	0.	Cooler 5 No.	
lbs 2.1	°C lbs	°C	lbs	0℃	lbs	°c	lbs	<u>°c</u>
		Nonc	onformance	Docume	ntation			
Contact:_	(Contacted by	/:			Date/Time		
			*					
Regarding:				·				
			·					
Corrective Action Tak	en:							
•								
							`	
Check all that apply:	□Cooling a-	scace has be	aun charthy afta	r complie -	overt and	art of tome -	enturo.	
			igun snortly arte ible by NELAC 5			our or tempe	aure	
	🗆 initial and E	Backup Tem	perature confirm would like to pr	out of tem	perature co	nditions		