



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

March 7, 2017

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

Re: Livingston Ridge SWD System  
Section 1, T22S-R31E  
Eddy County, New Mexico  
2RP-4129

Mr. Bratcher/Ms. Weaver,

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 February 24, 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 March 21, 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

**I. Location**

Take County Road 29 (Campbell Road) south from HWY 62/180 for 9 miles and turn west on lease road for 1.0 mile, then turn south for 0.6 mile, then turn east for 0.5 mile before turning north on the ROW and continuing to the release site.

**II. Background**

On February 24, 2017, EOG Y Resources, Inc. submitted to the NMOCD District II office a Form C-141 for the release of 40 B/PW and 5 B/O with 10 B/PW and 2 B/O recovered. The affected area is approximately 90 feet by 60 feet around the valve system of a transfer line where a previous remediation has been undertaken where a 20 ml synthetic liner was installed. Initial delineation samples were taken (2/23/2017) and sent to a NMOCD approved laboratory (3/03/2017, results enclosed). Due to the soil excavated with the initial cleanup activities, samples were collected down to the 20 ml synthetic liner that was installed during the previous release remediation.

**III. Surface and Ground Water**

Area surface geology is Cenozoic Quaternary. The ChevronTexaco Trend Map displays at this location (Section 1, T22S-R31E) that depth to groundwater is approximately 150 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:

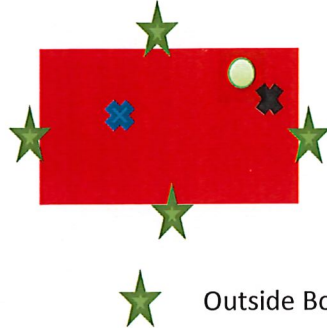
Depth to ground water	> 100'
Wellhead Protection Area	> 1000'
Distance to surface water body	> 1000'

**IV. Soils**

The area consists of soils that are sand based topsoil on top of a caliche layer that is further 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 (150'), and a 20 ml synthetic liner already installed in the impacted area, EOG Y Resources, Inc. will excavate all impacted soil above the 20 ml liner, hauling all excavated soils to a NMOCD approved facility for disposal. EOG Y Resources, Inc. will then inspect and repair any damage caused to the 20 ml synthetic liner and backfill the excavated area with two (2) feet of caliche and two (2) feet of similar topsoil. The site will be reseeded prior to the normally occurring monsoonal season in July with BLM #2 Seed Mix at the recommended rate. The TPH & BTEX 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 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.



✕ S1 Sample Point

✕ S2 Sample Point

★ Outside Boundary Sample

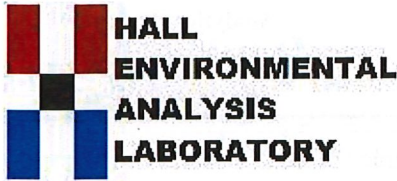
Livingston Ridge SWD System- Not to Scale

Area	Analysis #	Sample Area	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	Chlorides
N-1.5'	1702B54	Outside	2/23/2017	Hand Auger	1.5'	ND	ND	ND	ND
W-1.5'	1702B54	Outside	2/23/2017	Hand Auger	1.5'	ND	ND	ND	ND
S-1.5'	1702B54	Outside	2/23/2017	Hand Auger	1.5'	ND	ND	ND	ND
E-1.5'	1702B54	Outside	2/23/2017	Hand Auger	1.5'	ND	ND	ND	ND
S1-1'	1702B54	Release Area	2/23/2017	Hand Auger	1'	ND	ND	22	13000
S1-2'	1702B54	Release Area	2/23/2017	Hand Auger	2'	ND	ND	ND	16000
S1-3'	1702B54	Release Area	2/23/2017	Hand Auger	3'	ND	ND	ND	29000
S2-1'	1702B54	Release Area	2/23/2017	Hand Auger	1'	ND	ND	ND	13000
S2-2'	1702B54	Release Area	2/23/2017	Hand Auger	2'	ND	ND	ND	13000
S2-3'	1702B54	Release Area	2/23/2017	Hand Auger	3'	ND	ND	ND	22000

Site Ranking is Zero (0). >100' (150', Section 1, T22S-R31E, Trend Map)

All results are ppm. Chlorides for documentation

Released: 40 B/PW & 5 B/O ; Recovered: 10 B/PW & 2 B/O Release Date: 2/10/2017



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

March 03, 2017

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

RE: Livingston Ridge SWD Water Line

OrderNo.: 1702B54

Dear Chase Settle:

Hall Environmental Analysis Laboratory received 10 sample(s) on 2/25/2017 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](http://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,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Resources

Client Sample ID: W-1.5'

Project: Livingston Ridge SWD Water Line

Collection Date: 2/23/2017 9:10:00 AM

Lab ID: 1702B54-002

Matrix: SOIL

Received Date: 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/1/2017 12:52:08 PM	30475
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/28/2017 5:47:37 PM	30421
Surr: DNOP	99.6	70-130		%Rec	1	2/28/2017 5:47:37 PM	30421
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/28/2017 11:48:35 PM	30408
Surr: BFB	73.5	54-150		%Rec	1	2/28/2017 11:48:35 PM	30408
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	2/28/2017 11:48:35 PM	30408
Toluene	ND	0.047		mg/Kg	1	2/28/2017 11:48:35 PM	30408
Ethylbenzene	ND	0.047		mg/Kg	1	2/28/2017 11:48:35 PM	30408
Xylenes, Total	ND	0.094		mg/Kg	1	2/28/2017 11:48:35 PM	30408
Surr: 4-Bromofluorobenzene	80.4	66.6-132		%Rec	1	2/28/2017 11:48:35 PM	30408

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

<b>Qualifiers:</b>	*	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 1702B54

Date Reported: 3/3/2017

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** EOG Resources

**Client Sample ID:** E-1.5'

**Project:** Livingston Ridge SWD Water Line

**Collection Date:** 2/23/2017 9:19:00 AM

**Lab ID:** 1702B54-004

**Matrix:** SOIL

**Received Date:** 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	3/1/2017 1:41:47 PM	30475
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	2/28/2017 6:30:41 PM	30421
Surr: DNOP	102	70-130		%Rec	1	2/28/2017 6:30:41 PM	30421
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	3/1/2017 12:41:00 AM	30408
Surr: BFB	68.8	54-150		%Rec	1	3/1/2017 12:41:00 AM	30408
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.025		mg/Kg	1	3/1/2017 12:41:00 AM	30408
Toluene	ND	0.050		mg/Kg	1	3/1/2017 12:41:00 AM	30408
Ethylbenzene	ND	0.050		mg/Kg	1	3/1/2017 12:41:00 AM	30408
Xylenes, Total	ND	0.10		mg/Kg	1	3/1/2017 12:41:00 AM	30408
Surr: 4-Bromofluorobenzene	74.2	66.6-132		%Rec	1	3/1/2017 12:41:00 AM	30408

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

<b>Qualifiers:</b>	* 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 1702B54

Date Reported: 3/3/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Resources

Client Sample ID: S1-2'

Project: Livingston Ridge SWD Water Line

Collection Date: 2/23/2017 9:38:00 AM

Lab ID: 1702B54-006

Matrix: SOIL

Received Date: 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	16000	750		mg/Kg	500	3/2/2017 10:55:17 AM	30475
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/28/2017 7:13:51 PM	30421
Surr: DNOP	102	70-130		%Rec	1	2/28/2017 7:13:51 PM	30421
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/28/2017 5:51:40 PM	30408
Surr: BFB	87.7	54-150		%Rec	1	2/28/2017 5:51:40 PM	30408
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	2/28/2017 5:51:40 PM	30408
Toluene	ND	0.049		mg/Kg	1	2/28/2017 5:51:40 PM	30408
Ethylbenzene	ND	0.049		mg/Kg	1	2/28/2017 5:51:40 PM	30408
Xylenes, Total	ND	0.097		mg/Kg	1	2/28/2017 5:51:40 PM	30408
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	1	2/28/2017 5:51:40 PM	30408

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

<b>Qualifiers:</b>	*	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 1702B54

Date Reported: 3/3/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG Resources

Client Sample ID: S2-1'

Project: Livingston Ridge SWD Water Line

Collection Date: 2/23/2017 9:50:00 AM

Lab ID: 1702B54-008

Matrix: SOIL

Received Date: 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	13000	750		mg/Kg	500	3/2/2017 11:20:06 AM	30475
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	2/28/2017 7:56:46 PM	30421
Surr: DNOP	103	70-130		%Rec	1	2/28/2017 7:56:46 PM	30421
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	2/28/2017 6:38:32 PM	30408
Surr: BFB	86.2	54-150		%Rec	1	2/28/2017 6:38:32 PM	30408
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.023		mg/Kg	1	2/28/2017 6:38:32 PM	30408
Toluene	ND	0.046		mg/Kg	1	2/28/2017 6:38:32 PM	30408
Ethylbenzene	ND	0.046		mg/Kg	1	2/28/2017 6:38:32 PM	30408
Xylenes, Total	ND	0.091		mg/Kg	1	2/28/2017 6:38:32 PM	30408
Surr: 4-Bromofluorobenzene	103	66.6-132		%Rec	1	2/28/2017 6:38:32 PM	30408

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

<b>Qualifiers:</b>	*	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



**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** EOG Resources **Client Sample ID:** S2-3'  
**Project:** Livingston Ridge SWD Water Line **Collection Date:** 2/23/2017 9:57:00 AM  
**Lab ID:** 1702B54-010 **Matrix:** SOIL **Received Date:** 2/25/2017 8:35:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	22000	750		mg/Kg	500	3/2/2017 11:44:56 AM	30475
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	2/28/2017 8:39:38 PM	30421
Surr: DNOP	104	70-130		%Rec	1	2/28/2017 8:39:38 PM	30421
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/28/2017 7:25:29 PM	30408
Surr: BFB	85.6	54-150		%Rec	1	2/28/2017 7:25:29 PM	30408
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.024		mg/Kg	1	2/28/2017 7:25:29 PM	30408
Toluene	ND	0.048		mg/Kg	1	2/28/2017 7:25:29 PM	30408
Ethylbenzene	ND	0.048		mg/Kg	1	2/28/2017 7:25:29 PM	30408
Xylenes, Total	ND	0.096		mg/Kg	1	2/28/2017 7:25:29 PM	30408
Surr: 4-Bromofluorobenzene	99.8	66.6-132		%Rec	1	2/28/2017 7:25:29 PM	30408

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#: 1702B54

03-Mar-17

**Client:** EOG Resources  
**Project:** Livingston Ridge SWD Water Line

Sample ID	LCS-30399		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	30399		RunNo:	41033				
Prep Date:	2/27/2017		Analysis Date:	2/28/2017		SeqNo:	1285372		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.7		5.000		93.9	70	130				

Sample ID	MB-30399		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	30399		RunNo:	41033				
Prep Date:	2/27/2017		Analysis Date:	2/28/2017		SeqNo:	1285373		Units: %Rec		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	11		10.00		108	70	130				

Sample ID	MB-30421		SampType:	MBLK		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	PBS		Batch ID:	30421		RunNo:	41033				
Prep Date:	2/27/2017		Analysis Date:	2/28/2017		SeqNo:	1286206		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	9.7		10.00		96.7	70	130				

Sample ID	LCS-30421		SampType:	LCS		TestCode:	EPA Method 8015M/D: Diesel Range Organics				
Client ID:	LCSS		Batch ID:	30421		RunNo:	41070				
Prep Date:	2/27/2017		Analysis Date:	3/1/2017		SeqNo:	1286838		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	48	10	50.00	0	96.8	63.8	116				
Surr: DNOP	4.1		5.000		81.9	70	130				

**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#: 1702B54

03-Mar-17

**Client:** EOG Resources  
**Project:** Livingston Ridge SWD Water Line

Sample ID	<b>MB-30408</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>30408</b>	RunNo:	<b>41049</b>					
Prep Date:	<b>2/27/2017</b>	Analysis Date:	<b>2/28/2017</b>	SeqNo:	<b>1286108</b>	Units:	<b>mg/Kg</b>			
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	0.99		1.000		99.0	66.6	132			

Sample ID	<b>LCS-30408</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>30408</b>	RunNo:	<b>41049</b>					
Prep Date:	<b>2/27/2017</b>	Analysis Date:	<b>2/28/2017</b>	SeqNo:	<b>1286109</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.8	75.2	115			
Toluene	0.98	0.050	1.000	0	98.1	80.7	112			
Ethylbenzene	1.0	0.050	1.000	0	101	78.9	117			
Xylenes, Total	3.1	0.10	3.000	0	104	79.2	115			
Surr: 4-Bromofluorobenzene	0.90		1.000		90.1	66.6	132			

**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 |

# Chain-of-Custody Record

Client: EOG Y Resources Inc.

Mailing Address:

105 South 4th Street Artesia, NM 88210

Phone #: 575-748-4171

email or Fax#: Chase.Settle@eogresources.com

QA/QC Package:  Standard  Level 4 (Full Validation)

Accreditation:

NELAP  Other

EDD (Type)

TURNAROUND TIME:

Standard  Rush

Project Name:

Livingston Ridge SWD Water Line

Project #:

Project Manager:

Chase Settle

PO # 2015-0750

Sampler:

On Ice:  Yes  No

Sample Temperature: 3.8

Date	Time	Matrix	Sample Request ID
2/23/2017	9:05A	Soil	N-1.5'
2/23/2017	9:10A	Soil	W-1.5'
2/23/2017	9:14A	Soil	S-1.5'
2/23/2017	9:19A	Soil	E-1.5'
2/23/2017	9:26A	Soil	S1-1'
2/23/2017	9:38A	Soil	S1-2'
2/23/2017	9:42A	Soil	S1-3'
2/23/2017	9:50A	Soil	S2-1'
2/23/2017	9:54A	Soil	S2-2'
2/23/2017	9:57A	Soil	S2-3'

Container Type and #	Preservative Type	HEAL No.
1 - 4oz.	ICE	170ZB54
1 - 4oz.	ICE	001
1 - 4oz.	ICE	002
1 - 4oz.	ICE	003
1 - 4oz.	ICE	004
1 - 4oz.	ICE	005
1 - 4oz.	ICE	006
1 - 4oz.	ICE	007
1 - 4oz.	ICE	008
1 - 4oz.	ICE	009
1 - 4oz.	ICE	010

Date: 2-24-17

Time: 8:30 AM

Date:

Time:

Relinquished by:

*[Signature]*

Relinquished by:

*[Signature]*

Received by:

*[Signature]*

Received by:

*[Signature]*

Date

Time

Date

Time

Remarks:

Results needed by 3/3/2017.



# HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>2</sub> , NO <sub>3</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X	X	X

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