



*EOG Resources, Inc.
Artesia Division Office
105 S. 4th Street
Artesia, N. M. 88210*

February 13, 2017

Ms. Olivia Yu
NMOCD District I
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Kiwi AKX State #8 SWD
Section 16, T22S-R32E
Lea County, New Mexico
30-025-31889
1RP-3732

Ms. Yu,

EOG Y Resources, Inc. is submitting the enclosed work plan for the above captioned well. The plan is being submitted in response to the C-141 report dated July 14, 2015.

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 February 27, 2017.

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

Thank you.

EOG Y Resources, Inc.

Chase Settle
Rep Safety & Environmental II

EOG Y Resources, Inc.

Kiwi AKX State #8 SWD Work Plan

Section 16, T22S-R32E

Lea County, New Mexico

February 13, 2017

1RP- 3732

I. Location

From the intersection of US 62/180 and Campbell Road (CR-29), travel south for approximately 10.8 miles, then turn east on lease road and follow for 3.5 miles, and then turn north and follow the road around the curve back to the west to the SWD.

II. Background

On July 14, 2015, EOG Y Resources, Inc. submitted to the NMOCD District I office a Form C-141 for the release of 2 B/O & 10 B/PW with none recovered. The affected area is approximately 35 feet by 35 feet within the battery berm. Initial delineation samples were taken (01/09/2017) and sent to a NMOCD approved laboratory (01/18/2017, results enclosed).

III. Surface and Ground Water

Area surface geology is Cenozoic Quaternary-Tertiary. The ChevronTexaco Trend Map displays at this location (Section 16, T22S-R32E) that depth to groundwater is approximately 300 feet making the site ranking for this site a zero (0). Watercourses in the area are dry except for infrequent flows in response to major precipitation events.

The ranking for this site is zero (0) based on the as following:

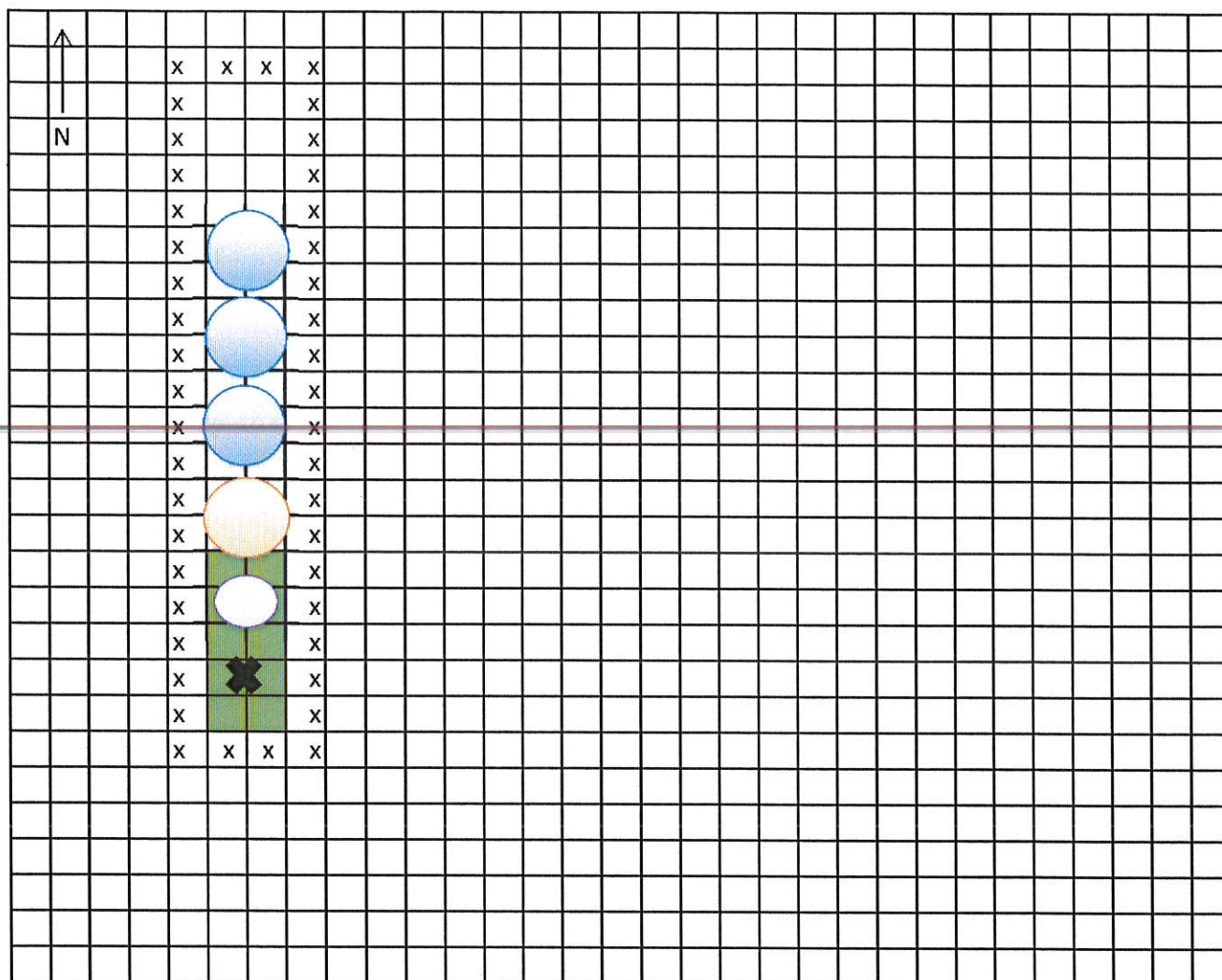
Depth to ground water	> 100'
Wellhead Protection Area	> 1000'
Distance to surface water body	> 1000'

IV. Soils

The area consists of soils that are sand based topsoil on top of a caliche layer which is interspersed with clay seams providing a low permeability barrier to prohibit further migration of contaminants into the subsurface.

V. Scope of Work

Based on enclosed analytical results, the depth to groundwater (300'), and TPH & BTEX dropping below RRAL's, EOG Y Resources, Inc. will excavate to six (6) feet BSL within the release area, then backfill the excavated area with six (6) feet of caliche. The excavated material will be placed in a lined, bermed area on the production pad to undergo bioremediation using a 3% MicroBlaze treatment. Soil will be set on the liner in a 6-8" lift, then it will be treated with the recommended rate of 3% MicroBlaze. Soils will be treated with MicroBlaze and turned by machinery every 30 days, at which time a 5 point composite sample will be taken and sent for soil analysis at a NMOCD approved laboratory. Once bioremediation is complete, soil analytical results have returned under RRAL's for a site ranking zero (0), the soils will be used in downsizing the production pad. MicroBlaze treatments will not begin until May 1, 2017 when the ambient temperature meets the needs of the application solution. The TPH & BTEX for the remaining soil are within the RRAL's for BTEX (50 ppm) and TPH (5000 ppm) for the Total Ranking Score of zero (0), no further analytical testing of TPH and/or BTEX will be conducted (all chloride analytical results are for documentation). When remediation work is completed a C-141 Final Report will be submitted to the NMOCD requesting closure of the site.



Kiwi AKX State #8 SWD- NOT TO SCALE

Sample Area	Analytical	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	CI-
S1-1'	1701479	1/9/2017	Backhoe	1'	2.34	290	5600	320
S1-2'	1701479	1/9/2017	Backhoe	2'	44.7	1200	8300	49
S1-3'	1701479	1/9/2017	Backhoe	3'	213.3	2900	14000	120
S1-4'	1701479	1/9/2017	Backhoe	4'	88.8	1100	4500	120
S1-6'	1701479	1/9/2017	Backhoe	6'	ND	ND	ND	110
S1-8'	1701479	1/9/2017	Backhoe	8'	ND	ND	ND	80

Site Ranking is Zero (0). DTGW >100' (approx 300', Section 16, T22S-R32E, Trend Map)

All results are ppm (chlorides for documentation).

Released: 2 B/O & 10 B/PW; Recovered: 0 B/O & 8 B/PW Release Date: 6/28/2015



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

January 18, 2017

Chase Settle
EOG Resources
105 South Fourth Street
Artesia, NM 88210
TEL: (575) 748-4111
FAX

RE: Kiwi AKX State #8 SWD

OrderNo.: 1701479

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 6 sample(s) on 1/12/2017 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1701479

Date Reported: 1/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Resources

Client Sample ID: S1-1'

Project: Kiwi AKX State #8 SWD

Collection Date: 1/9/2017 9:52:00 AM

Lab ID: 1701479-001

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	320	30		mg/Kg	20	1/17/2017 1:28:55 AM	29694
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	5600	96		mg/Kg	10	1/16/2017 1:23:57 PM	29674
Surr: DNOP	0	70-130	S	%Rec	10	1/16/2017 1:23:57 PM	29674
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	290	24		mg/Kg	5	1/13/2017 2:50:55 PM	29660
Surr: BFB	396	68.3-144	S	%Rec	5	1/13/2017 2:50:55 PM	29660
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.12		mg/Kg	5	1/13/2017 2:50:55 PM	29660
Toluene	0.34	0.24		mg/Kg	5	1/13/2017 2:50:55 PM	29660
Ethylbenzene	ND	0.24		mg/Kg	5	1/13/2017 2:50:55 PM	29660
Xylenes, Total	2.0	0.48		mg/Kg	5	1/13/2017 2:50:55 PM	29660
Surr: 4-Bromofluorobenzene	127	80-120	S	%Rec	5	1/13/2017 2:50:55 PM	29660

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

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

Analytical Report

Lab Order 1701479

Date Reported: 1/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Resources

Client Sample ID: S1-2'

Project: Kiwi AKX State #8 SWD

Collection Date: 1/9/2017 9:54:00 AM

Lab ID: 1701479-002

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	49	30		mg/Kg	20	1/17/2017 1:41:20 AM	29694
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	8300	100		mg/Kg	10	1/16/2017 1:45:35 PM	29674
Surr: DNOP	0	70-130	S	%Rec	10	1/16/2017 1:45:35 PM	29674
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1200	99		mg/Kg	20	1/13/2017 3:14:36 PM	29660
Surr: BFB	335	68.3-144	S	%Rec	20	1/13/2017 3:14:36 PM	29660
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.49		mg/Kg	20	1/13/2017 3:14:36 PM	29660
Toluene	6.5	0.99		mg/Kg	20	1/13/2017 3:14:36 PM	29660
Ethylbenzene	3.2	0.99		mg/Kg	20	1/13/2017 3:14:36 PM	29660
Xylenes, Total	35	2.0		mg/Kg	20	1/13/2017 3:14:36 PM	29660
Surr: 4-Bromofluorobenzene	124	80-120	S	%Rec	20	1/13/2017 3:14:36 PM	29660

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

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

Analytical Report

Lab Order 1701479

Date Reported: 1/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Resources

Client Sample ID: S1-3'

Project: Kiwi AKX State #8 SWD

Collection Date: 1/9/2017 9:55:00 AM

Lab ID: 1701479-003

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	120	30		mg/Kg	20	1/17/2017 1:53:44 AM	29694
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	14000	1000		mg/Kg	100	1/17/2017 1:38:18 AM	29674
Surr: DNOP	0	70-130	S	%Rec	100	1/17/2017 1:38:18 AM	29674
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	2900	240		mg/Kg	50	1/13/2017 3:38:15 PM	29660
Surr: BFB	298	68.3-144	S	%Rec	50	1/13/2017 3:38:15 PM	29660
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	4.3	1.2		mg/Kg	50	1/13/2017 3:38:15 PM	29660
Toluene	59	2.4		mg/Kg	50	1/13/2017 3:38:15 PM	29660
Ethylbenzene	40	2.4		mg/Kg	50	1/13/2017 3:38:15 PM	29660
Xylenes, Total	110	4.7		mg/Kg	50	1/13/2017 3:38:15 PM	29660
Surr: 4-Bromofluorobenzene	127	80-120	S	%Rec	50	1/13/2017 3:38:15 PM	29660

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

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

Analytical Report

Lab Order 1701479

Date Reported: 1/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Resources

Client Sample ID: S1-4'

Project: Kiwi AKX State #8 SWD

Collection Date: 1/9/2017 9:58:00 AM

Lab ID: 1701479-004

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	120	30		mg/Kg	20	1/17/2017 2:06:08 AM	29694
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	4500	100		mg/Kg	10	1/16/2017 2:50:29 PM	29674
Surr: DNOP	0	70-130	S	%Rec	10	1/16/2017 2:50:29 PM	29674
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1100	98		mg/Kg	20	1/13/2017 4:01:51 PM	29660
Surr: BFB	269	68.3-144	S	%Rec	20	1/13/2017 4:01:51 PM	29660
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	1.8	0.49		mg/Kg	20	1/13/2017 4:01:51 PM	29660
Toluene	24	0.98		mg/Kg	20	1/13/2017 4:01:51 PM	29660
Ethylbenzene	18	0.98		mg/Kg	20	1/13/2017 4:01:51 PM	29660
Xylenes, Total	45	2.0		mg/Kg	20	1/13/2017 4:01:51 PM	29660
Surr: 4-Bromofluorobenzene	124	80-120	S	%Rec	20	1/13/2017 4:01:51 PM	29660

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

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

Analytical Report

Lab Order 1701479

Date Reported: 1/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Resources

Client Sample ID: S1-6'

Project: Kiwi AKX State #8 SWD

Collection Date: 1/9/2017 10:03:00 AM

Lab ID: 1701479-005

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	110	30		mg/Kg	20	1/17/2017 2:18:33 AM	29694
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	1/16/2017 3:12:10 PM	29674
Surr: DNOP	100	70-130		%Rec	1	1/16/2017 3:12:10 PM	29674
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/13/2017 6:23:35 PM	29660
Surr: BFB	88.8	68.3-144		%Rec	1	1/13/2017 6:23:35 PM	29660
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	1/13/2017 6:23:35 PM	29660
Toluene	ND	0.047		mg/Kg	1	1/13/2017 6:23:35 PM	29660
Ethylbenzene	ND	0.047		mg/Kg	1	1/13/2017 6:23:35 PM	29660
Xylenes, Total	ND	0.095		mg/Kg	1	1/13/2017 6:23:35 PM	29660
Surr: 4-Bromofluorobenzene	97.4	80-120		%Rec	1	1/13/2017 6:23:35 PM	29660

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

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

Analytical Report

Lab Order 1701479

Date Reported: 1/18/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Resources

Client Sample ID: S1-8'

Project: Kiwi AKX State #8 SWD

Collection Date: 1/9/2017 10:06:00 AM

Lab ID: 1701479-006

Matrix: SOIL

Received Date: 1/12/2017 9:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: LGT
Chloride	80	30		mg/Kg	20	1/17/2017 2:30:59 AM	29694
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	1/16/2017 3:33:37 PM	29674
Surr: DNOP	99.3	70-130		%Rec	1	1/16/2017 3:33:37 PM	29674
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	1/13/2017 6:47:19 PM	29660
Surr: BFB	89.9	68.3-144		%Rec	1	1/13/2017 6:47:19 PM	29660
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	1/13/2017 6:47:19 PM	29660
Toluene	ND	0.047		mg/Kg	1	1/13/2017 6:47:19 PM	29660
Ethylbenzene	ND	0.047		mg/Kg	1	1/13/2017 6:47:19 PM	29660
Xylenes, Total	ND	0.095		mg/Kg	1	1/13/2017 6:47:19 PM	29660
Surr: 4-Bromofluorobenzene	98.0	80-120		%Rec	1	1/13/2017 6:47:19 PM	29660

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701479

18-Jan-17

Client: EOG Resources

Project: Kiwi AKX State #8 SWD

Sample ID	MB-29694	SampType	MBLK	TestCode	EPA Method 300.0: Anions					
Client ID	PBS	Batch ID	29694	RunNo	40057					
Prep Date	1/13/2017	Analysis Date	1/16/2017	SeqNo	1255401	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-29694	SampType	LCS	TestCode	EPA Method 300.0: Anions					
Client ID	LCSS	Batch ID	29694	RunNo	40057					
Prep Date	1/13/2017	Analysis Date	1/16/2017	SeqNo	1255402	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.3	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701479

18-Jan-17

Client: EOG Resources

Project: Kiwi AKX State #8 SWD

Sample ID	MB-29674	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	29674	RunNo:	40030					
Prep Date:	1/13/2017	Analysis Date:	1/16/2017	SeqNo:	1254788	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		105	70	130			

Sample ID	LCS-29674	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	29674	RunNo:	40030					
Prep Date:	1/13/2017	Analysis Date:	1/16/2017	SeqNo:	1254824	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.6	63.8	116			
Surr: DNOP	5.5		5.000		109	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701479

18-Jan-17

Client: EOG Resources

Project: Kiwi AKX State #8 SWD

Sample ID	MB-29660	SampType	MBLK	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	PBS	Batch ID	29660	RunNo	39999					
Prep Date	1/12/2017	Analysis Date	1/13/2017	SeqNo	1253665	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.4	68.3	144			

Sample ID	LCS-29660	SampType	LCS	TestCode	EPA Method 8015D: Gasoline Range					
Client ID	LCSS	Batch ID	29660	RunNo	39999					
Prep Date	1/12/2017	Analysis Date	1/13/2017	SeqNo	1253666	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	108	74.6	123			
Surr: BFB	950		1000		94.7	68.3	144			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1701479

18-Jan-17

Client: EOG Resources

Project: Kiwi AKX State #8 SWD

Sample ID	MB-29660	SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles				
Client ID:	PBS	Batch ID:	29660		RunNo:	39999				
Prep Date:	1/12/2017	Analysis Date:	1/13/2017		SeqNo:	1253686	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		94.9	80	120			

Sample ID	LCS-29660		SampType: LCS		TestCode: EPA Method 8021B: Volatiles					
Client ID:	LCSS		Batch ID: 29660		RunNo: 39999					
Prep Date:	1/12/2017		Analysis Date: 1/13/2017		SeqNo: 1253687		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.3	75.2	115			
Toluene	0.97	0.050	1.000	0	96.7	80.7	112			
Ethylbenzene	0.98	0.050	1.000	0	97.7	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	97.9	79.2	115			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Detection Limit
W Sample container temperature is out of limit as specified



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

Sample Log-In Check List

Client Name: EOG/Yates

Work Order Number: 1701479

RcptNo: 1

Received by/date:

RF 1/12/17

Logged By: Andy Jansson

1/12/2017 9:35:00 AM

Completed By:

Andy Jansson 1/12/17

Reviewed By:

01/12/17

Chain of Custody

1. Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
2. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
3. How was the sample delivered? Courier

Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
10. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
11. Were any sample containers received broken? Yes ☐ No ☒
12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Yes			

