



*EOG Resources, Inc.  
Artesia Division Office  
104 S. 4<sup>th</sup> Street  
Artesia, N. M. 88210*

August 21, 2018

Mr. Mike Bratcher/Ms. Maria Pruett  
NMOCD District II  
811 S. First St.  
Artesia, NM 88210

**RECEIVED**

**AUG 27 2018**

Re: Kleeman PB Battery  
30-015-00253  
Section 26, T18S-R26E  
Eddy County, New Mexico  
2RP-4422

**DISTRICT II-ARTESIA O.C.D.**

Mr. Bratcher/Ms. Pruett,

EOG Y Resources, Inc. is submitting the enclosed remediation work plan for the above referenced site. The plan is being submitted accompanying the C-141 report dated on September 28, 2017

**If there are no objections with the scope of work described in the plan, EOG Y Resources, Inc. will have a contractor begin work on or after September 4, 2018.**

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

Respectfully,

Chase Settle  
Rep Safety & Environmental II  
EOG Y Resources, Inc.

**Kleeman PB Battery  
Remediation Work Plan  
Section 26, T18S-R26E  
Eddy County, New Mexico  
August 21, 2018  
2RP-4422**

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## **I. Location**

Take US 285 south for 9 miles and turn east onto E Kincaid Ranch Road and drive 2.1 miles, location will be on the left.

## **II. Background**

On September 28, 2017, EOG Y Resources, Inc. submitted to the NMOCD District II office a Form C-141 for the release of 27 B/O and 110 B/PW with 1 B/O and 0 B/PW recovered. The affected area is 40 feet by 20 feet around the tanks and extending north effecting an area of 50 feet by 6 feet. The release was caused by a hole in the bottom of the production tank. Initial vertical soil sampling was conducted at the location on December 4, 2017. Subsequent vertical soil sampling was conducted on March 6, 2018. Initial horizontal sampling was conducted on March 8, 2018. Further vertical sampling was conducted in two areas on April 3, 2018 with further horizontal sampling for two areas occurring on June 5, 2018.

## **III. Surface and Ground Water**

Area surface geology is Paleozoic Permian. Based on information from the New Mexico Office of the State Engineer (NMOSE) database and United States Geological Survey National Water Information System (USGS) regarding this location (Section 26, T18S-R26E), depth to groundwater is approximately 58' feet. Watercourses in the area are dry except for infrequent flows in response to major precipitation events, with the nearest body of surface water being the Pecos River at 3 miles away.

## **IV. NMOCD Assessment Criteria**

The site assessment criteria is as follows:

Depth to ground water	> 50-99'
Wellhead Protection Area	> 1000'
Distance to surface water body	> 1000'

Based on the assessment criteria, the NMOCD established RRALs for this site are:

Benzene	10 mg/kg
BTEX	50 mg/kg
TPH	2,500 mg/kg
Chlorides	10,000 mg/kg

## **V. Soils**

The area consists of soils that are loam based topsoil that lay atop clay layers with a beginning depth of approximately six (6) feet bgs that restrict further movement of contaminants into the subsurface.

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**VI. Scope of Work**

Based on enclosed analytical results, a decrease in chlorides, and a decrease in BTEX and TPH, EOG Y Resources, Inc. proposes to excavate the S1, S2, S3, and S4 areas to four (4) feet, and the S5 area to two (2) feet, hauling all excavated soil to a NMOCD approved facility for disposal. The S1, S2, S3, and S4 areas will have a 20ml synthetic liner installed then the lined areas will be backfilled with caliche to grade. The S5 area will not be lined since all contaminant will be removed with the excavation, but will be backfilled with caliche to grade. EOG Y Resources, Inc. has identified the horizontal extents of contamination and will excavate to these points. There will be no revegetation activities due to this site remaining an active battery. The TPH & BTEX for the remaining soil are within the RRAL's for BTEX (50 mg/kg) and TPH (2500 mg/kg), no further analytical testing of TPH and/or BTEX will be conducted. When remediation work is completed a C-141 Final Report will be submitted to the NMOCD requesting closure of the site.

# Table 1

## Soil Analytical Data

Soil Analytical Data

Sample ID	Depth (ft. bgs)	Date	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	TPH (GRO)	TPH (DRO)	TPH EXT DRO	Total TPH	Chlorides
S1-1'	1'	12/4/17	<0.500	1.16	2.85	19.6	23.6	626	8510	1340	10476	128
S1-2'	2'	12/4/17	<0.050	0.082	<0.050	0.253	0.335	26.4	386	315	727.4	304
S1-3'	3'	12/4/17	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	13.0	<10.0	13.0	1330
S1-4'	4'	12/4/17	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	2200
S1-5'	5'	3/6/18	-	-	-	-	-	-	-	-	-	<16.0
S1-6'	6'	3/6/18	-	-	-	-	-	-	-	-	-	16
S1-7'	7'	3/6/18	-	-	-	-	-	-	-	-	-	<16.0
S1-8'	8'	3/6/18	-	-	-	-	-	-	-	-	-	96
S1-9'	9'	3/6/18	-	-	-	-	-	-	-	-	-	384
S1-10'	10'	3/6/18	-	-	-	-	-	-	-	-	-	320
S1-11'	11'	3/6/18	-	-	-	-	-	-	-	-	-	128
S2-1'	1'	12/4/17	1.52	90.6	115	189	396	4530	27500	3520	35550	1300
S2-2'	2'	12/4/17	<1.00	18.2	23.3	106	148	1330	9940	1400	12670	1460
S2-3'	3'	12/4/17	2.26	78.5	71.0	177	329	2280	12200	1540	16020	7200
S2-4'	4'	12/4/17	11.3	150	131	229	521	2010	7790	1110	10910	6000
S2-5'	5'	3/6/18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	3920
S2-6'	6'	3/6/18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	4320
S2-7'	7'	3/6/18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	2480
S2-8'	8'	3/6/18	-	-	-	-	-	-	-	-	-	2160
S2-9'	9'	3/6/18	-	-	-	-	-	-	-	-	-	1250
S2-10'	10'	3/6/18	-	-	-	-	-	-	-	-	-	1360
S2-13'	13'	4/3/18	-	-	-	-	-	-	-	-	-	1880
S2-14'	14'	4/3/18	-	-	-	-	-	-	-	-	-	1500
S2-15'	15'	4/3/18	-	-	-	-	-	-	-	-	-	2400
S2-16'	16'	4/3/18	-	-	-	-	-	-	-	-	-	1840
S2-17'	17'	4/3/18	-	-	-	-	-	-	-	-	-	3160
S2-18'	18'	4/3/18	-	-	-	-	-	-	-	-	-	656
S2-19'	19'	4/3/18	-	-	-	-	-	-	-	-	-	2480
S2-20'	20'	4/3/18	-	-	-	-	-	-	-	-	-	288
S3-1'	1'	12/4/17	<0.500	6.77	17.4	43.3	67.5	730	7000	955	8685	1440
S3-2'	2'	12/4/17	0.050	1.79	5.13	12.7	19.6	178	1430	122	1730	8530
S3-3'	3'	12/4/17	<0.050	0.075	0.208	0.443	0.727	16.1	396	61.3	473.4	9460
S3-4'	4'	12/4/17	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	6800
S3-5'	5'	3/6/18	-	-	-	-	-	-	-	-	-	8260
S3-6'	6'	3/6/18	-	-	-	-	-	-	-	-	-	4880
S3-7'	7'	3/6/18	-	-	-	-	-	-	-	-	-	14000
S3-8'	8'	3/6/18	-	-	-	-	-	-	-	-	-	4640
S3-9'	9'	3/6/18	-	-	-	-	-	-	-	-	-	1880
S3-14'	14'	4/3/18	-	-	-	-	-	-	-	-	-	4160
S3-16'	16'	4/3/18	-	-	-	-	-	-	-	-	-	688
S3-17'	17'	4/3/18	-	-	-	-	-	-	-	-	-	336
S3-18'	18'	4/3/18	-	-	-	-	-	-	-	-	-	304
S3-19'	19'	4/3/18	-	-	-	-	-	-	-	-	-	208
S4-1'	1'	12/4/17	<0.050	0.342	3.49	11.2	15.0	254	3800	496	4550	4260
S4-2'	2'	12/4/17	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	9460
S4-3'	3'	12/4/17	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	4800
S4-4'	4'	12/4/17	<0.050	<0.050	<0.050	0.185	<0.300	<10.0	28.6	14.9	43.5	8930
S4-5'	5'	3/6/18	-	-	-	-	-	-	-	-	-	16
S4-6'	6'	3/6/18	-	-	-	-	-	-	-	-	-	32
S4-7'	7'	3/6/18	-	-	-	-	-	-	-	-	-	32
S5-1'	1'	12/4/17	<0.500	1.90	8.82	33.5	44.2	1030	12500	1830	15360	320
S5-2'	2'	12/4/17	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	16
S5-3'	3'	12/4/17	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	16
S5-4'	4'	12/4/17	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	32
H1	1'	3/8/18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	16
H2	1'	3/8/18	<0.050	<0.050	<0.050	<0.150	<0.300	115	32.2	<10.0	147.2	1170
H3	1'	3/8/18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	159	<10.0	159	880
H4	1'	3/8/18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	16
H5	1'	3/8/18	<0.050	<0.050	<0.050	<0.150	<0.300	<50.0	<50.0	<50.0	0	112
H6	1'	3/8/18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	64
H7	1'	3/8/18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	104	<10.0	104	48
H8	1'	3/8/18	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	0	192
H2+1'	1'	6/5/18	-	-	-	-	-	-	-	-	-	448
H3+1'	1'	6/5/18	-	-	-	-	-	-	-	-	-	48

# Figure 1

## Site Map with Vertical Sample Points





# Figure 2

## Site Map with Horizontal Sample Points



# Appendix A

## NMOSE Well Log



## New Mexico Office of the State Engineer Wells with Well Log Information

(A CLW#0000 in the  
POD suffix indicates the  
POD has been replaced &  
no longer serves a water  
right)

(R-POD has  
been replaced,  
O-overplanned,  
C-the file is  
closed)

(quarters are 1-NW 2-NE 3-SW 4-SE)  
(quarters are smallest to largest)

(NAD83 UTM in meters)

(in feet)

POD Number	Code	Subbasin	County	Source	64	16	4	Sec	Two	Reg	X	Y	Distance	Start Date	Finish Date	Log File Date	Depth Well	Depth Water	Driller	License Number
<a href="#">RA 67211</a>			CH	Artesian	2	1	35	183	36E		560443	3619281*	661			07/22/1960			CAMPBELL	289
<a href="#">RA 67212-F.VPL</a>			ED	Shallow	3	4	26	183	36E		560863	3619682*	667	09/20/1983	10/30/1983	11/09/1983	183	33	KUCHES DRILLING COMPANY	749
<a href="#">RA 67213-F.VP</a>			ED	Shallow	3	4	26	183	36E		560863	3619682*	667	09/20/1983	10/30/1983	11/09/1983	183	33		749
<a href="#">RA 67214-F.VPL</a>			ED	Shallow	3	4	26	183	36E		560863	3619682*	667	07/01/1984	07/23/1984	07/27/1984	118	50	KUCHES DRILLING COMPANY	749
<a href="#">RA 67215-F.VP</a>			ED	Shallow	3	4	26	183	36E		560863	3619682*	667	07/01/1984	07/23/1984	07/27/1984	118	50		749
<a href="#">RA 67216-F.VPL</a>			ED	Shallow	3	4	26	183	36E		560863	3619682*	667	07/01/1984	07/23/1984	07/27/1984	118	50		749

Record Count: 6

UTM/NAD83 Radius Search (in meters):

Easting (X): 560231

Northing (Y): 3619899.76

Radius: 750

\*UTM location was derived from F133 - see Help

The data is provided by the NMOSSE/ESC and is accepted by the recipient with the expressed understanding that the NMOSSE/ESC makes no warranty, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/23/17 11:03 AM

WELLS WITH WELL LOG INFORMATION

# Appendix B

## USGS Groundwater Information



USGS Home  
Contact USGS  
Search USGS

## National Water Information System: Web Interface

USGS Water Resources

Data Category: **Groundwater** Geographic Area: **United States** **GO**

Click to hide News Bulletins

- [Please see news on new formats](#)
- [Full News](#)

Groundwater levels for the Nation

### Search Results -- 1 sites found

Agency code = usgs

site\_no list =

- 324249104220601

Minimum number of levels = 1

Date range = 07/01/1993 - 10/23/2017

[Save file of selected sites](#) to local disk for future upload

### USGS 324249104220601 18S.26E.27.433333

Eddy County, New Mexico

Latitude 32°42'49", Longitude 104°22'06" NAD27

Land-surface elevation 3,351 feet above NAVD88

The depth of the well is 744 feet below land surface.

This well is completed in the Grayburg Formation (313GRBG) local aquifer.

#### Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurement	? Water-level approval status
1993-07-01		D	104.67			2		S		U	A
1993-08-02		D	105.03			2		S		U	A
1993-09-01		D	110.27			2		S		U	A
1994-02-08		D	44.65			2		S		U	A
1999-01-07		D	51.70			2		S		S	A
2003-01-23		D	57.61			2		S	USGS	S	A
2004-01-30		D	58.10			2		S	USGS	A	A
2005-01-26	10:49 MST	m	50.72			2		S	NM001	R	A

#### Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	S	Steel-tape measurement,
Measuring agency		Not determined
Measuring agency	NM001	New Mexico State Engineers Office
Measuring agency	USGS	U.S. Geological Survey
Source of measurement	A	Reported by another government agency (do not use "A" if reported by owner, use "O").
Source of measurement	R	Reported by person other than the owner, driller, or another government agency.
Source of measurement	S	Measured by personnel of reporting agency.
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

[Questions about sites/data?](#)  
[Feedback on this web site](#)  
[Automated retrievals](#)  
[Help](#)



# Appendix C

## Soil Sample Laboratory Data





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

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December 13, 2017

CHASE SETTLE

EOG Y RESOURCES, INC

105 SOUTH 4TH STREET

ARTESIA, NM 88210

RE: KLEEMAN PB BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 12/06/17 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S1 - 1' (H703375-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	12/11/2017	ND	1.73	86.5	2.00	0.626	
Toluene*	1.16	0.500	12/11/2017	ND	1.66	83.1	2.00	1.31	
Ethylbenzene*	2.85	0.500	12/11/2017	ND	1.60	80.1	2.00	0.651	
Total Xylenes*	19.6	1.50	12/11/2017	ND	4.95	82.6	6.00	1.48	
Total BTEX	23.6	3.00	12/11/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 111 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	12/11/2017	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					
S-06									

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	626	50.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	8510	50.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	1340	50.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 178 % 28.3-164

Surrogate: 1-Chlorooctadecane 138 % 34.7-157

Cardinal Laboratories

\* = Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S1 - 2' (H703375-02)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2017	ND	1.73	86.5	2.00	0.626		
Toluene*	0.082	0.050	12/09/2017	ND	1.66	83.1	2.00	1.31		
Ethylbenzene*	<0.050	0.050	12/09/2017	ND	1.60	80.1	2.00	0.651		
Total Xylenes*	0.253	0.150	12/09/2017	ND	4.95	82.6	6.00	1.48		
Total BTEX	0.335	0.300	12/09/2017	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 105 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	12/11/2017	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					

Surrogate: 1-Chlorooctane 90.3 % 28.3-164

Surrogate: 1-Chlorooctadecane 96.1 % 34.7-157

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S1 - 3' (H703375-03)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2017	ND	1.73	86.5	2.00	0.626	
Toluene*	<0.050	0.050	12/09/2017	ND	1.66	83.1	2.00	1.31	
Ethylbenzene*	<0.050	0.050	12/09/2017	ND	1.60	80.1	2.00	0.651	
Total Xylenes*	<0.150	0.150	12/09/2017	ND	4.95	82.6	6.00	1.48	
Total BTX	<0.300	0.300	12/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 95.8 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1330	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: M5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	13.0	10.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 97.8 % 28.3-164

Surrogate: 1-Chlorooctadecane 98.0 % 34.7-157

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S1 - 4' (H703375-04)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2017	ND	1.73	86.5	2.00	0.626	
Toluene*	<0.050	0.050	12/09/2017	ND	1.66	83.1	2.00	1.31	
Ethylbenzene*	<0.050	0.050	12/09/2017	ND	1.60	80.1	2.00	0.651	
Total Xylenes*	<0.150	0.150	12/09/2017	ND	4.95	82.6	6.00	1.48	
Total BTEX	<0.300	0.300	12/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 96.9 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2200	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	<10.0	10.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 99.6 % 28.3-164

Surrogate: 1-Chlorodecane 97.8 % 34.7-157

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S2 - 1' (H703375-05)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	1.52	1.00	12/11/2017	ND	1.73	86.5	2.00	0.626		
Toluene*	90.6	1.00	12/11/2017	ND	1.66	83.1	2.00	1.31		
Ethylbenzene*	115	1.00	12/11/2017	ND	1.60	80.1	2.00	0.651		
Total Xylenes*	189	3.00	12/11/2017	ND	4.95	82.6	6.00	1.48		
Total BTX	396	6.00	12/11/2017	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 108 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1300	16.0	12/11/2017	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	4530	50.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	27500	50.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	3520	50.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 514 % 28.3-164

Surrogate: 1-Chlorooctadecane 211 % 34.7-157

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S2 - 2' (H703375-06)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	12/11/2017	ND	1.73	86.5	2.00	0.626	
Toluene*	18.2	1.00	12/11/2017	ND	1.66	83.1	2.00	1.31	
Ethylbenzene*	23.3	1.00	12/11/2017	ND	1.60	80.1	2.00	0.651	
Total Xylenes*	106	3.00	12/11/2017	ND	4.95	82.6	6.00	1.48	
Total BTEX	148	6.00	12/11/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 72-148

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1460	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: MS					5-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1330	50.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	9940	50.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	1400	50.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 226 % 28.3-164

Surrogate: 1-Chlorooctadecane 139 % 34.7-157

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S2 - 3' (H703375-07)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	2.26	1.00	12/11/2017	ND	1.73	86.5	2.00	0.626	
Toluene*	78.5	1.00	12/11/2017	ND	1.66	83.1	2.00	1.31	
Ethylbenzene*	71.0	1.00	12/11/2017	ND	1.60	80.1	2.00	0.651	
Total Xylenes*	177	3.00	12/11/2017	ND	4.95	82.6	6.00	1.48	
Total BTX	329	6.00	12/11/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7200	16.0	12/11/2017	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	2280	50.0	12/12/2017	ND	195	97.6	200	8.87		
DRO >C10-C28	12200	50.0	12/12/2017	ND	197	98.3	200	14.8		
EXT DRO >C28-C36	1540	50.0	12/12/2017	ND						

Surrogate: 1-Chlorooctane 298 % 28.3-164

Surrogate: 1-Chlorooctadecane 163 % 34.7-157

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S2 - 4' (H703375-08)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	11.3	2.00	12/11/2017	ND	1.73	86.5	2.00	0.626		
Toluene*	150	2.00	12/11/2017	ND	1.66	83.1	2.00	1.31		
Ethylbenzene*	131	2.00	12/11/2017	ND	1.60	80.1	2.00	0.651		
Total Xylenes*	229	6.00	12/11/2017	ND	4.95	82.6	6.00	1.48		
Total BTEX	521	12.0	12/11/2017	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 98.9 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6000	16.0	12/11/2017	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2010	50.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	7790	50.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	1110	50.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 223 % 28.3-164

Surrogate: 1-Chlorooctadecane 126 % 34.7-157

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S3 - 1' (H703375-09)**

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	12/11/2017	ND	1.73	86.5	2.00	0.626	
Toluene*	6.77	0.500	12/11/2017	ND	1.66	83.1	2.00	1.31	
Ethylbenzene*	17.4	0.500	12/11/2017	ND	1.60	80.1	2.00	0.651	
Total Xylenes*	43.3	1.50	12/11/2017	ND	4.95	82.6	6.00	1.48	
Total BTEX	67.5	3.00	12/11/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 108 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1440	16.0	12/11/2017	ND	432	108	400	0.00		
TPH 8015M		mg/kg		Analyzed By: MS						S-06

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	730	50.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	7000	50.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	955	50.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 192 % 28.3-164

Surrogate: 1-Chlorooctadecane 170 % 34.7-157

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CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S3 - 2' (H703375-10)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2017	ND	1.73	86.5	2.00	0.626	
Toluene*	1.79	0.050	12/11/2017	ND	1.66	83.1	2.00	1.31	
Ethylbenzene*	5.13	0.050	12/11/2017	ND	1.60	80.1	2.00	0.651	
Total Xylenes*	12.7	0.150	12/11/2017	ND	4.95	82.6	6.00	1.48	
Total BTEX	19.6	0.300	12/11/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 126 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	8530	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	178	50.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	1430	50.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	122	50.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 126 % 28.3-164

Surrogate: 1-Chlorooctadecane 122 % 34.7-157

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S3 - 3' (H703375-11)**

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/11/2017	ND	1.73	86.5	2.00	0.626	
Toluene*	0.075	0.050	12/11/2017	ND	1.66	83.1	2.00	1.31	
Ethylbenzene*	0.208	0.050	12/11/2017	ND	1.60	80.1	2.00	0.651	
Total Xylenes*	0.443	0.150	12/11/2017	ND	4.95	82.6	6.00	1.48	
Total BTEX	0.727	0.300	12/11/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 72-1-18

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	9460	16.0	12/11/2017	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	16.1	10.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	396	10.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	61.3	10.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 100 % 28 3-164

Surrogate: 1-Chlorooctadecane 110 % 34,7-157

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 EOG Y RESOURCES, INC  
 CHASE SETTLE  
 105 SOUTH 4TH STREET  
 ARTESIA NM, 88210  
 Fax To: (575) 748-4131

 Received: 12/06/2017  
 Reported: 12/13/2017  
 Project Name: KLEEMAN PB BATTERY  
 Project Number: 4422  
 Project Location: EDDY CO, NM

 Sampling Date: 12/04/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: S3 - 4' (H703375-12)**

BTEX 80218			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2017	ND	1.75	87.3	2.00	6.85	
Toluene*	<0.050	0.050	12/09/2017	ND	1.78	88.8	2.00	6.96	
Ethylbenzene*	<0.050	0.050	12/09/2017	ND	1.84	92.0	2.00	6.76	
Total Xylenes*	<0.150	0.150	12/09/2017	ND	5.46	91.1	6.00	6.68	
Total BTEX	<0.300	0.300	12/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 107 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6800	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	<10.0	10.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 98.1 % 28.3-164

Surrogate: 1-Chlorooctadecane 94.4 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S4 - 1' (H703375-13)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2017	ND	1.75	87.3	2.00	6.85	
Toluene*	0.342	0.050	12/09/2017	ND	1.78	88.8	2.00	6.96	
Ethylbenzene*	3.49	0.050	12/09/2017	ND	1.84	92.0	2.00	6.76	
Total Xylenes*	11.2	0.150	12/09/2017	ND	5.46	91.1	6.00	6.68	
Total BTEX	15.0	0.300	12/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4260	16.0	12/11/2017	ND	432	108	400	0.00	QM-07

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	254	50.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	3800	50.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	496	50.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 149 % 28.3-164

Surrogate: 1-Chlorooctadecane 141 % 34.7-157

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S4 - 2' (H703375-14)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2017	ND	1.75	87.3	2.00	6.85	
Toluene*	<0.050	0.050	12/09/2017	ND	1.78	88.8	2.00	6.96	
Ethylbenzene*	<0.050	0.050	12/09/2017	ND	1.84	92.0	2.00	6.76	
Total Xylenes*	<0.150	0.150	12/09/2017	ND	5.46	91.1	6.00	6.68	
Total BTEX	<0.300	0.300	12/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 111 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9460	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	<10.0	10.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 92.5 % 28 3-164

Surrogate: 1-Chlorooctadecane 89.8 % 34.7-157

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S4 - 3' (H703375-15)**

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2017	ND	1.75	87.3	2.00	6.85	
Toluene*	<0.050	0.050	12/09/2017	ND	1.78	88.8	2.00	6.96	
Ethylbenzene*	<0.050	0.050	12/09/2017	ND	1.84	92.0	2.00	6.76	
Total Xylenes*	<0.150	0.150	12/09/2017	ND	5.46	91.1	6.00	6.68	
Total BTEX	<0.300	0.300	12/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	<10.0	10.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 80.3 % 28.3-164

Surrogate: 1-Chlorooctadecane 78.0 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager



**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S4 - 4' (H703375-16)**

BTEX 8021B		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2017	ND	1.75	87.3	2.00	6.85	
Toluene*	<0.050	0.050	12/09/2017	ND	1.78	88.8	2.00	6.96	
Ethylbenzene*	<0.050	0.050	12/09/2017	ND	1.84	92.0	2.00	6.76	
<b>Total Xylenes*</b>	<b>0.185</b>	<b>0.150</b>	<b>12/09/2017</b>	<b>ND</b>	<b>5.46</b>	<b>91.1</b>	<b>6.00</b>	<b>6.68</b>	
Total BTEX	<0.300	0.300	12/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 72-148

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>8930</b>	<b>16.0</b>	<b>12/11/2017</b>	<b>ND</b>	<b>432</b>	<b>108</b>	<b>400</b>	<b>0.00</b>	

TPH 8015M		mg/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/12/2017	ND	195	97.6	200	8.87	
<b>DRO &gt;C10-C28</b>	<b>28.6</b>	<b>10.0</b>	<b>12/12/2017</b>	<b>ND</b>	<b>197</b>	<b>98.3</b>	<b>200</b>	<b>14.8</b>	
<b>EXT DRO &gt;C28-C36</b>	<b>14.9</b>	<b>10.0</b>	<b>12/12/2017</b>	<b>ND</b>					

Surrogate: 1-Chlorooctane 98.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 99.1 % 34.7-157

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S5 - 1' (H703375-17)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	12/11/2017	ND	1.75	87.3	2.00	6.85	
Toluene*	1.90	0.500	12/11/2017	ND	1.78	88.8	2.00	6.96	
Ethylbenzene*	8.82	0.500	12/11/2017	ND	1.84	92.0	2.00	6.76	
Total Xylenes*	33.5	1.50	12/11/2017	ND	5.46	91.1	6.00	6.68	
Total BTX	44.2	3.00	12/11/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 112 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	1030	50.0	12/12/2017	ND	195	97.6	200	8.87		
DRO >C10-C28	12500	50.0	12/12/2017	ND	197	98.3	200	14.8		
EXT DRO >C28-C36	1830	50.0	12/12/2017	ND						

Surrogate: 1-Chlorooctane 235 % 28.3-164

Surrogate: 1-Chlorooctadecane 166 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S5 - 2' (H703375-18)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2017	ND	1.75	87.3	2.00	6.85	
Toluene*	<0.050	0.050	12/09/2017	ND	1.78	88.8	2.00	6.96	
Ethylbenzene*	<0.050	0.050	12/09/2017	ND	1.84	92.0	2.00	6.76	
Total Xylenes*	<0.150	0.150	12/09/2017	ND	5.46	91.1	6.00	6.68	
Total BTEX	<0.300	0.300	12/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 109 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	<10.0	10.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 92.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 91.9 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S5 - 3' (H703375-19)**

BTEX 8021B			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2017	ND	1.75	87.3	2.00	6.85	
Toluene*	<0.050	0.050	12/09/2017	ND	1.78	88.8	2.00	6.96	
Ethylbenzene*	<0.050	0.050	12/09/2017	ND	1.84	92.0	2.00	6.76	
Total Xylenes*	<0.150	0.150	12/09/2017	ND	5.46	91.1	6.00	6.68	
Total BTEX	<0.300	0.300	12/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 72-148

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	<10.0	10.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 95.1 % 28.3-164

Surrogate: 1-Chlorooctadecane 93.5 % 34.7-157

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 12/06/2017  
Reported: 12/13/2017  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 12/04/2017  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S5 - 4' (H703375-20)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/09/2017	ND	1.75	87.3	2.00	6.85	
Toluene*	<0.050	0.050	12/09/2017	ND	1.78	88.8	2.00	6.96	
Ethylbenzene*	<0.050	0.050	12/09/2017	ND	1.84	92.0	2.00	6.76	
Total Xylenes*	<0.150	0.150	12/09/2017	ND	5.46	91.1	6.00	6.68	
Total BTEX	<0.300	0.300	12/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 105 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	12/11/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/12/2017	ND	195	97.6	200	8.87	
DRO >C10-C28	<10.0	10.0	12/12/2017	ND	197	98.3	200	14.8	
EXT DRO >C28-C36	<10.0	10.0	12/12/2017	ND					

Surrogate: 1-Chlorooctane 91.5 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.5 % 34.7-157

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### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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 SM4500C-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



ARDINAL LABORATORIES  
101 East Marland, Hobbs, NM 88240

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Chase Settle

Company Name: EOG Resources, Inc.

Company Address: 104 South 4th Street

City/State/Zip: Artesia, NM 88210

Telephone No: 575-748-4171

Fax No:

Sampler Signature:

e-mail:

[Chase.Settle@eogresources.com](mailto:Chase.Settle@eogresources.com)

Project Name: Kieeman PB Battery

Project #: 4422

Project Loc: Eddy County

PO #: 205-0750

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

ORDER #: H 703375-

LAB # (lab use only)		FIELD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers										Matrix	Analyze For:													
										Ice	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other (Specify)	DW=Drinking Water BL=Sludge	GW = Groundwater B=Boil/Solid	NP=Non-Potable Specify Other	TPH 8015M Extended	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT	
1	S1-1'					12/4/2017	8:16 AM		1	X									S			X												X
2	S1-2'					12/4/2017	8:18 AM		1	X									S			X												X
3	S1-3'					12/4/2017	8:20 AM		1	X									S			X												X
4	S1-4'					12/4/2017	8:22 AM		1	X									S			X												X
5	S2-1'					12/4/2017	8:28 AM		1	X									S			X												X
6	S2-2'					12/4/2017	8:30 AM		1	X									S			X												X
7	S2-3'					12/4/2017	8:32 AM		1	X									S			X												X
8	S2-4'					12/4/2017	8:34 AM		1	X									S			X												X
9	S3-1'					12/4/2017	8:44 AM		1	X									S			X												X
10	S3-2'					12/4/2017	8:46 AM		1	X									S			X												X

Special Instructions: ALL results in mg/kg. **TPH EXTENDED**. Thank you.

Relinquished by:	Date: 12-6-17	Time: 11:30 AM	Received by:	Date: 12/6/17	Time: 12:00
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Temperature Upon Receipt: 30.5 / 28 °C









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March 15, 2018

CHASE SETTLE

EOG Y RESOURCES, INC

105 SOUTH 4TH STREET

ARTESIA, NM 88210

RE: KLEEMAN PB BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 03/07/18 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Caley D. Keene

Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/07/2018  
Reported: 03/15/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/06/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: S1 - 5' (H800680-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/15/2018	ND	464	116	400	3.39	

**Sample ID: S1 - 6' (H800680-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/15/2018	ND	464	116	400	3.39	

**Sample ID: S1 - 7' (H800680-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/15/2018	ND	464	116	400	3.39	

**Sample ID: S1 - 8' (H800680-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	03/15/2018	ND	464	116	400	3.39	

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*Celey D. Keene*

Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/07/2018  
Reported: 03/15/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/06/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: S1 - 9' (H800680-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	03/15/2018	ND	464	116	400	3.39	

**Sample ID: S1 - 10' (H800680-06)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	03/15/2018	ND	464	116	400	3.39		

**Sample ID: S1 - 11' (H800680-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	03/15/2018	ND	480	120	400	0.00	

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/07/2018  
Reported: 03/15/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/06/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: S2 - 5' (H800680-08)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.11	105	2.00	1.42	
Toluene*	<0.050	0.050	03/08/2018	ND	2.06	103	2.00	0.754	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	1.98	99.1	2.00	0.734	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	5.96	99.3	6.00	0.529	
Total BTX	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 102 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3920	16.0	03/11/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/08/2018	ND	207	103	200	1.63	
DRO >C10-C28*	<10.0	10.0	03/08/2018	ND	193	96.7	200	9.28	
EXT DRO >C28-C36	<10.0	10.0	03/08/2018	ND					

Surrogate: 1-Chlorooctane 95.3 % 41-142

Surrogate: 1-Chlorooctadecane 79.6 % 37.6-147

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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/07/2018  
Reported: 03/15/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/06/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: S2 - 6' (H800680-09)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.11	105	2.00	1.42	
Toluene*	<0.050	0.050	03/08/2018	ND	2.06	103	2.00	0.754	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	1.98	99.1	2.00	0.734	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	5.96	99.3	6.00	0.529	
Total BTEX	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4320	16.0	03/11/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/08/2018	ND	207	103	200	1.63	
DRO >C10-C28*	<10.0	10.0	03/08/2018	ND	193	96.7	200	9.28	
EXT DRO >C28-C36	<10.0	10.0	03/08/2018	ND					

Surrogate: 1-Chlorooctane 94.5 % 41-142

Surrogate: 1-Chlorooctadecane 79.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/07/2018  
Reported: 03/15/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/06/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: S2 - 7' (H800680-10)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/08/2018	ND	2.11	105	2.00	1.42	
Toluene*	<0.050	0.050	03/08/2018	ND	2.06	103	2.00	0.754	
Ethylbenzene*	<0.050	0.050	03/08/2018	ND	1.98	99.1	2.00	0.734	
Total Xylenes*	<0.150	0.150	03/08/2018	ND	5.96	99.3	6.00	0.529	
Total BTEX	<0.300	0.300	03/08/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 98.9 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	03/11/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/08/2018	ND	207	103	200	1.63	
DRO >C10-C28*	<10.0	10.0	03/08/2018	ND	193	96.7	200	9.28	
EXT DRO >C28-C36	<10.0	10.0	03/08/2018	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 84.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/07/2018  
Reported: 03/15/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/06/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: S2 - 8' (H800680-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2160	16.0	03/15/2018	ND	480	120	400	0.00	

**Sample ID: S2 - 9' (H800680-12)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1250	16.0	03/15/2018	ND	480	120	400	0.00	

**Sample ID: S2 - 10' (H800680-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1360	16.0	03/15/2018	ND	480	120	400	0.00		

**Sample ID: S3 - 5' (H800680-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	8260	16.0	03/15/2018	ND	480	120	400	0.00		

**Sample ID: S3 - 6' (H800680-15)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4880	16.0	03/15/2018	ND	480	120	400	0.00	

Cardinal Laboratories

\* = Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/07/2018  
Reported: 03/15/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/06/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: S3 - 7' (H800680-16)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14000	16.0	03/15/2018	ND	480	120	400	0.00	

**Sample ID: S3 - 8' (H800680-17)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4640	16.0	03/15/2018	ND	480	120	400	0.00	

**Sample ID: S3 - 9' (H800680-18)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1880	16.0	03/15/2018	ND	480	120	400	0.00	

**Sample ID: S4 - 5' (H800680-19)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/15/2018	ND	480	120	400	0.00	

**Sample ID: S4 - 6' (H800680-20)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/15/2018	ND	480	120	400	0.00	

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/07/2018  
Reported: 03/15/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/06/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: S4 - 7' (H800680-21)**

Chloride, SM4500Cl-B

mg/kg

Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/15/2018	ND	480	120	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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\*=Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager





ARDINAL LABORATORIES  
101 East Mainland, Hobbs, NM 88240

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

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Chase Settle

Company Name: EOG Resources, Inc.

Company Address: 104 South 4th Street

City/State/Zip: Artesia, NM 88210

Telephone No: 575-748-4171

Fax No:

Sampler Signature:

e-mail:

Chase.Settle@eogresources.com

Project Name: Kleeman PB Battery

Project #: 4422

Project Loc: Eddy County

PO #: 205-0750

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

ORDER #: 4200680

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other (Specify)	DW-Drinking Water SL-Grudge	GW=Groundwater S=SoftSolid	NP=Non-Potable Specify Other	TPH: 8015M Extended	TPH: TX 1005 TX 1006	Calcine (Ca, Mg, Na, K)	Anions (Cl)	BAR / E&P / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
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11	S2-8'			3/6/2018	9:42 AM		1																										
12	S2-9'			3/6/2018	9:50 AM		1																										
13	S2-10'			3/6/2018	10:01 AM		1																										
14	S3-5'			3/6/2018	10:28 AM		1																										
15	S3-6'			3/6/2018	10:32 AM		1																										
16	S3-7'			3/6/2018	10:39 AM		1																										
17	S3-8'			3/6/2018	10:43 AM		1																										
18	S3-9'			3/6/2018	10:49 AM		1																										
19	S4-5'			3/6/2018	11:15 AM		1																										
20	S4-6'			3/6/2018	11:21 AM		1																										

Special Instructions: ALL results in mg/kg. Thank you.

Requested by:	Date: 3-7-18	Time: 11:30	Received by:	Date: 3-7-18	Time: 2:15
Requested by:	Date:	Time:	Received by:	Date:	Time:
Requested by:	Date:	Time:	Received by: ELDT:	Date:	Time:

Laboratory Comments:

VOCs Free of Headspace? ☒ N

Sampled from container? ☒ N

Custody (seals on container)? ☒ N

Sample Hand Delivered by Courier? ☒ N

UPS ☒ DHL ☒ FedEx ☒ Lane Star

Temperature Upon Receipt: 42.5 ☒ 1.55 ☒ 70





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

April 06, 2018

CHASE SETTLE

EOG Y RESOURCES, INC

105 SOUTH 4TH STREET

ARTESIA, NM 88210

RE: KLEEMAN PB BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 04/04/18 15:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 04/04/2018  
Reported: 04/06/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 04/03/2018  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Tamara Oldaker

**Sample ID: S2 - 13' (H800932-01)**

Chloride, SM4500Cl-B			mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1880	16.0	04/06/2018	ND	416	104	400	0.00		

**Sample ID: S2 - 14' (H800932-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1500	16.0	04/06/2018	ND	416	104	400	0.00	

**Sample ID: S2 - 15' (H800932-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2400	16.0	04/06/2018	ND	416	104	400	0.00	

**Sample ID: S2 - 16' (H800932-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	04/06/2018	ND	416	104	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 04/04/2018  
Reported: 04/06/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 04/03/2018  
Sampling Type: Soil  
Sampling Condition: \*\* (See Notes)  
Sample Received By: Tamara Oldaker

**Sample ID: S2 - 17' (H800932-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3160	16.0	04/06/2018	ND	416	104	400	0.00	

**Sample ID: S2 - 18' (H800932-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	04/06/2018	ND	416	104	400	0.00	

**Sample ID: S2 - 19' (H800932-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2480	16.0	04/06/2018	ND	416	104	400	0.00	

**Sample ID: S2 - 20' (H800932-08)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	04/06/2018	ND	416	104	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager





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### 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

\*=Accredited Analyte

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A handwritten signature in black ink, appearing to read 'Celey D. Keene'.

Celey D. Keene, Lab Director/Quality Manager



(505) 383-2326 FAX (505) 383-2476

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Name:** Kleeman PB Battery

**Project #: 4422**

**Project Loc:** Eddy County

**PO #: 205-0750**

## Report Format

☒ **Standard**

☐ TRRP

NPDES

[Chase.Settle@eogresources.com](mailto:Chase.Settle@eogresources.com)

## Analyze For




**ORDER #:**

H800932

[illegible]

**Special instructions:**

Laboratory Comments:

Sample Containers Intact?		N
VOCs Free of Headspace?		N
Labels on containers?		N

Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N

by Sampler/Client Rep. ? ☒ Y ☐ N  
by Courier? ☐ UPS ☐ DHL ☐ FedEx ☐ Lone Star

Temperature Upon Receipt

U  
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Cancelled 7-25-02



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

April 19, 2018

CHASE SETTLE

EOG Y RESOURCES, INC

105 SOUTH 4TH STREET

ARTESIA, NM 88210

RE: KLEEMAN PB BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 04/12/18 14:05.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/ga/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/ga/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Caley D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 04/12/2018  
Reported: 04/19/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 04/03/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S3 - 14' (H801018-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4160	16.0	04/18/2018	ND	432	108	400	3.77	

**Sample ID: S3 - 16' (H801018-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	688	16.0	04/18/2018	ND	432	108	400	3.77	

**Sample ID: S3 - 17' (H801018-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	04/18/2018	ND	432	108	400	3.77	

**Sample ID: S3 - 18' (H801018-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	04/18/2018	ND	432	108	400	3.77	

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 04/12/2018  
Reported: 04/19/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 04/03/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: S3 - 19' (H801018-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	04/18/2018	ND	432	108	400	3.77		

Cardinal Laboratories

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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

\*=Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager

(505) 393-2326 FAX (505) 383-2476

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Project Name: Kleeman PB Battery**

Project #: 4422

**Project Loc:** Eddy County

**PO #:** 205-0750

**Fax No:**

**Report Format:** ☒ Standard ☐ TRRP ☐ NPDES

e-mail:

[Chase.Settle@eodresources.com](mailto:Chase.Settle@eodresources.com)

ORDER #: H801018

[illegible]





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

---

March 19, 2018

CHASE SETTLE

EOG Y RESOURCES, INC

105 SOUTH 4TH STREET

ARTESIA, NM 88210

RE: KLEEMAN PB BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 03/12/18 14:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/12/2018  
Reported: 03/19/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/08/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: H 1 (H800717-01)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/13/2018	ND	1.87	93.4	2.00	1.63		
Toluene*	<0.050	0.050	03/13/2018	ND	1.90	95.1	2.00	0.918		
Ethylbenzene*	<0.050	0.050	03/13/2018	ND	1.88	93.9	2.00	1.17		
Total Xylenes*	<0.150	0.150	03/13/2018	ND	5.79	96.5	6.00	1.57		
Total BTEX	<0.300	0.300	03/13/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 90.8 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/14/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2018	ND	174	86.9	200	2.08	
DRO >C10-C28*	<10.0	10.0	03/13/2018	ND	155	77.3	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	03/13/2018	ND					

Surrogate: 1-Chlorooctane 89.3 % 41-142

Surrogate: 1-Chlorooctadecane 75.5 % 37.6-147

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\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/12/2018  
Reported: 03/19/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/08/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: H 2 (H800717-02)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/13/2018	ND	1.87	93.4	2.00	1.63		
Toluene*	<0.050	0.050	03/13/2018	ND	1.90	95.1	2.00	0.918		
Ethylbenzene*	<0.050	0.050	03/13/2018	ND	1.88	93.9	2.00	1.17		
Total Xylenes*	<0.150	0.150	03/13/2018	ND	5.79	96.5	6.00	1.57		
Total BTEX	<0.300	0.300	03/13/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 91.3 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	03/14/2018	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: M5					

TPH 8015M		mg/kg		Analyzed By: M5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2018	ND	174	86.9	200	2.08	
DRO >C10-C28*	115	10.0	03/13/2018	ND	155	77.3	200	3.67	
EXT DRO >C28-C36	32.2	10.0	03/13/2018	ND					

Surrogate: 1-Chlorooctane 78.6 % 41-142

Surrogate: 1-Chlorooctadecane 70.8 % 37.6-147

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/12/2018  
Reported: 03/19/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/08/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: H 3 (H800717-03)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/13/2018	ND	1.87	93.4	2.00	1.63		
Toluene*	<0.050	0.050	03/13/2018	ND	1.90	95.1	2.00	0.918		
Ethylbenzene*	<0.050	0.050	03/13/2018	ND	1.88	93.9	2.00	1.17		
Total Xylenes*	<0.150	0.150	03/13/2018	ND	5.79	96.5	6.00	1.57		
Total BTEX	<0.300	0.300	03/13/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 92.6 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	880	16.0	03/14/2018	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2018	ND	174	86.9	200	2.08	
DRO >C10-C28*	159	10.0	03/13/2018	ND	155	77.3	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	03/13/2018	ND					

Surrogate: 1-Chlorooctane 88.1 % 41-142

Surrogate: 1-Chlorooctadecane 81.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received:	03/12/2018	Sampling Date:	03/08/2018
Reported:	03/19/2018	Sampling Type:	Soil
Project Name:	KLEEMAN PB BATTERY	Sampling Condition:	Cool & Intact
Project Number:	4422	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO, NM		

**Sample ID: H 4 (H800717-04)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2018	ND	1.87	93.4	2.00	1.63	
Toluene*	<0.050	0.050	03/13/2018	ND	1.90	95.1	2.00	0.918	
Ethylbenzene*	<0.050	0.050	03/13/2018	ND	1.88	93.9	2.00	1.17	
Total Xylenes*	<0.150	0.150	03/13/2018	ND	5.79	96.5	6.00	1.57	
Total BTX	<0.300	0.300	03/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 92.6 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/14/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2018	ND	174	86.9	200	2.08	
DRO >C10-C28*	<10.0	10.0	03/13/2018	ND	155	77.3	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	03/13/2018	ND					

Surrogate: 1-Chlorooctane 94.4 % 41-142

Surrogate: 1-Chlorooctadecane 79.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/12/2018  
Reported: 03/19/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/08/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: H 5 (H800717-05)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/13/2018	ND	1.87	93.4	2.00	1.63		
Toluene*	<0.050	0.050	03/13/2018	ND	1.90	95.1	2.00	0.918		
Ethylbenzene*	<0.050	0.050	03/13/2018	ND	1.88	93.9	2.00	1.17		
Total Xylenes*	<0.150	0.150	03/13/2018	ND	5.79	96.5	6.00	1.57		
Total BTEX	<0.300	0.300	03/13/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 92.0 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	03/14/2018	ND	432	108	400	0.00	
TPH 8015M		mg/kg		Analyzed By: MS					

Surrogate: 1-Chlorooctane 96.2 % 41-142

Surrogate: 1-Chlorooctadecane 80.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/12/2018  
Reported: 03/19/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/08/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: H 6 (H800717-06)**

BTEX 80218		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/13/2018	ND	1.87	93.4	2.00	1.63		
Toluene*	<0.050	0.050	03/13/2018	ND	1.90	95.1	2.00	0.918		
Ethylbenzene*	<0.050	0.050	03/13/2018	ND	1.88	93.9	2.00	1.17		
Total Xylenes*	<0.150	0.150	03/13/2018	ND	5.79	96.5	6.00	1.57		
Total BTEX	<0.300	0.300	03/13/2018	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 93.0 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/14/2018	ND	432	108	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2018	ND	174	86.9	200	2.08	
DRO >C10-C28*	<10.0	10.0	03/13/2018	ND	155	77.3	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	03/13/2018	ND					

Surrogate: 1-Chlorooctane 82.7 % 41-142

Surrogate: 1-Chlorooctadecane 66.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/12/2018  
Reported: 03/19/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/08/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: H 7 (H800717-07)**

BTEX 80218		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2018	ND	1.87	93.4	2.00	1.63	
Toluene*	<0.050	0.050	03/13/2018	ND	1.90	95.1	2.00	0.918	
Ethylbenzene*	<0.050	0.050	03/13/2018	ND	1.88	93.9	2.00	1.17	
Total Xylenes*	<0.150	0.150	03/13/2018	ND	5.79	96.5	6.00	1.57	
Total BTEX	<0.300	0.300	03/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 92.0 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	03/14/2018	ND	432	108	400	0.00	
TPH 8015M	mg/kg		Analyzed By: MS						

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<50.0	50.0	03/13/2018	ND	174	86.9	200	2.08	
DRO >C10-C28*	104	50.0	03/13/2018	ND	155	77.3	200	3.67	
EXT DRO >C28-C36	<50.0	50.0	03/13/2018	ND					

Surrogate: 1-Chlorooctane 91.9 % 41-142

Surrogate: 1-Chlorooctadecane 79.3 % 37.6-147

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received: 03/12/2018  
Reported: 03/19/2018  
Project Name: KLEEMAN PB BATTERY  
Project Number: 4422  
Project Location: EDDY CO, NM

Sampling Date: 03/08/2018  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Tamara Oldaker

**Sample ID: H 8 (H800717-08)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/13/2018	ND	1.87	93.4	2.00	1.63	
Toluene*	<0.050	0.050	03/13/2018	ND	1.90	95.1	2.00	0.918	
Ethylbenzene*	<0.050	0.050	03/13/2018	ND	1.88	93.9	2.00	1.17	
Total Xylenes*	<0.150	0.150	03/13/2018	ND	5.79	96.5	6.00	1.57	
Total BTEx	<0.300	0.300	03/13/2018	ND					

Surrogate: 4-Bromofluorobenzene (PIL) 92.7 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	03/14/2018	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	03/13/2018	ND	174	86.9	200	2.08	
DRO >C10-C28*	<10.0	10.0	03/13/2018	ND	155	77.3	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	03/13/2018	ND					

Surrogate: 1-Chlorooctane 88.7 % 41-142

Surrogate: 1-Chlorooctadecane 69.8 % 37.6-147

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager







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June 11, 2018

CHASE SETTLE

EOG Y RESOURCES, INC

105 SOUTH 4TH STREET

ARTESIA, NM 88210

RE: KLEEMAN PB BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 06/06/18 11:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Coley D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

EOG Y RESOURCES, INC  
CHASE SETTLE  
105 SOUTH 4TH STREET  
ARTESIA NM, 88210  
Fax To: (575) 748-4131

Received:	06/06/2018	Sampling Date:	06/05/2018
Reported:	06/11/2018	Sampling Type:	Soil
Project Name:	KLEEMAN PB BATTERY	Sampling Condition:	Cool & Intact
Project Number:	4422	Sample Received By:	Tamara Oldaker
Project Location:	EDDY CO, NM		

**Sample ID: H 2 +1' (H801541-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	448	16.0	06/07/2018	ND	432	108	400	0.00		

**Sample ID: H 3 +1' (H801541-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	06/07/2018	ND	432	108	400	0.00		

Cardinal Laboratories

\*=Accredited Analyte

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

Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

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

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



ARDINAL LABORATORIES  
101 East Marland, Hobbs, NM 88240

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

# CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Chase Settle

Company Name: EOG Resources, Inc.

Company Address: 104 South 4th Street

City/State/Zip: Artesia, NM 88210

Telephone No: 575-748-4171

Sampler Signature:

(lab use only)

ORDER #: H801541

e-mail:

Chase.Settle@eogresources.com

Fax No:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Project Name: Kleeman PB Battery

Project #: 4422

Project Loc: Eddy County

PO #: 205-0750

LAB # (lab use only)		FIELD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers	Matrix	Analyze For:	
1	H2+1'					6/5/2018	8:03 AM		1	Ice	None	TPH: 8015M Extended	
2	H3+1'					6/5/2018	8:11 AM		1	HNO <sub>3</sub>	Other (Specify)	TPH: TX 1005 TX 1006	
										HCl		Cations (Ca, Mg, Na, K)	
										H <sub>2</sub> SO <sub>4</sub>		Anions (Cl)	
										NaOH		SAR / ESP / CEC	
										Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>		Metals: As Ag Ba Cd Cr Pb Hg Se	
										None		Volatiles	
										Other (Specify)		Semivolatiles	
										DW=Drinking Water SL=Sludge		BTEX 8021B/5030 or BTEX 8260	
										GW = Groundwater S=Soil/Solid		RCI	
										NP=Non-Potable Specify Other		N.O.R.M.	
												RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	
												Standard TAT	

Special Instructions:

ALL results in mg/kg. **TPH EXTENDED**. Thank you.

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Laboratory Comments:

Sample Containers Intact? ☒

VOCs Free of Headspace? ☒

Labels on container(s)? ☒

Custody seals on cooler(s)? ☒

Sample Hand Delivered by Sampler/Client Rep.? ☒

Temperature Upon Receipt: 24.2 °C

20.0

# Appendix D

## Form C-141 Initial

**NM OIL CONSERVATION  
ARTESIA DISTRICT**

**SEP 28 2017**

Form C-141  
Revised April 3, 2017

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

State of New Mexico  
Energy Minerals and Natural Resources

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

**RECEIVED**  
Submit 1 copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

**Release Notification and Corrective Action  
OPERATOR**

**NAB1727254031**

☒ Initial Report    ☐ Final Report

Name of Company <b>BOG Y Resources, Inc.</b>	Contact <b>Chase Settle</b>
Address <b>104 S. 4<sup>th</sup> Street Artesia NM 88210</b>	Telephone No. <b>575-748-1471</b>
Facility Name <b>Kleeman PD &amp; Platt PA Battery</b>	Facility Type <b>Battery</b>

Surface Owner <b>Private</b>	Mineral Owner <b>Private</b>	API No. <b>30-015-00253</b>
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**LOCATION OF RELEASE**

Unit Letter <b>L</b>	Section <b>26</b>	Township <b>18S</b>	Range <b>26E</b>	Feet from the <b>1950</b>	North/South Line <b>South</b>	Feet from the <b>990</b>	East/West Line <b>West</b>	County <b>Eddy</b>
-------------------------	----------------------	------------------------	---------------------	------------------------------	----------------------------------	-----------------------------	-------------------------------	-----------------------

Latitude 32.71563 Longitude -104.35731 NAD83

**NATURE OF RELEASE**

Type of Release <b>Crude Oil/Produced Water</b>	Volume of Release <b>27 B/O, 110 B/PW</b>	Volume Recovered <b>1 B/O, 0 B/PW</b>
Source of Release <b>Tank</b>	Date and Hour of Occurrence <b>9/12/2017; 7:42 AM</b>	Date and Hour of Discovery <b>9/12/2017; 7:42 AM</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Mike Bratcher and Crystal Weaver</b>	
By Whom? <b>Robert Asher</b>	Date and Hour <b>September 12, 2017, 1:40 PM</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\* **N/A**

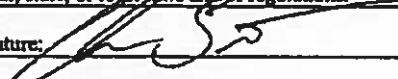
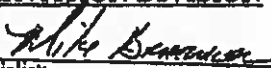
Describe Cause of Problem and Remedial Action Taken.\*

The cause of the release was determined to be from a hole in the bottom of the production tank.

Describe Area Affected and Cleanup Action Taken.\*

The release occurred within the battery berm the exact area impacted will be reported when the characterization plan is submitted to NMOC. Vertical and horizontal delineation samples will be taken and analysis ran for TPH & BTEX (chlorides for documentation). If initial analytical results for TPH & BTEX are under RRAL's (site ranking is 10) a Final Report, C-141 will be submitted to the OCD requesting closure. If the analytical results are above the RRAL's a work plan will be submitted to the OCD. Depth to Ground Water: >50 -99' (58', Section 26, T18S, R26E, per NMOSE & USGS), Wellhead Protection Area: No, Distance to Surface Water Body: >1000', SITE RANKING IS 10.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Chase Settle</b>	Signed By 	
Title: <b>Rep Safety &amp; Environmental II</b>	Approved by Environmental Specialist:	
E-mail Address: <b>chase.settle@ecogresources.com</b>	Approval Date: <b>9/29/17</b>	Expiration Date: <b>N/A</b>
Date: <b>September 28, 2017</b> Phone: <b>575-748-4171</b>	Conditions of Approval: <b>See attached</b> Attached <b>APP-4422</b>	

\* Attach Additional Sheets If Necessary