MARTIN YATES, III 1912-1985 FRANK W. YATES 1936-1986

5.P YATES 1914-2008



JOHN A. YATES

JOHN A. YATES JR. CHAIRMAN OF THE BOARD

DOUGLAS E. BROOKS PRESIDENT CHIEF EXECUTIVE OFFICER

JOHN D. PERINI CHIEF FINANCIAL OFFICER

105 SOUTH FOURTH STREET

ARTESIA, NEW MEXICO 88210-2118

TELEPHONE (575) 748-1471 www.yatespetroleum.com

February 19, 2016

Ms. Kellie Jones/Mr. Jamie Keyes NMOCD District I 1625 N. French Drive Hobbs, New Mexico 88240

Re: Belco AIA Federal #3-H 30-025-38719 Section 14, T20S-R32E Lea County, New Mexico

Ms. Jones/Mr. Keyes:

Yates Petroleum Corporation is submitting the enclosed work plan for the above captioned well. The plan is being submitted in response to the C-141 report dated September 16, 2015.

If there are no objections with the scope of work described in the plan, Yates will have a contractor begin work on or after March 1, 2016.

If you have any questions, feel free to call me at (575) 748-4171

Thank you.

YATES PETROLEUM CORPORATION

Chase Settle Environmental Regulatory Agent

Enclosure(s)

KATHY H. PORTER SECRETARY JAMES D. SCHAFER TREASURER

**RECEIVED** By JKeyes at 9:05 am, Mar 10, 2016

Approved upon the condition that a synthetic liner will be installed at the bottom of the 2' bgs excavation.

# Yates Petroleum Corporation

Belco AIA Federal #3-H Work Plan

Section 14, T20S-R32E

Lea County, New Mexico

February 19, 2016

1RP- 3867

#### I. Location

The well is located approximately 33 miles east of Carlsbad, NM and 2 miles northwest off of Laguna Road.

#### II. Background

On September 16, 2015, Yates submitted to the NMOCD District I office a Form C-141 for the release of 8 B/O & 17 B/PW with 3 B/O & 7 B/PW recovered. The affected area is approximately 80 feet by 40 feet between the two pumping units on the location pad. Failure of a poly flow line caused oil and produced water to be released. Initial delineation samples were taken (9/17/2015) and sent to a NMOCD approved laboratory (9/29/2015, results enclosed). Further sampling was conducted within the release area (11/5/2015) and sent to a NMOCD approved laboratory (11/2015), results enclosed). Final sampling was conducted within the release area (2/11/2016) and sent to a NMOCD approved laboratory (2/18/2016, results enclosed).

#### III. Surface and Ground Water

Area surface geology is Cenozoic Quaternary. Previous core data indicates that no groundwater was discovered above 76 feet, making the site ranking for this site a ten (10). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is ten (10) based on the as following:

Depth to ground water50-99'Wellhead Protection Area> 1000'Distance to surface water body> 1000'

#### IV. Soils

The area consists of soils that are caliche and loamy top soil and are interspersed with clay seams providing a low permeability barrier to retard vertical percolation of contaminants into the subsurface.

#### V. Scope of Work

Based on enclosed analytical results, the depth to groundwater (>76'), and a decrease in chlorides, Yates Petroleum Corporation will excavate two (2) feet of impacted soil within the S1 and S2 release areas. Both areas will then be backfilled with two (2) feet of caliche. All excavated soil will be hauled to a NMOCD approved facility for disposal. The TPH & BTEX are within the RRAL's for BTEX (50 ppm) and TPH (1000 ppm) for the Total Ranking Score of ten (10), no further analytical testing of TPH and/or BTEX will be conducted (all chloride analytical results are for documentation). When remediation work is completed a C-141, Final Report, will be submitted to the NMOCD requesting closure of the site.

Staffe



Site Ranking is ten (10).

DTGW 50-99' (>76', Section 14, T20S-R32E, no groundwater present previous core data 9/17/2007) All results are ppm. Chlorides for documentation

Released: 8 B/O & 17 B/PW; Recovered: 3 B/O & 7 B/PW Release Date: 09/09/2015 1RP-3867

Sample ID	Analytical ID	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	Chlorides
S1-1'	1509962	9/17/2015	Hand Auger	1'	ND	ND	ND	930
S1-2'	1511382	11/5/2015	Backhoe	2'	N/A	N/A	N/A	1800
S1-3'	1511382	11/5/2015	Backhoe	3'	N/A	N/A	N/A	1000
S1-4'	1511382	·11/5/2015	Backhoe	4'	N/A	N/A	N/A	830
S1-5'	H600337	2/11/2016	Backhoe	5'	N/A	N/A	N/A	864
S1-6'	H600337	2/11/2016	Backhoe	6'	N/A	N/A	N/A	576
S1-7'	H600337	2/11/2016	Backhoe	7'	N/A	N/A	N/A	400
S1-9'	H600337	2/11/2016	Backhoe	9'	N/A	N/A	N/A	560
S1-11'	H600337	2/11/2016	Backhoe	11'	N/A	N/A	N/A	432
S1-13'	H600337	2/11/2016	Backhoe	13'	N/A	N/A	N/A	416
S2-1'	1509962	9/17/2015	Hand Auger	1'	ND	ND	ND	3100
S2-2'	1511382	11/5/2015	Backhoe	2'	N/A	N/A	N/A	1100
S2-3'	1511382	11/5/2015	Backhoe	3'	N/A	N/A	N/A	930
S2-4'	1511382	11/5/2015	Backhoe	4'	N/A	N/A	N/A	810
S2-5'	H600337	2/11/2016	Backhoe	5'	N/A	N/A	N/A	1060
S2-6'	H600337	2/11/2016	Backhoe	6'	N/A	N/A	N/A	864
S2-7'	H600337	2/11/2016	Backhoe	7'	N/A	N/A	N/A	608
S2-9'	H600337	2/11/2016	Backhoe	9'	N/A	N/A	N/A	304
S2-11'	H600337	2/11/2016	Backhoe	11'	N/A	N/A	N/A	368
S2-13'	H600337	2/11/2016	Backhoe	13'	N/A	N/A	N/A	528



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

September 29, 2015

Chase Settle Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210 TEL: (575) 748-4217 FAX

RE: Belco AIA Federal #3-H

OrderNo.: 1509962

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/19/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

<b>Analytical Report</b>
Lab Order 1509962
Data Davasta I. 0/20/201

## Hall Environmental Analysis Laboratory, Inc.

Lab Order 1509962 Date Reported: 9/29/2015

**CLIENT:** Yates Petroleum Corporation **Project:** Belco AIA Federal #3-H

1509962-001

Lab ID:

### Client Sample ID: S1-1' Collection Date: 9/17/2015 12:16:00 PM Received Date: 9/19/2015 7:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	LGT
Chloride	930	30	mg/Kg	20	9/24/2015 6:20:58 PM	21493
EPA METHOD 8015D MOD: GASOL	INE RANGE				Analyst	DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	9/23/2015 12:45:31 PM	21433
Surr: BFB	97.1	70-130	%REC	1	9/23/2015 12:45:31 PM	21433
EPA METHOD 8015M/D: DIESEL RA	ANGE ORGANIC	S			Analyst	KJH
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	9/23/2015 5:15:10 PM	21428
Surr: DNOP	112	57.9-140	%REC	1	9/23/2015 5:15:10 PM	21428
EPA METHOD 8260B: VOLATILES	SHORT LIST				Analyst	DJF
Benzene	ND	0.048	mg/Kg	1	9/23/2015 12:45:31 PM	21433
Toluene	ND	0.048	mg/Kg	1	9/23/2015 12:45:31 PM	21433
Ethylbenzene	ND	0.048	mg/Kg	1	9/23/2015 12:45:31 PM	21433
Xylenes, Total	ND	0.097	mg/Kg	1	9/23/2015 12:45:31 PM	21433
Surr: 1,2-Dichloroethane-d4	93.6	70-130	%REC	1	9/23/2015 12:45:31 PM	21433
Surr: 4-Bromofluorobenzene	104	70-130	%REC	1	9/23/2015 12:45:31 PM	21433
Surr: Dibromofluoromethane	105	70-130	%REC	1	9/23/2015 12:45:31 PM	21433
Surr: Toluene-d8	93.5	70-130	%REC	1	9/23/2015 12:45:31 PM	21433

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		Control - Secondaria - Carlo - Carlo Control - Carlo -

## Analytical Report Lab Order 1509962

## Hall Environmental Analysis Laboratory, Inc.

Date Reported: 9/29/2015 Client Sample ID: S2-1'

**CLIENT:** Yates Petroleum Corporation **Project:** Belco AIA Federal #3-H

1509962-002

Lab ID:

Collection Date: 9/17/2015 12:27:00 PM Received Date: 9/19/2015 7:50:00 AM

- 65-

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: LGT
Chloride	3100	150	mg/Kg	100	9/29/2015 12:02:07 AM	21493
EPA METHOD 8015D MOD: GASOLIN	E RANGE				Analyst	: DJF
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	9/23/2015 2:08:18 PM	21433
Surr: BFB	101	70-130	%REC	1	9/23/2015 2:08:18 PM	21433
EPA METHOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analyst	: KJH
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	9/23/2015 5:36:34 PM	21428
Surr: DNOP	102	57.9-140	%REC	1	9/23/2015 5:36:34 PM	21428
EPA METHOD 8260B: VOLATILES SH	IORT LIST				Analyst	: DJF
Benzene	ND	0.048	mg/Kg	1	9/23/2015 2:08:18 PM	21433
Toluene	ND	0.048	mg/Kg	1	9/23/2015 2:08:18 PM	21433
Ethylbenzene	ND	0.048	mg/Kg	1	9/23/2015 2:08:18 PM	21433
Xylenes, Total	ND	0.096	mg/Kg	1	9/23/2015 2:08:18 PM	21433
Surr: 1,2-Dichloroethane-d4	101	70-130	%REC	1	9/23/2015 2:08:18 PM	21433
Surr: 4-Bromofluorobenzene	98.5	70-130	%REC	1	9/23/2015 2:08:18 PM	21433
Surr: Dibromofluoromethane	110	70-130	%REC	1	9/23/2015 2:08:18 PM	21433
Surr: Toluene-d8	102	70-130	%REC	1	9/23/2015 2:08:18 PM	21433

Matrix: SOIL

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	в	Analyte detected in the associated Method I	Blank
	D	Sample Diluted Due to Matrix	Е	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 2 of 6
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 2 01 0
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
	S	% Recovery outside of range due to dilution or matrix			

Client: Project:		s Petroleum Co o AIA Federal #	•	on							
Sample ID ME	B-21493	SampT	ype: ME	BLK	Test	Code: El	PA Method	300.0: Anion	s		
Client ID: PE	35	Batch	ID: 214	493	R	unNo: 2	9095				
Prep Date: 9	0/24/2015	Analysis D	ate: 9/	24/2015	S	eqNo: 8	83274	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID LC	CS-21493	SampT	ype: LC	S	Test	Code: El	PA Method	300.0: Anion	s		
Client ID: LC	CSS	Batch	ID: 214	493	R	lunNo: 2	9095				
Prep Date: 9	9/24/2015	Analysis D	ate: 9/	24/2015	S	eqNo: 8	83275	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15	1.5	15.00	0	97.6	90	110			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 3 of 6

1509962 30-Sep-15

WO#:

WO#: 1509962

30-Sep-15

	Petroleum Co AIA Federal #		on							
Sample ID MB-21428	SampT	ype: MB	LK	Tes	tCode: El	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: PBS	Batch	ID: 214	428	F	RunNo: 2	9041				
Prep Date: 9/22/2015	Analysis D	ate: 9/2	23/2015	S	SeqNo: 8	81439	Units: mg/K	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	11		10.00		107	57.9	140			
Sample ID LCS-21428	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 214	428	F	RunNo: 2	9041				
Prep Date: 9/22/2015	Analysis D	ate: 9/	23/2015	S	SeqNo: 8	81441	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.9	57.4	139			****
Surr: DNOP	5.2		5.000		105	57.9	140			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Page 4 of 6

## Client: Yates Petroleum Corporation

Project: Belco AIA Federal #3-H

Client ID:       PBS       Batch ID:       21433       RunNo:       29067         Prep Date:       9/22/2015       Analysis Date:       9/23/2015       SeqNo:       882273       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         Banzene       ND       0.050       SeqNo:       882273       Units:       mg/Kg         Gluene       ND       0.050       SeqNo:       882273       Units:       mg/Kg         Sum: 1/2-Dichloroethane-d4       0.050       97.7       70       130       130         Sum: 2-Dichloroethane-d4       0.49       0.5000       97.7       70       130       130         Sum: 2-Dichloroethane-d4       0.49       0.5000       97.7       70       130       130       130       130         Sum: 2-Dichloroethane-d4       0.49       0.5000       97.7       70       130       130       130       130       130       130       130       130       130       130       130       130       130       130       130       130       130       130       130       130       <	5												
Prep Date:         9/22/2015         Analysis Date:         9/23/2015         SeqNo::         882273         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         ND         0.050                      Qual            Qual           Qual             Qual           Qual	Sample ID mb-21433	SampT	ype: ME	ILK	Test	tCode: El	PA Method	8260B: Volat	iles Short	List			
Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         ND         0.050	Client ID: PBS	Batch	n ID: 214	433	F	RunNo: 2	9067						
Benzene         ND         0.050           Foluene         ND         0.050           Ethylbenzene         ND         0.050           Surr: 1,2-Dichloroethane-d4         0.49         0.5000         97.7         70         130           Surr: 4-Bromofluorobenzene         0.53         0.5000         107         70         130           Surr: 12-Dichloroethane-d4         0.49         0.5000         97.7         70         130           Surr: 4-Bromofluorobenzene         0.53         0.5000         97.7         70         130           Surr: Toluene-d8         0.49         0.5000         97.7         70         130           Sample ID         Ics-21433         SampType:         LCS         TestCode:         EPA Method 8260B: Volatiles Short List           Client ID:         LCSS         Batch ID:         21433         RunNo:         29067           Prep Date:         9/22/2015         Analysis Date:         9/23/2015         SeqNo:         882274         Units: mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         0.050	Prep Date: 9/22/2015	Analysis D	ate: 9/	23/2015	S	eqNo: 8	82273	Units: mg/Kg					
Inducene         ND         0.050           Ethylbenzene         ND         0.050           Kylenes, Total         ND         0.10           Surr: 1,2-Dichloroethane-d4         0.49         0.5000         97.7         70         130           Surr: 4Bromofluorobenzene         0.53         0.5000         107         70         130           Surr: Dibromofluoromethane         0.53         0.5000         106         70         130           Surr: Dibromofluoromethane         0.53         0.5000         97.7         70         130           Surr: Dibromofluoromethane         0.53         0.5000         97.7         70         130           Surr: Dibromofluoromethane         0.53         0.5000         97.7         70         130           Surr: Dibromofluoromethane         0.49         0.5000         97.7         70         130           Surr: Dibromofluoromethane         0.49         5         ND         0.5000         97.7         70         130           Surr: Dibromofluoromethane         0.49         YZ         YZ         YZ         YZ         YZ         YZ           Sample ID         ICSS         Batch ID:         YZ / YZ         YZ         YZ	Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Bit ND         0.050           Kylenes, Total         ND         0.10           Surr: 1,2-Dichloroethane-d4         0.49         0.5000         97.7         70         130           Surr: 4-Bromofluorobenzene         0.53         0.5000         107         70         130           Surr: Dibromofluoromethane         0.53         0.5000         97.7         70         130           Surr: Toluene-d8         0.49         0.5000         97.7         70         130           Surr: Toluene-d8         0.49         0.5000         97.7         70         130           Sample ID         Ics-21433         SampType: LCS         TestCode: EPA Method 8260B: Volatiles Short List           Client ID:         LCSS         Batch ID: 21433         RunNo: 29067           Prep Date:         9/22/2015         Analysis Date:         9/23/2015         SeqNo: 882274         Units: mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         0.95         0.050         1.000         0         95.1         70         130           Gluene         1.0 <td< td=""><td>Benzene</td><td>ND</td><td>0.050</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Benzene	ND	0.050										
Kylenes, Total         ND         0.10           Surr: 1,2-Dichloroethane-d4         0.49         0.5000         97.7         70         130           Surr: 4-Bromofluorobenzene         0.53         0.5000         107         70         130           Surr: Toluene-d8         0.49         0.5000         97.7         70         130           Surr: Toluene-d8         0.49         0.5000         97.7         70         130           Sample ID Ics-21433         SampType: LCS         TestCode: EPA Method 8260B: Volatiles Short List           Client ID:         LCSS         Batch ID:         21433         RunNo:         29067           Prep Date:         9/22/2015         Analysis Date:         9/23/2015         SeqNo:         882274         Units: mg/Kg           Analyte         Result         PQL         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         1.0         0.050         1.000         0         95         130             Toluene         1.0         0.050         1.000         0         100         70         130           Surr: 1,2-Dichloroethane-d4         0	Toluene	ND	0.050										
Surr: 1,2-Dichloroethane-d4       0.49       0.5000       97.7       70       130         Surr: 4-Bromofluorobenzene       0.53       0.5000       107       70       130         Surr: 70luene-d8       0.49       0.5000       97.7       70       130         Surr: Toluene-d8       0.49       0.5000       97.7       70       130         Sample ID       Ics-21433       SampType: LCS       TestCode: EPA Method 8260B: Volatiles Short List         Client ID:       LCSS       Batch ID: 21433       RunNo: 29067         Prep Date:       9/22/2015       Analysis Date:       9/23/2015       SeqNo: 882274       Units: mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         Benzene       0.95       0.050       1.000       0       100       70       130         Toluene       1.0       0.050       1.000       0       100       70       130         Kylenes, Total       3.0       0.10       3.000       0       98.9       70       130         Surr: 1,2-Dichloroethane-d4       0.50       0.5000       100       70       1	Ethylbenzene	ND	0.050										
Surr: 4-Bromofluorobenzene         0.53         0.5000         107         70         130           Surr: Dibromofluoromethane         0.53         0.5000         106         70         130           Surr: Toluene-d8         0.49         0.5000         97.7         70         130           Sample ID         Ics-21433         SampType:         LCS         TestCode:         EPA Method         8260B:         Volatiles         Short List           Client ID:         LCSS         Batch ID:         21433         RunNo:         29067           Prep Date:         9/22/2015         Analysis Date:         9/23/2015         SeqNo:         882274         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         0.95         0.050         1.000         0         95.1         70         130           Toluene         1.0         0.050         1.000         0         98.9         70         130           Kylenes, Total         3.0         0.10         3.000         0         98.9         70         130	Xylenes, Total	ND	0.10										
Surr: Dibromofluoromethane         0.53         0.5000         106         70         130           Surr: Toluene-d8         0.49         0.5000         97.7         70         130           Sample ID         Ics-21433         SampType: LCS         TestCode: EPA Method 8260B: Volatiles Short List           Client ID:         LCSS         Batch ID:         21433         RunNo:         29067           Prep Date:         9/22/2015         Analysis Date:         9/23/2015         SeqNo:         882274         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         0.95         0.050         1.000         0         95.1         70         130           Toluene         1.0         0.050         1.000         0         100         70         130           Strift, 2-Dichloroethane-d4         0.50         0.5000         100         70         130           Surr: 1,2-Dichloroethane-d4         0.50         0.5000         100         70         130           Surr: 1,2-Dichloroethane-d4         0.50         0.5000         108	Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.7	70	130					
Surr: Toluene-d8         0.49         0.5000         97.7         70         130           Sample ID         Ics-21433         SampType:         LCS         TestCode:         EPA Method         8260B:         Volatiles         Short List           Client ID:         LCSS         Batch ID:         21433         RunNo:         29067           Prep Date:         9/22/2015         Analysis Date:         9/23/2015         SeqNo:         882274         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         0.95         0.050         1.000         0         95.1         70         130           Toluene         1.0         0.050         1.000         0         95.1         70         130           Stylenes, Total         3.0         0.10         3.000         0         98.9         70         130           Surr:         1,2-Dichloroethane-d4         0.500         1000         70         130           Surr:         1,2-Dichloroethane-d4         0.50         0.5000         100         70         130	Surr: 4-Bromofluorobenzene	0.53		0.5000		107	70	130					
Sample ID         Ics-21433         SampType:         LCS         TestCode:         EPA Method         8260B:         Volatiles         Short List           Client ID:         LCSS         Batch ID:         21433         RunNo:         29067           Prep Date:         9/22/2015         Analysis Date:         9/23/2015         SeqNo:         882274         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         0.95         0.050         1.000         0         95.1         70         130           Toluene         1.0         0.050         1.000         0         100         70         130           Kylenes, Total         3.0         0.10         3.000         0         98.9         70         130           Surr:         1,2-Dichloroethane-d4         0.50         0.5000         100         70         130           Surr:         1,2-Dichloroethane         0.54         0.5000         108         70         130           Surr:         Disromofluorobenzene         0.54         0.5000         108	Surr: Dibromofluoromethane	0.53		0.5000		106	70	130					
Client ID:       LCSS       Batch ID:       21433       RunNo:       29067         Prep Date:       9/22/2015       Analysis Date:       9/23/2015       SeqNo:       882274       Units:       mg/Kg         Analyte       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       %RPD       RPDLimit       Qual         Benzene       0.95       0.050       1.000       0       95.1       70       130         Toluene       1.0       0.050       1.000       0       98.9       70       130         Kylenes, Total       3.0       0.10       3.000       0       98.9       70       130         Surr:       1,2-Dichloroethane-d4       0.50       0.5000       1000       70       130         Surr:       1,2-Dichloroethane-d4       0.50       0.5000       100       70       130         Surr:       1,2-Dichloroethane-d4       0.53       0.5000       100       70       130         Surr:       1,2-Dichloroethane-d4       0.53       0.5000       100       70       130         Surr:       1,2-Dichloroethane-d4       0.53       0.5000       107       70       130 </td <td>Surr: Toluene-d8</td> <td>0.49</td> <td></td> <td>0.5000</td> <td></td> <td>97.7</td> <td>70</td> <td>130</td> <td></td> <td></td> <td></td>	Surr: Toluene-d8	0.49		0.5000		97.7	70	130					
Prep Date:         9/22/2015         Analysis Date:         9/23/2015         SeqNo:         882274         Units:         mg/Kg           Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         0.95         0.050         1.000         0         95.1         70         130           Toluene         1.0         0.050         1.000         0         100         70         130           Ethylbenzene         1.0         0.050         1.000         0         98.9         70         130           Kylenes, Total         3.0         0.10         3.000         0         98.9         70         130           Surr:         1,2-Dichloroethane-d4         0.50         0.5000         100         70         130           Surr:         1,2-Dichloroethane         0.54         0.5000         108         70         130           Surr:         Diformofluoromethane         0.53         0.5000         107         70         130	Sample ID Ics-21433	SampT	ype: LC	s	Tes	tCode: E	PA Method	8260B: Vola	tiles Short	List			
Analyte         Result         PQL         SPK value         SPK Ref Val         %REC         LowLimit         HighLimit         %RPD         RPDLimit         Qual           Benzene         0.95         0.050         1.000         0         95.1         70         130           Toluene         1.0         0.050         1.000         0         100         70         130           Ethylbenzene         1.0         0.050         1.000         0         98.9         70         130           Sylenes, Total         3.0         0.10         3.000         0         98.9         70         130           Surr: 1,2-Dichloroethane-d4         0.50         0.5000         100         70         130           Surr: 4-Bromofluorobenzene         0.54         0.5000         108         70         130           Surr: Dibromofluoromethane         0.53         0.5000         107         70         130	Client ID: LCSS	Batcl	n ID: 21	433	F	RunNo: 29067							
Benzene         0.95         0.050         1.000         0         95.1         70         130           Toluene         1.0         0.050         1.000         0         100         70         130           Ethylbenzene         1.0         0.050         1.000         0         100         70         130           Xylenes, Total         3.0         0.10         3.000         0         98.9         70         130           Surr: 1,2-Dichloroethane-d4         0.50         0.5000         100         70         130           Surr: 4-Bromofluorobenzene         0.54         0.5000         108         70         130           Surr: Dibromofluoromethane         0.53         0.5000         107         70         130	Prep Date: 9/22/2015	Analysis E	)ate: 9/	23/2015	S	SeqNo: 8	82274	Units: mg/k	(g				
Toluene         1.0         0.050         1.000         0         100         70         130           Ethylbenzene         1.0         0.050         1.000         0         100         70         130           Xylenes, Total         3.0         0.10         3.000         0         98.9         70         130           Surr: 1,2-Dichloroethane-d4         0.50         0.5000         100         70         130           Surr: 4-Bromofluorobenzene         0.54         0.5000         108         70         130           Surr: Dibromofluoromethane         0.53         0.5000         107         70         130	Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Ethylbenzene1.00.0501.000010070130Xylenes, Total3.00.103.000098.970130Surr: 1,2-Dichloroethane-d40.500.500010070130Surr: 4-Bromofluorobenzene0.540.500010870130Surr: Dibromofluoromethane0.530.500010770130	Benzene	0.95	0.050	1.000	0	95.1	70	130					
Xylenes, Total         3.0         0.10         3.000         0         98.9         70         130           Surr: 1,2-Dichloroethane-d4         0.50         0.5000         100         70         130           Surr: 4-Bromofluorobenzene         0.54         0.5000         108         70         130           Surr: Dibromofluoromethane         0.53         0.5000         107         70         130	Toluene	1.0	0.050	1.000	0	100	70	130					
Surr: 1,2-Dichloroethane-d40.500.500010070130Surr: 4-Bromofluorobenzene0.540.500010870130Surr: Dibromofluoromethane0.530.500010770130	Ethylbenzene	1.0	0.050	1.000	0	100	70	130					
Surr: 4-Bromofluorobenzene         0.54         0.5000         108         70         130           Surr: Dibromofluoromethane         0.53         0.5000         107         70         130	Xylenes, Total	3.0	0.10	3.000	0	98.9	70	130					
Surr: Dibromofluoromethane         0.53         0.5000         107         70         130	Surr: 1,2-Dichloroethane-d4	0.50		0.5000		100	70	130					
	Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130					
Surr: Toluene-d8 0.50 0.5000 99.5 70 130	Surr: Dibromofluoromethane	0.53		0.5000		107	70	130					
	Surr: Toluene-d8	0.50		0.5000		99.5	70	130					

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

WO#: 1509962

30-Sep-15

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Client:		etroleum Co		on							
Project:	Belco A	IA Federal	#3-H								
Sample ID	mb-21433	SampT	ype: MI	3LK	Tes	tCode: E	PA Method	8015D Mod:	Gasoline	Range	
Client ID:	PBS	Batch	h ID: 21	433	F	RunNo: 2	9067				
Prep Date:	9/22/2015	Analysis D	Date: 9/	23/2015	5	SeqNo: 8	82242	Units: <b>mg/</b> H	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	e Organics (GRO)	ND	5.0								
Surr: BFB		500		500.0		101	70	130			
Sample ID	lcs-21433	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D Mod:	Gasoline	Range	and the second secon
Client ID:	LCSS	Batch	h ID: 21	433	F	RunNo: 2	9067				
Prep Date:	9/22/2015	Analysis D	Date: 9/	23/2015	5	SeqNo: 8	82243	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	25	5.0	25.00	0	101	70	123			
Surr: BFB		480		500.0		96.6	70	130			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- % Recovery outside of range due to dilution or matrix S
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL **Reporting Detection Limit**

WO#: 1509962

30-Sep-15

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HALL ENVIRONMENTAL ANALYSIS LABORATORY  Han Environmental Analysis Lovoratory 4901 Hawkins NE Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name:	Yates Petroleum Corpora	Work Order Number	1509962		ReptNo: 1
Received by/date	. LM	09/19/15			
Logged By:	Celina Sessa	9/19/2015 7:50:00 AM		alin S	2.74
Completed By:	Cellna Sessa	9/21/2015 4:39:5/1 PM		alin S.	~
Reviewed By:	AG	09/22/15		and t	pen
Chain of Cust	ody X	0 110 10	- 19-00-00 -		
	s intact on sample bottles?		Yes	No	Not Present
	ustody complete?		Yes 🔽	No	Not Present
3. How was the	sample delivered?		Courier		
<u>Log In</u>					
4. Was an atter	mpt made to cool the sample	s?	Yes 🗸	No 🗌	NA
5 Were all sam	ples received at a temperate	ire of >0° C to 6.0°C	Yes 🗹	No 🗔	NA
6. Sample(s) in	proper container(s)?		Yes 🔽	No	
7. Sufficient san	nple volume for indicated tes	ut(s)?	Yes 🔽	No 🗍	
8. Are samples	(except VOA and ONG) proj	perly preserved?	Yes 🗸	No 🗌	
9. Was preserva	ative added to bottles?		Yes	No 🔽	NA
10.VOA vials ha	ve zero headspace?		Yes 🗌	No 🗌	No VOA Vials 🗸
11, Were any sa	mple containers received br	oken?	Yes	No 🗹	# af arreading
				lanced	# of preserved bottles checked
	ork match bottle labels? pancies on chain of custody)		Yes 🗸	No	for pH: (<2 or >12 unless noted
	correctly identified on Chain	of Custody?	Yes 🖌	No 🗔	Adjusted?
	at analyses were requested?		Yes 🗸	No 🗔	
	ling times able to be met? customer for authorization.)		Yes 🔽	No	Checked by:
Created Hand	line (Konnlinekle)				
	ling (if applicable) otified of all discrepancies wi	th this actor?	Yes	No 🗌	NA 🗹
		numero de la constante de la co	TES		
	Notified	Date		and an and a second	
By Who Record	A description for a contract of the second	Via:		Phone Fax	
Regard Client I	Instructions:	unuren okus kotosekun konstaatoora kuta atomaka kinden ittisaihintiiniis	n statu na kataloga kataloga na kataloga na kataloga na	an in the second sec	The second se
17. Additional re	reneral second second second second				
18. <u>Cooler Info</u> Cooler No		Seal Intact   Seal No	Seal Date	Signed By	
1	Varcuel or a state of the state	Yes		and the second state of th	



Chain-of-Custody Record Turn-Around Time: HALL ENVIRONMENTAL	etroleum Corporation X Standard D Rush ANALYSIS LABORATORY	Belco AIA Federal #3-H 4901 Hawki	Project #:	30-025-38719 Analysis	Detroleum.com Project Manager.	Chase Settle	୦d୍ୟ /seද ୧୨)	Crase Settle	2 2 2 2 2 2 2 1 5 1 5 1 5 2 1 5 2 1 5 2 1 5 1 5	Sample Temperature: 2, 2 BE BE 84 4 B 14 44 14 14 14 14 14 14 14 14 14 14 14	Matrix Cample Request ID Type and # Type BTEX + MTI Type BTEX + MTI Type BTEX + MTI Type BTEX + MTI Container TPH Method BTEX + MTI BTEX + MTI Container TPH Method RCRA 8 Me BOB (VO) BS270 (Semi S270 (Semi	S1-1' 1 - 402. ICE -001' X X	S2-1' 1 - 402.						Received by Marcained by 19	Relinquistred by:
Chain-of-Custo	Client: Yates Petroleum Corporation	Mailing Address:	105 South 4th Street Artesia, NM 88210	Phone #: 575-703-6637	ax#:	100		Accreditation:	D	vpe)	ate Time Matrix	9/17/2015 12:16 Soil		status a success					15 T:454	Date: Time: Relinquished by:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited isboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

November 20, 2015

Chase Settle Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210 TEL: (575) 748-4217 FAX

RE: Belco AIA Federal #3-H

OrderNo.: 1511382

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 6 sample(s) on 11/10/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

			<i>v</i> ,				
	Yates Petroleum Corp Belco AIA Federal #3			La	ıb Ord	ler: 15113	382
Lab ID:	1511382-001			Collection Date:	11/5/2	2015 11:35:00 /	AM
<b>Client Sample ID:</b>	S1-2'			Matrix:			
Analyses		Result	RL Qual	Units	DF D	ate Analyzed	Batch ID
EPA METHOD 300	.0: ANIONS					An	alyst: LGT
Chloride		1800	75	mg/Kg	50 1	1/17/2015 4:47:1	An independent of the second second
Lab ID:	1511382-002			Collection Date:	11/5/2	2015 11:40:00	AM
<b>Client Sample ID:</b>	S1-3'			Matrix:	SOIL		
Analyses		Result	RL Qual	Units	DF D	ate Analyzed	Batch ID
EPA METHOD 300	0.0: ANIONS					An	alyst: LGT
Chloride		1000	30	mg/Kg	20 1	1/13/2015 2:56:1	3 PM 22349
Lab ID:	1511382-003			Collection Date:	11/5/	2015 11:45:00	AM
<b>Client Sample ID:</b>	S1-4'			Matrix:	SOIL	2 2	
Analyses		Result	RL Qual	Units	DF D	ate Analyzed	Batch ID
EPA METHOD 300	0.0: ANIONS				na an a	An	alyst: LGT
Chloride		830	30	mg/Kg	20 1	11/13/2015 3:08:3	8 PM 22349
Lab ID:	1511382-004			Collection Date:	11/5/	2015 11:55:00	AM
<b>Client Sample ID:</b>	S2-2'			Matrix:	SOIL	<u>_</u>	
Analyses		Result	RL Qual	Units	DF D	ate Analyzed	Batch ID
EPA METHOD 30	0.0: ANIONS					An	alyst: LGT
Chloride		1100	30	mg/Kg	20 1	11/13/2015 3:21:0	2 PM 22349
Lab ID:	1511382-005			Collection Date:	: 11/5/	/2015 12:00:00	PM
<b>Client Sample ID:</b>	S2-3'			Matrix	SOIL	_	
Analyses		Result	RL Qual	Units	DF D	Date Analyzed	Batch ID
EPA METHOD 30	0.0: ANIONS					An	alyst: LGT
Chloride		930	30	mg/Kg	20 1	11/13/2015 3:33:2	6 PM 22349

Hall Environmental Analysis Laboratory, Inc.

Lab Order: 1511382

**Analytical Report** 

Date Reported: 11/20/2015

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\* Value exceeds Maximum Contaminant Level.

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 1 of 3
- P Sample pH Not In Range
- RL Reporting Detection Limit

Hall Envi	ronmental Analys	is Laborate	ory, Inc.	Lab Order: 1511382 Date Reported: 11/20/2015					
CLIENT: Project:	Yates Petroleum Corp Belco AIA Federal #3				Lab Order: 151	1382			
Lab ID: Client Sample	1511382-006 ID: S2-4'	<b>Collection Date:</b> 11/5/2015 12:05:00 PM <b>Matrix:</b> SOIL							
Analyses		Result	RL Qua	l Units	DF Date Analyzed	Batch ID			
EPA METHO	0 300.0: ANIONS	810	30	mg/Kg	A 20 11/13/2015 5:00:	nalyst: <b>LGT</b> 19 PM 22349			

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

\*

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits Page 2 of 3

**Analytical Report** 

- P Sample pH Not In Range
- RL Reporting Detection Limit

Client: Project:		etroleum Corporation AIA Federal #3-H	
Sample ID	MB-22349	SampType: MBLK	TestCode: EPA Method 300.0: Anions
Client ID:	PBS	Batch ID: 22349	RunNo: 30257
Prep Date:	11/13/2015	Analysis Date: 11/13/2015	SeqNo: 922446 Units: mg/Kg
Analyte		Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride		ND 1.5	
Sample ID	LCS-22349	SampType: LCS	TestCode: EPA Method 300.0: Anions
Client ID:	LCSS	Batch ID: 22349	RunNo: 30257
Prep Date:	11/13/2015	Analysis Date: 11/13/2015	SeqNo: 922447 Units: mg/Kg

Prep Date:	11/13/2015	Analysis D	ate: 11	1/13/2015	S	SeqNo: 9	22447	Units: mg/Kg			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
hloride		14	1.5	15.00	0	90.9	90	110			

Qualifiers:

А Ch

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- S % Recovery outside of range due to dilution or matrix
- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Detection Limit

WO#: 1511382 20-Nov-15

Page 3 of 3

1511382 Yes ↓ Yes ↓ Courier Yes ↓ Yes ↓	No Do	RcptNo: 1 Not Present Not Present NA
Yes Yes ✔ <u>Courier</u> Yes ✔	No	Not Present
Yes Yes ✔ <u>Courier</u> Yes ✔	No	Not Present
Yes Yes ✔ <u>Courier</u> Yes ✔	No	Not Present
Yes ✔ <u>Courier</u> Yes ✔	No	Not Present
Yes ✔ <u>Courier</u> Yes ✔	No	Not Present
Yes ✔ <u>Courier</u> Yes ✔	No	Not Present
Courier Yes 🔽		
Yes 🗸	No	NA
	No	NA
	No	NA
Yes 🗸		
111	No	NA
Yes 🗸	No	
Yes 🔽	No 🗍	
Yes 🔽	No 🗌	
Yes 📋	No 🔽	NA 🗌
Yes 🗌	No 🗌	No VOA Vials 🗹
Yes	No 🔽	# of preserved
	- Long Hannel	bottles checked
Yes 🗹	No	for pH: (<2 or >12 unless no
Yes 🗸	No	Adjusted?
Yes 🔽	No 🗌	
Yes 🔽	No 🗌	Checked by
Yos 🗋	No 🗌	NA 🗸
neenaanteenaanteenaanteenaanteenaanteenaanteenaanteenaanteenaanteenaanteenaanteenaanteenaanteenaanteenaanteena	ngen en en en et en en en en en de annen de en	
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Seal Date	Signed By	
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February 18, 2016

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

**RE: BELCO AIA FEDERAL #3** 

Enclosed are the results of analyses for samples received by the laboratory on 02/12/16 14:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-15-7. 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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes are denoted by <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes are denoted by <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes are denoted analytes are denoted by <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes are denoted by <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes are denoted by <a href="https://www.tceq.texas.gov/field/qa/lab"/>www.tceq.texas.gov/field/

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.

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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	02/12/2016	Sampling Date:	02/11/2016
Reported:	02/18/2016	Sampling Type:	Soil
Project Name:	BELCO AIA FEDERAL #3	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

#### Sample ID: S1-5' (H600337-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP		jagen aktionali manafalaisini ataa ja aa			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	02/17/2016	ND	416	104	400	3.77	

#### Sample ID: S1-6' (H600337-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP			un a companya da sa da sa		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	02/17/2016	ND	416	104	400	3.77	

#### Sample ID: S1-7' (H600337-03)

Chloride, SM4500CI-B mg/kg			Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	02/17/2016	ND	416	104	400	3.77	

#### Sample ID: S1-9' (H600337-04)

Chloride, SM4500Cl-B mg/kg			Analyze	d By: AP		41000123-05-012-010-000-000-000-000-000-000-000-000		888.011	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	02/17/2016	ND	416	104	400	3.77	

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whitsbeever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurved by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Revults relate only to the sample is divertified above. This reproduced except in full with writen approval of Cardinal Laboratories.

Celeg D. Keene-

Celey D. Keene, Lab Director/Quality Manager



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

Received:	02/12/2016	Sampling Date:	02/11/2016	
Reported:	02/18/2016	Sampling Type:	Soil	
Project Name:	BELCO AIA FEDERAL #3	Sampling Condition:	** (See Notes)	
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson	
Project Location:	NOT GIVEN			

#### Sample ID: S1-11' (H600337-05)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	02/17/2016	ND	416	104	400	3.77	

#### Sample ID: S1-13' (H600337-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	e Result Reporting	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	02/17/2016	ND	416	104	400	3.77	

#### Sample ID: S2-5' (H600337-07)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	02/17/2016	ND	416	104	400	3.77	

#### Sample ID: S2-6' (H600337-08)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	864	16.0	02/17/2016	ND	416	104	400	3.77	

#### Sample ID: S2-7' (H600337-09)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	02/17/2016	ND	416	104	400	3.77	

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\*=Accredited Analyte

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Celey D. Keine-

Celey D. Keene, Lab Director/Quality Manager



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

Received:	02/12/2016	Sampling Date:	02/11/2016
Reported:	02/18/2016	Sampling Type:	Soil
Project Name:	BELCO AIA FEDERAL #3	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

#### Sample ID: S2-9' (H600337-10)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	02/17/2016	ND	416	104	400	3.77	

#### Sample ID: S2-11' (H600337-11)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	02/17/2016	ND	416	104	400	3.77	

#### Sample ID: S2-13' (H600337-12)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP	- un provincio anno anno anno				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	02/17/2016	ND	416	104	400	3.77	

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celeg Diffeene-

Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

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

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Celey D. Keene, Lab Director/Quality Manager

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March 18, 2015

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

RE: BELCO AIA FEDERAL BATTERY

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

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

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.

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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	03/13/2015	Sampling Date:	03/12/2015
Reported:	03/18/2015	Sampling Type:	Soil
Project Name:	BELCO AIA FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

#### Sample ID: BK - 10' (H500702-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	03/18/2015	ND	416	104	400	0.00	

#### Sample ID: BK - 11' (H500702-02)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	03/18/2015	ND	416	104	400	0.00	

#### Sample ID: BK - 12' (H500702-03)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	03/18/2015	ND	416	104	400	0.00	

#### Sample ID: BK - 13' (H500702-04)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	03/18/2015	ND	416	104	400	0.00	

#### **Cardinal Laboratories**

\*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/13/2015	Sampling Date:	03/12/2015
Reported:	03/18/2015	Sampling Type:	Soil
Project Name:	BELCO AIA FEDERAL BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

#### Sample ID: BK - 14' (H500702-05)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	03/18/2015	ND	416	104	400	0.00	

#### **Cardinal Laboratories**

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

- ND
   Analyte NOT DETECTED at or above the reporting limit

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

#### Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

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# Google earth

Jamie,

A synthetic liner will be installed after 2' have been excavated.

Thank you,

Chase

From: Keyes, Jamie, EMNRD [mailto:Jamie.Keyes@state.nm.us] Sent: Thursday, March 10, 2016 8:24 AM To: Chase Settle Subject: RE: Belco AIA Federal #3-H Work Plan

Chase,

The map provided works just fine. Taking into consideration what appears to be a fairly high background chloride concentration, the release area still exhibits elevated chlorides vs background concentration to a depth of approximately 5'bgs. I would prefer that the release area be excavated to a depth of 5' bgs which would remove the vast majority of the contaminated material. However, an acceptable alternative to that would be to excavate 2' bgs and install a synthetic liner to prevent the downward migration of the remaining chlorides in the soil.

Thank you,

Jamie

From: Chase Settle [mailto:CSettle@yatespetroleum.com]
Sent: Thursday, March 10, 2016 7:51 AM
To: Keyes, Jamie, EMNRD
Subject: RE: Belco AIA Federal #3-H Work Plan

Jamie,

I can go get the GPS coordinates. Attached is a Google Map with the GPS point marked on it, but if this will be sufficient let me know.

Thank you,

Chase

Sent: Thursday, March 10, 2016 7:47 AM To: Chase Settle Subject: RE: Belco AIA Federal #3-H Work Plan

#### Good morning,

Would it be possible to get the GPS coordinates for the location from where the background samples were taken?

Thank you,

Jamie

From: Chase Settle [mailto:CSettle@yatespetroleum.com]
Sent: Friday, February 26, 2016 7:35 AM
To: Jones, Kellie, EMNRD; Keyes, Jamie, EMNRD
Cc: Bob Asher; Katie Parker; Jim Amos
Subject: RE: Belco AIA Federal #3-H Work Plan

Please find attached the sample results referred to in the previous email. I apologize for not attaching them yesterday.

Thank you,

## Chase Settle, M.S.

Environmental Regulatory Agent Yates Petroleum Corporation 105 S. 4<sup>th</sup> Street Artesia, NM 88210 575-748-4171 (Office) 575-703-6537 (Cell)

From: Chase Settle Sent: Thursday, February 25, 2016 9:25 AM To: <u>kellie.jones@state.nm.us;</u> 'Keyes, Jamie, EMNRD' Cc: Bob Asher; Katie Parker; Jim Amos Subject: RE: Belco AIA Federal #3-H Work Plan

Ms. Jones,

The S2 release area has been fully delineated. Background sample results taken in 2015 show that natural chloride concentration in the soils for that area to range from 448 ppm to 608 ppm (results attached). These background samples were taken up-gradient from the battery and in an area never impacted by a release, but near enough to properly represent the soil present at the battery

site. I would also like justification for the request to increase the excavation to double the original depth stated in the work plan. I feel that there is no logical or practicable reason why these soils should be excavated when these low of concentrations pose no significant threat to present or foreseeable beneficial use of fresh waters, public health, or the environment.

Also, I have yet to hear a response from my previous email (sent on 2/10/16) regarding the Belco AIA Federal Battery Work Plan. I would appreciate a timely response to both of these issues so that remediation activities can begin in a timely manner that allows for appropriate July reseeding at the Belco AIA Federal Battery.

Thank you,

## Chase Settle, M.S.

Environmental Regulatory Agent Yates Petroleum Corporation 105 S. 4<sup>th</sup> Street Artesia, NM 88210 575-748-4171 (Office) 575-703-6537 (Cell)

From: Jones, Kellie, EMNRD [mailto:Kellie.Jones@state.nm.us]
Sent: Wednesday, February 24, 2016 2:26 PM
To: Chase Settle; Keyes, Jamie, EMNRD; Jim Amos
Cc: Bob Asher
Subject: RE: Belco AIA Federal #3-H Work Plan

Chase,

The work plan is conditionally approved with the following conditions:

1. S2 has not been delineated. Ensure that S2 has been clearly delineated.

2. Instead of two feet to be removed, OCD requests Yates remove four feet.

3. Ensure BLM approval/concurrence.

If you have any questions, please feel free to contact Jaime or I.

Kellie Jones District Geologist OCD – Artesia Office - 575 748 1283 xt. 103 E-Mail: <u>kellie.jones@state.nm.us</u>

From: Chase Settle [mailto:CSettle@yatespetroleum.com]Sent: Friday, February 19, 2016 10:53 AMTo: Keyes, Jamie, EMNRD; Jones, Kellie, EMNRD; Jim Amos

**Cc:** Bob Asher **Subject:** Belco AIA Federal #3-H Work Plan

Please find attached the Work Plan for the below listed location.

#### **Belco AIA Federal #3H**

30-025-38719 Section 14, T20S-R32E 1980 FSL & 1830 FEL Lea County, New Mexico

Thank you,

## Chase Settle, M.S.

Environmental Regulatory Agent Yates Petroleum Corporation 105 S. 4<sup>th</sup> Street Artesia, NM 88210 575-748-4171 (Office) 575-703-6537 (Cell)

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