NM1 - _9_

RELEASE RESPONSE NOTICE

July 3, 2019

Jones, Brad A., EMNRD

From: Philana Thompson <pthompson@merrion.bz>
Sent: Wednesday, July 3, 2019 3:20 PM
To: Jones, Brad A., EMNRD
Cc: Ryan Davis; Shacie Murray; Ryan Merrion
Subject: [EXT] 2nd Qrt 2019 Sunco LAndfarm NM-1-9-3
Attachments: 2nd qrt sunco 2019-7-3.pdf

Brad,

Attached is the 2nd Qrt landfarm results. A hard copy has also been sent by certified mail #70160910000123658490

Thank you,
Philana

--
Philana Thompson
Regulatory Compliance
Merrion Oil & Gas Corp
cell 505-486-1171

Agua Moss

July 3rd, 2019

Oil Conservation Division
New Mexico Energy, Minerals and
Natural Resources Department
Attn: Brad Jones
1220 S. St. Francis Drive
Santa Fe, NM 87505

Re: Permit NM1-9-0
Agua Moss, Sunco Facility
2nd Quarterly Landfarm Report

Mr. Jones,

Please see the attached 2nd quarter of 2019 landfarm analytics. The report does indicate high levels of TPH and Chlorides. ES sampling has occurred and a ES response will be submitted at a later date once the evaluation is complete.

Thank you for your time. If you have any questions or concerns please contact me at pthompson@merrion.bz.

Sincerely,

Agua Moss

Philana Thompson
Regulatory Compliance
pthompson@merrion.bz

Agua Moss Surface Waste Management Facility (NM1-9-0) Quarterly Monitoring Services – 2nd Quarter 2019

NW ¼, Section 2, Township 29 North, Range 12 West
San Juan County, New Mexico

July 3, 2019

Prepared for:
Agua Moss LLC
P.O. Box 600
Farmington, New Mexico 87499

Prepared by:
Rule Engineering, LLC
501 Airport Drive, Suite 205
Farmington, New Mexico 87401

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to avoid accidental contamination of the vadose zone below. Then a pothole was advanced 3 feet below the treatment zone depth where a discrete sample was collected for laboratory analysis.

Soil samples were collected from the treatment zone utilizing a shovel at a depth of approximately 0.5 feet below the surface.

A sample locations are illustrated on the aerial site map included as Figure 2.

4.0 Soil Sampling

Rule collected one soil sample from the vadose zone approximately 3 feet below the treatment zone at each of the potholes in the designated locations, for a total of three soil samples (Cell #1 Vadose, Cell #2 North Vadose, and Cell #2 South Vadose). Rule also collected one composite sample from the treatment zone approximately 0.5 feet below ground surface in the designated sub-cells, for a total of three soil samples (Cell #1 Treatment, Cell #2 North Treatment, and Cell #2 South Treatment).

Soil samples collected for laboratory analysis were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. The vadose zone samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) per United States Environmental Protection Agency (USEPA) Method 8021B. All samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), diesel range organics (DRO), and mineral oil range organics (MRO) per USEPA 8015D and chlorides per USEPA Method 300.0.

Laboratory analytical results are summarized in Table 1 and the analytical laboratory report is included in Appendix A.

5.0 Laboratory Analytical Results

5.1 Vadose Zone

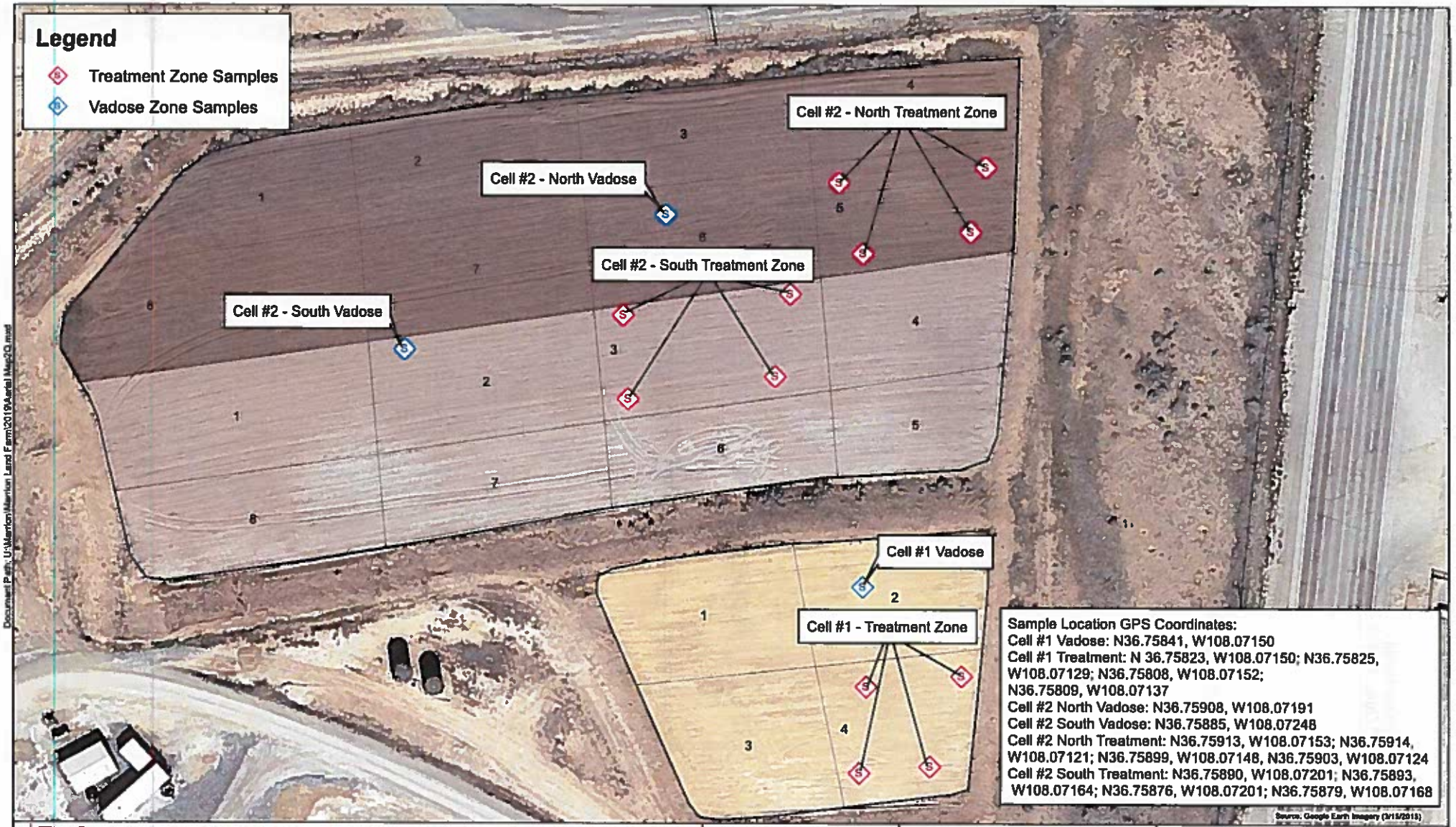
Laboratory analytical results reported BTEX and TPH (GRO/DRO/MRO) concentrations below the laboratory reporting limits for vadose zone samples Cell #1 Vadose, Cell #2 North Vadose, and Cell #2 South Vadose, except for TPH (MRO) concentrations in sample Cell #2 North Vadose which was reported at 65 mg/kg. Chloride concentrations ranged from 490 mg/kg to 610 mg/kg in the three vadose samples.

5.2 Treatment Zone

Laboratory analytical results reported concentrations of TPH (GRO) for treatment zone samples Cell #1 Treatment, Cell #2 North Treatment and Cell #2 South Treatment below the laboratory reporting limits. Laboratory analytical results for the treatment zone

Table

Figures


Legend
Treatment Zone Samples
Vadose Zone Samples
Cell #2 - North Treatment Zone
Cell #2 - North Vadose
Cell #2 - South Treatment Zone
Cell #2 - South Vadose
Cell #1 Vadose
Cell #1 - Treatment Zone
Sample Location GPS Coordinates:
Cell #1 Vadose: N36.75841, W108.07150
Cell #1 Treatment: N 36.75823, W108.07150; N36.75825, W108.07129; N36.75808, W108.07152; N36.75809, W108.07137
Cell #2 North Vadose: N36.75908, W108.07191
Cell #2 South Vadose: N36.75885, W108.07248
Cell #2 North Treatment: N36.75913, W108.07153; N36.75914, W108.07121; N36.75899, W108.07148, N36.75903, W108.07124
Cell #2 South Treatment: N36.75890, W108.07201; N36.75893, W108.07164; N36.75876, W108.07201; N36.75879, W108.07168
Source: Google Earth Imagery (3/15/2015)
Rule Engineering, LLC
Solutions to Regulations for Industry
0 45 90 180 270 360 Feet
1 inch = 55 feet
N
Agua Moss
NW1/4-S02-T29N-R12W
San Juan County, NM
Figure 2
Aerial Site Map
Agua Moss
Surface Waste Management Facility
Updated Date: 7/2/2019
Document Path: U:\Merrion\Merrion Land Farm\2019\Aerial Map2D.mxd

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

June 13, 2019

Heather Woods
Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 325-1055
FAX

RE: Agua Moss Sunco Landfarm OrderNo.: 1906323

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/6/2019 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 #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: Cell #2N Vadose
Project: Agua Moss Sunco Landfarm
Collection Date: 6/5/2019 9:35:00 AM
Lab ID: 1906323-002 **Matrix:** SOIL
Received Date: 6/6/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **smb**	
Chloride	610	59		mg/Kg	20	6/11/2019 1:57:43 PM	45491
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/10/2019 7:08:51 PM	45447
Motor Oil Range Organics (MRO)	65	50		mg/Kg	1	6/10/2019 7:08:51 PM	45447
Surr: DNOP	121	70-130		%Rec	1	6/10/2019 7:08:51 PM	45447
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/10/2019 2:51:31 PM	45436
Surr: BFB	100	73.8-119		%Rec	1	6/10/2019 2:51:31 PM	45436
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	6/10/2019 2:51:31 PM	45436
Toluene	ND	0.050		mg/Kg	1	6/10/2019 2:51:31 PM	45436
Ethylbenzene	ND	0.050		mg/Kg	1	6/10/2019 2:51:31 PM	45436
Xylenes, Total	ND	0.10		mg/Kg	1	6/10/2019 2:51:31 PM	45436
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	6/10/2019 2:51:31 PM	45436

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 Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: Cell #1 Treatment
Project: Agua Moss Sunco Landfarm
Collection Date: 6/5/2019 11:05:00 AM
Lab ID: 1906323-004 **Matrix:** SOIL
Received Date: 6/6/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: **smb**
Chloride	ND	59		mg/Kg	20	6/11/2019 2:22:33 PM	45491
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: **BRM**
Diesel Range Organics (DRO)	94	9.6		mg/Kg	1	6/12/2019 6:17:56 PM	45447
Motor Oil Range Organics (MRO)	730	48		mg/Kg	1	6/12/2019 6:17:56 PM	45447
Surr: DNOP	132	70-130	S	%Rec	1	6/12/2019 6:17:56 PM	45447
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/10/2019 4:22:08 PM	45436
Surr: BFB	98.0	73.8-119		%Rec	1	6/10/2019 4:22:08 PM	45436

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 Limit
S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Client Sample ID: Cell #2S Treatment
Project: Agua Moss Sunco Landfarm
Collection Date: 6/5/2019 10:30:00 AM
Lab ID: 1906323-006 **Matrix:** SOIL
Received Date: 6/6/2019 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: **smb**
Chloride	210	60		mg/Kg	20	6/11/2019 2:47:23 PM	45491
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: **BRM**
Diesel Range Organics (DRO)	240	98		mg/Kg	10	6/10/2019 8:37:45 PM	45447
Motor Oil Range Organics (MRO)	2700	490		mg/Kg	10	6/10/2019 8:37:45 PM	45447
Surr: DNOP	0	70-130	S	%Rec	10	6/10/2019 8:37:45 PM	45447
EPA METHOD 8015D: GASOLINE RANGE							Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/10/2019 5:07:22 PM	45436
Surr: BFB	96.2	73.8-119		%Rec	1	6/10/2019 5:07:22 PM	45436

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 Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1906323

13-Jun-19

Client: Rule Engineering LLC

Project: Agua Moss Sunco Landfarm

Sample ID: LCS-45447	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 45447	RunNo: 60523
Prep Date: 6/7/2019	Analysis Date: 6/10/2019	SeqNo: 2047869 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.6	63.9	124			
Surr: DNOP	4.6		5.000		92.2	70	130			

Sample ID: MB-45447	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 45447	RunNo: 60523
Prep Date: 6/7/2019	Analysis Date: 6/10/2019	SeqNo: 2047870 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	11		10.00		111	70	130			

Sample ID: MB-45534	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 45534	RunNo: 60580
Prep Date: 6/12/2019	Analysis Date: 6/12/2019	SeqNo: 2049863 Units: %Rec

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		96.8	70	130			

Sample ID: LCS-45534	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 45534	RunNo: 60580
Prep Date: 6/12/2019	Analysis Date: 6/12/2019	SeqNo: 2049866 Units: %Rec

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.9	70	130			

Sample ID: MB-45479	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 45479	RunNo: 60537
Prep Date: 6/10/2019	Analysis Date: 6/11/2019	SeqNo: 2049887 Units: %Rec

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.5		10.00		94.7	70	130			

Sample ID: LCS-45479	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 45479	RunNo: 60580
Prep Date: 6/10/2019	Analysis Date: 6/12/2019	SeqNo: 2050992 Units: %Rec

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		98.8	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
- PQL Practical Quantitative Limit
- 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 Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1906323

13-Jun-19

Client: Rule Engineering LLC

Project: Agua Moss Sunco Landfarm

Sample ID: MB-45436	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles
Client ID: PBS	Batch ID: 45436	RunNo: 60518
Prep Date: 6/7/2019	Analysis Date: 6/10/2019	SeqNo: 2047816 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	0.94		1.000		93.6	80	120			

Sample ID: LCS-45436	SampType: LCS	TestCode: EPA Method 8021B: Volatiles
Client ID: LCSS	Batch ID: 45436	RunNo: 60518
Prep Date: 6/7/2019	Analysis Date: 6/10/2019	SeqNo: 2047817 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	103	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.9	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID: 1906323-002AMS	SampType: MS	TestCode: EPA Method 8021B: Volatiles
Client ID: Cell #2N Vadose	Batch ID: 45436	RunNo: 60518
Prep Date: 6/7/2019	Analysis Date: 6/10/2019	SeqNo: 2047821 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9921	0	103	63.9	127			
Toluene	1.0	0.050	0.9921	0	102	69.9	131			
Ethylbenzene	1.0	0.050	0.9921	0.006853	101	71	132			
Xylenes, Total	2.9	0.099	2.976	0	98.9	71.8	131			
Surr: 4-Bromofluorobenzene	1.0		0.9921		104	80	120			

Sample ID: 1906323-002AMSD	SampType: MSD	TestCode: EPA Method 8021B: Volatiles
Client ID: Cell #2N Vadose	Batch ID: 45436	RunNo: 60518
Prep Date: 6/7/2019	Analysis Date: 6/10/2019	SeqNo: 2047822 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	0.9970	0	100	63.9	127	1.98	20	
Toluene	0.99	0.050	0.9970	0	99.2	69.9	131	2.45	20	
Ethylbenzene	0.98	0.050	0.9970	0.006853	97.8	71	132	2.57	20	
Xylenes, Total	2.9	0.10	2.991	0	95.7	71.8	131	2.83	20	
Surr: 4-Bromofluorobenzene	1.1		0.9970		107	80	120	0	0	

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 Limit
S	% Recovery outside of range due to dilution or matrix		

Chain-of-Custody Record

Client: Rule Engineering

Mailing Address: 501 Airport Dr, Ste 205
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Agua Moss Sunco Landfarm

Project #:

Project Manager: Heather Woods

Sampler: Heather Woods

On Ice: ☒ Yes ☐ No

# of Coolers: 3 (CF=0)

Cooler Temp(including CF): 2.1°C, 2.5°C, 1.6°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1906323	BTEX / MTBE / TMBs (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
6/5/19	0945	Soil	Cell #1 Vadose	(1) 4oz Glass	NON	-001	X	X					X			
6/5/19	0935	Soil	Cell #2N Vadose	(1) 4oz Glass	NON	-002	X	X					X			
6/5/19	0925	Soil	Cell #2S Vadose	(1) 4oz Glass	NON	-003	X	X					X			
6/5/19	1105	Soil	Cell #1 Treatment	(1) 4oz Glass	NON	-004		X					X			
6/5/19	1045	Soil	Cell #2N Treatment	(1) 4oz Glass	NON	-005		X					X			
6/5/19	1030	Soil	Cell #2S Treatment	(1) 4oz Glass	NON	-006		X					X			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
6/5/19	1650	Heather M. Woods	Christen Walden		6/5/19	1650
6/5/19	1811	Christen Walden		Courier	6/6/19	0805

Remarks:
Direct Bill to Agua Moss
c/o Philana Thompson
Rates per Andy

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.