West Square Lake Unit (WSLU) Tract 003
Well #9 (API No. 30-0115-03974)
Flowline Release – Final Report
(32.87723°N, -103.97278°W)

Prepared for

J. Cleo Thompson & James Cleo Thompson, Jr., L.P.
117 West Yukon Road,
Odessa, Texas 79764
Attn: Mr. Jay McKee

Prepared by

Sport Environmental Services, LLC
consultants
scientists | innovators

502 N. Big Spring Street
Midland, Texas 79701
Telephone: (432) 683-1100
Fax: (888) 500-0622
www.sportenvironmental.com

November 29, 2016

SPORT ENVIRONMENTAL SERVICES, LLC
502 N. Big Spring Street, Midland, Texas 79701
Business: 432.683.1100 Fax: 888.500.0622

November 29, 2016

Mr. Mike Bratcher
Environmental Specialist
New Mexico Oil Conservation Division
mike.bratcher@state.nm.us
(sent via email)

Ms. Henryetta Price
Environmental Protection Specialist
Bureau of Land Management
hprice@blm.gov
(sent via email)

Re: **West Square Lake Unit (WSLU) Tract 003 Well #9 (API No. 30-0115-03974) – Final Report**
J. Cleo Thompson & James Cleo Thompson, Jr., L.P.
Approximate Location: 32.87723° N, -103.97278° W, Eddy County, New Mexico

Dear Mr. Bratcher and Ms. Price:

Sport Environmental Services, LLC, at the request of J. Cleo Thompson & James Cleo Thompson, Jr., L.P. *(J. Cleo* or *Client)*, has successfully remediated the release of well fluids that occurred at the West Square Lake Unit (WSLU) Tract 003 Well #9 (API No. 30-0115-03974) *(subject site* or *WSLU Tract 003)*. Sport Environmental Services, LLC, *(Sport Environmental)* was hired by J. Cleo to further characterize the release site, provide a remedy recommendation that addresses applicable federal and state regulatory requirements, oversee remediation of the site, perform soil sampling to confirm remediation, and to prepare this final report. This Final Report summarizes the work performed to remediate the subject site and serves as a formal request for closure of the issue.

Site History

A release of well fluids from three wells[1] connected to a satellite battery at the subject site resulted in an estimated release of approximately five (5) to ten (10) barrels of well fluids. The release was discovered on May 26, 2016 by a Bureau of Land Management (BLM) Natural Resource Specialist who made the initial

[1] The well closest to the release point is West Square Lake Unit (WSLU) Tract 003 Well #9 (API No. 30-0115-03974). As requested, this well is listed as the release source associated with this flowline leak.

release notification and notified Mr. Amador Pando, one of J. Cleo's Production Foremen. The source of the release was determined to be a hole in the flowline. No watercourse was impacted by the release and the relatively small release volume resulted in a minimal impact footprint. As detailed in the Site Plan in **Appendix A**, the area affected by the release is in a remote location and covers approximately 1,704 square feet of land. A signed copy of the Form C-141 (Release Notification & Corrective Action) is included in **Appendix B** to provide further detail related to the release. On May 27, 2016, the day following discovery of the release, J. Cleo and the BLM performed a joint evaluation of the subject site. Later, on May 30, 2016, Sport Environmental performed initial remedial efforts at the subject site. Micro-Blaze was applied to hydrocarbon-impacted soils where residual impact (no free liquids were observed) was visually apparent. Following initial remedial efforts, the appropriate fee for an archeological study to be performed in the immediate area of the release was provided to BLM to prevent destruction of artifacts. A copy of the Programmatic Agreement submitted to BLM as part of compliance with Section 106 of the National Historic Preservation Act is provided in **Appendix C** for your convenience and describes the funding contributed to the Permian Basin Cultural Resource Fund.

Remediation of the Subject Site

On July 14, 2016, Sport Environmental submitted a Remediation Work Plan Proposal to the New Mexico Oil Conservation Division (OCD) and the BLM for the agencies' approval. The OCD's Site Ranking Criteria Form was completed and the ranking score calculated for the release at the subject site was zero (0) *(Please see **Appendix D** for a copy of this form)*. Based on the calculated score, the Acceptable Clean-Up Criteria for the subject site are as follows:

Constituent	Clean-Up Criteria Limit (ppm)
Benzene	10
BTEX	50
TPH	5,000
Chlorides	1,000

Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and Total Petroleum Hydrocarbons were analyzed by TraceAnalysis, Inc. *(Trace),* a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory using Methods 8021B and SW8015Mod, respectively. Soil with chloride concentrations greater than 1,000 ppm was removed and properly disposed of at an approved facility. As requested by the NMOCD, chloride delineation to 250 ppm was confirmed by Trace with laboratory analysis of composite samples from the excavation walls and the excavation floor using EPA Method 300.

As shown in the Sample Data Summary (SDS) below, remediation of the subject site was successful.

Work Order 16081830											
Sample ID	WW-Comp@9'-001	NW-COMP@5'-001	EW-COMP@10'-001	NWH-COMP@14'-001	EWH-COMP@14'-001	SWH-COMP@14'-001	WWH-COMP@14'-001	EFH-COMP@14'-001	SW-COMP@4'-001	EFW-COMP@7'-001	
Sample Date	8/17/2016	8/17/2016	8/17/2016	8/17/2016	8/17/2016	8/17/2016	8/17/2016	8/17/2016	8/18/2016	8/18/2016	
Sample Time	12:31	12:42	12:55	12:55	12:57	12:59	13:02	13:04	9:50	10:03	
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toluene	ND	ND	ND	ND	ND	ND	ND	0.0304 mg/Kg	ND	ND	
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	0.240 mg/Kg	ND	ND	
Xylene	ND	ND	ND	ND	ND	ND	ND	0.710 mg/Kg	ND	ND	
Chloride	24.5 mg/Kg	158 mg/Kg	586 mg/Kg	5520 mg/Kg	3090 mg/Kg	342 mg/Kg	378 mg/Kg	3900 mg/Kg	235 mg/Kg	1320 mg/Kg	
Moisture	26.60%	7.73%	12%	20.90%	15.50%	9.62%	24.70%	9.14%	2.94%	7.68%	
DRO	ND	ND	ND	ND	ND	ND	ND	841 mg/Kg	96.2 mg/Kg	ND	
GRO	ND	0.507 mg/Kg	ND	ND	ND	ND	ND	32.5 mg/Kg	0.861 mg/Kg	ND	

Work Order 16090821		
Sample ID		EFE-COMP@11'-001
Sample Date		9/8/2016
Sample Time		9:46
Benzene		ND
Toluene		ND
Ethylbenzene		ND
Xylene		ND
Chloride		254mg/kg
Moisture		24.70%
DRO		ND
GRO		ND

Work Order 16090820								
Sample ID		NWH-COMP@15'-002	EWH-COMP@15'-002		EFH-COMP@15'-002		EFW-COMP@8'-002	
Sample Date		9/8/2016	9/8/2016		9/8/2016		9/8/2016	
Sample Time		9:20	9:26		9:32		9:40	
Chloride		ND	27.4 mg/Kg		ND		ND	

Work Order 16091522								
Sample ID		EW-COMP@11'-002		SWH-COMP@15'-002	WWH-COMP@15'-002			
Sample Date		9/15/2016		9/15/2016	9/15/2016			
Sample Time		10:02		9:55	9:58			
Chloride		ND		94.9 mg/Kg	649 mg/Kg			

Work Order 16092329								
Sample ID					WWH-COMP@15'-003			
Sample Date					9/23/2016			
Sample Time					10:28			
Chloride					52.1 mg/Kg			

Note: The Sample Location Key below also corresponds to the Excavation & Sampling Schematic in Appendix E.

WW: West Wall **NW: North Wall** **EW: East Wall** **NWH: North Wall Hole** **EWH: East Wall Hole** **SWH: South Wall Hole**
WWH: West Wall Hole **EFH: Excavation Floor Hole** **SW: South Wall** **EFW: Excavation Floor West** **EFE: Excavation Floor East**

An Excavation & Sampling Schematic depicting the location of soil samples associated with the subject site is included in **Appendix E** for reference. As shown in the schematic, a smaller excavation approximately two feet deeper than floor of the main excavated area was created to address the release. The main excavation and smaller excavation floors and walls were sampled and the collection of 3-, 4-, or 5-point aliquot composite soil samples (the number of sample points was related to the size of the area of interest) was performed to ensure representative sampling and analyses. In addition, the summary reports from Trace that are associated with confirmation sampling are included in **Appendix F**; the Full Analytical and Quality Control Reports issued by Trace are also available in **Appendix G**.

A photographic log depicting the successful completion of remedial efforts and subsequent backfilling of the excavation area is included in **Appendix H**.

Summary of Successful Remediation

Based on the analytical results highlighted in this final report, Sport Environmental believes that the subject site has been properly remediated in accordance with the agreed upon constituent concentration limits outlined in this report. The analyses reveal that TPH, BTEX, and Chloride concentrations are now below their respective concentration limits. In addition, the affected soil has been removed and properly disposed of at Lea Land Disposal Site in New Mexico in accordance with applicable regulations *(waste manifests are available upon request)* and the land surface has been feathered. At this time, Sport Environmental recommends no further sampling or remedial actions be performed and respectfully requests closure of the West Square Lake Unit (WSLU) Tract 003 Well #9 flowline release site.

Limitations and Exceptions

The statements, opinions and conclusions contained in this report are based solely upon the services performed by Sport as described in this report and the Scope of Work as established for the report by the Client. The findings of the report are limited to those specifically expressed in the report and no other representations or warranties are given by Sport and no additional conclusions should be reached or representations relied on other that those expressly stated in the report.

Should you have any questions regarding this report, please contact us at (432) 683-1100.

Sincerely,

Deborah S. Moore

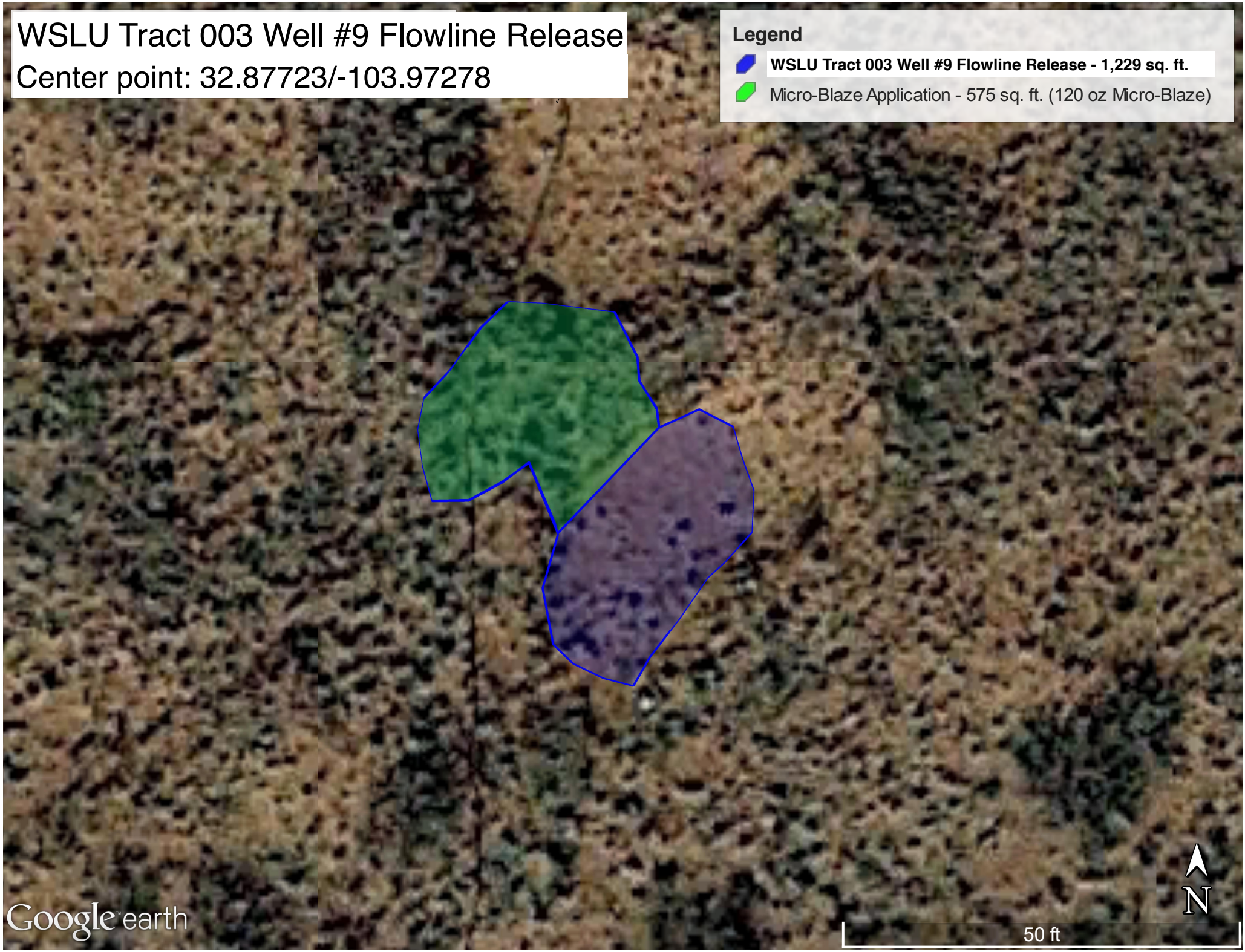
Deborah S. Moore, ME, REPA, CESCO, RSO
President

Appendices

A	**Site Plan (Release Location)**
B	**C-141 Form**
C	**Programmatic Agreement (National Historic Preservation Act)**
D	**Site Ranking Criteria Form**
E	**Excavation & Sampling Schematic**
F	**TraceAnalysis – Remediation Areas Summary Reports**
G	**TraceAnalysis – Remediation Areas Analytical & Quality Control Reports**
H	**Photographic Log**

APPENDIX A

Site Plan (Release Location)


WSLU Tract 003 Well #9 Flowline Release
Center point: 32.87723/-103.97278
Legend
WSLU Tract 003 Well #9 Flowline Release - 1,229 sq. ft.
Micro-Blaze Application - 575 sq. ft. (120 oz Micro-Blaze)
Google earth
N
50 ft

APPENDIX B

C-141 Form

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

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

(revision).
X Initial Report ☐ Final Report

Name of Company J. Cleo Thompson	Contact Amador Pando, Production Foreman
Address 117 West Yukon, Odessa, TX 79764	Telephone No. (432) 664-2578
Facility Name West Square Lake Unit (WSLU) Tract 003 Well #9	Facility Type Production

Surface Owner Federal	Mineral Owner	API No. 3001503967

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	33	16S	30E	1980	FSL	660	FEL	Eddy

Latitude 32.87723° N **Longitude** -103.97278° W

NATURE OF RELEASE

Type of Release Well Fluids (from three wells going to satellite battery)	Volume of Release Est. 5-10 bbl	Volume Recovered 0 bbl
Source of Release Hole in flowline	Date and Hour of Occurrence Just prior to discovery	Date and Hour of Discovery May 26, 2016 (hour unknown)
Was Immediate Notice Given? X Yes ☐ No ☐ Not Required	If YES, To Whom? Unknown. BLM Natural Resource Specialist made initial release notification. The Specialist also notified Amador Pando, Production Foreman with J. Cleo Thompson.	
By Whom? BLM Natural Resource Specialist made initial release notification.	Date and Hour May 26, 2016 (hour unknown)	
Was a Watercourse Reached? ☐ Yes X No	If YES, Volume Impacting the Watercourse. n/a	

If a Watercourse was Impacted, Describe Fully.*
The release did not impact a watercourse.

Describe Cause of Problem and Remedial Action Taken.* The release was caused by a hole in a flowline that was discovered by the BLM's Natural Resource Specialist ("Specialist") on Thursday, May 26, 2016. The Specialist notified J. Cleo Thompson ("J. Cleo") of the release. The release source was remedied resulting in a minimal impact footprint due to low release volumes. On May 27, 2016, the BLM and J. Cleo performed a joint release evaluation at the site. Sport Environmental Services, LLC (environmental consultant) performed initial remedial efforts at the release site on Monday, May 30, 2016. Based upon visual assessment, *Micro-Blaze* was applied to the hydrocarbon impacted-areas at the site where residual impact was present (no free liquids). Attached please find a site plan denoting area impacted and *Micro-Blaze* application quantities. The BLM would like to perform an archeology study in the immediate release area prior to any further remedial efforts and potential soils disturbance by J. Cleo Thompson.

Describe Area Affected and Cleanup Action Taken.* The affected area is remote in location. The flowline was moving well fluids from three wells to a satellite battery to be ultimately transferred to the consolidated battery location. A hole in flowline resulting in an estimated well fluids loss of 5-10 bbl. Product was adsorbed into surficial soils resulting in non-recovery of released fluids. Impacted area is roughly 1,704 square feet. *Micro-Blaze* treatment was applied on 575 square feet (34%) of the affected area. See the section above for a complete description of remedial and cleanup actions taken to date. See attached site plan (demarcated aerial imagery) for release specifics.

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: Deborah S. Moore.	OIL CONSERVATION DIVISION	
Printed Name: Deborah S. Moore, Agent for J. Cleo Thompson	Approved by Environmental Specialist:	
Title: President of Sport Environmental Services, LLC	Approval Date:	Expiration Date:
E-mail Address: debi@sportenv.com	Conditions of Approval:	Attached ☐
Date: July 7, 2016 Phone: (432) 683-1100/(432) 553-8555 cell		

* Attach Additional Sheets If Necessary

APPENDIX C

Programmatic Agreement (National Historic Preservation Act)

SPORT ENVIRONMENTAL SERVICES, LLC
502 N. Big Spring Street, Midland, Texas 79701
Business: 432.683.1100 Fax: 888.500.0622

June 23, 2016

Ms. Jessica Han
Bureau of Land Management
620 E. Greene St
Carlsbad NM 88220

Re: Programmatic Agreement (PA)

Dear Ms. Han,

Sport Environmental is working on behalf of J Cleo Thompson & James Cleo Thompson, Jr., LP., regarding a release on BLM land. In order to comply with Section 106 of the National Historic Preservation Act for energy-related projects we have enclosed a signed Confirmation of Payment for the Permian Basin Cultural Resource Mitigation Fund (Form NM 8140-9) and a payment in the amount of $99.00. In addition, please find attached maps of the impacted area and correspondence with Ms. Jessica Han with the Carlsbad Field Archaeology Office.

If you have any questions or if there are additional steps that must be completed in order to comply with the PA and aforementioned Act, please let us know.

Respectfully,

Sport Environmental Services, LLC

Dudley T Womble
Chief Operating Officer

Confirmation of Payment

Form NM 8140-9
(March 2008)
United States Department of the Interior
Bureau of Land Management
New Mexico State Office

Permian Basin Cultural Resource Mitigation Fund

The company shown below has agreed to contribute funding to the Permian Basin Cultural Resource Fund in lieu of being required to conduct a Class III survey for cultural resources associated with their project. This form verifies that the company has elected to have the Bureau of Land Management (BLM) follow the procedures specified within the Programmatic Agreement (PA) concerning improved strategies for managing historic properties within the Permian Basin, New Mexico, for the undertaking rather than the Protocol to meet the agency's Section 106 obligations.

Company Name: **J. Cleo Thompson & James Cleo Thompson, Jr., L.P.**

Address: **117 W. Yukon**
Odessa, Texas 79764

Project description:

Land access and spill remediation

ULSTR: G, Section 33, T-16S, R-30E, NMPM
County: Eddy County, New Mexico

Amount of contribution: $ **99.00**
(Total Area at $99/acre = 0.17 Acres (0.13 Acres for Road Access and 0.04 Acres of Release Impact Area)

Provisions of the PA:

A. No new Class III inventories are required of industry within the project area for those projects where industry elects to contribute to the mitigation fund.

B. The amount of funds contributed was derived from the rate schedule established within Appendix B of the PA. The amount of the funding contribution acknowledged on this form reflects those rates.

C. The BLM will utilize the funding to carry out a program of mitigation at high-priority sites whose study is needed to answer key questions identified within the Regional Research Design.

D. Donating to the fund is voluntary. Industry acknowledges that it is aware it has the right to pay for a Class III survey rather than contributing to the mitigation fund. Industry must avoid or fund data recovery at those sites already recorded that are eligible for nomination to the National Register or whose eligibility is unknown. Any such payments are independent of the mitigation funds established by this PA.

E. Previously recorded archaeological sites determined eligible for nomination to the National Register, or whose eligibility remains undetermined, must be avoided or mitigated.

F. If any skeletal remains that might be human or funerary objects are discovered by any activities, the land-use applicant will cease activities in the area of discovery, protect the remains, and notify the BLM within 24 hours. The BLM will determine the appropriate treatment of the remains in consultation with culturally-affiliated Indian Tribe(s) and lineal descendants. Applicants will be required to pay for treatment of the cultural items, independent and outside of the mitigation fund.

Deborah S. Moore

Company-Authorized Officer

6-23-2016.

Date

Deborah S. Moore, Agent for J. Cleo Thompson.

BLM-Authorized Officer

Date

14323

SPORT ENVIRONMENTAL SERVICES, PLLC
502 N. BIG SPRING ST.
MIDLAND, TX 79701
(432) 683-1100

WEST TEXAS NATIONAL BANK
MIDLAND, TEXAS 79701
88-467-1123

6/23/2016

PAY TO THE ORDER OF PB Cultural Resource Mitigation Fund

$ **99.00

Ninety-Nine and 00/100********** DOLLARS

PB Cultural Resource Mitigation Fund

Security features. Details on back.

MEMO

AUTHORIZED SIGNATURE

⑈014323⑈ ⑆112304678⑆ 9696032⑈

SPORT ENVIRONMENTAL SERVICES, PLLC 14323

PB Cultural Resource Mitigation Fund	6/23/2016	
	Archeology study	99.00

West Texas National 99.00

Subject: Re: FW: J Cleo Release
Date: Thursday, June 23, 2016 at 12:14:33 PM Central Daylight Time
From: Han, Jessica
To: Dudley T Womble

Good Afternoon,

I apologize for not getting back to you more quickly. I have looked over the area in question, and it would appear that all you would need to do, as far as archaeology is concerned, is make a contribution to the PA as we discussed on the phone.

If you have any further questions please let me know,

Thank you
Jessica Han

On Thu, Jun 23, 2016 at 9:39 AM, Dudley T Womble <dudley@sportenvironmental.com> wrote:

> Jessica,
>
> Just following up on my previous message. Did you receive it okay and if so, do you need any further information at this time?
>
> Thank you for your consideration.
>
> Best,
> DTW

DUDLEY T WOMBLE, MPA
Chief Operating Officer
Sport Environmental Services, LLC
502 North Big Spring Street
Midland, Texas 79701
dudley@sportenv.com
Business: 432.683.1100
Cell: 432.312.8131

From: Dudley T Womble <dudley@sportenvironmental.com>
Date: Tuesday, June 21, 2016 at 11:45 AM
To: "jhan@blm.gov" <jhan@blm.gov>

Subject: J Cleo Release

Jessica,

Thank you for taking my call earlier. As I mentioned we are working with our client, J Cleo Thompson & James Cleo Thompson, Jr., LP., regarding a release on BLM land. We have notified the appropriate regulatory agencies, but need further clarification on the requirements for the Permian Bain Programmatic Agreement (PA). We will complete the PA on behalf of J Cleo. According to our calculations a total of 0.17 acres will be disturbed during the reclamation and spill removal efforts. Therefore, an amount of $99.00 should be remitted. Once the Confirmation of Payment, Form NM 8140-9, is completed and submitted with payment to your office is there anything further that needs to be completed on our end?

I have attached a kmz file and photos outlining the release area.
ULSTR: G, Section 33, T-16S, R-30E, NMPM
County: Eddy County, New Mexico

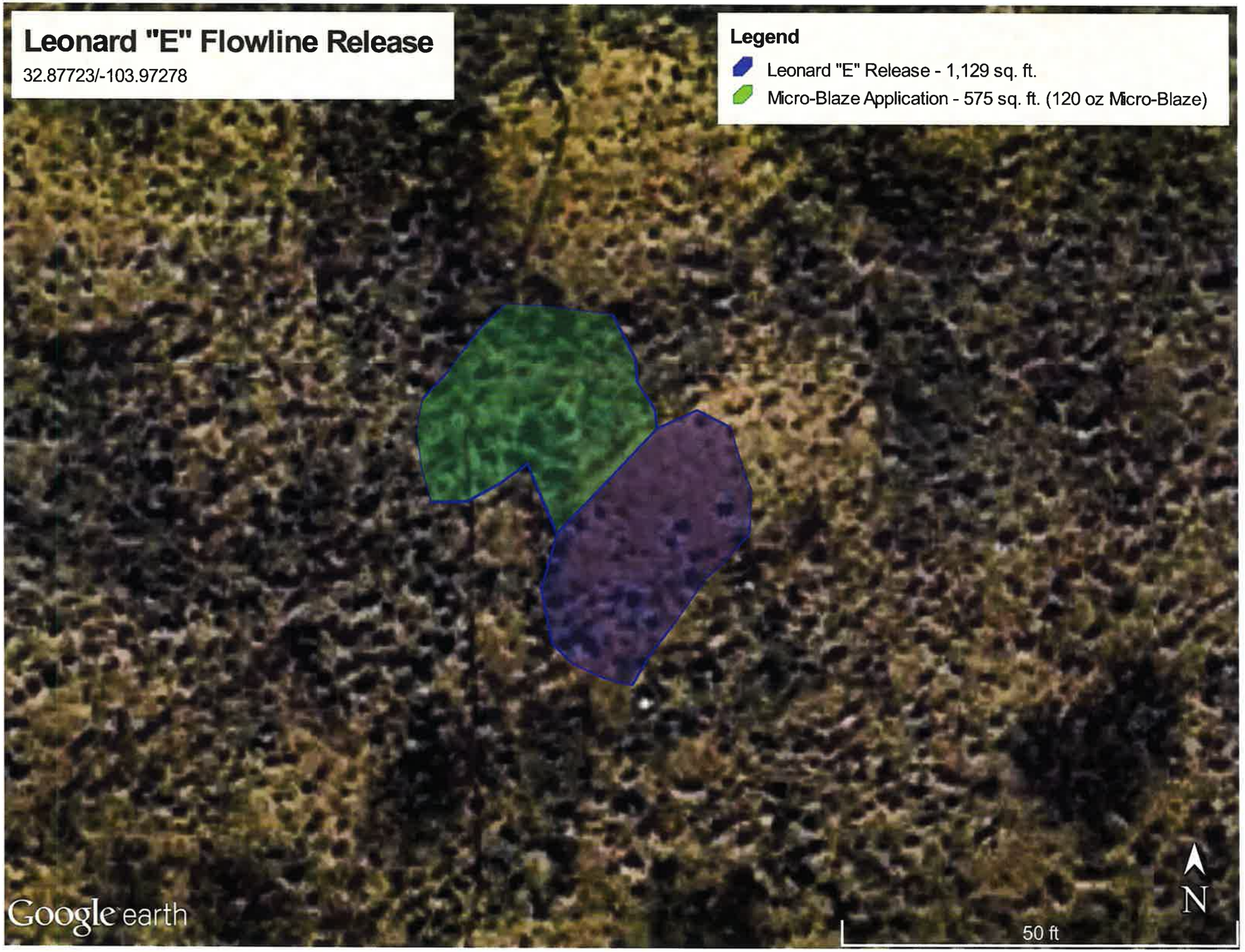
Thank you for your assistance.

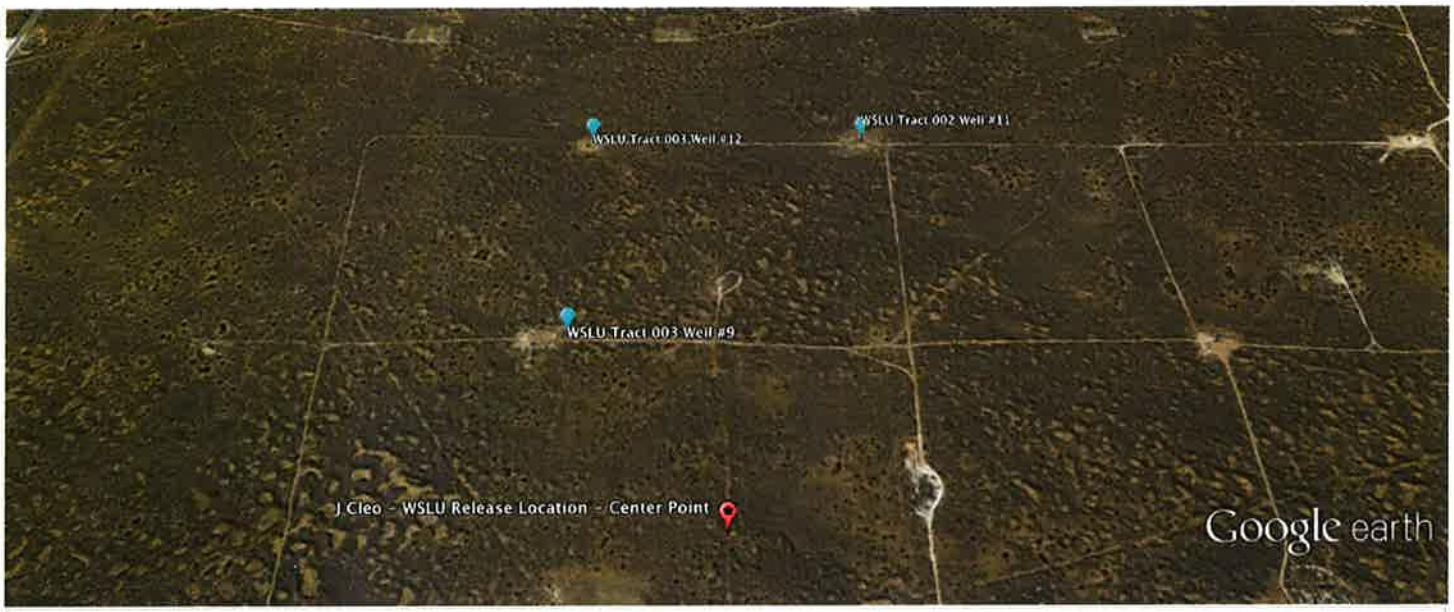
Best,
Dudley

DUDLEY T WOMBLE, MPA
Chief Operating Officer
Sport Environmental Services, LLC
502 North Big Spring Street
Midland, Texas 79701
dudley@sportenv.com
Business: 432.683.1100
Cell: 432.312.8131

--
Archaeologist
Bureau of Land Management


Ruler
Line
Path
Polygon
Circle
3D path
3D polygon
Measure the distance or area of a geometric shape on the ground
Perimeter: 824.75 Feet
Area: 0.13 Acres
Mouse Navigation
Save
Clear
Cleo - WSLU Release Location - Center Point
© 2016 Google
Google eart


Leonard "E" Flowline Release
32.87723/-103.97278
Legend
Leonard "E" Release - 1,129 sq. ft.
Micro-Blaze Application - 575 sq. ft. (120 oz Micro-Blaze)
Google earth
N
50 ft



J Cleo WSLU Release.kmz

APPENDIX D

Site Ranking Criteria Form

Site Information and Metrics

C-141 dated June 3, 2016 (revised July 7, 2016)

SITE: **West Square Lake Unit (WSLU) Tract 003 Well #9**	Assigned Site Reference #:
Company: **J. Cleo Thompson & James Cleo Thompson, Jr., LP**	
Street Address: **117 West Yukon Road**	
Mailing Address: **Same**	
City, State, Zip: **Odessa, Texas 79764**	
Representative: **Deborah S. Moore, Sport Environmental Services, LLC**	
Representative Telephone: **(432) 683-1100**	
Telephone: **(432) 550-8887**	
Fluid volume released (bbls): **5-10 bbl**	Recovered (bbls): **0 bbls**
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)	
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)	
Leak, Spill, or Pit (LSP) Name: **WSLU Tract 003 Well #9 Flowline Release**	
Source of Contamination: **flowline release**	
Land Owner, i.e.,BLM, ST, Fee, Other: **BLM**	
LSP Dimensions: **Refer to attached impact area determination site map**	
LSP Area: **1,704 sq. ft.**	
Location of Reference Point (RP): **(RP = release site)**	
Location distance and direction from RP **(RP = release site)**	
Latitude: **32.87723 degrees N**	
Longitude: **-103.97278 degrees W**	
Elevation above mean sea level:	
Feet from South Section Line: **1980**	
Feet from East Section Line: **660**	
Location - Unit or ¼¼:	Unit Letter: **I**
Location - Section: **33**	
Location - Township: **16S**	
Location - Range: **30E**	
Surface water body within 1000' radius of site: **No**	
Surface water body within 1000' radius of site: **No**	
Domestic water wells within 1000' radius of site: **No**	
Domestic water wells within 1000' radius of site: **No**	
Agricultural water wells within 1000' radius of site: **No**	
Agricultural water wells within 1000' radius of site: **No**	
Public water supply wells within 1000' radius of site: **No**	
Depth from land surface to ground water (DG): **>300 feet per Mike Bratcher, NMOCD (trend map)***	
Depth of Contamination (DC): **exact depth unknown, believed to be shallow due to small release volume and surface footprint**	
Depth to ground water (DG - DC = DtGW):	

1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water Body
If Depth to GW <50 feet: *20 points*	If <1000' from water source, or; <200' from private domestic water source: *20 points*	<200 horizontal feet: *20 points*
If Depth to GW 50 to 99 feet: *10 points*		200 to 100 horizontal feet: *10 points*
If Depth to GW >100 feet: *0 points*	If >1000' from water source, or; >200' from private domestic water source: *0 points*	>1000 horizontal feet: *0 points*
*Ground Water Score = **0***	*Wellhead Protection Area Score = **0***	*Surface Water Score = **0***
*Site Rank (1+2+3)= **0***		

Total Site Ranking Score and Acceptable Concentrations

Parameter	>19	10 - 19	0 - 9
Benzene[1]	10 ppm	10 ppm	10 ppm
BTEX[1]	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm

[1]100 ppm field VOC headspace measurement may be substituted for lab analysis

*** No wells within 5 miles per NM State of Engineer online data search**

APPENDIX E

Excavation & Sampling Schematic

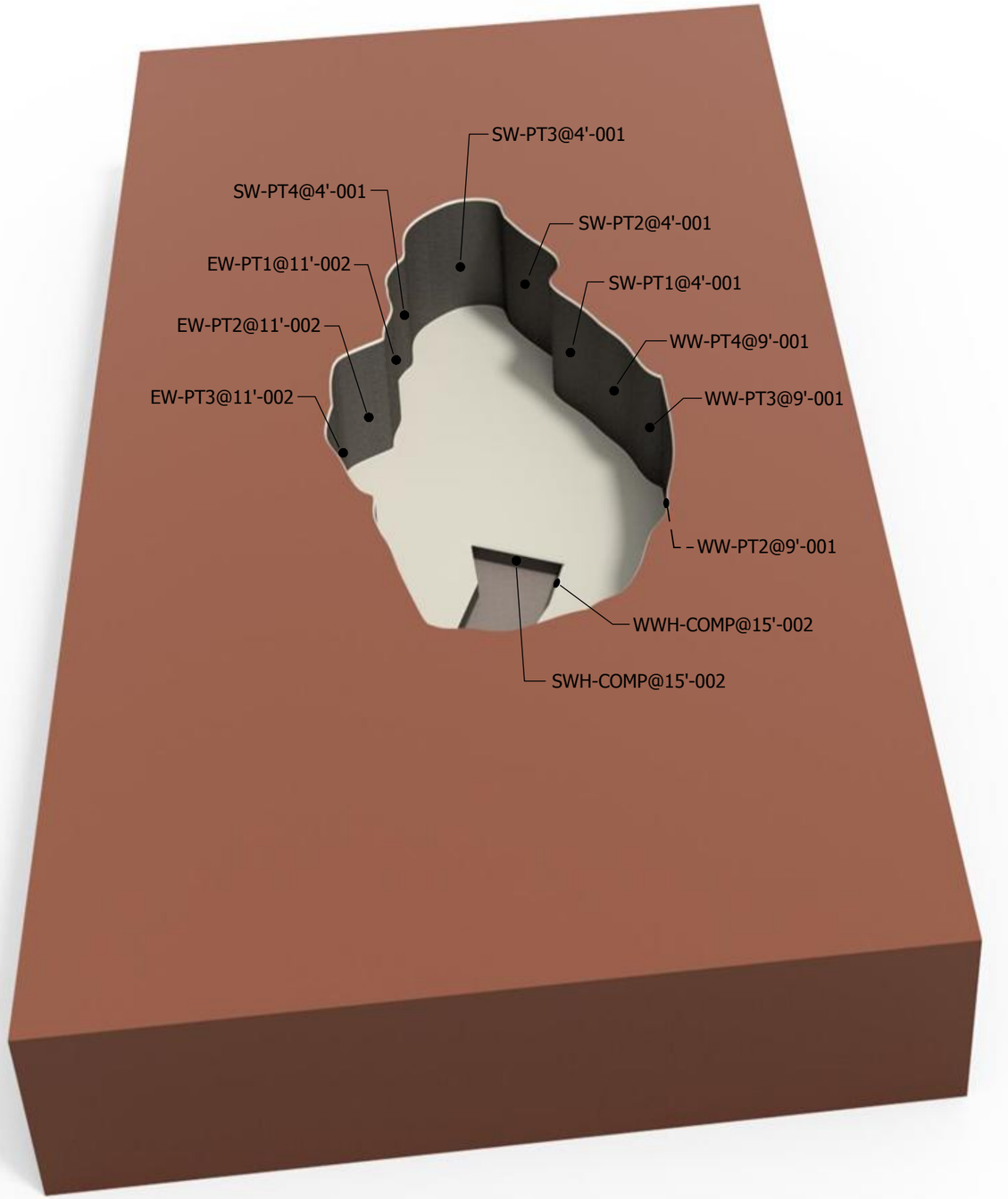
North

J Cleo Thompson & James Cleo Thompson Jr., L.P.
WSLU Tract 003 Well #9
Flowline Release
Eddy County, New Mexico

Excavation & Sampling Schematic (North View)

Latitude	Longitude
32.87723 N	-103.97278 W

Author	Drawing Date	Site Visit Date
mlb	11-4-2016	9-23-2016



North

J Cleo Thompson & James Cleo Thompson Jr., L.P.
WSLU Tract 003 Well #9
Flowline Release
Eddy County, New Mexico

Excavation & Sampling Schematic (South View)

Latitude	Longitude
32.87723 N	-103.97278 W

Author	Drawing Date	Site Visit Date
mlb	11-7-2016	9-23-2016

APPENDIX F

TraceAnalysis – Remediation Areas Summary Reports

Summary Report

Debi Sport Moore
Sport Environmental Services
502 N. Big Spring Street
Midland, TX 79701

Report Date: August 22, 2016

Work Order: 16081830

Project Location: Eddy Co, NM
Project Name: WSLU Tract 003 Well #9 Flowline Release-Composites
Project Number: J. Cleo Thompson

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
426746	WW-Comp @ 9'-001	soil	2016-08-17	12:31	2016-08-18
426747	NW-Comp @ 5'-001	soil	2016-08-17	12:42	2016-08-18
426748	EW-Comp @ 10'-001	soil	2016-08-17	12:55	2016-08-18
426749	NWH-Comp @ 14'-001	soil	2016-08-17	12:55	2016-08-18
426750	EWH-Comp @ 14'-001	soil	2016-08-17	12:57	2016-08-18
426751	SWH-Comp @ 14'-001	soil	2016-08-17	12:59	2016-08-18
426752	WWH-Comp @ 14'-001	soil	2016-08-17	13:02	2016-08-18
426753	EFH-Comp @ 14'-001	soil	2016-08-18	13:04	2016-08-18
426754	SW-Comp @ 4'&10'-001	soil	2016-08-18	09:50	2016-08-18
426755	EFW-Comp @ 7'-001	soil	2016-08-18	10:03	2016-08-18

Sample: 426746 - WW-Comp @ 9'-001

Param	Flag	SDL Result	MQL Result	Units
Benzene	U	<0.0123	<0.0272	mg/Kg
Toluene	U	<0.00636	<0.0272	mg/Kg
Ethylbenzene	U	<0.00838	<0.0272	mg/Kg
Xylene	U	<0.00929	<0.0272	mg/Kg
Chloride	J	**24.5**	<34.0	mg/Kg
Moisture	Qr	**26.6**	**26.6**	%
DRO	U	<11.5	<68.1	mg/Kg
GRO	U	<0.369	<5.45	mg/Kg

Sample: 426747 - NW-Comp @ 5'-001

Param	Flag	SDL Result	MQL Result	Units
Benzene	U	<0.00980	<0.0217	mg/Kg
Toluene	U	<0.00506	<0.0217	mg/Kg
Ethylbenzene	U	<0.00666	<0.0217	mg/Kg
Xylene	U	<0.00739	<0.0217	mg/Kg
Chloride		**158**	**158**	mg/Kg
Moisture	Qr	**7.73**	**7.73**	%
DRO	U	<9.18	<54.2	mg/Kg
GRO	J	**0.507**	<4.34	mg/Kg

Sample: 426748 - EW-Comp @ 10'-001

Param	Flag	SDL Result	MQL Result	Units
Benzene	U	<0.0103	<0.0227	mg/Kg
Toluene	U	<0.00531	<0.0227	mg/Kg
Ethylbenzene	U	<0.00699	<0.0227	mg/Kg
Xylene	U	<0.00775	<0.0227	mg/Kg
Chloride		**586**	**586**	mg/Kg
Moisture	Qr	**12.0**	**12.0**	%
DRO	U	<9.62	<56.8	mg/Kg
GRO	U	<0.308	<4.54	mg/Kg

Sample: 426749 - NWH-Comp @ 14'-001

Param	Flag	SDL Result	MQL Result	Units
Benzene	U	<0.0114	<0.0253	mg/Kg
Toluene	U	<0.00590	<0.0253	mg/Kg
Ethylbenzene	U	<0.00777	<0.0253	mg/Kg
Xylene	U	<0.00862	<0.0253	mg/Kg
Chloride		**5520**	**5520**	mg/Kg
Moisture	Qr	**20.9**	**20.9**	%
DRO	U	<10.7	<63.2	mg/Kg
GRO	U	<0.343	<5.06	mg/Kg

Sample: 426750 - EWH-Comp @ 14'-001

Param	Flag	SDL Result	MQL Result	Units
Benzene	U	<0.0107	<0.0237	mg/Kg
Toluene	U	<0.00553	<0.0237	mg/Kg
Ethylbenzene	U	<0.00728	<0.0237	mg/Kg
Xylene	U	<0.00807	<0.0237	mg/Kg

continued ...

continued ...

Param	Flag	SDL Result	MQL Result	Units
Chloride		**3090**	**3090**	mg/Kg
Moisture	Qr	**15.5**	**15.5**	%
DRO	U	<10.0	<59.2	mg/Kg
GRO	U	<0.321	<4.73	mg/Kg

Sample: 426751 - SWH-Comp @ 14'-001

Param	Flag	SDL Result	MQL Result	Units
Benzene	U	<0.0100	<0.0221	mg/Kg
Toluene	U	<0.00517	<0.0221	mg/Kg
Ethylbenzene	U	<0.00680	<0.0221	mg/Kg
Xylene	U	<0.00754	<0.0221	mg/Kg
Chloride		**342**	**342**	mg/Kg
Moisture	Qr	**9.62**	**9.62**	%
DRO	U	<9.37	<55.3	mg/Kg
GRO	U	<0.300	<4.42	mg/Kg

Sample: 426752 - WWH-Comp @ 14'-001

Param	Flag	SDL Result	MQL Result	Units
Benzene	U	<0.0120	<0.0266	mg/Kg
Toluene	U	<0.00620	<0.0266	mg/Kg
Ethylbenzene	U	<0.00817	<0.0266	mg/Kg
Xylene	U	<0.00906	<0.0266	mg/Kg
Chloride		**378**	**378**	mg/Kg
Moisture	Qr	**24.7**	**24.7**	%
DRO	U	<11.2	<66.4	mg/Kg
GRO	U	<0.360	<5.31	mg/Kg

Sample: 426753 - EFH-Comp @ 14'-001

Param	Flag	SDL Result	MQL Result	Units
Benzene	[1] U	<0.0199	<0.0440	mg/Kg
Toluene	J	**0.0304**	<0.0440	mg/Kg
Ethylbenzene		**0.240**	**0.240**	mg/Kg
Xylene		**0.710**	**0.710**	mg/Kg
Chloride		**3900**	**3900**	mg/Kg

continued ...

[1] Dilution due to excessive hydrocarbons.

continued ...

Param	Flag	SDL Result	MQL Result	Units
Moisture	Qr	**9.14**	**9.14**	%
DRO		**841**	**841**	mg/Kg
GRO		**32.5**	**32.5**	mg/Kg

Sample: 426754 - SW-Comp @ 4'&10'-001

Param	Flag	SDL Result	MQL Result	Units
Benzene	U	<0.00931	<0.0206	mg/Kg
Toluene	U	<0.00481	<0.0206	mg/Kg
Ethylbenzene	U	<0.00634	<0.0206	mg/Kg
Xylene	U	<0.00703	<0.0206	mg/Kg
Chloride		**235**	**235**	mg/Kg
Moisture	Qr	**2.94**	**2.94**	%
DRO		**96.2**	**96.2**	mg/Kg
GRO	J	**0.861**	<4.12	mg/Kg

Sample: 426755 - EFW-Comp @ 7'-001

Param	Flag	SDL Result	MQL Result	Units
Benzene	U	<0.00979	<0.0217	mg/Kg
Toluene	U	<0.00506	<0.0217	mg/Kg
Ethylbenzene	U	<0.00666	<0.0217	mg/Kg
Xylene	U	<0.00739	<0.0217	mg/Kg
Chloride	Qs	**1320**	**1320**	mg/Kg
Moisture	Qr	**7.68**	**7.68**	%
DRO	U	<9.17	<54.2	mg/Kg
GRO	U	<0.294	<4.33	mg/Kg

Summary Report

(Corrected Report)

Debi Sport Moore
Sport Environmental Services
502 N. Big Spring Street
Midland, TX 79701

Report Date: September 14, 2016

Work Order: 16090820

Project Location: Eddy Co, NM
Project Name: WSLU Tract 003 Well #9 Flowline Release
Project Number: J. Cleo Thompson

Report Corrections (Work Order 16090820)

- 9/14/16:Corrected sample description for sample #427825

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
427822	NWH-Comp @ 15'-002	soil	2016-09-08	09:20	2016-09-08
427823	EWH-Comp @ 15'-002	soil	2016-09-08	09:26	2016-09-08
427824	EFH-Comp @ 15'-002	soil	2016-09-08	09:32	2016-09-08
427825	EFW-Comp @ 8'-002	soil	2016-09-08	09:40	2016-09-08

Sample: 427822 - NWH-Comp @ 15'-002

Param	Flag	Result	Units	RL
Chloride		<25.0	mg/Kg	25

Sample: 427823 - EWH-Comp @ 15'-002

Param	Flag	Result	Units	RL
Chloride		**27.4**	mg/Kg	25

Sample: 427824 - EFH-Comp @ 15'-002

Param	Flag	Result	Units	RL
Chloride		<25.0	mg/Kg	25

Sample: 427825 - EFW-Comp @ 8'-002

Param	Flag	Result	Units	RL
Chloride		<25.0	mg/Kg	25

Summary Report

Debi Sport Moore
Sport Environmental Services
502 N. Big Spring Street
Midland, TX 79701

Report Date: September 12, 2016

Work Order: 16090821

Project Location: Eddy Co, NM
Project Name: WSLU Tract 003 Well #9 Flowline Release
Project Number: J. Cleo Thompson

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
427826	EFE-Comp @ 11'-001	soil	2016-09-08	09:46	2016-09-08

	BTEX				TPH DRO	TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
427826 - EFE-Comp @ 11'-001	<0.0212 Qr	<0.0212 Qr	<0.0212 Qr	<0.0212 Qr	<50.0	<4.24

Sample: 427826 - EFE-Comp @ 11'-001

Param	Flag	Result	Units	RL
Chloride		**254**	mg/Kg	25
Moisture		**24.7**	%	

Summary Report

Debi Sport Moore
Sport Environmental Services
502 N. Big Spring Street
Midland, TX 79701

Report Date: September 19, 2016

Work Order: 16091522

Project Location: Eddy Co, NM
Project Name: WSLU Tract 003 Well #9 Flowline Release
Project Number: J. Cleo Thompson

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
428197	SWH- Comp @ 15'-002	soil	2016-09-15	09:55	2016-09-15
428198	WWH- Comp @ 15'-002	soil	2016-09-15	09:58	2016-09-15
428199	EW- Comp @ 11'-002	soil	2016-09-15	10:02	2016-09-15

Sample: 428197 - SWH- Comp @ 15'-002

Param	Flag	Result	Units	RL
Chloride		**94.9**	mg/Kg	25

Sample: 428198 - WWH- Comp @ 15'-002

Param	Flag	Result	Units	RL
Chloride		**649**	mg/Kg	25

Sample: 428199 - EW- Comp @ 11'-002

Param	Flag	Result	Units	RL
Chloride		<25.0	mg/Kg	25

Summary Report

Debi S. Moore
Sport Environmental Services, PLLC
502 N. Big Spring Street
P. O. Box 10487
Midland, TX 79702

Report Date: September 27, 2016

Work Order: 16092329

Project Location: Eddy Co, NM
Project Name: WSLU Tract 003 Well #9 Flowline Release
Project Number: J. Cleo Thompson

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
428845	WWH-comp @ 15'-003	soil	2016-09-23	10:28	2016-09-23

Sample: 428845 - WWH-comp @ 15'-003

Param	Flag	Result	Units	RL
Chloride		**52.1**	mg/Kg	25

APPENDIX G

TraceAnalysis – Remediation Areas Analytical & Quality Control Reports

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

Debi Sport Moore
Sport Environmental Services
502 N. Big Spring Street
Midland, TX, 79701

Report Date: August 22, 2016

Work Order: 16081830

Project Location: Eddy Co, NM
Project Name: WSLU Tract 003 Well #9 Flowline Release-Composites
Project Number: J. Cleo Thompson

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

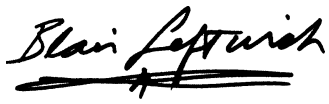
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
426746	WW-Comp @ 9'-001	soil	2016-08-17	12:31	2016-08-18
426747	NW-Comp @ 5'-001	soil	2016-08-17	12:42	2016-08-18
426748	EW-Comp @ 10'-001	soil	2016-08-17	12:55	2016-08-18
426749	NWH-Comp @ 14'-001	soil	2016-08-17	12:55	2016-08-18
426750	EWH-Comp @ 14'-001	soil	2016-08-17	12:57	2016-08-18
426751	SWH-Comp @ 14'-001	soil	2016-08-17	12:59	2016-08-18
426752	WWH-Comp @ 14'-001	soil	2016-08-17	13:02	2016-08-18
426753	EFH-Comp @ 14'-001	soil	2016-08-18	13:04	2016-08-18
426754	SW-Comp @ 4'&10'-001	soil	2016-08-18	09:50	2016-08-18
426755	EFW-Comp @ 7'-001	soil	2016-08-18	10:03	2016-08-18

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.

Notes:
All sample results are reported on a dry weight basis.

For inorganic analyses, the term MQL should actually read PQL.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Johnny Grindstaff, Operations Manager

Report Contents

Case Narrative

Samples for project WSLU Tract 003 Well #9 Flowline Release-Composites were received by TraceAnalysis, Inc. on 2016-08-18 and assigned to work order 16081830. Samples for work order 16081830 were received intact at a temperature of 5.4 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	112070	2016-08-21 at 12:00	132233	2016-08-21 at 12:51
Chloride (IC)	E 300.0	112065	2016-08-19 at 12:00	132231	2016-08-19 at 14:57
Moisture Content	ASTM D 2216-05	112078	2016-08-19 at 11:20	132244	2016-08-19 at 11:20
TPH DRO	S 8015 D	112068	2016-08-19 at 11:00	132237	2016-08-22 at 10:42
TPH GRO	S 8015 D	112070	2016-08-21 at 12:00	132234	2016-08-21 at 12:51

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 16081830 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

Note: *All sample results are reported on a dry weight basis.*

Sample: 426746 - WW-Comp @ 9'-001

Laboratory:	Lubbock					
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035	
QC Batch:	132233	Date Analyzed:	2016-08-21	Analyzed By:	MT	
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	1,2,3,4	<0.0123	<0.0272	<0.0123	mg/Kg	1	0.0123	0.02	0.00904
Toluene	U	1,2,3,4	<0.00636	<0.0272	<0.00636	mg/Kg	1	0.00636	0.02	0.00467
Ethylbenzene	U	1,2,3,4	<0.00838	<0.0272	<0.00838	mg/Kg	1	0.00838	0.02	0.00615
Xylene	U	1,2,3,4	<0.00929	<0.0272	<0.00929	mg/Kg	1	0.00929	0.02	0.00682

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4	2.31	mg/Kg	1	2.00	116	71.2 - 121
4-Bromofluorobenzene (4-BFB)		4	2.22	mg/Kg	1	2.00	111	68.6 - 120

Sample: 426746 - WW-Comp @ 9'-001

Laboratory:	Lubbock					
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A	
QC Batch:	132231	Date Analyzed:	2016-08-19	Analyzed By:	RL	
Prep Batch:	112065	Sample Preparation:	2016-08-19	Prepared By:	RL	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	J	3,4	**24.5**	<34.0	<6.05	mg/Kg	1	6.05	25	4.44

Sample: 426746 - WW-Comp @ 9'-001

Laboratory:	Lubbock					
Analysis:	Moisture Content	Analytical Method:	ASTM D 2216-05	Prep Method:	N/A	
QC Batch:	132244	Date Analyzed:	2016-08-19	Analyzed By:	CF	
Prep Batch:	112078	Sample Preparation:	2016-08-19	Prepared By:	CF	

Parameter	F	C	RL Result	Units	Dilution	RL
Moisture	Qr	1,3	26.6	%	1	

Sample: 426746 - WW-Comp @ 9'-001

Laboratory:	Lubbock					
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A	
QC Batch:	132237	Date Analyzed:	2016-08-22	Analyzed By:	HJ	
Prep Batch:	112068	Sample Preparation:	2016-08-19	Prepared By:	HJ	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2,3	<11.5	<68.1	<11.5	mg/Kg	1	11.5	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	J		28.5	mg/Kg	1	25.0	114	58.2 - 150

Sample: 426746 - WW-Comp @ 9'-001

Laboratory:	Lubbock					
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035	
QC Batch:	132234	Date Analyzed:	2016-08-21	Analyzed By:	MT	
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	1,2,3	<0.369	<5.45	<0.369	mg/Kg	1	0.369	4	0.271

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr		2.60	mg/Kg	1	2.00	130	76.4 - 123
4-Bromofluorobenzene (4-BFB)			2.30	mg/Kg	1	2.00	115	69.4 - 120

Sample: 426747 - NW-Comp @ 5'-001

Laboratory:	Lubbock					
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035	
QC Batch:	132233	Date Analyzed:	2016-08-21	Analyzed By:	MT	
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	1,2,3,4	<0.00980	<0.0217	<0.00980	mg/Kg	1	0.00980	0.02	0.00904
Toluene	U	1,2,3,4	<0.00506	<0.0217	<0.00506	mg/Kg	1	0.00506	0.02	0.00467
Ethylbenzene	U	1,2,3,4	<0.00666	<0.0217	<0.00666	mg/Kg	1	0.00666	0.02	0.00615

continued ...

sample 426747 continued ...

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Xylene	U	1,2,3,4	<0.00739	<0.0217	<0.00739	mg/Kg	1	0.00739	0.02	0.00682

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr	4	2.62	mg/Kg	1	2.00	131	71.2 - 121
4-Bromofluorobenzene (4-BFB)	Qsr	4	2.50	mg/Kg	1	2.00	125	68.6 - 120

Sample: 426747 - NW-Comp @ 5'-001

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132231	Date Analyzed:	2016-08-19	Analyzed By:	RL
Prep Batch:	112065	Sample Preparation:	2016-08-19	Prepared By:	RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		3,4	**158**	**158**	<4.81	mg/Kg	1	4.81	25	4.44

Sample: 426747 - NW-Comp @ 5'-001

Laboratory:	Lubbock				
Analysis:	Moisture Content	Analytical Method:	ASTM D 2216-05	Prep Method:	N/A
QC Batch:	132244	Date Analyzed:	2016-08-19	Analyzed By:	CF
Prep Batch:	112078	Sample Preparation:	2016-08-19	Prepared By:	CF

Parameter	F	C	RL Result	Units	Dilution	RL
Moisture	Qr	1,3	7.73	%	1	

Sample: 426747 - NW-Comp @ 5'-001

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	132237	Date Analyzed:	2016-08-22	Analyzed By:	HJ
Prep Batch:	112068	Sample Preparation:	2016-08-19	Prepared By:	HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2,3	<9.18	<54.2	<9.18	mg/Kg	1	9.18	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	J		31.8	mg/Kg	1	25.0	127	58.2 - 150

Sample: 426747 - NW-Comp @ 5'-001

Laboratory: Lubbock
Analysis: TPH GRO | Analytical Method: S 8015 D | Prep Method: S 5035
QC Batch: 132234 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | Sample Preparation: 2016-08-21 | Prepared By: MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	J	1,2,3	**0.507**	<4.34	<0.294	mg/Kg	1	0.294	4	0.271

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr		2.89	mg/Kg	1	2.00	144	76.4 - 123
4-Bromofluorobenzene (4-BFB)	Qsr		2.56	mg/Kg	1	2.00	128	69.4 - 120

Sample: 426748 - EW-Comp @ 10'-001

Laboratory: Lubbock
Analysis: BTEX | Analytical Method: S 8021B | Prep Method: S 5035
QC Batch: 132233 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | Sample Preparation: 2016-08-21 | Prepared By: MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	1,2,3,4	<0.0103	<0.0227	<0.0103	mg/Kg	1	0.0103	0.02	0.00904
Toluene	U	1,2,3,4	<0.00531	<0.0227	<0.00531	mg/Kg	1	0.00531	0.02	0.00467
Ethylbenzene	U	1,2,3,4	<0.00699	<0.0227	<0.00699	mg/Kg	1	0.00699	0.02	0.00615
Xylene	U	1,2,3,4	<0.00775	<0.0227	<0.00775	mg/Kg	1	0.00775	0.02	0.00682

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4	2.18	mg/Kg	1	2.00	109	71.2 - 121
4-Bromofluorobenzene (4-BFB)		4	2.11	mg/Kg	1	2.00	106	68.6 - 120

Sample: 426748 - EW-Comp @ 10'-001

Laboratory: Lubbock
Analysis: Chloride (IC) | Analytical Method: E 300.0 | Prep Method: N/A

QC Batch: 132231 | Date Analyzed: 2016-08-19 | Analyzed By: RL
Prep Batch: 112065 | Sample Preparation: 2016-08-19 | Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		3,4	**586**	**586**	<10.1	mg/Kg	2	10.1	25	4.44

Sample: 426748 - EW-Comp @ 10'-001

Laboratory: Lubbock
Analysis: Moisture Content | Analytical Method: ASTM D 2216-05 | Prep Method: N/A
QC Batch: 132244 | Date Analyzed: 2016-08-19 | Analyzed By: CF
Prep Batch: 112078 | Sample Preparation: 2016-08-19 | Prepared By: CF

Parameter	F	C	RL Result	Units	Dilution	RL
Moisture	Qr	1,3	12.0	%	1	

Sample: 426748 - EW-Comp @ 10'-001

Laboratory: Lubbock
Analysis: TPH DRO | Analytical Method: S 8015 D | Prep Method: N/A
QC Batch: 132237 | Date Analyzed: 2016-08-22 | Analyzed By: HJ
Prep Batch: 112068 | Sample Preparation: 2016-08-19 | Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2,3	<9.62	<56.8	<9.62	mg/Kg	1	9.62	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	J		30.3	mg/Kg	1	25.0	121	58.2 - 150

Sample: 426748 - EW-Comp @ 10'-001

Laboratory: Lubbock
Analysis: TPH GRO | Analytical Method: S 8015 D | Prep Method: S 5035
QC Batch: 132234 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | Sample Preparation: 2016-08-21 | Prepared By: MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	1,2,3	<0.308	<4.54	<0.308	mg/Kg	1	0.308	4	0.271

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.39	mg/Kg	1	2.00	120	76.4 - 123
4-Bromofluorobenzene (4-BFB)			2.15	mg/Kg	1	2.00	108	69.4 - 120

Sample: 426749 - NWH-Comp @ 14'-001

Laboratory:	Lubbock					
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035	
QC Batch:	132233	Date Analyzed:	2016-08-21	Analyzed By:	MT	
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	1,2,3,4	<0.0114	<0.0253	<0.0114	mg/Kg	1	0.0114	0.02	0.00904
Toluene	U	1,2,3,4	<0.00590	<0.0253	<0.00590	mg/Kg	1	0.00590	0.02	0.00467
Ethylbenzene	U	1,2,3,4	<0.00777	<0.0253	<0.00777	mg/Kg	1	0.00777	0.02	0.00615
Xylene	U	1,2,3,4	<0.00862	<0.0253	<0.00862	mg/Kg	1	0.00862	0.02	0.00682

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4	2.12	mg/Kg	1	2.00	106	71.2 - 121
4-Bromofluorobenzene (4-BFB)		4	2.12	mg/Kg	1	2.00	106	68.6 - 120

Sample: 426749 - NWH-Comp @ 14'-001

Laboratory:	Lubbock					
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A	
QC Batch:	132231	Date Analyzed:	2016-08-19	Analyzed By:	RL	
Prep Batch:	112065	Sample Preparation:	2016-08-19	Prepared By:	RL	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		3,4	**5520**	**5520**	<56.1	mg/Kg	10	56.1	25	4.44

Sample: 426749 - NWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	Moisture Content	Analytical Method:	ASTM D 2216-05	Prep Method:	N/A
QC Batch:	132244	Date Analyzed:	2016-08-19	Analyzed By:	CF
Prep Batch:	112078	Sample Preparation:	2016-08-19	Prepared By:	CF

Parameter	F	C	RL Result	Units	Dilution	RL
Moisture	Qr	1,3	20.9	%	1	

Sample: 426749 - NWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	132237	Date Analyzed:	2016-08-22	Analyzed By:	HJ
Prep Batch:	112068	Sample Preparation:	2016-08-19	Prepared By:	HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2,3	<10.7	<63.2	<10.7	mg/Kg	1	10.7	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	J		32.0	mg/Kg	1	25.0	128	58.2 - 150

Sample: 426749 - NWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	132234	Date Analyzed:	2016-08-21	Analyzed By:	MT
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	1,2,3	<0.343	<5.06	<0.343	mg/Kg	1	0.343	4	0.271

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.35	mg/Kg	1	2.00	118	76.4 - 123
4-Bromofluorobenzene (4-BFB)			2.16	mg/Kg	1	2.00	108	69.4 - 120

Sample: 426750 - EWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	132233	Date Analyzed:	2016-08-21	Analyzed By:	MT
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	1,2,3,4	<0.0107	<0.0237	<0.0107	mg/Kg	1	0.0107	0.02	0.00904
Toluene	U	1,2,3,4	<0.00553	<0.0237	<0.00553	mg/Kg	1	0.00553	0.02	0.00467
Ethylbenzene	U	1,2,3,4	<0.00728	<0.0237	<0.00728	mg/Kg	1	0.00728	0.02	0.00615
Xylene	U	1,2,3,4	<0.00807	<0.0237	<0.00807	mg/Kg	1	0.00807	0.02	0.00682

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4	2.12	mg/Kg	1	2.00	106	71.2 - 121
4-Bromofluorobenzene (4-BFB)		4	2.06	mg/Kg	1	2.00	103	68.6 - 120

Sample: 426750 - EWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132231	Date Analyzed:	2016-08-19	Analyzed By:	RL
Prep Batch:	112065	Sample Preparation:	2016-08-19	Prepared By:	RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		3,4	**3090**	**3090**	<52.5	mg/Kg	10	52.5	25	4.44

Sample: 426750 - EWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	Moisture Content	Analytical Method:	ASTM D 2216-05	Prep Method:	N/A
QC Batch:	132244	Date Analyzed:	2016-08-19	Analyzed By:	CF
Prep Batch:	112078	Sample Preparation:	2016-08-19	Prepared By:	CF

Parameter	F	C	RL Result	Units	Dilution	RL
Moisture	Qr	1,3	15.5	%	1	

Sample: 426750 - EWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	132237	Date Analyzed:	2016-08-22	Analyzed By:	HJ
Prep Batch:	112068	Sample Preparation:	2016-08-19	Prepared By:	HJ

continued ...

sample 426750 continued ...

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2,3	<10.0	<59.2	<10.0	mg/Kg	1	10.0	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	J		31.7	mg/Kg	1	25.0	127	58.2 - 150

Sample: 426750 - EWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	132234	Date Analyzed:	2016-08-21	Analyzed By:	MT
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	1,2,3	<0.321	<4.73	<0.321	mg/Kg	1	0.321	4	0.271

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.32	mg/Kg	1	2.00	116	76.4 - 123
4-Bromofluorobenzene (4-BFB)			2.11	mg/Kg	1	2.00	106	69.4 - 120

Sample: 426751 - SWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	132233	Date Analyzed:	2016-08-21	Analyzed By:	MT
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	1,2,3,4	<0.0100	<0.0221	<0.0100	mg/Kg	1	0.0100	0.02	0.00904
Toluene	U	1,2,3,4	<0.00517	<0.0221	<0.00517	mg/Kg	1	0.00517	0.02	0.00467
Ethylbenzene	U	1,2,3,4	<0.00680	<0.0221	<0.00680	mg/Kg	1	0.00680	0.02	0.00615
Xylene	U	1,2,3,4	<0.00754	<0.0221	<0.00754	mg/Kg	1	0.00754	0.02	0.00682

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4	2.25	mg/Kg	1	2.00	112	71.2 - 121
4-Bromofluorobenzene (4-BFB)		4	2.17	mg/Kg	1	2.00	108	68.6 - 120

Sample: 426751 - SWH-Comp @ 14'-001

Laboratory:	Lubbock					
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A	
QC Batch:	132231	Date Analyzed:	2016-08-19	Analyzed By:	RL	
Prep Batch:	112065	Sample Preparation:	2016-08-19	Prepared By:	RL	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		3,4	**342**	**342**	<9.82	mg/Kg	2	9.82	25	4.44

Sample: 426751 - SWH-Comp @ 14'-001

Laboratory:	Lubbock					
Analysis:	Moisture Content	Analytical Method:	ASTM D 2216-05	Prep Method:	N/A	
QC Batch:	132244	Date Analyzed:	2016-08-19	Analyzed By:	CF	
Prep Batch:	112078	Sample Preparation:	2016-08-19	Prepared By:	CF	

Parameter	F	C	RL Result	Units	Dilution	RL
Moisture	Qr	1,3	9.62	%	1	

Sample: 426751 - SWH-Comp @ 14'-001

Laboratory:	Lubbock					
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A	
QC Batch:	132237	Date Analyzed:	2016-08-22	Analyzed By:	HJ	
Prep Batch:	112068	Sample Preparation:	2016-08-19	Prepared By:	HJ	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2,3	<9.37	<55.3	<9.37	mg/Kg	1	9.37	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	J		33.1	mg/Kg	1	25.0	132	58.2 - 150

Sample: 426751 - SWH-Comp @ 14'-001

Laboratory: Lubbock
Analysis: TPH GRO | Analytical Method: S 8015 D | Prep Method: S 5035
QC Batch: 132234 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | Sample Preparation: 2016-08-21 | Prepared By: MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	1,2,3	<0.300	<4.42	<0.300	mg/Kg	1	0.300	4	0.271

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr		2.46	mg/Kg	1	2.00	123	76.4 - 123
4-Bromofluorobenzene (4-BFB)			2.20	mg/Kg	1	2.00	110	69.4 - 120

Sample: 426752 - WWH-Comp @ 14'-001

Laboratory: Lubbock
Analysis: BTEX | Analytical Method: S 8021B | Prep Method: S 5035
QC Batch: 132233 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | Sample Preparation: 2016-08-21 | Prepared By: MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	1,2,3,4	<0.0120	<0.0266	<0.0120	mg/Kg	1	0.0120	0.02	0.00904
Toluene	U	1,2,3,4	<0.00620	<0.0266	<0.00620	mg/Kg	1	0.00620	0.02	0.00467
Ethylbenzene	U	1,2,3,4	<0.00817	<0.0266	<0.00817	mg/Kg	1	0.00817	0.02	0.00615
Xylene	U	1,2,3,4	<0.00906	<0.0266	<0.00906	mg/Kg	1	0.00906	0.02	0.00682

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4	2.40	mg/Kg	1	2.00	120	71.2 - 121
4-Bromofluorobenzene (4-BFB)		4	2.27	mg/Kg	1	2.00	114	68.6 - 120

Sample: 426752 - WWH-Comp @ 14'-001

Laboratory: Lubbock
Analysis: Chloride (IC) | Analytical Method: E 300.0 | Prep Method: N/A
QC Batch: 132231 | Date Analyzed: 2016-08-19 | Analyzed By: RL
Prep Batch: 112065 | Sample Preparation: 2016-08-19 | Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		3,4	**378**	**378**	<5.90	mg/Kg	1	5.90	25	4.44

Sample: 426752 - WWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	Moisture Content	Analytical Method:	ASTM D 2216-05	Prep Method:	N/A
QC Batch:	132244	Date Analyzed:	2016-08-19	Analyzed By:	CF
Prep Batch:	112078	Sample Preparation:	2016-08-19	Prepared By:	CF

Parameter	F	C	RL Result	Units	Dilution	RL
Moisture	Qr	1,3	24.7	%	1	

Sample: 426752 - WWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	132237	Date Analyzed:	2016-08-22	Analyzed By:	HJ
Prep Batch:	112068	Sample Preparation:	2016-08-19	Prepared By:	HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2,3	<11.2	<66.4	<11.2	mg/Kg	1	11.2	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	J		31.4	mg/Kg	1	25.0	126	58.2 - 150

Sample: 426752 - WWH-Comp @ 14'-001

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	132234	Date Analyzed:	2016-08-21	Analyzed By:	MT
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	1,2,3	<0.360	<5.31	<0.360	mg/Kg	1	0.360	4	0.271

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr		2.62	mg/Kg	1	2.00	131	76.4 - 123
4-Bromofluorobenzene (4-BFB)			2.31	mg/Kg	1	2.00	116	69.4 - 120

Sample: 426753 - EFH-Comp @ 14'-001

Laboratory: Lubbock
Analysis: BTEX | Analytical Method: S 8021B | Prep Method: S 5035
QC Batch: 132233 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | Sample Preparation: 2016-08-21 | Prepared By: MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene [1]	U	1,2,3,4	<0.0199	<0.0440	<0.0199	mg/Kg	2	0.0199	0.02	0.00904
Toluene	J	1,2,3,4	**0.0304**	<0.0440	<0.0103	mg/Kg	2	0.0103	0.02	0.00467
Ethylbenzene		1,2,3,4	**0.240**	**0.240**	<0.0135	mg/Kg	2	0.0135	0.02	0.00615
Xylene		1,2,3,4	**0.710**	**0.710**	<0.0150	mg/Kg	2	0.0150	0.02	0.00682

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4	4.03	mg/Kg	2	4.00	101	71.2 - 121
4-Bromofluorobenzene (4-BFB)		4	4.50	mg/Kg	2	4.00	112	68.6 - 120

Sample: 426753 - EFH-Comp @ 14'-001

Laboratory: Lubbock
Analysis: Chloride (IC) | Analytical Method: E 300.0 | Prep Method: N/A
QC Batch: 132231 | Date Analyzed: 2016-08-19 | Analyzed By: RL
Prep Batch: 112065 | Sample Preparation: 2016-08-19 | Prepared By: RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		3,4	**3900**	**3900**	<48.9	mg/Kg	10	48.9	25	4.44

Sample: 426753 - EFH-Comp @ 14'-001

Laboratory: Lubbock
Analysis: Moisture Content | Analytical Method: ASTM D 2216-05 | Prep Method: N/A
QC Batch: 132244 | Date Analyzed: 2016-08-19 | Analyzed By: CF
Prep Batch: 112078 | Sample Preparation: 2016-08-19 | Prepared By: CF

Parameter	F	C	RL Result	Units	Dilution	RL
Moisture	Qr	1,3	9.14	%	1	

Sample: 426753 - EFH-Comp @ 14'-001

Laboratory: Lubbock
Analysis: TPH DRO | Analytical Method: S 8015 D | Prep Method: N/A
QC Batch: 132237 | Date Analyzed: 2016-08-22 | Analyzed By: HJ
Prep Batch: 112068 | Sample Preparation: 2016-08-19 | Prepared By: HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO		1,2,3	**841**	**841**	<9.32	mg/Kg	1	9.32	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Qsr		62.8	mg/Kg	1	25.0	251	58.2 - 150

Sample: 426753 - EFH-Comp @ 14'-001

Laboratory: Lubbock
Analysis: TPH GRO | Analytical Method: S 8015 D | Prep Method: S 5035
QC Batch: 132234 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | Sample Preparation: 2016-08-21 | Prepared By: MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO		1,2,3	**32.5**	**32.5**	<0.596	mg/Kg	2	0.596	4	0.271

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.48	mg/Kg	2	4.00	112	76.4 - 123
4-Bromofluorobenzene (4-BFB)			4.70	mg/Kg	2	4.00	118	69.4 - 120

Sample: 426754 - SW-Comp @ 4'&10'-001

Laboratory: Lubbock
Analysis: BTEX | Analytical Method: S 8021B | Prep Method: S 5035
QC Batch: 132233 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | Sample Preparation: 2016-08-21 | Prepared By: MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	1,2,3,4	<0.00931	<0.0206	<0.00931	mg/Kg	1	0.00931	0.02	0.00904
Toluene	U	1,2,3,4	<0.00481	<0.0206	<0.00481	mg/Kg	1	0.00481	0.02	0.00467
Ethylbenzene	U	1,2,3,4	<0.00634	<0.0206	<0.00634	mg/Kg	1	0.00634	0.02	0.00615
Xylene	U	1,2,3,4	<0.00703	<0.0206	<0.00703	mg/Kg	1	0.00703	0.02	0.00682

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4	2.36	mg/Kg	1	2.00	118	71.2 - 121
4-Bromofluorobenzene (4-BFB)		4	2.29	mg/Kg	1	2.00	114	68.6 - 120

Sample: 426754 - SW-Comp @ 4'&10'-001

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132231	Date Analyzed:	2016-08-19	Analyzed By:	RL
Prep Batch:	112065	Sample Preparation:	2016-08-19	Prepared By:	RL

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride		3,4	**235**	**235**	<4.57	mg/Kg	1	4.57	25	4.44

Sample: 426754 - SW-Comp @ 4'&10'-001

Laboratory:	Lubbock				
Analysis:	Moisture Content	Analytical Method:	ASTM D 2216-05	Prep Method:	N/A
QC Batch:	132244	Date Analyzed:	2016-08-19	Analyzed By:	CF
Prep Batch:	112078	Sample Preparation:	2016-08-19	Prepared By:	CF

Parameter	F	C	RL Result	Units	Dilution	RL
Moisture	Qr	1,3	2.94	%	1	

Sample: 426754 - SW-Comp @ 4'&10'-001

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	132237	Date Analyzed:	2016-08-22	Analyzed By:	HJ
Prep Batch:	112068	Sample Preparation:	2016-08-19	Prepared By:	HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO		1,2,3	**96.2**	**96.2**	<8.73	mg/Kg	1	8.73	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	J,Qsr		39.1	mg/Kg	1	25.0	156	58.2 - 150

Sample: 426754 - SW-Comp @ 4'&10'-001

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	132234	Date Analyzed:	2016-08-21	Analyzed By:	MT
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	J	1,2,3	**0.861**	<4.12	<0.279	mg/Kg	1	0.279	4	0.271

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr		2.60	mg/Kg	1	2.00	130	76.4 - 123
4-Bromofluorobenzene (4-BFB)			2.38	mg/Kg	1	2.00	119	69.4 - 120

Sample: 426755 - EFW-Comp @ 7'-001

Laboratory:	Lubbock					
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035	
QC Batch:	132233	Date Analyzed:	2016-08-21	Analyzed By:	MT	
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Benzene	U	1,2,3,4	<0.00979	<0.0217	<0.00979	mg/Kg	1	0.00979	0.02	0.00904
Toluene	U	1,2,3,4	<0.00506	<0.0217	<0.00506	mg/Kg	1	0.00506	0.02	0.00467
Ethylbenzene	U	1,2,3,4	<0.00666	<0.0217	<0.00666	mg/Kg	1	0.00666	0.02	0.00615
Xylene	U	1,2,3,4	<0.00739	<0.0217	<0.00739	mg/Kg	1	0.00739	0.02	0.00682

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4	2.36	mg/Kg	1	2.00	118	71.2 - 121
4-Bromofluorobenzene (4-BFB)		4	2.24	mg/Kg	1	2.00	112	68.6 - 120

Sample: 426755 - EFW-Comp @ 7'-001

Laboratory:	Lubbock					
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A	
QC Batch:	132231	Date Analyzed:	2016-08-19	Analyzed By:	RL	
Prep Batch:	112065	Sample Preparation:	2016-08-19	Prepared By:	RL	

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
Chloride	Qs	3,4	**1320**	**1320**	<24.0	mg/Kg	5	24.0	25	4.44

Sample: 426755 - EFW-Comp @ 7'-001

Laboratory: Lubbock

Analysis:	Moisture Content	Analytical Method:	ASTM D 2216-05	Prep Method:	N/A
QC Batch:	132244	Date Analyzed:	2016-08-19	Analyzed By:	CF
Prep Batch:	112078	Sample Preparation:	2016-08-19	Prepared By:	CF

Parameter	F	C	RL Result	Units	Dilution	RL
Moisture	Qr	1,3	7.68	%	1	

Sample: 426755 - EFW-Comp @ 7'-001

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	132237	Date Analyzed:	2016-08-22	Analyzed By:	HJ
Prep Batch:	112068	Sample Preparation:	2016-08-19	Prepared By:	HJ

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
DRO	U	1,2,3	<9.17	<54.2	<9.17	mg/Kg	1	9.17	50	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	J		33.3	mg/Kg	1	25.0	133	58.2 - 150

Sample: 426755 - EFW-Comp @ 7'-001

Laboratory:	Lubbock				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	132234	Date Analyzed:	2016-08-21	Analyzed By:	MT
Prep Batch:	112070	Sample Preparation:	2016-08-21	Prepared By:	MT

Parameter	F	C	SDL Based Result	MQL Based Result	Method Blank Result	Units	Dilution	SDL	MQL (Unadjusted)	MDL (Unadjusted)
GRO	U	1,2,3	<0.294	<4.33	<0.294	mg/Kg	1	0.294	4	0.271

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	Qsr		2.59	mg/Kg	1	2.00	130	76.4 - 123
4-Bromofluorobenzene (4-BFB)			2.26	mg/Kg	1	2.00	113	69.4 - 120

Method Blanks

Method Blank (1)

QC Batch: 132231 | Date Analyzed: 2016-08-19 | Analyzed By: RL
Prep Batch: 112065 | QC Preparation: 2016-08-19 | Prepared By: RL

Parameter	F	C	Result	Units	Reporting Limits
Chloride		3,4	<4.44	mg/Kg	4.44

Method Blank (1)

QC Batch: 132233 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | QC Preparation: 2016-08-21 | Prepared By: MT

Parameter	F	C	Result	Units	Reporting Limits
Benzene		1,2,3,4	<0.00904	mg/Kg	0.00904
Toluene		1,2,3,4	<0.00467	mg/Kg	0.00467
Ethylbenzene		1,2,3,4	<0.00615	mg/Kg	0.00615
Xylene		1,2,3,4	<0.00682	mg/Kg	0.00682

Surrogate		F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	2	Qsr	4	0.0129	mg/Kg	1	2.00	1	71.2 - 121
4-Bromofluorobenzene (4-BFB)	3	Qsr	4	0.00	mg/Kg	1	2.00	0	68.6 - 120

Method Blank (1)

QC Batch: 132234 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | QC Preparation: 2016-08-21 | Prepared By: MT

Parameter	F	C	Result	Units	Reporting Limits
GRO		1,2,3	<0.271	mg/Kg	0.271

Surrogate		F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	4	Qsr		0.00910	mg/Kg	1	2.00	0	76.4 - 123
4-Bromofluorobenzene (4-BFB)	5	Qsr		0.00990	mg/Kg	1	2.00	0	69.4 - 120

Method Blank (1)

QC Batch:	132237	Date Analyzed:	2016-08-22	Analyzed By:	HJ
Prep Batch:	112068	QC Preparation:	2016-08-19	Prepared By:	HJ

Parameter	F	C	Result	Units	Reporting Limits
DRO		1,2,3	<8.47	mg/Kg	8.47

Surrogate	F	C	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			28.9	mg/Kg	1	25.0	116	58.2 - 150

Duplicates

Duplicate (1) Duplicated Sample: 426755

QC Batch:	132244	Date Analyzed:	2016-08-19	Analyzed By:	CF
Prep Batch:	112078	QC Preparation:	2016-08-19	Prepared By:	CF

Param		F	C	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Moisture	6	Qr	1,3	5.67	7.68	%	1	30	20

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 132231 | Date Analyzed: 2016-08-19 | Analyzed By: RL
Prep Batch: 112065 | QC Preparation: 2016-08-19 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		3,4	272	mg/Kg	1	250	<4.44	109	90 - 110

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		3,4	272	mg/Kg	1	250	<4.44	109	90 - 110	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: 132233 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | QC Preparation: 2016-08-21 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4	1.86	mg/Kg	1	2.00	<0.00904	93	73.1 - 120
Toluene		1,2,3,4	1.83	mg/Kg	1	2.00	<0.00467	92	76.6 - 120
Ethylbenzene		1,2,3,4	1.82	mg/Kg	1	2.00	<0.00615	91	76.6 - 120
Xylene		1,2,3,4	5.48	mg/Kg	1	6.00	<0.00682	91	78.3 - 120

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		1,2,3,4	1.88	mg/Kg	1	2.00	<0.00904	94	73.1 - 120	1	20
Toluene		1,2,3,4	1.84	mg/Kg	1	2.00	<0.00467	92	76.6 - 120	0	20
Ethylbenzene		1,2,3,4	1.86	mg/Kg	1	2.00	<0.00615	93	76.6 - 120	2	20
Xylene		1,2,3,4	5.59	mg/Kg	1	6.00	<0.00682	93	78.3 - 120	2	20

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

Surrogate		F	C	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	7	Qsr	4	0.00	0.00	mg/Kg	1	2.00	0	0	71.2 - 121
4-Bromofluorobenzene (4-BFB)	8	Qsr	4	0.00	0.00	mg/Kg	1	2.00	0	0	68.6 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 132234 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | QC Preparation: 2016-08-21 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1,2,3	14.3	mg/Kg	1	20.0	<0.271	72	64.2 - 120

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		1,2,3	14.4	mg/Kg	1	20.0	<0.271	72	64.2 - 120	1	20

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

Surrogate	F	C	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)			2.18	2.07	mg/Kg	1	2.00	109	104	76.4 - 123
4-Bromofluorobenzene (4-BFB)			2.09	2.19	mg/Kg	1	2.00	104	110	69.4 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 132237 | Date Analyzed: 2016-08-22 | Analyzed By: HJ
Prep Batch: 112068 | QC Preparation: 2016-08-19 | Prepared By: HJ

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1,2,3	518	mg/Kg	1	500	<8.47	104	68.5 - 136

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		1,2,3	575	mg/Kg	1	500	<8.47	115	68.5 - 136	10	20

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

Surrogate	F	C	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane			33.6	36.7	mg/Kg	1	25.0	134	147	58.2 - 150

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 426755

QC Batch: 132231 | Date Analyzed: 2016-08-19 | Analyzed By: RL
Prep Batch: 112065 | QC Preparation: 2016-08-19 | Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		3,4	1520	mg/Kg	5	250	1220	120	80 - 120

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	Qs	3,4	1360	mg/Kg	5	250	1220	56	80 - 120	11	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: 426755

QC Batch: 132233 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | QC Preparation: 2016-08-21 | Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4	1.95	mg/Kg	1	2.00	<0.00904	98	54.7 - 120
Toluene		1,2,3,4	2.06	mg/Kg	1	2.00	<0.00467	103	57.3 - 120
Ethylbenzene		1,2,3,4	2.14	mg/Kg	1	2.00	<0.00615	107	58.5 - 131
Xylene		1,2,3,4	6.37	mg/Kg	1	6.00	<0.00682	106	62.8 - 124

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		1,2,3,4	1.91	mg/Kg	1	2.00	<0.00904	96	54.7 - 120	2	20
Toluene		1,2,3,4	2.03	mg/Kg	1	2.00	<0.00467	102	57.3 - 120	2	20
Ethylbenzene		1,2,3,4	2.11	mg/Kg	1	2.00	<0.00615	106	58.5 - 131	1	20
Xylene		1,2,3,4	6.27	mg/Kg	1	6.00	<0.00682	104	62.8 - 124	2	20

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

Surrogate	F	C	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)		4	2.11	2.10	mg/Kg	1	2	106	105	71.2 - 121
4-Bromofluorobenzene (4-BFB)		4	2.04	2.03	mg/Kg	1	2	102	102	68.6 - 120

Matrix Spike (MS-1) Spiked Sample: 426755

QC Batch: 132234 | Date Analyzed: 2016-08-21 | Analyzed By: MT
Prep Batch: 112070 | QC Preparation: 2016-08-21 | Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1,2,3	14.3	mg/Kg	1	20.0	<0.271	72	35.3 - 129

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		1,2,3	15.7	mg/Kg	1	20.0	<0.271	78	35.3 - 129	9	20

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

Surrogate	F	C	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)			2.27	2.22	mg/Kg	1	2	114	111	76.4 - 123
4-Bromofluorobenzene (4-BFB)			2.31	2.40	mg/Kg	1	2	116	120	69.4 - 120

Matrix Spike (xMS-1) Spiked Sample: 426677

QC Batch: 132237 | Date Analyzed: 2016-08-22 | Analyzed By: HJ
Prep Batch: 112068 | QC Preparation: 2016-08-19 | Prepared By: HJ

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1,2,3	450	mg/Kg	1	500	<8.47	90	49.3 - 138

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		1,2,3	424	mg/Kg	1	500	<8.47	85	49.3 - 138	6	20

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

Surrogate	F	C	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane			35.4	33.1	mg/Kg	1	25	142	132	58.2 - 150

Calibration Standards

Standard (CCV-1)

QC Batch: 132231 Date Analyzed: 2016-08-19 Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		3,4	mg/Kg	25.0	27.4	110	90 - 110	2016-08-19

Standard (CCV-2)

QC Batch: 132231 Date Analyzed: 2016-08-19 Analyzed By: RL

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		3,4	mg/Kg	25.0	26.9	108	90 - 110	2016-08-19

Standard (CCV-1)

QC Batch: 132233 Date Analyzed: 2016-08-21 Analyzed By: MT

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4	mg/kg	0.100	0.0935	94	80 - 120	2016-08-21
Toluene		1,2,3,4	mg/kg	0.100	0.0915	92	80 - 120	2016-08-21
Ethylbenzene		1,2,3,4	mg/kg	0.100	0.0923	92	80 - 120	2016-08-21
Xylene		1,2,3,4	mg/kg	0.300	0.278	93	80 - 120	2016-08-21

Standard (CCV-2)

QC Batch: 132233 Date Analyzed: 2016-08-21 Analyzed By: MT

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4	mg/kg	0.100	0.0901	90	80 - 120	2016-08-21
Toluene		1,2,3,4	mg/kg	0.100	0.0890	89	80 - 120	2016-08-21

continued ...

standard continued ...

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Ethylbenzene		1,2,3,4	mg/kg	0.100	0.0893	89	80 - 120	2016-08-21
Xylene		1,2,3,4	mg/kg	0.300	0.268	89	80 - 120	2016-08-21

Standard (CCV-1)

QC Batch: 132234 Date Analyzed: 2016-08-21 Analyzed By: MT

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1,2,3	mg/Kg	1.00	0.943	94	80 - 120	2016-08-21

Standard (CCV-2)

QC Batch: 132234 Date Analyzed: 2016-08-21 Analyzed By: MT

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1,2,3	mg/Kg	1.00	0.866	87	80 - 120	2016-08-21

Standard (CCV-1)

QC Batch: 132237 Date Analyzed: 2016-08-22 Analyzed By: HJ

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1,2,3	mg/Kg	500	511	102	80 - 120	2016-08-22

Standard (CCV-2)

QC Batch: 132237 Date Analyzed: 2016-08-22 Analyzed By: HJ

Param	F	C	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1,2,3	mg/Kg	500	527	105	80 - 120	2016-08-22

Limits of Detection (LOD)

Test	Method	Matrix	Instrument	Analyte	Spike Amount	Pass
BTEX	S 8021B	soil	BTEX-2	Benzene	0.0140	Pass
BTEX	S 8021B	soil	BTEX-2	Toluene	0.0140	Pass
BTEX	S 8021B	soil	BTEX-2	Ethylbenzene	0.0140	Pass
BTEX	S 8021B	soil	BTEX-2	Xylene	0.0140	Pass
Chloride (IC)	E 300.0	soil	Dionex IC	Chloride	20.0	Pass
TPH DRO	S 8015 D	soil	TPH-2	DRO	15.0	Pass
TPH GRO	S 8015 D	soil	BTEX-2	GRO	0.800	Pass

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	NELAP	T104704219-16-12	Lubbock
4		2015-066	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.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

1 Dilution due to excessive hydrocarbons.
2 Prep error. Chemist did not spike surrogate.
3 Prep error. Chemist did not spike surrogate.
4 Prep error. Chemist did not spike surrogate.
5 Prep error. Chemist did not spike surrogate.
6 Difficult to get homogonized sample for dupe because all samples contained rocks.
7 Prep error. Chemist did not spike surrogate. BTEX recoveries within limits. MS/MSD recoveries within limits showing analysis in control.
8 Prep error. Chemist did not spike surrogate. BTEX recoveries within limits. MS/MSD recoveries within limits showing analysis in control.

Attachments

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

LAB Order ID # 16081830

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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

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Tel (432) 689-6301
Fax (432) 689-6313

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

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

Company Name: Sport Environmental Services, PLLC	**Phone #:** (432) 683-1100
Address: 502 N. Big Spring Street, Midland, Texas 79701	**Fax #:** (888) 500-0622
Contact Person: Debi S. Moore, M.E., R.E.P.A.	**E-mail:** debi@sportenv.com; rbrady@sportenv.com; tasha@sportenv.com
Invoice to: same as above	
Project #: J. Cleo Thompson	**Project Name:** WSLU Tract 003 Well #9 Flowline Release - Composites
Project Location: (include state) Eddy County, New Mexico	**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
426746	WW-COMP@9'-001	1	4oz		X							X		8-17-16	1231
747	NW-COMP@5'-001	1	〃		X							X		〃	1242
748	EW-COMP@10'-001	1	〃		X							X		〃	1255
749	NWH-COMP@14'-001	1	〃		X							X		〃	1255
750	EWH-COMP@14'-001	1	〃		X							X		〃	1257
751	SWH-COMP@14'-001	1	〃		X							X		〃	1259
752	WWH-COMP@14'-001	1	〃		X							X		〃	1302
753	EFH-COMP@14'-001	1	4oz		X							X		8-17-16	1304
754	SW-COMP@4'+10'-001	1	4oz		X							X		8-18-16	0950
755	EFW-COMP@7'-001	1	4oz		X							X		8-18-16	1003

	MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 5030 / 602 / 8260B / 624	TPH 8015M	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	Pesticides 8081A / 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	Volatiles by Method 8260	Turn Around Time if different from standard	Hold
426746	X	X	X													X	X			X	
747	X	X	X													X	X			X	
748	X	X	X													X	X			X	
749	X	X	X													X	X			X	
750	X	X	X													X	X			X	
751	X	X	X													X	X			X	
752	X	X	X													X	X			X	
753	X	X	X													X	X			X	
754	X	X	T													X	X			X	
755	X	X	X													X	X			X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
	SES	8-18-16	1453		TA	8-18-16	14:53
	TA	8-18-16	15:04				
					TA Lubb	8/19/16	9:15

LAB USE ONLY

Intact (Y / N)

Headspace Y / N / NA

Log-in Review AD

REMARKS: 24 hr Rush - EPA Method 300 for Cl

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

Carrier # carry in

Submittal of samples constitutes agreement to Terms and Conditions

ORIGINAL COPY

TRACEANALYSIS, INC.

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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

(Corrected Report)

Debi Sport Moore
Sport Environmental Services
502 N. Big Spring Street
Midland, TX, 79701

Report Date: September 14, 2016

Work Order: 16090820

Project Location: Eddy Co, NM
Project Name: WSLU Tract 003 Well #9 Flowline Release
Project Number: J. Cleo Thompson

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
427822	NWH-Comp @ 15'-002	soil	2016-09-08	09:20	2016-09-08
427823	EWH-Comp @ 15'-002	soil	2016-09-08	09:26	2016-09-08
427824	EFH-Comp @ 15'-002	soil	2016-09-08	09:32	2016-09-08
427825	EFW-Comp @ 8'-002	soil	2016-09-08	09:40	2016-09-08

Notes

- **Work Order 16090820:** from the fields, on ice

Report Corrections (Work Order 16090820)

- 9/14/16:Corrected sample description for sample #427825

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
Johnny Grindstaff, Operations Manager

Report Contents

Case Narrative

Samples for project WSLU Tract 003 Well #9 Flowline Release were received by TraceAnalysis, Inc. on 2016-09-08 and assigned to work order 16090820. Samples for work order 16090820 were received intact at a temperature of 8.9 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	112436	2016-09-09 at 12:30	132652	2016-09-09 at 14:42

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 16090820 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: 427822 - NWH-Comp @ 15'-002

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132652	Date Analyzed:	2016-09-09	Analyzed By:	RL
Prep Batch:	112436	Sample Preparation:	2016-09-09	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1,2	<25.0	mg/Kg	1	25.0

Sample: 427823 - EWH-Comp @ 15'-002

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132652	Date Analyzed:	2016-09-09	Analyzed By:	RL
Prep Batch:	112436	Sample Preparation:	2016-09-09	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1,2	**27.4**	mg/Kg	1	25.0

Sample: 427824 - EFH-Comp @ 15'-002

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132652	Date Analyzed:	2016-09-09	Analyzed By:	RL
Prep Batch:	112436	Sample Preparation:	2016-09-09	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1,2	<25.0	mg/Kg	1	25.0

Sample: 427825 - EFW-Comp @ 8'-002

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132652	Date Analyzed:	2016-09-09	Analyzed By:	RL
Prep Batch:	112436	Sample Preparation:	2016-09-09	Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride		1,2	<25.0	mg/Kg	1	25.0

Method Blanks

Method Blank (1) QC Batch: 132652

QC Batch:	132652	Date Analyzed:	2016-09-09	Analyzed By:	RL
Prep Batch:	112436	QC Preparation:	2016-09-09	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		[1,2]	<4.44	mg/Kg	25

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 132652 | Date Analyzed: 2016-09-09 | Analyzed By: RL
Prep Batch: 112436 | QC Preparation: 2016-09-09 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2	262	mg/Kg	1	250	<4.44	105	90 - 110

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		1,2	261	mg/Kg	1	250	<4.44	104	90 - 110	0	20

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

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 427826

QC Batch:	132652	Date Analyzed:	2016-09-09	Analyzed By:	RL
Prep Batch:	112436	QC Preparation:	2016-09-09	Prepared By:	RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2	804	mg/Kg	2	500	254	110	80 - 120

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		1,2	822	mg/Kg	2	500	254	114	80 - 120	2	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 132652 | Date Analyzed: 2016-09-09 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2	mg/Kg	25.0	26.3	105	90 - 110	2016-09-09

Standard (CCV-2)

QC Batch: 132652 | Date Analyzed: 2016-09-09 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2	mg/Kg	25.0	25.9	104	90 - 110	2016-09-09

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	T104704219-16-12	Lubbock
2		2015-066	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.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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

LAB Order ID # 1609082O

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Ave, Ste 9
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El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944

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

Company Name: Sport Environmental Services, PLLC	**Phone #:** (432) 683-1100
Address: 502 N. Big Spring Street, Midland, Texas 79701	**Fax #:** (888) 500-0622
Contact Person: Debi S. Moore, M.E., R.E.P.A.	**E-mail:** debi@sportenv.com; rbrady@sportenv.com; tasha@sportenv.com
Invoice to: same as above	
Project #: J. Cleo Thompson	**Project Name:** WSLU Tract 003 Well #9 Flowline Release
Project Location: (include state) Eddy County, New Mexico	**Sampler Signature:** M.Gipson

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
127822	NWH - Comp @ 15' - 002	1	4oz		X							X		9.8.16	0920
823	EWH - Comp @ 15' - 002	1	4oz		X							X		9.8.16	0926
824	EFH - Comp @ 15' - 002	1	4oz		X							X		9.8.16	0932
825	EFW - Comp @ 8' - 002	1	4oz		X							X		9.8.16	0940

MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 5030 / 602 / 8260B / 624	TPH 8015M	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	Pesticides 8081A / 608	BOD, TSS, pH	Moisture Content	(Cl), SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Volatiles by Method 8260		Turn Around Time if different from standard	Hold
																X	X			X	
																X				X	
																X				X	
																X				X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
M.Gipson	SES	9.8.16	1401	Holly H	TA	9-8-16	1401
Holly H	TA	9-8-16	14:01				
				Brenda Ward	TA Lubb	9/9/16	9:25

LAB USE ONLY

Intact Y / N

Headspace Y / N /NA

Log-in Review AJ

REMARKS: EPA Method 300 for Cl
Rush
From Field

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

Carrier # carry-in 25 24159699

Submittal of samples constitutes agreement to Terms and Conditions

ORIGINAL COPY

TRACEANALYSIS, INC.

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(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

Debi Sport Moore
Sport Environmental Services
502 N. Big Spring Street
Midland, TX, 79701

Report Date: September 12, 2016

Work Order: 16090821

Project Location: Eddy Co, NM
Project Name: WSLU Tract 003 Well #9 Flowline Release
Project Number: J. Cleo Thompson

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

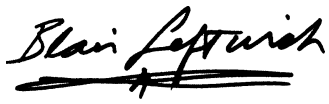
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
427826	EFE-Comp @ 11'-001	soil	2016-09-08	09:46	2016-09-08

Notes

- **Work Order 16090821:** from the fields, on ice

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
Johnny Grindstaff, Operations Manager

Report Contents

Case Narrative

Samples for project WSLU Tract 003 Well #9 Flowline Release were received by TraceAnalysis, Inc. on 2016-09-08 and assigned to work order 16090821. Samples for work order 16090821 were received intact at a temperature of 8.9 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	112461	2016-09-09 at 13:48	132678	2016-09-12 at 13:49
Chloride (IC)	E 300.0	112436	2016-09-09 at 12:30	132652	2016-09-09 at 14:42
Moisture Content	ASTM D 2216-05	112456	2016-09-09 at 14:15	132671	2016-09-09 at 14:15
TPH DRO	S 8015 D	112431	2016-09-09 at 13:00	132648	2016-09-12 at 05:13
TPH GRO	S 8015 D	112461	2016-09-09 at 13:48	132679	2016-09-12 at 13:50

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 16090821 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: 427826 - EFE-Comp @ 11'-001

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	132678	Date Analyzed:	2016-09-12	Analyzed By:	AK
Prep Batch:	112461	Sample Preparation:	2016-09-09	Prepared By:	AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
Benzene	Qr,U	6	<0.0212	mg/Kg	1.06	0.0200
Toluene	Qr,U	6	<0.0212	mg/Kg	1.06	0.0200
Ethylbenzene	Qr,U	6	<0.0212	mg/Kg	1.06	0.0200
Xylene	Qr,U	6	<0.0212	mg/Kg	1.06	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.21	mg/Kg	1.06	2.00	110	70 - 130
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1.06	2.00	100	70 - 130

Sample: 427826 - EFE-Comp @ 11'-001

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132652	Date Analyzed:	2016-09-09	Analyzed By:	RL
Prep Batch:	112436	Sample Preparation:	2016-09-09	Prepared By:	RL

Parameter	Flag	Cert	Result	Units	Dilution	RL
Chloride		5,7	**254**	mg/Kg	2	25.0

Sample: 427826 - EFE-Comp @ 11'-001

Laboratory:	Lubbock				
Analysis:	Moisture Content	Analytical Method:	ASTM D 2216-05	Prep Method:	N/A
QC Batch:	132671	Date Analyzed:	2016-09-09	Analyzed By:	CF
Prep Batch:	112456	Sample Preparation:	2016-09-09	Prepared By:	CF

Parameter	Flag	Cert	Result	Units	Dilution	RL
Moisture		2,5	**24.7**	%	1	0.00

Sample: 427826 - EFE-Comp @ 11'-001

Laboratory:	Lubbock				
Analysis:	TPH DRO	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	132648	Date Analyzed:	2016-09-12	Analyzed By:	HJ
Prep Batch:	112431	Sample Preparation:	2016-09-09	Prepared By:	HJ

Parameter	Flag	Cert	Result	Units	Dilution	RL
DRO	U	2,3,5	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			25.3	mg/Kg	1	25.0	101	58.2 - 150

Sample: 427826 - EFE-Comp @ 11'-001

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	132679	Date Analyzed:	2016-09-12	Analyzed By:	AK
Prep Batch:	112461	Sample Preparation:	2016-09-09	Prepared By:	AK

Parameter	Flag	Cert	Result	Units	Dilution	RL
GRO	U	6	<4.24	mg/Kg	1.06	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.01	mg/Kg	1.06	2.00	100	70 - 130
4-Bromofluorobenzene (4-BFB)			2.03	mg/Kg	1.06	2.00	102	70 - 130

Method Blanks

Method Blank (1) QC Batch: 132648

QC Batch:	132648	Date Analyzed:	2016-09-12	Analyzed By:	HJ
Prep Batch:	112431	QC Preparation:	2016-09-09	Prepared By:	HJ

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		2,3,5	<8.47	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			22.2	mg/Kg	1	25.0	89	58.2 - 150

Method Blank (1) QC Batch: 132652

QC Batch:	132652	Date Analyzed:	2016-09-09	Analyzed By:	RL
Prep Batch:	112436	QC Preparation:	2016-09-09	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		5,7	<4.44	mg/Kg	25

Method Blank (1) QC Batch: 132678

QC Batch:	132678	Date Analyzed:	2016-09-12	Analyzed By:	AK
Prep Batch:	112461	QC Preparation:	2016-09-09	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		6	<0.0106	mg/Kg	0.02
Toluene		6	<0.0165	mg/Kg	0.02
Ethylbenzene		6	<0.0160	mg/Kg	0.02
Xylene		6	<0.00456	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.11	mg/Kg	1.06	2.00	106	70 - 130

continued ...

method blank continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			1.89	mg/Kg	1.06	2.00	94	70 - 130

Method Blank (1) QC Batch: 132679

QC Batch:	132679	Date Analyzed:	2016-09-12	Analyzed By:	AK
Prep Batch:	112461	QC Preparation:	2016-09-09	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		6	<1.86	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.04	mg/Kg	1.06	2.00	102	70 - 130
4-Bromofluorobenzene (4-BFB)			1.85	mg/Kg	1.06	2.00	92	70 - 130

Duplicates

Duplicates (1) Duplicated Sample: 427861

QC Batch:	132671	Date Analyzed:	2016-09-09	Analyzed By:	CF
Prep Batch:	112456	QC Preparation:	2016-09-09	Prepared By:	CF

Param		Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Moisture	2,5	22.7	23.9	%	1	5	20

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 132648 | Date Analyzed: 2016-09-12 | Analyzed By: HJ
Prep Batch: 112431 | QC Preparation: 2016-09-09 | Prepared By: HJ

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		2,3,5	494	mg/Kg	1	500	<8.47	99	68.5 - 136

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		2,3,5	491	mg/Kg	1	500	<8.47	98	68.5 - 136	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	26.4	26.3	mg/Kg	1	25.0	106	105	58.2 - 150

Laboratory Control Spike (LCS-1)

QC Batch: 132652 | Date Analyzed: 2016-09-09 | Analyzed By: RL
Prep Batch: 112436 | QC Preparation: 2016-09-09 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		5,7	262	mg/Kg	1	250	<4.44	105	90 - 110

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		5,7	261	mg/Kg	1	250	<4.44	104	90 - 110	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: 132678 | Date Analyzed: 2016-09-12 | Analyzed By: AK
Prep Batch: 112461 | QC Preparation: 2016-09-09 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		6	1.96	mg/Kg	1.06	2.00	<0.0106	98	70 - 130
Toluene		6	1.90	mg/Kg	1.06	2.00	<0.0165	95	70 - 130
Ethylbenzene		6	1.96	mg/Kg	1.06	2.00	<0.0160	98	70 - 130
Xylene		6	5.95	mg/Kg	1.06	6.00	<0.00456	99	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		6	1.90	mg/Kg	1.06	2.00	<0.0106	95	70 - 130	3	20
Toluene		6	1.86	mg/Kg	1.06	2.00	<0.0165	93	70 - 130	2	20
Ethylbenzene		6	1.97	mg/Kg	1.06	2.00	<0.0160	98	70 - 130	0	20
Xylene		6	6.01	mg/Kg	1.06	6.00	<0.00456	100	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
Trifluorotoluene (TFT)	2.09	2.02	mg/Kg	1.06	2.00	104	101	70 - 130
4-Bromofluorobenzene (4-BFB)	1.94	1.88	mg/Kg	1.06	2.00	97	94	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 132679 | Date Analyzed: 2016-09-12 | Analyzed By: AK
Prep Batch: 112461 | QC Preparation: 2016-09-09 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		6	21.2	mg/Kg	1.06	20.0	<1.86	106	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		6	21.0	mg/Kg	1.06	20.0	<1.86	105	70 - 130	1	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)	2.03	1.96	mg/Kg	1.06	2.00	102	98	70 - 130
4-Bromofluorobenzene (4-BFB)	1.95	1.86	mg/Kg	1.06	2.00	98	93	70 - 130

Matrix Spikes

Matrix Spike (xMS-1) Spiked Sample: 427861

QC Batch: 132648 | Date Analyzed: 2016-09-12 | Analyzed By: HJ
Prep Batch: 112431 | QC Preparation: 2016-09-09 | Prepared By: HJ

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		2,3,5	435	mg/Kg	1	500	<8.47	87	49.3 - 138

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		2,3,5	456	mg/Kg	1	500	<8.47	91	49.3 - 138	5	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	25.2	26.3	mg/Kg	1	25	101	105	58.2 - 150

Matrix Spike (MS-1) Spiked Sample: 427826

QC Batch: 132652 | Date Analyzed: 2016-09-09 | Analyzed By: RL
Prep Batch: 112436 | QC Preparation: 2016-09-09 | Prepared By: RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		5,7	804	mg/Kg	2	500	254	110	80 - 120

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		5,7	822	mg/Kg	2	500	254	114	80 - 120	2	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: 427826

QC Batch: 132678 | Date Analyzed: 2016-09-12 | Analyzed By: AK
Prep Batch: 112461 | QC Preparation: 2016-09-09 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs 6	1.38	mg/Kg	1.06	2.00	<0.0106	69	70 - 130
Toluene	Qs	Qs 6	1.28	mg/Kg	1.06	2.00	<0.0165	64	70 - 130
Ethylbenzene	Qs	Qs 6	1.25	mg/Kg	1.06	2.00	<0.0160	62	70 - 130
Xylene	Qs	Qs 6	3.86	mg/Kg	1.06	6.00	<0.00456	64	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	Qr	Qr 6	1.71	mg/Kg	1.06	2.00	<0.0106	86	70 - 130	21	20
Toluene	Qr	Qr 6	1.72	mg/Kg	1.06	2.00	<0.0165	86	70 - 130	29	20
Ethylbenzene	Qr	Qr 6	1.85	mg/Kg	1.06	2.00	<0.0160	92	70 - 130	39	20
Xylene	Qr	Qr 6	5.63	mg/Kg	1.06	6.00	<0.00456	94	70 - 130	37	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)	2.16	2.15	mg/Kg	1.06	2	108	108	70 - 130
4-Bromofluorobenzene (4-BFB)	1.98	2.00	mg/Kg	1.06	2	99	100	70 - 130

Matrix Spike (MS-1) Spiked Sample: 427826

QC Batch: 132679 | Date Analyzed: 2016-09-12 | Analyzed By: AK
Prep Batch: 112461 | QC Preparation: 2016-09-09 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		6	19.0	mg/Kg	1.06	20.0	<1.86	95	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		6	17.2	mg/Kg	1.06	20.0	<1.86	86	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)	2.00	1.98	mg/Kg	1.06	2	100	99	70 - 130
4-Bromofluorobenzene (4-BFB)	1.96	2.04	mg/Kg	1.06	2	98	102	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 132648 | Date Analyzed: 2016-09-12 | Analyzed By: HJ

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		2,3,5	mg/Kg	500	488	98	80 - 120	2016-09-12

Standard (CCV-2)

QC Batch: 132648 | Date Analyzed: 2016-09-12 | Analyzed By: HJ

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		2,3,5	mg/Kg	500	473	95	80 - 120	2016-09-12

Standard (CCV-1)

QC Batch: 132652 | Date Analyzed: 2016-09-09 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		5,7	mg/Kg	25.0	26.3	105	90 - 110	2016-09-09

Standard (CCV-2)

QC Batch: 132652 | Date Analyzed: 2016-09-09 | Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		5,7	mg/Kg	25.0	25.9	104	90 - 110	2016-09-09

Standard (CCV-1)

QC Batch: 132678 Date Analyzed: 2016-09-12 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		6	mg/kg	0.100	0.0997	100	80 - 120	2016-09-12
Toluene		6	mg/kg	0.100	0.0972	97	80 - 120	2016-09-12
Ethylbenzene		6	mg/kg	0.100	0.0991	99	80 - 120	2016-09-12
Xylene		6	mg/kg	0.300	0.296	99	80 - 120	2016-09-12

Standard (CCV-2)

QC Batch: 132678 Date Analyzed: 2016-09-12 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		6	mg/kg	0.100	0.0994	99	80 - 120	2016-09-12
Toluene		6	mg/kg	0.100	0.0967	97	80 - 120	2016-09-12
Ethylbenzene		6	mg/kg	0.100	0.0967	97	80 - 120	2016-09-12
Xylene		6	mg/kg	0.300	0.292	97	80 - 120	2016-09-12

Standard (CCV-1)

QC Batch: 132679 Date Analyzed: 2016-09-12 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		6	mg/Kg	1.00	1.00	100	80 - 120	2016-09-12

Standard (CCV-2)

QC Batch: 132679 Date Analyzed: 2016-09-12 Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		6	mg/Kg	1.00	0.898	90	80 - 120	2016-09-12

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	L2418.01	El Paso
2	L-A-B	L2418	Lubbock
3	Kansas	Kansas E-10317	Lubbock
4	NELAP	T104704221-15-6	El Paso
5	NELAP	T104704219-16-12	Lubbock
6	NELAP	T104704392-14-8	Midland
7		2015-066	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

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

Attachments

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

LAB Order ID # 1609082 1

Page 1 of 1

TraceAnalysis, Inc.

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Fax (915) 585-4944

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

Company Name: Sport Environmental Services, PLLC	**Phone #:** (432) 683-1100
Address: 502 N. Big Spring Street, Midland, Texas 79701	**Fax #:** (888) 500-0622
Contact Person: Debi S. Moore, M.E., R.E.P.A.	**E-mail:** debi@sportenv.com; rbrady@sportenv.com; tasha@sportenv.com
Invoice to: same as above	
Project #: J. Cleo Thompson	**Project Name:** WSLU Tract 003 Well #9 Flowline Release
Project Location: (include state) Eddy County, New Mexico	**Sampler Signature:** M Gipson

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
27826	EFE - Comp @ 11' - 001	1	4oz		X							X		9.8.16	0946

MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 5030 / 602 / 8260B / 624	TPH 8015M	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	Pesticides 8081A / 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	Volatiles by Method 8260		Turn Around Time if different from standard	Hold
	X	X													X	X					X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
M Gipson	SES	9.8.16	1401	Kelly H	TA	9.8.16	1401
Kelly H	TA	9-8-16	14:15				
				Brenda Ward	TA LUBB	9/9/16	9:25

8.9/9.4

LAB USE ONLY

Intact Y / N

Headspace Y / N /NA

Log-in Review AJ

REMARKS: EPA Method 300 for Cl
Rush From Field

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

Carrier # Carry-In 25 24 15 9695

Submittal of samples constitutes agreement to Terms and Conditions

ORIGINAL COPY

TRACEANALYSIS, INC.

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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

Debi Sport Moore
Sport Environmental Services
502 N. Big Spring Street
Midland, TX, 79701

Report Date: September 19, 2016

Work Order: 16091522

Project Location: Eddy Co, NM
Project Name: WSLU Tract 003 Well #9 Flowline Release
Project Number: J. Cleo Thompson

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

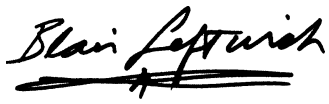
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
428197	SWH- Comp @ 15'-002	soil	2016-09-15	09:55	2016-09-15
428198	WWH- Comp @ 15'-002	soil	2016-09-15	09:58	2016-09-15
428199	EW- Comp @ 11'-002	soil	2016-09-15	10:02	2016-09-15

Notes

- **Work Order 16091522:** Straight from the fields

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
Johnny Grindstaff, Operations Manager

Report Contents

Case Narrative

Samples for project WSLU Tract 003 Well #9 Flowline Release were received by TraceAnalysis, Inc. on 2016-09-15 and assigned to work order 16091522. Samples for work order 16091522 were received intact at a temperature of 12.8 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	112574	2016-09-19 at 08:30	132817	2016-09-19 at 09:27

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 16091522 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: 428197 - SWH- Comp @ 15'-002

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132817	Date Analyzed:	2016-09-19	Analyzed By:	RL
Prep Batch:	112574	Sample Preparation:	2016-09-19	Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride		1,2	**94.9**	mg/Kg	1	25.0

Sample: 428198 - WWH- Comp @ 15'-002

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132817	Date Analyzed:	2016-09-19	Analyzed By:	RL
Prep Batch:	112574	Sample Preparation:	2016-09-19	Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride		1,2	**649**	mg/Kg	5	25.0

Sample: 428199 - EW- Comp @ 11'-002

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132817	Date Analyzed:	2016-09-19	Analyzed By:	RL
Prep Batch:	112574	Sample Preparation:	2016-09-19	Prepared By:	RL

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Chloride		1,2	<25.0	mg/Kg	1	25.0

Method Blanks

Method Blank (1) QC Batch: 132817

QC Batch:	132817	Date Analyzed:	2016-09-19	Analyzed By:	RL
Prep Batch:	112574	QC Preparation:	2016-09-19	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		[1,2]	<4.44	mg/Kg	25

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 132817 | Date Analyzed: 2016-09-19 | Analyzed By: RL
Prep Batch: 112574 | QC Preparation: 2016-09-19 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2	243	mg/Kg	1	250	<4.44	97	90 - 110

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		1,2	235	mg/Kg	1	250	<4.44	94	90 - 110	3	20

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

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 428198

QC Batch:	132817	Date Analyzed:	2016-09-19	Analyzed By:	RL
Prep Batch:	112574	QC Preparation:	2016-09-19	Prepared By:	RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2	1870	mg/Kg	5	1250	649	98	80 - 120

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		1,2	1850	mg/Kg	5	1250	649	96	80 - 120	1	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 132817 Date Analyzed: 2016-09-19 Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2	mg/Kg	25.0	25.1	100	90 - 110	2016-09-19

Standard (CCV-2)

QC Batch: 132817 Date Analyzed: 2016-09-19 Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2	mg/Kg	25.0	23.2	93	90 - 110	2016-09-19

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	T104704219-16-12	Lubbock
2		2015-066	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.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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

LAB Order ID # 160915202

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Ave, Ste 9
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1 (800) 378-1296

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Fax (432) 689-6313

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

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

Company Name: Sport Environmental Services, PLLC	**Phone #:** (432) 683-1100
Address: 502 N. Big Spring Street, Midland, Texas 79701	**Fax #:** (888) 500-0622
Contact Person: Debi S. Moore, M.E., R.E.P.A.	**E-mail:** debi@sportenv.com; rbrady@sportenv.com; tasha@sportenv.com
Invoice to: same as above	
Project #: J. Cleo Thompson	**Project Name:** WSLU Tract 003 Well #9 Flowline Release
Project Location: (include state) Eddy County, New Mexico	**Sampler Signature:** M Gipson

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
428197	SWH - comp @ 15' - 002	1	4oz		X							X		9-15-16	0955
428198	WWH - comp @ 15' - 002	1	4oz		X							X		9-15-16	0958
428199	EW - comp @ 11' - 002	1	4oz		X							X		9-15-16	1002

MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 5030 / 602 / 8260B / 624	TPH 8015M	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	Pesticides 8081A / 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	Volatiles by Method 8260		Turn Around Time if different from standard	Hold
																X				X	
																X				X	
																X				X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
M Gipson	SES	9-15-16	14:17	Valley H	TA	9-15-16	14:17 12.8
Valley H	TA	9-15-16	14:30				
				Brenda Ward	TA LUBB	9/16/16	9:30 3.4/3.3

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

REMARKS: EPA Method 300 for Cl
Rush From Field

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

Carrier # carry in 852418149

Submittal of samples constitutes agreement to Terms and Conditions

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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

Debi S. Moore
Sport Environmental Services, PLLC
502 N. Big Spring Street
P. O. Box 10487
Midland, TX, 79702

Report Date: September 27, 2016

Work Order: 16092329

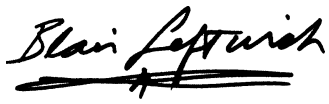
Project Location: Eddy Co, NM
Project Name: WSLU Tract 003 Well #9 Flowline Release
Project Number: J. Cleo Thompson

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
428845	WWH-comp @ 15'-003	soil	2016-09-23	10:28	2016-09-23

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
Johnny Grindstaff, Operations Manager

Report Contents

Case Narrative

Samples for project WSLU Tract 003 Well #9 Flowline Release were received by TraceAnalysis, Inc. on 2016-09-23 and assigned to work order 16092329. Samples for work order 16092329 were received intact at a temperature of 5.8 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (IC)	E 300.0	112702	2016-09-26 at 11:30	132963	2016-09-26 at 12:43

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 16092329 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: 428845 - WWH-comp @ 15'-003

Laboratory:	Lubbock				
Analysis:	Chloride (IC)	Analytical Method:	E 300.0	Prep Method:	N/A
QC Batch:	132963	Date Analyzed:	2016-09-26	Analyzed By:	RL
Prep Batch:	112702	Sample Preparation:	2016-09-26	Prepared By:	RL

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride		1,2	**52.1**	mg/Kg	1	25.0

Method Blanks

Method Blank (1) QC Batch: 132963

QC Batch:	132963	Date Analyzed:	2016-09-26	Analyzed By:	RL
Prep Batch:	112702	QC Preparation:	2016-09-26	Prepared By:	RL

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride		1,2	<4.44	mg/Kg	25

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 132963 | Date Analyzed: 2016-09-26 | Analyzed By: RL
Prep Batch: 112702 | QC Preparation: 2016-09-26 | Prepared By: RL

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2	233	mg/Kg	1	250	<4.44	93	90 - 110

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		1,2	229	mg/Kg	1	250	<4.44	92	90 - 110	2	20

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

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 428845

QC Batch:	132963	Date Analyzed:	2016-09-26	Analyzed By:	RL
Prep Batch:	112702	QC Preparation:	2016-09-26	Prepared By:	RL

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride		1,2	283	mg/Kg	1	250	52.1	92	80 - 120

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		1,2	280	mg/Kg	1	250	52.1	91	80 - 120	1	20

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

Calibration Standards

Standard (CCV-1)

QC Batch: 132963 Date Analyzed: 2016-09-26 Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2	mg/Kg	25.0	22.8	91	90 - 110	2016-09-26

Standard (CCV-2)

QC Batch: 132963 Date Analyzed: 2016-09-26 Analyzed By: RL

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		1,2	mg/Kg	25.0	23.7	95	90 - 110	2016-09-26

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	T104704219-16-12	Lubbock
2		2015-066	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.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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

LAB Order ID # 160923 29

Page 1 of 1

TraceAnalysis, Inc.

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Fax (915) 585-4944

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

Company Name:	Sport Environmental Services, PLLC	**Phone #:**	(432) 683-1100
Address:	502 N. Big Spring Street, Midland, Texas 79701	**Fax #:**	(888) 500-0622
Contact Person:	Debi S. Moore, M.E., R.E.P.A.	**E-mail:**	debi@sportenv.com; rbrady@sportenv.com; tasha@sportenv.com
Invoice to:	same as above		
Project #:	J. Cleo Thompson	**Project Name:**	WSLU Tract 003 Well #9 Flowline Release
Project Location: (include state)	Eddy County, New Mexico	**Sampler Signature:**	M Sm

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
428845	WWH - comp @ 15' - 003	1	4oz		X							X		9-23-16	1028

MTBE 8021B / 602 / 8260B / 624	BTEX 8021B / 5030 / 602 / 8260B / 624	TPH 8015M	PAH 8270C / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B / 200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	Pesticides 8081A / 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	Volatiles by Method 8260		Turn Around Time if different from standard	Hold
																X				X	

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
M Sm	SES	9.23.16	1223	Natalie H	TA	9-23-16	1323 5.8
				Brenda Nava	TA Lubbock	9/24/16	11:00 4.2 4.3

LAB USE ONLY

Intact Y / N

Headspace Y / N NA

Log-in Review

Carrier # Carry In 23343447

REMARKS: EPA Method 300 for Cl

Rush From Field

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

Submittal of samples constitutes agreement to Terms and Conditions

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APPENDIX H

Photographic Log

Client: J. Cleo Thompson

Project: WSLU Tract 003 Well #9 Flowline Release

Description: Release location prior to excavation.

Date: Aug 10, 2016

Client: J. Cleo Thompson

Project: WSLU Tract 003 Well #9 Flowline Release

Description: Release location prior to excavation. Oil covered vegetation and pooled oil can be observed. Photographed looking from the northeast corner to the southwest.

Date: Aug 10, 2016

Client: J. Cleo Thompson

Project: WSLU Tract 003 Well #9 Flowline Release

Description: Visual staining on excavation wall. Excavation work is in progress.

Date: Aug 11, 2016

Client: J. Cleo Thompson

Project: WSLU Tract 003 Well #9 Flowline Release

Description: Well fluid seepage from excavation wall. Excavation work is in progress.

Date: Aug 12, 2016

Client: J. Cleo Thompson

Project: WSLU Tract 003 Well #9 Flowline Release

Description: Backhoe removes hydrocarbon-impacted soil from the release area.

Date: Aug 12, 2016

Client: J. Cleo Thompson

Project: WSLU Tract 003 Well #9 Flowline Release

Description: Oil can be observed seeping from the excavation wall. Excavation work continues.

Date: Aug 12, 2016

Client: J. Cleo Thompson

Project: WSLU Tract 003 Well #9 Flowline Release

Description: Oil can be observed seeping from the excavation wall. Excavation work continues.

Date: Sep 6, 2016

Client: J. Cleo Thompson

Project: WSLU Tract 003 Well #9 Flowline Release

Description: Site status on the final day of soil sampling. Photograph taken from the ramp on the southeast excavation corner looking northwest.

Date: Sep 15, 2016

Client: J. Cleo Thompson

Project: WSLU Tract 003 Well #9 Flowline Release

Description: Remedial work is complete and the excavation has been backfilled. Photographs taken at various points associated with the release location.

Date: Oct 27, 2016