

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

OIL CONS. DIV DIST. 3

APR 27 2016

March 30, 2016

Don L. Hanosh

Enerdyne LLC

PO Box 502

Albuquerque, NM 87103

TEL: (505) 414-8548

FAX

OrderNo.: 1603A59

RE: RM Land Farm - Santa Fe Ricific Lease

30-031-21004

Dear Don L. Hanosh:

Hall Environmental Analysis Laboratory received 1 sample(s) on 3/21/2016 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 qualifers 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

Suls

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1603A59

Date Reported: 3/30/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Enerdyne LLC

Project:

RM Land Farm

Lab ID: 1603A59-001

Client Sample ID: RM Land Farm

Collection Date: 3/19/2016 1:30:00 PM

Received Date: 3/21/2016 11:08:00 AM

Analyses	Result	PQL Qu	nal Units	DF	Date Analyzed	Batch
EPA METHOD 418.1: TPH					Analys	t: TOM
Petroleum Hydrocarbons, TR	40	19	mg/Kg	1	3/23/2016	24376
EPA METHOD 300.0: ANIONS					Analys	t: LGT
Chloride	28	1.5	mg/Kg	1	3/28/2016 1:16:39 PM	24483
EPA METHOD 8015M/D: DIESEL RA	NGE ORGANICS	3			Analys	t: KJH
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	3/24/2016 4:55:47 PM	24375
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	3/24/2016 4:55:47 PM	24375
Surr: DNOP	100	70-130	%Rec	1	3/24/2016 4:55:47 PM	24375
EPA METHOD 8015D: GASOLINE RA	ANGE				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	3/23/2016 9:53:03 AM	24369
Surr: BFB	108	66.2-112	%Rec	1	3/23/2016 9:53:03 AM	24369

Matrix: SOIL

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

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 Page 1 of 5
- 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#:

1603A59

30-Mar-16

Client:

Enerdyne LLC

Project:

RM Land Farm

Sample ID MB-24483

SampType: MBLK

TestCode: EPA Method 300.0: Anions

Client ID:

Batch ID: 24483

PQL

RunNo: 33131

SPK value SPK Ref Val %REC LowLimit

Prep Date: 3/28/2016 Analysis Date: 3/28/2016

Result

SeqNo: 1017182

Units: mg/Kg

%RPD

HighLimit

RPDLimit

RPDLimit

Qual

Qual

Analyte Chloride

ND 1.5

Sample ID LCS-24483

3/28/2016

SampType: LCS

TestCode: EPA Method 300.0: Anions

Client ID: LCSS Batch ID: 24483

RunNo: 33131

Analysis Date: 3/28/2016

PQL

1.5

Units: mg/Kg

Prep Date: Analyte Chloride

SeqNo: 1017183

SPK value SPK Ref Val %REC LowLimit HighLimit %RPD 15.00 110

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank В
- E Value above quantitation range
- J Analyte detected below quantitation limits

Page 2 of 5

- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

OC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1603A59

30-Mar-16

Client:

Enerdyne LLC

Project:

RM Land Farm

Sample ID MB-24376

SampType: MBLK

TestCode: EPA Method 418.1: TPH

Client ID:

PBS

Batch ID: 24376

PQL

20

RunNo: 32998

Prep Date: 3/22/2016

Sample ID LCS-24376

Analysis Date: 3/23/2016

SeqNo: 1012162

Units: mg/Kg

%RPD

HighLimit

RPDLimit

Qual

Analyte Petroleum Hydrocarbons, TR Result ND

SampType: LCS

TestCode: EPA Method 418.1: TPH

Batch ID: 24376

RunNo: 32998

Units: mg/Kg

Client ID:

Prep Date: 3/22/2016

3/22/2016

LCSS

Analysis Date: 3/23/2016

SeqNo: 1012163

LowLimit

HighLimit %RPD

Analyte

Result PQL

99

100

SPK value SPK Ref Val %REC 100.0 0 99.0

SPK value SPK Ref Val %REC LowLimit

83.4

127

RPDLimit Qual

Petroleum Hydrocarbons, TR

20 SampType: LCSD

20

TestCode: EPA Method 418.1: TPH

LowLimit

Prep Date:

Client ID: LCSS02

Sample ID LCSD-24376

Batch ID: 24376

Analysis Date: 3/23/2016

RunNo: 32998 SegNo: 1012164

%REC

Units: mg/Kg

RPDLimit Qual

Analyte Petroleum Hydrocarbons, TR Result PQL

SPK value SPK Ref Val

100.0

0

103

83.4

HighLimit 127 %RPD 4.20

20

Qualifiers:

S

Value exceeds Maximum Contaminant Level

Sample Diluted Due to Matrix D

Holding times for preparation or analysis exceeded H

% Recovery outside of range due to dilution or matrix

Not Detected at the Reporting Limit ND

R RPD outside accepted recovery limits

Analyte detected in the associated Method Blank B

E Value above quantitation range

Analyte detected below quantitation limits J

Page 3 of 5

P Sample pH Not In Range

Reporting Detection Limit RL

Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#:

1603A59

30-Mar-16

Client:

Enerdyne LLC

Project: RM Lan	d Farm									
Sample ID LCS-24375	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 24375	RunNo: 33037								
Prep Date: 3/22/2016	Analysis Date: 3/24/2016	SeqNo: 1014202 Units: mg/Kg								
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual								
Range Organics (DRO)	47 10 50.00	0 93.7 65.8 136								
Surr: DNOP	5.1 5.000	103 70 130								
Sample ID MB-24375 SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics										
Client ID: PBS	Batch ID: 24375	RunNo: 33037								
Prep Date: 3/22/2016	Analysis Date: 3/24/2016	SeqNo: 1014203 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	9.7 10.00	97.3 70 130								
Sample ID LCS-24429	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: LCSS	Batch ID: 24429	RunNo: 33066								
Prep Date: 3/24/2016	Analysis Date: 3/25/2016	SeqNo: 1015745 Units: %Rec								
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual								
Surr: DNOP	6.3 5.000	127 70 130								
Sample ID MB-24429	SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: PBS	Batch ID: 24429	RunNo: 33066								
Prep Date: 3/24/2016	Analysis Date: 3/25/2016	SeqNo: 1015746 Units: %Rec								
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual								
Surr: DNOP	13 10.00	126 70 130								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Holding times for preparation or analysis exceeded H
- Not Detected at the Reporting Limit ND
- RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- Analyte detected in the associated Method Blank
- E Value above quantitation range
- Analyte detected below quantitation limits

Page 4 of 5

- P Sample pH Not In Range
- RL Reporting Detection Limit
- Sample container temperature is out of limit as specified

OC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

Result

WO#:

1603A59

30-Mar-16

Client:

Enerdyne LLC

Project:

RM Land Farm

Sample ID MB-24369

SampType: MBLK

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

PBS

Batch ID: 24369

RunNo: 33018

Prep Date: 3/22/2016 Analysis Date: 3/23/2016

Units: mg/Kg

HighLimit

PQL

SeqNo: 1012936

LowLimit

%RPD

%RPD

RPDLimit Qual

Gasoline Range Organics (GRO)

Surr: BFB

Analyte

ND 5.0 1000

1000

1000

931.1

SPK value SPK Ref Val

102

112

Sample ID LCS-24369

LCSS

SampType: LCS Batch ID: 24369

%REC

RunNo: 33018

Client ID: Prep Date:

3/22/2016

Analysis Date: 3/23/2016

TestCode: EPA Method 8015D: Gasoline Range

120

112

Analyte Surr: BFB

SeqNo: 1012937

Units: mg/Kg HighLimit

Gasoline Range Organics (GRO)

Result PQL SPK value SPK Ref Val 23 5.0 25.00

%REC 91.3

80 66.2

LowLimit

RPDLimit

Qual

S

S

Sample ID 1603A59-001AMS

SampType: MS

1100

Result

24

1100

1100

112

TestCode: EPA Method 8015D: Gasoline Range

Client ID:

RM Land Farm

Batch ID: 24369

RunNo: 33018

Prep Date:

3/22/2016

Analysis Date: 3/23/2016

SeqNo: 1012940

%REC

Units: mg/Kg

112

Qual

Analyte

Gasoline Range Organics (GRO)

SPK value SPK Ref Val 4.7

23.28 0

LowLimit 59.3 105

HighLimit %RPD **RPDLimit** 143

Surr: BFB

Sample ID 1603A59-001AMSD

SampType: MSD

TestCode: EPA Method 8015D: Gasoline Range

RunNo: 33018

115

66.2

Client ID: Prep Date:

RM Land Farm 3/22/2016

Batch ID: 24369

Analysis Date: 3/23/2016

SeqNo: 1012941

Units: mg/Kg

Analyte

Result 24 Gasoline Range Organics (GRO)

PQL

4.9

SPK value SPK Ref Val

0

%REC LowLimit HighLimit

%RPD

RPDLimit

Qual 20 0

Surr: BFB

24.68 987.2 98.8 116 59.3 66.2 143 112

0.0864 0

S

Qualifiers: Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

% Recovery outside of range due to dilution or matrix

ND Not Detected at the Reporting Limit RPD outside accepted recovery limits R

Analyte detected in the associated Method Blank В

Value above quantitation range E

Analyte detected below quantitation limits

Page 5 of 5

P Sample pH Not In Range RL Reporting Detection Limit

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: Enerdyne	Work Order Number:	1603A59		RcptNo:	1
Received by/date: AG	03/21/16			The state and are a second of the state and are a second of the second o	
Logged By: Lindsay Mangin	3/21/2016 11:08:00 AM		of 4th go		
Completed By: Lindsay Mangin	3/22/2016 8:25:50 AM		Andy House		
Reviewed By:	03/22/16		000		i
Chain of Custody	, , , , , ,				1 400 400
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?		Client			
Log In					
4. Was an attempt made to cool the sample	es?	Yes	No 🗸	NA 🗆	
5. Were all samples received at a temperat6. Sample(s) in proper container(s)?	ture of >0° C to 6.0°C	Approved by Yes Yes	No 🗸	NA 🗆	
7. Sufficient sample volume for indicated to	est(s)?	Yes 🗸	No 🗆		
8. Are samples (except VOA and ONG) pro		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 b	roken?	Yes	No 🗹	# of preserved	AR Mary Commen
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody))	Yes 🗹	No 🗌	bottles checked for pH:	or >12 unless noted)
13. Are matrices correctly identified on Chair	Yes 🗹	No 🗌	Adjusted?		
14, is it clear what analyses were requested	?	Yes 🗹	No 🗌	Ohashad har	
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 📙	Checked by:	
Special Handling (if applicable)					
16, Was client notified of all discrepancies w	ith this order?	Yes	No 🗌	NA 🗹	
Person Notified:	Date				
By Whom:	Via:	eMail 1	Phone Fax	In Person	
Regarding:					İ
Client Instructions:					I
17. Additional remarks:		The Control of the Co	and the second s	Officeration and the second second second second	
18. Cooler Information Cooler No Temp °C Condition	Seal Intact Seal No S	Seal Date	Signed By		
1 16.4 Good	Not Present				

Chain-of-Custody Record			Turn-Around Time:			HALL ENVIRONMENTAL														
ient: ENORDYNG LLC			Standard □ Rush																	
U			Project Name: RM LAND FARM			ANALYSIS LABORATORY www.hallenvironmental.com														
ailing Address:		XM XMS TARK				4901 Hawkins NE - Albuquerque, NM 87109														
PO BX SOL, SUBJUR NA			Project #:			Tel. 505-345-3975 Fax 505-345-4107														
none #	1. 50	5-29	2-5005 87103							E.		Anal					16			7 5 157
nail or	Fax#:	DHAN	10SN426 D	Project Mana	ager:		=	nly)	30				04)						П	
VQC Package: CMATE. Standard □ Level 4 (Full Validation)			DOW L HANTSH			TMB's (8021)	TPH (Gas only)	10 / M		SIMS)		PO4,S	PCB's							
credi				Sampler:			MB	Hd	9	= ;			NO ₂ ,	8082						î
NEL		□ Othe	· [On Ice: Yes No			+	+	SRO SRO	418.	r 82	S	03,1	3/8		(A)				ठ
EDD	(Type)_			Sample Tem	perature:	110-4	TBE	TBE	B (G	pou	100	8 Metals	(5)	cide	(A)	-ir				S (
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MTBE	BTEX + MTBE	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	PAH's (8310 or 8270	RCRA 8 N	Anions (FC)NO3,NO2,PO4,SO4)	8081 Pesticides /	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles
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