



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

September 01, 2017

Robert Asher

EOG

105 South Fourth Street

Artesia, NM 88210

TEL:

FAX

INFORMATION ONLY

RE: Big Sky ABY State 1

OrderNo.: 1708B37

Dear Robert Asher:

Hall Environmental Analysis Laboratory received 7 sample(s) on 8/17/2017 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 1708B37

Date Reported: 9/1/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** EOG**Client Sample ID:** CP-1**Project:** Big Sky ABY State 1**Collection Date:** 8/15/2017 12:12:00 PM**Lab ID:** 1708B37-001**Matrix:** SOIL**Received Date:** 8/17/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	260	10		mg/Kg	1	8/31/2017 1:54:21 PM	33449
Motor Oil Range Organics (MRO)	260	50		mg/Kg	1	8/31/2017 1:54:21 PM	33449
Surr: DNOP	102	70-130		%Rec	1	8/31/2017 1:54:21 PM	33449
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/21/2017 10:17:39 PM	33452
Surr: BFB	75.6	54-150		%Rec	1	8/21/2017 10:17:39 PM	33452
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	8/21/2017 10:17:39 PM	33452
Toluene	ND	0.047		mg/Kg	1	8/21/2017 10:17:39 PM	33452
Ethylbenzene	ND	0.047		mg/Kg	1	8/21/2017 10:17:39 PM	33452
Xylenes, Total	ND	0.094		mg/Kg	1	8/21/2017 10:17:39 PM	33452
Surr: 4-Bromofluorobenzene	107	66.6-132		%Rec	1	8/21/2017 10:17:39 PM	33452

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
	PQL	Practical Quantitative Limit	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 1708B37

Date Reported: 9/1/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: CP-2

Project: Big Sky ABY State 1

Collection Date: 8/15/2017 12:22:00 PM

Lab ID: 1708B37-002

Matrix: SOIL

Received Date: 8/17/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	87	9.7		mg/Kg	1	8/22/2017 12:42:01 PM	33449
Motor Oil Range Organics (MRO)	50	48		mg/Kg	1	8/22/2017 12:42:01 PM	33449
Surr: DNOP	97.9	70-130		%Rec	1	8/22/2017 12:42:01 PM	33449
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/21/2017 10:41:32 PM	33452
Surr: BFB	78.6	54-150		%Rec	1	8/21/2017 10:41:32 PM	33452
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	8/21/2017 10:41:32 PM	33452
Toluene	ND	0.049		mg/Kg	1	8/21/2017 10:41:32 PM	33452
Ethylbenzene	ND	0.049		mg/Kg	1	8/21/2017 10:41:32 PM	33452
Xylenes, Total	ND	0.098		mg/Kg	1	8/21/2017 10:41:32 PM	33452
Surr: 4-Bromofluorobenzene	109	66.6-132		%Rec	1	8/21/2017 10:41:32 PM	33452

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
	PQL	Practical Quantitative Limit	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 1708B37

Date Reported: 9/1/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** EOG**Client Sample ID:** CP-3**Project:** Big Sky ABY State 1**Collection Date:** 8/15/2017 12:36:00 PM**Lab ID:** 1708B37-003**Matrix:** SOIL**Received Date:** 8/17/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	25	9.6		mg/Kg	1	8/22/2017 1:10:15 PM	33449
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	8/22/2017 1:10:15 PM	33449
Surr: DNOP	96.6	70-130		%Rec	1	8/22/2017 1:10:15 PM	33449
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	8/21/2017 5:45:38 PM	33452
Surr: BFB	91.2	54-150		%Rec	1	8/21/2017 5:45:38 PM	33452
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	8/21/2017 5:45:38 PM	33452
Toluene	ND	0.047		mg/Kg	1	8/21/2017 5:45:38 PM	33452
Ethylbenzene	ND	0.047		mg/Kg	1	8/21/2017 5:45:38 PM	33452
Xylenes, Total	ND	0.094		mg/Kg	1	8/21/2017 5:45:38 PM	33452
Surr: 4-Bromofluorobenzene	103	66.6-132		%Rec	1	8/21/2017 5:45:38 PM	33452

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
	PQL	Practical Quantitative Limit	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 1708B37

Date Reported: 9/1/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** EOG**Client Sample ID:** CP-4**Project:** Big Sky ABY State 1**Collection Date:** 8/15/2017 12:48:00 PM**Lab ID:** 1708B37-004**Matrix:** SOIL**Received Date:** 8/17/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	310	9.3		mg/Kg	1	8/22/2017 1:38:24 PM	33449
Motor Oil Range Organics (MRO)	140	47		mg/Kg	1	8/22/2017 1:38:24 PM	33449
Surr: DNOP	102	70-130		%Rec	1	8/22/2017 1:38:24 PM	33449
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	63	9.7		mg/Kg	2	8/21/2017 6:09:17 PM	33452
Surr: BFB	251	54-150	S	%Rec	2	8/21/2017 6:09:17 PM	33452
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	2	8/21/2017 6:09:17 PM	33452
Toluene	0.53	0.097		mg/Kg	2	8/21/2017 6:09:17 PM	33452
Ethylbenzene	1.7	0.097		mg/Kg	2	8/21/2017 6:09:17 PM	33452
Xylenes, Total	2.1	0.19		mg/Kg	2	8/21/2017 6:09:17 PM	33452
Surr: 4-Bromofluorobenzene	119	66.6-132		%Rec	2	8/21/2017 6:09:17 PM	33452

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
	PQL	Practical Quantitative Limit	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 1708B37

Date Reported: 9/1/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** EOG**Client Sample ID:** SP-Surface**Project:** Big Sky ABY State 1**Collection Date:** 8/15/2017 12:58:00 PM**Lab ID:** 1708B37-005**Matrix:** SOIL**Received Date:** 8/17/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	5000	100		mg/Kg	10	8/22/2017 3:09:24 AM	33449
Motor Oil Range Organics (MRO)	2200	500		mg/Kg	10	8/22/2017 3:09:24 AM	33449
Surr: DNOP	0	70-130	S	%Rec	10	8/22/2017 3:09:24 AM	33449
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	10	4.6		mg/Kg	1	8/21/2017 6:33:00 PM	33452
Surr: BFB	173	54-150	S	%Rec	1	8/21/2017 6:33:00 PM	33452
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	8/21/2017 6:33:00 PM	33452
Toluene	ND	0.046		mg/Kg	1	8/21/2017 6:33:00 PM	33452
Ethylbenzene	ND	0.046		mg/Kg	1	8/21/2017 6:33:00 PM	33452
Xylenes, Total	ND	0.093		mg/Kg	1	8/21/2017 6:33:00 PM	33452
Surr: 4-Bromofluorobenzene	112	66.6-132		%Rec	1	8/21/2017 6:33:00 PM	33452

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
	PQL	Practical Quantitative Limit	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 1708B37

Date Reported: 9/1/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: SP-1.0

Project: Big Sky ABY State 1

Collection Date: 8/15/2017 1:05:00 PM

Lab ID: 1708B37-006

Matrix: SOIL

Received Date: 8/17/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	5500	98		mg/Kg	10	8/22/2017 3:37:39 AM	33449
Motor Oil Range Organics (MRO)	1800	490		mg/Kg	10	8/22/2017 3:37:39 AM	33449
Surr: DNOP	0	70-130	S	%Rec	10	8/22/2017 3:37:39 AM	33449
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	61	9.4		mg/Kg	2	8/21/2017 6:56:44 PM	33452
Surr: BFB	336	54-150	S	%Rec	2	8/21/2017 6:56:44 PM	33452
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	2	8/21/2017 6:56:44 PM	33452
Toluene	ND	0.094		mg/Kg	2	8/21/2017 6:56:44 PM	33452
Ethylbenzene	ND	0.094		mg/Kg	2	8/21/2017 6:56:44 PM	33452
Xylenes, Total	0.23	0.19		mg/Kg	2	8/21/2017 6:56:44 PM	33452
Surr: 4-Bromofluorobenzene	127	66.6-132		%Rec	2	8/21/2017 6:56:44 PM	33452

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
	PQL	Practical Quantitative Limit	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 1708B37

Date Reported: 9/1/2017

Hall Environmental Analysis Laboratory, Inc.

CLIENT: EOG

Client Sample ID: SP-2.0

Project: Big Sky ABY State 1

Collection Date: 8/15/2017 1:16:00 PM

Lab ID: 1708B37-007

Matrix: SOIL

Received Date: 8/17/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: TOM
Diesel Range Organics (DRO)	1500	97		mg/Kg	10	8/22/2017 4:05:59 AM	33449
Motor Oil Range Organics (MRO)	750	490		mg/Kg	10	8/22/2017 4:05:59 AM	33449
Surr: DNOP	0	70-130	S	%Rec	10	8/22/2017 4:05:59 AM	33449
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5.0	5.0		mg/Kg	1	8/21/2017 7:44:05 PM	33452
Surr: BFB	126	54-150		%Rec	1	8/21/2017 7:44:05 PM	33452
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	8/21/2017 7:44:05 PM	33452
Toluene	ND	0.050		mg/Kg	1	8/21/2017 7:44:05 PM	33452
Ethylbenzene	ND	0.050		mg/Kg	1	8/21/2017 7:44:05 PM	33452
Xylenes, Total	ND	0.10		mg/Kg	1	8/21/2017 7:44:05 PM	33452
Surr: 4-Bromofluorobenzene	108	66.6-132		%Rec	1	8/21/2017 7:44:05 PM	33452

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
	PQL	Practical Quantitative Limit	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#: 1708B37

01-Sep-17

Client: EOG
Project: Big Sky ABY State 1

Sample ID	LCS-33449	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	33449	RunNo:	45091					
Prep Date:	8/18/2017	Analysis Date:	8/21/2017	SeqNo:	1427877	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	73.2	114			
Surr: DNOP	4.7		5.000		93.5	70	130			

Sample ID	MB-33449	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	33449	RunNo:	45091					
Prep Date:	8/18/2017	Analysis Date:	8/21/2017	SeqNo:	1427878	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		91.7	70	130			

Sample ID	MB-33628	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	33628	RunNo:	45329					
Prep Date:	8/30/2017	Analysis Date:	8/31/2017	SeqNo:	1437148	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.2		10.00		91.7	70	130			

Sample ID	LCS-33628	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	33628	RunNo:	45329					
Prep Date:	8/30/2017	Analysis Date:	8/31/2017	SeqNo:	1437221	Units:	%Rec			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.000		93.2	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
PQL Practical Quantitative Limit	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#: 1708B37

01-Sep-17

Client: EOG
Project: Big Sky ABY State 1

Sample ID	MB-33452	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	33452	RunNo:	45097					
Prep Date:	8/18/2017	Analysis Date:	8/21/2017	SeqNo:	1428026	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	840		1000		84.3	54	150			

Sample ID	LCS-33452	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	33452	RunNo:	45097					
Prep Date:	8/18/2017	Analysis Date:	8/21/2017	SeqNo:	1428027	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.0	76.4	125			
Surr: BFB	920		1000		92.2	54	150			

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
PQL	Practical Quantitative Limit	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#: 1708B37

01-Sep-17

Client: EOG
Project: Big Sky ABY State 1

Sample ID	MB-33452	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	33452	RunNo:	45097					
Prep Date:	8/18/2017	Analysis Date:	8/21/2017	SeqNo:	1428054	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	1.2		1.000		119	66.6	132			

Sample ID	LCS-33452	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	33452	RunNo:	45097					
Prep Date:	8/18/2017	Analysis Date:	8/21/2017	SeqNo:	1428055	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.025	1.000	0	109	80	120			
Toluene	1.1	0.050	1.000	0	108	80	120			
Ethylbenzene	1.1	0.050	1.000	0	107	80	120			
Xylenes, Total	3.3	0.10	3.000	0	108	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		123	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
PQL Practical Quantitative Limit	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
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: 1708B37

RcptNo: 1

Received By: Erin Melendrez

8/17/17
8/18/2017 8:45:00 AM

Completed By: Ashley Gallegos

8/18/2017 11:01:39 AM

Reviewed By: IMO

8/18/2017

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:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.6	Good	Yes			



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

Analytical Results For:

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

Received: 02/07/2018 Sampling Date: 02/01/2018
Reported: 02/12/2018 Sampling Type: Soil
Project Name: BIG SKY ABY STATE #1 (SP-3,4; CP-1,2, Sampling Condition: Cool & Intact
Project Number: 30-005-21020 Sample Received By: Tamara Oldaker
Project Location: CHAVES COUNTY

Sample ID: CP - 2.2 (H800400-05)

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	02/11/2018	ND	226	113	200	0.572	
DRO >C10-C28*	12.1	10.0	02/11/2018	ND	221	111	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	02/11/2018	ND					

Surrogate: 1-Chlorooctane 87.7 % 41-142

Surrogate: 1-Chlorooctadecane 91.9 % 37.6-147

Sample ID: CP - 2.3 (H800400-06)

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	02/11/2018	ND	226	113	200	0.572	
DRO >C10-C28*	<10.0	10.0	02/11/2018	ND	221	111	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	02/11/2018	ND					

Surrogate: 1-Chlorooctane 86.4 % 41-142

Surrogate: 1-Chlorooctadecane 88.3 % 37.6-147

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

Received:	02/07/2018	Sampling Date:	02/01/2018
Reported:	02/12/2018	Sampling Type:	Soil
Project Name:	BIG SKY ABY STATE #1 (SP-3,4; CP-1,2,	Sampling Condition:	Cool & Intact
Project Number:	30-005-21020	Sample Received By:	Tamara Oldaker
Project Location:	CHAVES COUNTY		

Sample ID: CP - 1.2 (H800400-07)

TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/11/2018	ND	226	113	200	0.572	
DRO >C10-C28*	<10.0	10.0	02/11/2018	ND	221	111	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	02/11/2018	ND					
<i>Surrogate: 1-Chlorooctane</i>									
	74.7 %	41-142							
<i>Surrogate: 1-Chlorooctadecane</i>									
	74.6 %	37.6-147							

Sample ID: CP - 1.3 (H800400-08)

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	02/11/2018	ND	226	113	200	0.572	
DRO >C10-C28*	<10.0	10.0	02/11/2018	ND	221	111	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	02/11/2018	ND					
<i>Surrogate: 1-Chlorooctane</i>									
	79.3 %	41-142							
<i>Surrogate: 1-Chlorooctadecane</i>									
	80.0 %	37.6-147							

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

Received:	02/07/2018	Sampling Date:	02/01/2018
Reported:	02/12/2018	Sampling Type:	Soil
Project Name:	BIG SKY ABY STATE #1 (SP-3,4; CP-1,2,	Sampling Condition:	Cool & Intact
Project Number:	30-005-21020	Sample Received By:	Tamara Oldaker
Project Location:	CHAVES COUNTY		

Sample ID: CP - 4.2 (H800400-09)

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	02/11/2018	ND	226	113	200	0.572	
DRO >C10-C28*	<10.0	10.0	02/11/2018	ND	221	111	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	02/11/2018	ND					
<hr/>									
Surrogate: 1-Chlorooctane	77.6 %	41-142							
Surrogate: 1-Chlorooctadecane	77.8 %	37.6-147							

Sample ID: CP - 4.3 (H800400-10)

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	02/11/2018	ND	226	113	200	0.572	
DRO >C10-C28*	<10.0	10.0	02/11/2018	ND	221	111	200	2.83	
EXT DRO >C28-C36	<10.0	10.0	02/11/2018	ND					
<hr/>									
Surrogate: 1-Chlorooctane	85.9 %	41-142							
Surrogate: 1-Chlorooctadecane	86.5 %	37.6-147							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Report	Sample Area	Latitude/Longitude	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	EXT DRO	Chlorides
CP-1	North Sidewall	33.585792 103.543092	8/15/2017	Grab/Auger	Surface (2' BSL)	ND	ND	260	260	900
CP-1.2	"	"	2/1/2018	Grab/Backhoe	2' (3' BSL)		<10	<10	<10	752
CP-1.3**	"	"	2/1/2018	Grab/Backhoe	3' (4' BSL)		<10	<10	<10	688
Analytical Report	Sample Area	Latitude/Longitude	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	EXT DRO	Chlorides
CP-2	East Sidewall	33.585740 103.543009	8/15/2017	Grab/Auger	Surface (2' BSL)	ND	ND	87	50	ND
CP-2.2	"	"	2/1/2018	Grab/Backhoe	2' (3' BSL)		<10	12.1	<10	
CP-2.3**	"	"	2/1/2018	Grab/Backhoe	3' (4' BSL)		<10	<10	<10	
Analytical Report	Sample Area	Latitude/Longitude	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	EXT DRO	Chlorides
CP-3	South Sidewall	33.585701 103.543084	8/15/2017	Grab/Auger	Surface (2' BSL)	ND	ND	25	ND	610
CP-3.2	"	"	2/1/2018	Grab/Backhoe	2' (3' BSL)					112
CP-3.3**	"	"	2/1/2018	Grab/Backhoe	3' (4' BSL)					176
Analytical Report	Sample Area	Latitude/Longitude	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	EXT DRO	Chlorides
CP-4	West Sidewall	33.585752 103.543160	8/15/2017	Grab/Auger	Surface (2' BSL)	4.3	63	310	140	470
CP-4.2	"	"	2/1/2018	Grab/Backhoe	2' (3' BSL)		<10	<10	<10	
CP-4.3**	"	"	2/1/2018	Grab/Backhoe	3' (4' BSL)		<10	<10	<10	
Analytical Report	Sample Area	Latitude/Longitude	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	EXT DRO	Chlorides
BG-Surface	Background	33.585878 103.543255	2/1/2018	Grab/Backhoe	Surface	<0.3	<10	<10	<10	16
BG-1	"	"	2/1/2018	Grab/Backhoe	1'	<0.3	<10	<10	<10	16
BG-2	"	"	2/1/2018	Grab/Backhoe	2'	<0.3	<10	<10	<10	<16.0
BG-3	"	"	2/1/2018	Grab/Backhoe	3'	<0.3	<10	<10	<10	64

Site Ranking is Twenty (20). Depth to Ground Water >100' (approx. 185', per USGS & NMOSE). Distance to Surface Water Body <200'

All results are ppm. BSL - Below Surface Level. * - Backhoe refusal @ 4'. ** - Backhoe refusal @ 3'.

Analytical Report	Sample Area	Latitude/Longitude	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	EXT DRO	Chlorides
S P-Surface	Excavation Area	33.58575 103.543087	8/15/2017	Grab/Auger	Surface (1' BSL)	ND	10	5000	2200	210
S P-1.0	Excavation Area	"	8/15/2017	Grab/Auger	1' (2' BSL)	0.2	61	5500	1800	71
S P-2.0	Excavation Area	"	8/15/2017	Grab/Auger	2' (3' BSL)	ND	5	1500	750	100
S P-3	Excavation Area	33.58575 103.543087	2/1/2018	Grab/Backhoe	3' (4' BSL)		74.7	2700	228	
S P-4*	Excavation Area	"	2/1/2018	Grab/Backhoe	4' (5' BSL)		305	5270	667	
Analytical Report	Sample Area	Latitude/Longitude	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	EXT DRO	Chlorides
S-2.Surface	Excavation Area	33.585777 103.543130	2/5/2018	Grab/Backhoe	Surface (1' BSL)	<0.3	<10.0	74.1	14.2	2320
S-2.1	Excavation Area	"	2/5/2018	Grab/Backhoe	1' (2' BSL)	<0.3	<10.0	117	24.1	864
S-2.2	Excavation Area	"	2/5/2018	Grab/Backhoe	2' (3' BSL)	<0.3	<10.0	<10.0	<10.0	1100
S-2.3**	Excavation Area	"	2/5/2018	Grab/Backhoe	3' (4' BSL)	<0.3	<10.0	<10.0	<10.0	1150
Analytical Report	Sample Area	Latitude/Longitude	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	EXT DRO	Chlorides
S-3.Surface	Excavation Area	33.585728 103.543132	2/5/2018	Grab/Backhoe	Surface (1' BSL)	<0.3	<10.0	<10.0	<10.0	48
S-3.1	Excavation Area	"	2/5/2018	Grab/Backhoe	1' (2' BSL)	<0.3	<10.0	<10.0	<10.0	192
S-3.2	Excavation Area	"	2/5/2018	Grab/Backhoe	2' (3' BSL)	<0.3	<10.0	<10.0	<10.0	240
S-3.3**	Excavation Area	"	2/5/2018	Grab/Backhoe	3' (4' BSL)	<0.3	<10.0	<10.0	<10.0	208
Analytical Report	Sample Area	Latitude/Longitude	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	EXT DRO	Chlorides
S-4.Surface	Excavation Area	33.585723 103.543036	2/5/2018	Grab/Backhoe	Surface (1' BSL)	<0.3	<10.0	<10.0	<10.0	3200
S-4.1	Excavation Area	"	2/5/2018	Grab/Backhoe	1' (2' BSL)	<0.3	<10.0	76	<10.0	2360
S-4.2	Excavation Area	"	2/5/2018	Grab/Backhoe	2' (3' BSL)	9.4	363	5150	468	1920
S-4.3**	Excavation Area	"	2/5/2018	Grab/Backhoe	3' (4' BSL)	24.9	561	4590	367	432
Analytical Report	Sample Area	Latitude/Longitude	Sample Date	Sample Type	Depth	BTEX	GRO	DRO	EXT DRO	Chlorides
S-5.Surface	Excavation Area	33.585768 103.543031	2/5/2018	Grab/Backhoe	Surface (1' BSL)	<0.3	<10.0	609	94.6	480
S-5.1	Excavation Area	"	2/5/2018	Grab/Backhoe	1' (2' BSL)	1.2	<10.0	32.2	<10.0	688
S-5.2	Excavation Area	"	2/5/2018	Grab/Backhoe	2' (3' BSL)	<0.3	<10.0	<10.0	<10.0	1650
S-5.3**	Excavation Area	"	2/5/2018	Grab/Backhoe	3' (4' BSL)	<0.3	<10.0	<10.0	<10.0	1550

Site Ranking is Twenty (20). Depth to Ground Water >100' (approx. 185', per USGS & NMOSE). Distance to Surface Water Body <200'

All results are ppm. BSL - Below Surface Level. ** - Backhoe refusal @ 3'. * - Backhoe refusal @ 4'.

Big Sky ABY State #1

Sample Points: Vertical (SP), Horizontal (CP), Background (BG)



Legend

- BG1
- Big Sky ABY State #1
- Horizontal
- Vertical

Google Earth

© 2018 Google

100 ft



Figure 2

Vertical Sample Point(s)



Big Sky ABY State #1

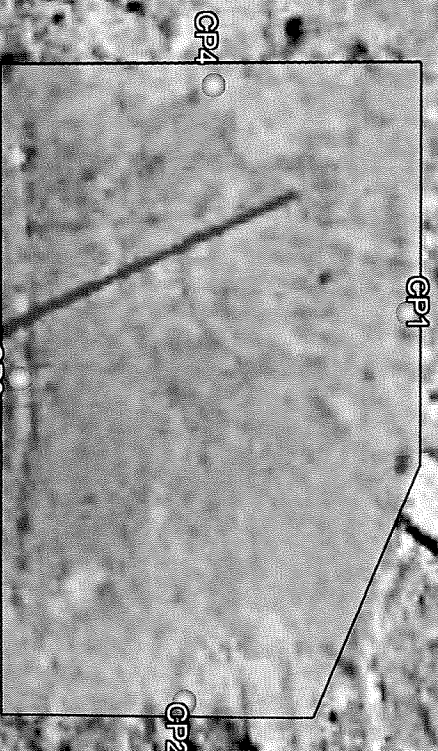
30-005-21020

Section 26, T8S-R33E

Chaves County, New Mexico

Legend

-  Release Area (Red Outline)
-  Vertical Sample Points



Google Earth

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60 ft



Figure 3

Horizontal Sample Point(s)

Big Sky ABY State #1

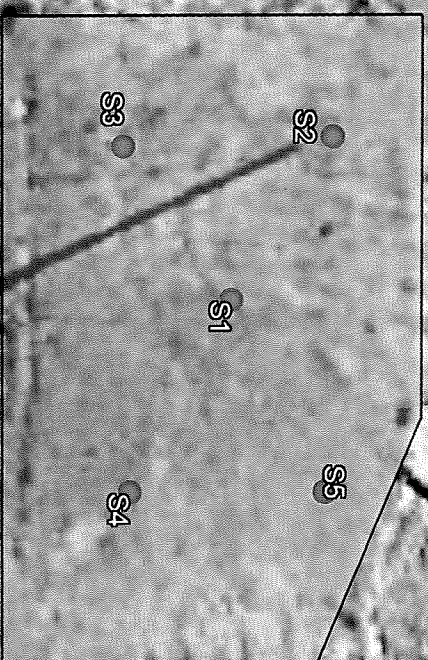
30-005-21020

Section 26, T8S-R33E

Chaves County, New Mexico

Legend

- Horizontal Sample Points
- Release Area (Red Outline)



Google Earth

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60 ft



Figure 4

Background Sample Point(s)

Big Sky ABY State #1

30-005-21020

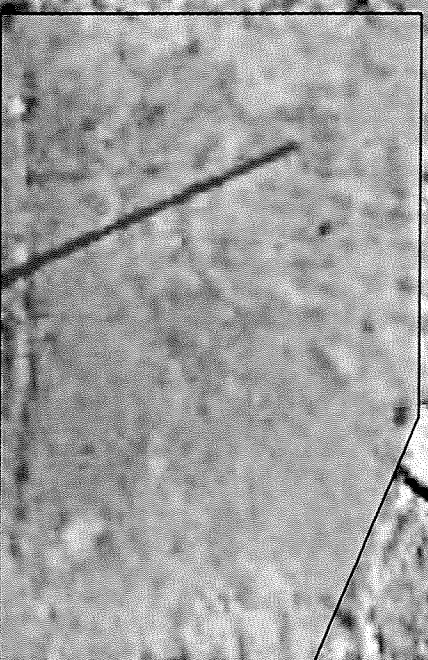
Section 26, T8S-R33E

Chaves County, New Mexico

Legend

- BG Samples
- Release Area (Red Outline)

BG Samples



Google Earth

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60 ft

