District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

HOBBS OCD
DEC 14 2015
RECEIVED

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Resolute Natural Resources Co, LLC	Contact: Patrick Flynn
Address: 1700 Lincoln Street Suite 2800, Denver, CO 80203	Telephone No. 303.534.4600 X1145
Facility Name: Federal Davis Tank Battery	Facility Type: Tank Battery

Surface Owner	Mineral Owner	API No.: 30-025-05245

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	13	17S	38E					Lea

Latitude: 32.83844N **Longitude:** 103.09439W

NATURE OF RELEASE

Type of Release: Produced water and oil	Volume of Release: 30 Bbl water and 30-Bbl oil	Volume Recovered: 30 Bbl water and 30 Bbl oil
Source of Release: Overran production tank due to transducer malfunction	Date and Hour of Occurrence:	Date and Hour of Discovery: 8/31/15 @ 10:10AM
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Transducer failed, as did the in-field telemetry, allowing the production tank to over fill into the secondary containment area. An area measuring approximately 50-ft x 30-ft x 0.5-ft was impacted by the release.

Describe Area Affected and Cleanup Action Taken.*

All released fluids were contained within the secondary containment berm. A vacuum truck was used to recover all of the fluid released. The recovered water was taken to the Gandy Marley facility for disposal and oil was returned to the production tank. Approximately 80 cubic yards of affected pea gravel and soil were removed for offsite disposal at the Gandy Marley landfarm. Nitrogen was then tilled into the upper one-ft of remaining soil to augment natural biodegradation. Additional excavation is not practicable due to buried piping and surface equipment but will be performed when the facility is abandoned. Confirmation soil sample analyses and a site sketch depicting the location from which soil samples were collected are attached.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:

Printed Name: Patrick Flynn

Title: Vice President

E-mail Address: pflynn@resoluteenergy.com

Date: 12/9/15 Phone: 303.534.4600 X1145

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 12/14/2015 Expiration Date: 02/14/2016

Conditions of Approval:
Discrete site samples required. Delineate and remediate per NMOCD guidelines. Geotagged photos recommended.

Attached ☐
1RP 4013
nJXK1534836019
pJXK1534836136

* Attach Additional Sheets If Necessary

Resolute Natural Resources Company, LLC.

Federal Davis Tank Battery
Sec 13 – T17S – R38E
Lea County, New Mexico

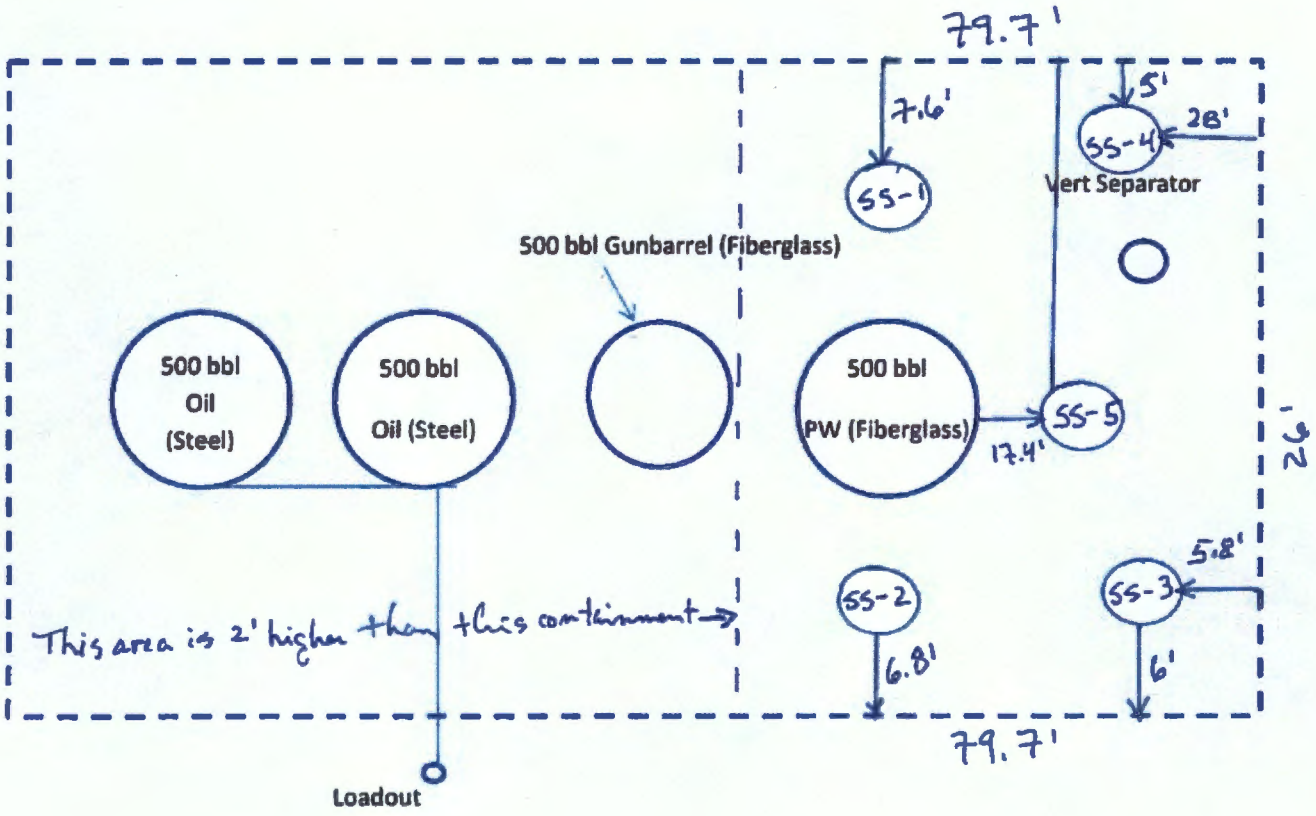
LEGEND

Aboveground Piping
Underground Piping (location approximate)
Berm

North

(not to scale)

Approximate Surface Water Flow



Note: Underground piping is for process flow demonstration only.

No visible waterways within 500 feet.

Summary Report

James Allison
Resolute Energy
4000 N. Big Spring
#500
Midland, TX 79705

Report Date: September 29, 2015

Work Order: 15092339

Project Location: Lea Co, NM
Project Name: Federal Davis TB

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
405096	SS-1	soil	2015-09-23	14:10	2015-09-23
405097	SS-2	soil	2015-09-23	14:10	2015-09-23
405098	SS-3	soil	2015-09-23	14:10	2015-09-23
405099	SS-4	soil	2015-09-23	14:10	2015-09-23
405100	SS-5	soil	2015-09-23	14:10	2015-09-23

	BTEX				TPH DRO	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
405096 - SS-1	<0.0400 [1]	<0.0400	<0.0400	<0.0400	**757** Qr	<8.00 [2] Qr
405097 - SS-2	<0.0400 [3]	<0.0400	**0.153**	**0.572**	**9000** Qr	**74.4** Qr
405098 - SS-3	<0.0200	<0.0200	<0.0200	**0.0514**	**101** Qr	**11.8** Qr
405099 - SS-4	<0.0200	<0.0200	<0.0200	<0.0200	<50.0 Qr	<4.00 Qr
405100 - SS-5	<0.0400 [4]	<0.0400	<0.0400	<0.0400	**883** Qr	<8.00 [5] Qr

Sample: 405096 - SS-1

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 405097 - SS-2

[1] Dilution due to surfactants.
[2] Dilution due to surfactants.
[3] dilution due to excessive hydrocarbons.
[4] dilution due to excessive hydrocarbons.
[5] dilution due to excessive hydrocarbons.

Param	Flag	Result	Units	RL
Chloride		**493**	mg/Kg	4

Sample: 405098 - SS-3

Param	Flag	Result	Units	RL
Chloride		**99.0**	mg/Kg	4

Sample: 405099 - SS-4

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 405100 - SS-5

Param	Flag	Result	Units	RL
Chloride		**690**	mg/Kg	4

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

James Allison
Resolute Energy
4000 N. Big Spring
#500
Midland, TX, 79705

Report Date: September 29, 2015

Work Order: 15092339

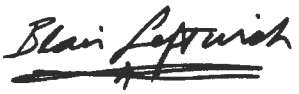
Project Location: Lea Co, NM
Project Name: Federal Davis TB
Project Number: Federal Davis TB

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
405096	SS-1	soil	2015-09-23	14:10	2015-09-23
405097	SS-2	soil	2015-09-23	14:10	2015-09-23
405098	SS-3	soil	2015-09-23	14:10	2015-09-23
405099	SS-4	soil	2015-09-23	14:10	2015-09-23
405100	SS-5	soil	2015-09-23	14:10	2015-09-23

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project Federal Davis TB were received by TraceAnalysis, Inc. on 2015-09-23 and assigned to work order 15092339. Samples for work order 15092339 were received intact at a temperature of 13.8 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	105841	2015-09-24 at 16:19	125138	2015-09-25 at 11:28
Chloride (Titration)	SM 4500-Cl B	105848	2015-09-24 at 10:00	125128	2015-09-25 at 08:41
TPH DRO	S 8015 D	105887	2015-09-28 at 11:39	125192	2015-09-28 at 14:48
TPH GRO	S 8015 D	105841	2015-09-24 at 16:19	125143	2015-09-25 at 13:28

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15092339 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 405096 - SS-1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	125138	Date Analyzed:	2015-09-25	Analyzed By:	AK
Prep Batch:	105841	Sample Preparation:	2015-09-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene [1]	U	5	<0.0400	mg/Kg	2	0.0200
Toluene	U	5	<0.0400	mg/Kg	2	0.0200
Ethylbenzene	U	5	<0.0400	mg/Kg	2	0.0200
Xylene	U	5	<0.0400	mg/Kg	2	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3.85	mg/Kg	2	4.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			3.01	mg/Kg	2	4.00	75	70 - 130

Sample: 405096 - SS-1

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	125128	Date Analyzed:	2015-09-25	Analyzed By:	AM
Prep Batch:	105848	Sample Preparation:	2015-09-24	Prepared By:	AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 405096 - SS-1

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	125192	Date Analyzed:	2015-09-28	Analyzed By:	AK
Prep Batch:	105887	Sample Preparation:	2015-09-28	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qr	5	**757**	mg/Kg	1	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		79.8	mg/Kg	1	50.0	160	70 - 130

Sample: 405096 - SS-1

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	125143	Date Analyzed:	2015-09-25	Analyzed By:	AK
Prep Batch:	105841	Sample Preparation:	2015-09-24	Prepared By:	AK

Parameter		Flag	Cert	Result	RL Units	Dilution	RL
GRO	2	Qr,U	5	<8.00	mg/Kg	2	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3.64	mg/Kg	2	4.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			3.44	mg/Kg	2	4.00	86	70 - 130

Sample: 405097 - SS-2

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	125138	Date Analyzed:	2015-09-25	Analyzed By:	AK
Prep Batch:	105841	Sample Preparation:	2015-09-24	Prepared By:	AK

Parameter		Flag	Cert	Result	RL Units	Dilution	RL
Benzene	3	U	5	<0.0400	mg/Kg	2	0.0200
Toluene		U	5	<0.0400	mg/Kg	2	0.0200
Ethylbenzene			5	**0.153**	mg/Kg	2	0.0200
Xylene			5	**0.572**	mg/Kg	2	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3.42	mg/Kg	2	4.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			3.62	mg/Kg	2	4.00	90	70 - 130

Sample: 405097 - SS-2

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	125128	Date Analyzed:	2015-09-25	Analyzed By:	AM
Prep Batch:	105848	Sample Preparation:	2015-09-24	Prepared By:	AM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			**493**	mg/Kg	5	4.00

Sample: 405097 - SS-2

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	125192	Date Analyzed:	2015-09-28	Analyzed By:	AK
Prep Batch:	105887	Sample Preparation:	2015-09-28	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qr	5	**9000**	mg/Kg	5	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		309	mg/Kg	5	50.0	618	70 - 130

Sample: 405097 - SS-2

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	125143	Date Analyzed:	2015-09-25	Analyzed By:	AK
Prep Batch:	105841	Sample Preparation:	2015-09-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr	5	**74.4**	mg/Kg	2	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3.54	mg/Kg	2	4.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	5.44	mg/Kg	2	4.00	136	70 - 130

Sample: 405098 - SS-3

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	125138	Date Analyzed:	2015-09-25	Analyzed By:	AK
Prep Batch:	105841	Sample Preparation:	2015-09-24	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	5	<0.0200	mg/Kg	1	0.0200
Toluene	U	5	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	5	<0.0200	mg/Kg	1	0.0200
Xylene		5	**0.0514**	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.52	mg/Kg	1	2.00	76	70 - 130

Sample: 405098 - SS-3

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	125128	Date Analyzed:	2015-09-25	Analyzed By:	AM
Prep Batch:	105848	Sample Preparation:	2015-09-24	Prepared By:	AM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**99.0**	mg/Kg	5	4.00

Sample: 405098 - SS-3

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	125192	Date Analyzed:	2015-09-28	Analyzed By:	AK
Prep Batch:	105887	Sample Preparation:	2015-09-28	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qr	5	**101**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			54.6	mg/Kg	1	50.0	109	70 - 130

Sample: 405098 - SS-3

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	125143	Date Analyzed:	2015-09-25	Analyzed By:	AK
Prep Batch:	105841	Sample Preparation:	2015-09-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr	5	**11.8**	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	70 - 130

Sample: 405099 - SS-4

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	125138	Date Analyzed:	2015-09-25	Analyzed By:	AK
Prep Batch:	105841	Sample Preparation:	2015-09-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.0200	mg/Kg	1	0.0200
Toluene	U	5	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	5	<0.0200	mg/Kg	1	0.0200
Xylene	U	5	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			1.53	mg/Kg	1	2.00	76	70 - 130

Sample: 405099 - SS-4

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	125128	Date Analyzed:	2015-09-25	Analyzed By:	AM
Prep Batch:	105848	Sample Preparation:	2015-09-24	Prepared By:	AM

continued ...

sample 405099 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	U		<20.0	mg/Kg	5	4.00

Sample: 405099 - SS-4

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	125192	Date Analyzed:	2015-09-28	Analyzed By:	AK
Prep Batch:	105887	Sample Preparation:	2015-09-28	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	Qr	5	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			53.9	mg/Kg	1	50.0	108	70 - 130

Sample: 405099 - SS-4

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	125143	Date Analyzed:	2015-09-25	Analyzed By:	AK
Prep Batch:	105841	Sample Preparation:	2015-09-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qr,U	5	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.83	mg/Kg	1	2.00	92	70 - 130
4-Bromofluorobenzene (4-BFB)			1.73	mg/Kg	1	2.00	86	70 - 130

Sample: 405100 - SS-5

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	125138	Date Analyzed:	2015-09-25	Analyzed By:	AK
Prep Batch:	105841	Sample Preparation:	2015-09-24	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene [4]	U	5	<0.0400	mg/Kg	2	0.0200
Toluene	U	5	<0.0400	mg/Kg	2	0.0200
Ethylbenzene	U	5	<0.0400	mg/Kg	2	0.0200
Xylene	U	5	<0.0400	mg/Kg	2	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3.71	mg/Kg	2	4.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			2.94	mg/Kg	2	4.00	74	70 - 130

Sample: 405100 - SS-5

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	125128	Date Analyzed:	2015-09-25	Analyzed By:	AM
Prep Batch:	105848	Sample Preparation:	2015-09-24	Prepared By:	AM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**690**	mg/Kg	5	4.00

Sample: 405100 - SS-5

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	125192	Date Analyzed:	2015-09-28	Analyzed By:	AK
Prep Batch:	105887	Sample Preparation:	2015-09-28	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qr	5	**883**	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane Qsr	Qsr		87.4	mg/Kg	1	50.0	175	70 - 130

Sample: 405100 - SS-5

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	125143	Date Analyzed:	2015-09-25	Analyzed By:	AK
Prep Batch:	105841	Sample Preparation:	2015-09-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO [5]	Qr.U	5	<8.00	mg/Kg	2	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3.51	mg/Kg	2	4.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			3.29	mg/Kg	2	4.00	82	70 - 130

Method Blanks

Method Blank (1) QC Batch: 125128

QC Batch: 125128 Date Analyzed: 2015-09-25 Analyzed By: AM
Prep Batch: 105848 QC Preparation: 2015-09-24 Prepared By: AM

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 125138

QC Batch: 125138 Date Analyzed: 2015-09-25 Analyzed By: AK
Prep Batch: 105841 QC Preparation: 2015-09-24 Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		5	<0.00533	mg/Kg	0.02
Toluene		5	<0.00645	mg/Kg	0.02
Ethylbenzene		5	<0.0116	mg/Kg	0.02
Xylene		5	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.95	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.48	mg/Kg	1	2.00	74	70 - 130

Method Blank (1) QC Batch: 125143

QC Batch: 125143 Date Analyzed: 2015-09-25 Analyzed By: AK
Prep Batch: 105841 QC Preparation: 2015-09-24 Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		5	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.86	mg/Kg	1	2.00	93	70 - 130
4-Bromofluorobenzene (4-BFB)			1.67	mg/Kg	1	2.00	84	70 - 130

Method Blank (1) QC Batch: 125192

QC Batch:	125192	Date Analyzed:	2015-09-28	Analyzed By:	AK
Prep Batch:	105887	QC Preparation:	2015-09-28	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		5	<7.41	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			51.2	mg/Kg	1	50.0	102	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 125128 | Date Analyzed: 2015-09-25 | Analyzed By: AM
Prep Batch: 105848 | QC Preparation: 2015-09-24 | Prepared By: AM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2560	mg/Kg	5	2500	<19.2	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2560	mg/Kg	5	2500	<19.2	102	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 125138 | Date Analyzed: 2015-09-25 | Analyzed By: AK
Prep Batch: 105841 | QC Preparation: 2015-09-24 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	2.00	mg/Kg	1	2.00	<0.00533	100	70 - 130
Toluene		5	1.83	mg/Kg	1	2.00	<0.00645	92	70 - 130
Ethylbenzene		5	1.78	mg/Kg	1	2.00	<0.0116	89	70 - 130
Xylene		5	5.45	mg/Kg	1	6.00	<0.00874	91	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	1.87	mg/Kg	1	2.00	<0.00533	94	70 - 130	7	20
Toluene		5	1.74	mg/Kg	1	2.00	<0.00645	87	70 - 130	5	20
Ethylbenzene		5	1.69	mg/Kg	1	2.00	<0.0116	84	70 - 130	5	20
Xylene		5	5.09	mg/Kg	1	6.00	<0.00874	85	70 - 130	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.80	1.81	mg/Kg	1	2.00	90	90	70 - 130
4-Bromofluorobenzene (4-BFB)	1.49	1.47	mg/Kg	1	2.00	74	74	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 125143 | Date Analyzed: 2015-09-25 | Analyzed By: AK
Prep Batch: 105841 | QC Preparation: 2015-09-24 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		5	20.3	mg/Kg	1	20.0	<2.32	102	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		5	20.7	mg/Kg	1	20.0	<2.32	104	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.85	1.85	mg/Kg	1	2.00	92	92	70 - 130
4-Bromofluorobenzene (4-BFB)	1.70	1.69	mg/Kg	1	2.00	85	84	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 125192 | Date Analyzed: 2015-09-28 | Analyzed By: AK
Prep Batch: 105887 | QC Preparation: 2015-09-28 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		5	266	mg/Kg	1	250	<7.41	106	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		5	259	mg/Kg	1	250	<7.41	104	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	54.0	54.5	mg/Kg	1	50.0	108	109	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 405100

QC Batch: 125128
Prep Batch: 105848

Date Analyzed: 2015-09-25
QC Preparation: 2015-09-24

Analyzed By: AM
Prepared By: AM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3450	mg/Kg	5	2500	690	110	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3450	mg/Kg	5	2500	690	110	78.9 - 121	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 404978

QC Batch: 125138
Prep Batch: 105841

Date Analyzed: 2015-09-25
QC Preparation: 2015-09-24

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	5 1.07	mg/Kg	1	2.00	<0.00533	54	70 - 130
Toluene	Qs	Qs	5 1.27	mg/Kg	1	2.00	<0.00645	64	70 - 130
Ethylbenzene			5 1.40	mg/Kg	1	2.00	<0.0116	70	70 - 130
Xylene			5 4.29	mg/Kg	1	6.00	<0.00874	72	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qs	Qs	5 1.28	mg/Kg	1	2.00	<0.00533	64	70 - 130	18	20
Toluene			5 1.42	mg/Kg	1	2.00	<0.00645	71	70 - 130	11	20
Ethylbenzene			5 1.55	mg/Kg	1	2.00	<0.0116	78	70 - 130	10	20
Xylene			5 4.72	mg/Kg	1	6.00	<0.00874	79	70 - 130	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.78	1.86	mg/Kg	1	2	89	93	70 - 130
4-Bromofluorobenzene (4-BFB)	1.50	1.48	mg/Kg	1	2	75	74	70 - 130

Matrix Spike (MS-1) Spiked Sample: 404978

QC Batch: 125143 | Date Analyzed: 2015-09-25 | Analyzed By: AK
Prep Batch: 105841 | QC Preparation: 2015-09-24 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO Qs	Qs	5	10.7	mg/Kg	1	20.0	<2.32	54	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO Qr,Qs	Qr,Qs	5	2.78	mg/Kg	1	20.0	<2.32	14	70 - 130	118	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.72	1.76	mg/Kg	1	2	86	88	70 - 130
4-Bromofluorobenzene (4-BFB)	1.71	1.70	mg/Kg	1	2	86	85	70 - 130

Matrix Spike (xMS-1) Spiked Sample: 404733

QC Batch: 125192 | Date Analyzed: 2015-09-28 | Analyzed By: AK
Prep Batch: 105887 | QC Preparation: 2015-09-28 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO Qs	Qs	5	5750	mg/Kg	10	250	4800	380	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	Qr,Qs	Qr,Qs	5 8200	mg/Kg	10	250	4800	1360	70 - 130	35	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate			MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	Qsr	Qsr	454	536	mg/Kg	10	50	908	1072	70 - 130

Calibration Standards

Standard (ICV-1)

QC Batch: 125128 Date Analyzed: 2015-09-25 Analyzed By: AM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2015-09-25

Standard (CCV-1)

QC Batch: 125128 Date Analyzed: 2015-09-25 Analyzed By: AM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2015-09-25

Standard (CCV-1)

QC Batch: 125138 Date Analyzed: 2015-09-25 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/kg	0.100	0.0954	95	80 - 120	2015-09-25
Toluene		5	mg/kg	0.100	0.0891	89	80 - 120	2015-09-25
Ethylbenzene		5	mg/kg	0.100	0.0875	88	80 - 120	2015-09-25
Xylene		5	mg/kg	0.300	0.266	89	80 - 120	2015-09-25

Standard (CCV-2)

QC Batch: 125138 Date Analyzed: 2015-09-25 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/kg	0.100	0.0970	97	80 - 120	2015-09-25
Toluene		5	mg/kg	0.100	0.0871	87	80 - 120	2015-09-25
Ethylbenzene		5	mg/kg	0.100	0.0869	87	80 - 120	2015-09-25
Xylene		5	mg/kg	0.300	0.259	86	80 - 120	2015-09-25

Standard (CCV-3)

QC Batch: 125138 Date Analyzed: 2015-09-25 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/kg	0.100	0.0955	96	80 - 120	2015-09-25
Toluene		5	mg/kg	0.100	0.0893	89	80 - 120	2015-09-25
Ethylbenzene		5	mg/kg	0.100	0.0870	87	80 - 120	2015-09-25
Xylene		5	mg/kg	0.300	0.262	87	80 - 120	2015-09-25

Standard (CCV-1)

QC Batch: 125143 Date Analyzed: 2015-09-25 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		5	mg/Kg	1.00	0.965	96	80 - 120	2015-09-25

Standard (CCV-2)

QC Batch: 125143 Date Analyzed: 2015-09-25 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		5	mg/Kg	1.00	0.891	89	80 - 120	2015-09-25

Standard (CCV-3)

QC Batch: 125143 Date Analyzed: 2015-09-25 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		5	mg/Kg	1.00	0.860	86	80 - 120	2015-09-25

Standard (CCV-2)

QC Batch: 125192 Date Analyzed: 2015-09-28 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		5	mg/Kg	250	249	100	80 - 120	2015-09-28

Standard (CCV-3)

QC Batch: 125192 Date Analyzed: 2015-09-28 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		5	mg/Kg	250	234	94	80 - 120	2015-09-28

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	L-A-B	L2418	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-15-11	Lubbock
5	NELAP	T104704392-14-8	Midland
6		2014-018	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.

F	Description
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

1 Dilution due to surfactants.
2 Dilution due to surfactants.
3 dilution due to excessive hydrocarbons.
4 dilution due to excessive hydrocarbons.
5 dilution due to excessive hydrocarbons.

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 150923 39

Page _____ of _____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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El Paso, Texas 79922
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Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Resolute Energy
Phone #: 432-813-8069
Address: (Street, City, Zip) 4000 N Big Spring, Midland TX 79705
Fax #:
Contact Person: Jay Allison
E-mail: jallison@resoluteenergy.com
Invoice to: (If different from above)
Project #:
Project Name: Federal Davis TB
Project Location (including state): Lea County, NM
Sampler Signature:

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
405096	SS-1				✓							✓		9/23	14:10
405097	SS-2				✓							✓		9/23	14:10
405098	SS-3				✓							✓		9/23	14:10
405099	SS-4				✓							✓		9/23	14:10
405100	SS-5				✓							✓		9/23	14:10

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	C) F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC						Turn Around Time if different from standard	Hold
	✓	✓	✓														✓								
	✓		✓														✓								
	✓		✓														✓								
	✓		✓														✓								
	✓		✓														✓								

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
	Resolute	9/23	1638		TA	9-23	16:23

INST 13.8 °C
OBS 13.8 °C
COR 13.7 °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-In-Review

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # carry in

ORIGINAL COPY

Summary Report

9/29/15 Lab

Same location as SS-2 on the report

James Allison
Resolute Energy
4000 N. Big Spring
#500
Midland, TX 79705

Report Date: November 25, 2015

Work Order: 15111818

Project Location: Lea Co, NM
Project Name: Federal Davis TB

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
408552	SS 1	soil	2015-11-17	14:10	2015-11-18

	BTEX				TPH DRO	TPH GRO
Sample - Field Code	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
408552 - SS 1	<0.0400 [1]	<0.0400	<0.0400	<0.0400 Qr	**5610** Qr	<8.00 [2]

Sample: 408552 - SS 1

Param	Flag	Result	Units	RL
Chloride		**383**	mg/Kg	50

[1] dilution due to hydrocarbons.
[2] dilution due to hydrocarbons.

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
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5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail lab@traceanalysis.com WEB www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

James Allison
Resolute Energy
4000 N. Big Spring
#500
Midland, TX, 79705

Report Date: November 25, 2015

Work Order: 15111818

Project Location: Lea Co, NM
Project Name: Federal Davis TB
Project Number: Federal Davis TB

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
408552	SS 1	soil	2015-11-17	14:10	2015-11-18

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project Federal Davis TB were received by TraceAnalysis, Inc. on 2015-11-18 and assigned to work order 15111818. Samples for work order 15111818 were received intact at a temperature of 4.1 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	107086	2015-11-23 at 11:10	126618	2015-11-24 at 08:48
Chloride (Titration)	SM 4500-Cl B	107013	2015-11-19 at 09:40	126453	2015-11-19 at 10:46
TPH DRO	S 8015 D	107082	2015-11-23 at 09:19	126535	2015-11-23 at 09:20
TPH GRO	S 8015 D	107086	2015-11-23 at 11:10	126619	2015-11-25 at 09:10

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15111818 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 408552 - SS 1

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	126618	Date Analyzed:	2015-11-24	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene [1]	U	1	<0.0400	mg/Kg	2	0.0200
Toluene	U	1	<0.0400	mg/Kg	2	0.0200
Ethylbenzene	U	1	<0.0400	mg/Kg	2	0.0200
Xylene	Qr,U	1	<0.0400	mg/Kg	2	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3.78	mg/Kg	2	4.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			3.64	mg/Kg	2	4.00	91	70 - 130

Sample: 408552 - SS 1

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	126453	Date Analyzed:	2015-11-19	Analyzed By:	AM
Prep Batch:	107013	Sample Preparation:	2015-11-19	Prepared By:	AM

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride			**383**	mg/Kg	5	50.0

Sample: 408552 - SS 1

Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	126535	Date Analyzed:	2015-11-23	Analyzed By:	JL
Prep Batch:	107082	Sample Preparation:	2015-11-23	Prepared By:	JL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
DRO	Qr	1	**5610**	mg/Kg	10	50.0

Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr	Qsr		307	mg/Kg	10	50.0	614	70 - 130

Sample: 408552 - SS 1

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	126619	Date Analyzed:	2015-11-25	Analyzed By:	AK
Prep Batch:	107086	Sample Preparation:	2015-11-23	Prepared By:	AK

Parameter		Flag	Cert	RL Result	Units	Dilution	RL
GRO	2		1	<8.00	mg/Kg	2	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.16	mg/Kg	2	4.00	104	70 - 130
4-Bromofluorobenzene (4-BFB)			3.94	mg/Kg	2	4.00	98	70 - 130

Method Blanks

Method Blank (1) QC Batch: 126453

QC Batch:	126453	Date Analyzed:	2015-11-19	Analyzed By:	AM
Prep Batch:	107013	QC Preparation:	2015-11-19	Prepared By:	AM

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<31.9	mg/Kg	50

Method Blank (1) QC Batch: 126535

QC Batch:	126535	Date Analyzed:	2015-11-23	Analyzed By:	JL
Prep Batch:	107082	QC Preparation:	2015-11-23	Prepared By:	JL

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<7.41	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			48.1	mg/Kg	1	50.0	96	70 - 130

Method Blank (1) QC Batch: 126618

QC Batch:	126618	Date Analyzed:	2015-11-24	Analyzed By:	AK
Prep Batch:	107086	QC Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00533	mg/Kg	0.02
Toluene		1	<0.00645	mg/Kg	0.02
Ethylbenzene		1	<0.0116	mg/Kg	0.02
Xylene		1	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.94	mg/Kg	1	2.00	97	70 - 130

continued ...

method blank continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			1.75	mg/Kg	1	2.00	88	70 - 130

Method Blank (1) QC Batch: 126619

QC Batch:	126619	Date Analyzed:	2015-11-25	Analyzed By:	AK
Prep Batch:	107086	QC Preparation:	2015-11-23	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			1.83	mg/Kg	1	2.00	92	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 126453
Prep Batch: 107013

Date Analyzed: 2015-11-19
QC Preparation: 2015-11-19

Analyzed By: AM
Prepared By: AM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2490	mg/Kg	5	2500	<160	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2200	mg/Kg	5	2500	<160	88	85 - 115	12	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 126535
Prep Batch: 107082

Date Analyzed: 2015-11-23
QC Preparation: 2015-11-23

Analyzed By: JL
Prepared By: JL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	216	mg/Kg	1	250	<7.41	86	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	214	mg/Kg	1	250	<7.41	86	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	52.5	52.2	mg/Kg	1	50.0	105	104	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 126618 | Date Analyzed: 2015-11-24 | Analyzed By: AK
Prep Batch: 107086 | QC Preparation: 2015-11-23 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.89	mg/Kg	1	2.00	<0.00533	94	70 - 130
Toluene		1	1.98	mg/Kg	1	2.00	<0.00645	99	70 - 130
Ethylbenzene		1	2.07	mg/Kg	1	2.00	<0.0116	104	70 - 130
Xylene		1	6.08	mg/Kg	1	6.00	<0.00874	101	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.94	mg/Kg	1	2.00	<0.00533	97	70 - 130	3	20
Toluene		1	2.02	mg/Kg	1	2.00	<0.00645	101	70 - 130	2	20
Ethylbenzene		1	2.10	mg/Kg	1	2.00	<0.0116	105	70 - 130	1	20
Xylene		1	6.25	mg/Kg	1	6.00	<0.00874	104	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.65	1.74	mg/Kg	1	2.00	82	87	70 - 130
4-Bromofluorobenzene (4-BFB)	1.67	1.74	mg/Kg	1	2.00	84	87	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 126619 | Date Analyzed: 2015-11-25 | Analyzed By: AK
Prep Batch: 107086 | QC Preparation: 2015-11-23 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	21.4	mg/Kg	1	20.0	<2.32	107	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	20.3	mg/Kg	1	20.0	<2.32	102	70 - 130	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

control spikes continued ...

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.98	1.92	mg/Kg	1	2.00	99	96	70 - 130
4-Bromofluorobenzene (4-BFB)	1.81	1.77	mg/Kg	1	2.00	90	88	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 408580

QC Batch: 126453
Prep Batch: 107013

Date Analyzed: 2015-11-19
QC Preparation: 2015-11-19

Analyzed By: AM
Prepared By: AM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			59400	mg/Kg	5	2500	57300	84	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			59300	mg/Kg	5	2500	57300	80	78.9 - 121	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (xMS-1) Spiked Sample: 408395

QC Batch: 126535
Prep Batch: 107082

Date Analyzed: 2015-11-23
QC Preparation: 2015-11-23

Analyzed By: JL
Prepared By: JL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	625	mg/Kg	1	250	446	72	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	Qr,Qs	Qr,Qs	1 424	mg/Kg	1	250	446	-7	70 - 130	38	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	87.3	72.0	mg/Kg	1	50	175	144	70 - 130

Matrix Spike (MS-1) Spiked Sample: 408552

QC Batch: 126618 | Date Analyzed: 2015-11-24 | Analyzed By: AK
Prep Batch: 107086 | QC Preparation: 2015-11-23 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.69	mg/Kg	2	2.00	<0.0107	84	70 - 130
Toluene		1	1.88	mg/Kg	2	2.00	<0.0129	94	70 - 130
Ethylbenzene		1	2.14	mg/Kg	2	2.00	<0.0232	107	70 - 130
Xylene		1	4.46	mg/Kg	2	6.00	<0.0175	74	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.59	mg/Kg	2	2.00	<0.0107	80	70 - 130	6	20
Toluene		1	1.77	mg/Kg	2	2.00	<0.0129	88	70 - 130	6	20
Ethylbenzene		1	2.07	mg/Kg	2	2.00	<0.0232	104	70 - 130	3	20
Xylene	Qr	Qr	5.99	mg/Kg	2	6.00	<0.0175	100	70 - 130	29	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	3.43	3.18	mg/Kg	2	4	86	80	70 - 130
4-Bromofluorobenzene (4-BFB)	3.61	3.26	mg/Kg	2	4	90	82	70 - 130

Matrix Spike (MS-1) Spiked Sample: 408552

QC Batch: 126619 | Date Analyzed: 2015-11-25 | Analyzed By: AK
Prep Batch: 107086 | QC Preparation: 2015-11-23 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	30.1	mg/Kg	2	20.0	7.79	112	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	31.3	mg/Kg	2	20.0	7.79	118	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

matrix spikes continued ...

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	3.52	3.34	mg/Kg	2	4	88	84	70 - 130
4-Bromofluorobenzene (4-BFB)	3.67	3.56	mg/Kg	2	4	92	89	70 - 130

Calibration Standards

Standard (ICV-1)

QC Batch: 126453 Date Analyzed: 2015-11-19 Analyzed By: AM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2015-11-19

Standard (CCV-1)

QC Batch: 126453 Date Analyzed: 2015-11-19 Analyzed By: AM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2015-11-19

Standard (CCV-2)

QC Batch: 126535 Date Analyzed: 2015-11-23 Analyzed By: JL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	200	80	80 - 120	2015-11-23

Standard (CCV-3)

QC Batch: 126535 Date Analyzed: 2015-11-23 Analyzed By: JL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	265	106	80 - 120	2015-11-23

Standard (CCV-1)

QC Batch: 126618 Date Analyzed: 2015-11-24 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0938	94	80 - 120	2015-11-24
Toluene		1	mg/kg	0.100	0.101	101	80 - 120	2015-11-24
Ethylbenzene		1	mg/kg	0.100	0.103	103	80 - 120	2015-11-24
Xylene		1	mg/kg	0.300	0.306	102	80 - 120	2015-11-24

Standard (CCV-2)

QC Batch: 126618 Date Analyzed: 2015-11-24 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0957	96	80 - 120	2015-11-24
Toluene		1	mg/kg	0.100	0.101	101	80 - 120	2015-11-24
Ethylbenzene		1	mg/kg	0.100	0.100	100	80 - 120	2015-11-24
Xylene		1	mg/kg	0.300	0.299	100	80 - 120	2015-11-24

Standard (CCV-1)

QC Batch: 126619 Date Analyzed: 2015-11-25 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.10	110	80 - 120	2015-11-25

Standard (CCV-2)

QC Batch: 126619 Date Analyzed: 2015-11-25 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.923	92	80 - 120	2015-11-25

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-14-8	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

1 dilution due to hydrocarbons.
2 dilution due to hydrocarbons.

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 15111818

Page _____ of _____

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
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1 (800) 378-1296

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200 East Sunset Rd., Suite E
El Paso, Texas 79922
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Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Resolute — Phone #: 432-813-8064

Address: (Street, City, Zip) 4000 N. Big Spring #500 Midland — Fax #:

Contact Person: Jay Allison — E-mail: jallison@resoluteenergy.com

Invoice to: (If different from above)

Project #: Federal Davis — Project Name:

Project Location (including state): Lea Co, NM — Sampler Signature:

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
408552	SS 1	1			✓							✓		11/17	14.10

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 (TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold
	✓		✓															✓			

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
[signature]	Resolute	11/18	09:40	[signature]	TA	11-18-15	9:40
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

INST JR
OBS 4.1 °C
COR 4.0 °C

INST ____ °C
OBS ____ °C
COR ____ °C

INST ____ °C
OBS ____ °C
COR ____ °C

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-In-Review ____

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # Carry in

ORIGINAL COPY