1920 W. Villa Maria, Ste. 205
Bryan, Texas 77807
979.324.2139
www.teamtimberwolf.com

July 25, 2018

Olivia Yu
Environmental Specialist
New Mexico Oil Conservation Division, District 1
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Site Characterization Report and Remedial Action Plan
Enfield No. 1 Facility Storage Tank Release
Bagley North Oil Field, Lea County, New Mexico
NE1/4 NE1/4, Sec. 16, T11S, R33E

Dear Ms. Yu:

On behalf of Jay Management, LLC (Jay Management), Timberwolf Environmental, LLC (Timberwolf) conducted a site characterization of the Enfield No. 1 Facility (Site) to assess impacts related to a recent storage tank overflow release. The Site is located in the Bagley North Oil Field approximately 6.07 miles southeast of Caprock, Lea County, New Mexico (Figures 1 through 3). Work conducted at the Site has been authorized by the New Mexico Oil Conservation Division (NMOCD) District 1 Office under Remediation Permit No. 1RP-4714.

Environmental Setting

The Site consists of a wellhead, one above-ground oil storage tank, one above-ground produced water tank, and one heater treater.

The surrounding area is characterized as flat to slightly sloping rural land used for cattle grazing and oil and gas production. According the United States Department of Agriculture – Natural Resources Conservation Service web soil survey, soil at the Site are mapped as the Kimbrough – Lea complex, 0 to 3 percent slopes (KU). Site soil consists of gravelly loam in the upper 3 inches, loam from 3 to 10 inches, and underlain by cemented material to a depth of 80 inches.

Site History

On 06/02/17, a storage tank overflowed due to the absence of fuse in the electrical box (suspected vandalism). An estimated 27 barrels (bbl) of oil and produced water was released within secondary containment at the Site. Upon discovery, Jay Management replaced the fuse and recovered approximately 22 bbls of free fluids. Written notification of the release was made to the New Mexico Oil Conservation Division (NMOCD) on 06/05/17; a copy of Form C-141 is attached.

Regulatory Criteria

The New Mexico Oil Conservation Division (NMOCD) established remediation action levels for soils impacted by oilfield products or wastes, which are documented under New Mexico Administrative Code (NMAC) Rule 19.15.29. The Rule was repealed and replaced by *Oil Conservation Commission Order No.: R-14751*, dated June 21, 2018.

Under Rule 19.15.29, soil cleanup criteria is determined primarily based on the distance between the base of impacted soil and the depth to usable groundwater. NMOCD laboratory methodology and soil closure criteria is presented in the following table.

Table 1. Closure Criteria for Soils Impacted by a Release

Depth to Groundwater[1]	Constituent	Method[2]	Regulatory Limit[3] (mg/kg)
≤ 50 feet	Chloride[4]	EPA 300.0	600
	TPH	EPA SW-846 Method 8015M	100
	Total BTEX	EPA SW-846 Method 8021B or 8260B	50
	Benzene	EPA SW-846 Method 8021B or 8015M	10
51 feet-100 feet	Chloride[4]	EPA 300.0	10,000
	TPH	EPA SW-846 Method 8015M	2,500
	GRO+DRO	EPA SW-846 Method 8015M	1,000
	Total BTEX	EPA SW-846 Method 8021B or 8260B	50
	Benzene	EPA SW-846 Method 8021B or 8260B	10
> 100 feet	Chloride[4]	EPA 300.0	20,000
	TPH	EPA SW-846 Method 8015M	2,500
	GRO+DRO	EPA SW-846 Method 8015M	1,000
	Total BTEX	EPA SW-846 Method 8021B or 8260B	50
	Benzene	EPA SW-846 Method 8021B or 8015M	10

[1]From base of impact to useable groundwater (i.e., less than 10,000 milligrams per liter (mg/L) total dissolved solids (TDS))
[2]Or other test methods approved by the division
[3]Numerical limits or natural background level, whichever is greater
[4]Applies to produced water releases or other fluids which may contain chloride
mg/kg – milligrams per kilograms
BTEX – benzene, toluene, ethylbenzene, xylenes
GRO – gasoline range organics
DRO – diesel range organics
TPH = GRO + DRO + MRO

Prior environmental drilling in the Bagley North Oil Field revealed that usable groundwater is less than 50 feet below ground surface (ft bgs). Therefore, soil closure criteria at the Site is as follows:

- Chloride < 600 mg/kg
- TPH < 100 mg/kg
- Total BTEX < 50 mg/kg
- Benzene < 10 mg/kg

Collection and Analysis of Soil Samples

On 06/06/18, Timberwolf collected soil samples to determine the magnitude and extent of soil impacts. Sample locations are shown in the Sample Location Map (Figure 4).

Timberwolf installed one boring (i.e., SB1) to a depth of 25 ft using a rotary drilling rig and flight augers. Samples were collected from the boring at five-foot depth intervals using a split spoon. Samples SB2 – SB4 were collected at 0-1 ft bgs using a stainless steel handauger. Site conditions during soil sampling activities are documented in the attached photographic log. Location and purpose of soil samples are described in Table 2.

Table 2. Location and Purpose of Soil Samples

Soil Samples	Location - Purpose
SB1	Collected from the body of the release area – to evaluate remediation efforts and for vertical delineation
SB2, SB3, and SB4	Collected from the perimeter of the release area – to determine horizontal delineation

All soil samples were field screened for volatile organic compounds (VOCs) using a photoionization detector (PID). Depth intervals exhibiting the highest PID readings were selected for laboratory analysis. Additionally, deeper intervals were analyzed to achieve vertical delineation. PID readings and soil lithology are documented on the attached soil boring logs.

All sampling equipment was decontaminated between samples using Alconox® and deionized water. The soil samples were analyzed for gasoline range organics (GRO), diesel range organics (DRO), and mineral range organics (MRO) using laboratory method 8015; benzene, toluene, ethylbenzene, and xylenes (BTEX); and chloride. Analytical methods are documented in the attached laboratory reports. Soil analytical results are shown in Table 3 below.

Table 3. Analytical Results – Soil

Sample ID	Benzene (mg/kg)	Total BTEX (mg/kg)	Total Petroleum Hydrocarbons (mg/kg)				Chloride (mg/kg)
			GRO	DRO	MRO	TPH	
SB1 4-5'	0.0029	0.0662	7.0[B]	3.6[J]	5.5[J]	16.1	610
SB1 9-10'	< 0.00069	0.00361	< 2.9	200	160	362.9	360
SB1 14-15'	--	--	--	--	--	--	200[F1]
SB1 19-20'	--	--	--	--	--	--	33
SB1 24-25'	--	--	--	--	--	--	10[J]
SB2 0-1'	< 0.00084	0.00428	< 3.6	7.1	28	38.7	< 9.2
SB3 0-1'	0.0032	0.01203	3.9[JB]	32	61	96.9	160
SB4 0-1'	< 0.00085	0.0047	3.9[JB]	8.6	32	44.5	< 9.6
NMOCD Site-Specific Criteria	**10**	**50**	**--**	**--**	**--**	**100**	**600**

mg/kg – milligrams per kilogram
GRO – gasoline range organics
DRO – diesel range organics
MRO – mineral range organics
TPH = total petroleum hydrocarbons (TPH = GRO + DRO + MRO)
NMOCD – New Mexico Oil Conservation Division
BTEX – benzene, toluene, ethylbenzene, and toluene

Conclusions

Based on the Site characterization, the following is concluded:

- The main body of the produced water spill area encompasses approximately 0.09 acres as shown in Figure 4. The release traveled mostly south and west from the point of release
- Field observations while digging with a backhoe and the NRCS soil survey reveal that:
  - The soil horizon is less than 1 ft thick
  - Excavation of the impacted consolidated rock is technically impracticable
- The constituents of concern at the Site are TPH and chloride
- TPH concentrations exceeded the NMOCD cleanup criteria in one soil sample:
  - The concentration of TPH in SB1 9-10' was 362.3 mg/kg
  - TPH was horizontally delineated; TPH was not vertically delineated
- Chloride concentrations exceeded the NMOCD cleanup criteria in one soil sample:
  - The concentration of chloride at SB1 4-5' was 610 mg/kg
  - Chloride was horizontally and vertically delineated.

Remedial Action Plan

Remedial Strategy

Since excavating the vertical extent of impacted media is technically impracticable, the proposed site remediation strategy is to excavate impacted soil until refusal, then backfill with clean fill. A groundwater monitoring well will be installed to evaluate and monitor groundwater. (Note: prior to installing a groundwater monitoring well, Timberwolf will secure a permit from the New Mexico Office of the State Engineer to drill a water well with no water rights.) The well will be monitored semi-annually for a period of two years for the following constituents: BTEX and chloride.

If constituents of groundwater are below NMOCD/EPA guidelines for a period of two years the monitored program will be discontinued and a request for no further action (NFA) will be made with the NMOCD District 1 office. If groundwater constituents exceed NMOCD/EPA guidelines, the affected area will be delineated, and a remedial action plan will be submitted to address impacted groundwater.

Remedial Action Plan

Timberwolf proposes the following remedial action plan to bring the Site in regulatory compliance:

- Excavate the soil horizon (approximately 10 to 12 inches) within the impacted area (approximately 0.09 acres). Note: impacted consolidated rock will remain in place
- Transport excavated soil (approximately 145 cubic yards) to a commercial disposal facility
- Collect confirmation samples from the base and side walls of the excavation
- Backfill the excavation to 1 ft using clean fill as required under 19.15.29 (D)(1) NMAC
- Restore surface vegetation
- Install one groundwater monitor well at the Site to monitor COCs in groundwater semi-annually for a period of two years. Soil samples will be collected during well installation to vertically delineated TPH. A proposed monitor well location map is shown in Figure 5.

If you have any questions regarding this report and work plan, please call us at 979-324-2139.

Sincerely,
Timberwolf Environmental, LLC

Russell Greer
Project Manager

Jim Foster
President

Attachments: Figures
Form C-141
Photographic Log
Soil Boring Log
Laboratory Reports and Chain-of-Custody Documents

cc: Amir Sanker, Jay Management

FIGURES

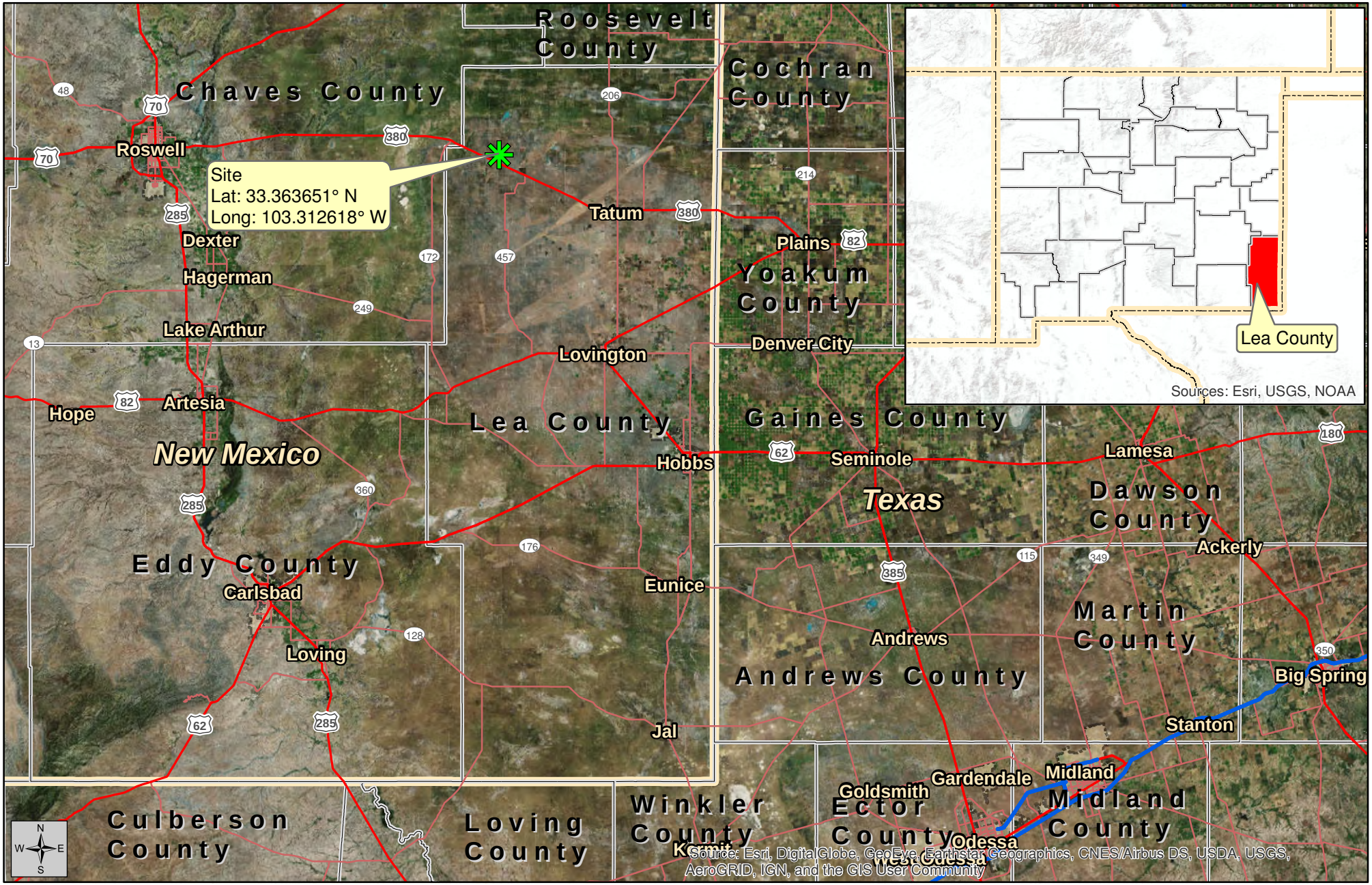

Figure 1 **Site Location Map**	**Site Characterization Report and Remedial Action Plan (1RP-4714)**	**June 20, 2018**
TIMBERWOLF ENVIRONMENTAL	1:1,500,000 0 25 50 75 100 125 150 Miles **Enfield No. 1 Facility Storage Tank Release** **Jay Management, LLC** **Bagley North Oil Field, Lea County, New Mexico**	* Site
Created By: Blaine Stevens TE Project No.: ISR-170054	Datum: NAD83 Imagery Source: ESRI Vector Source: ESRI and TE	

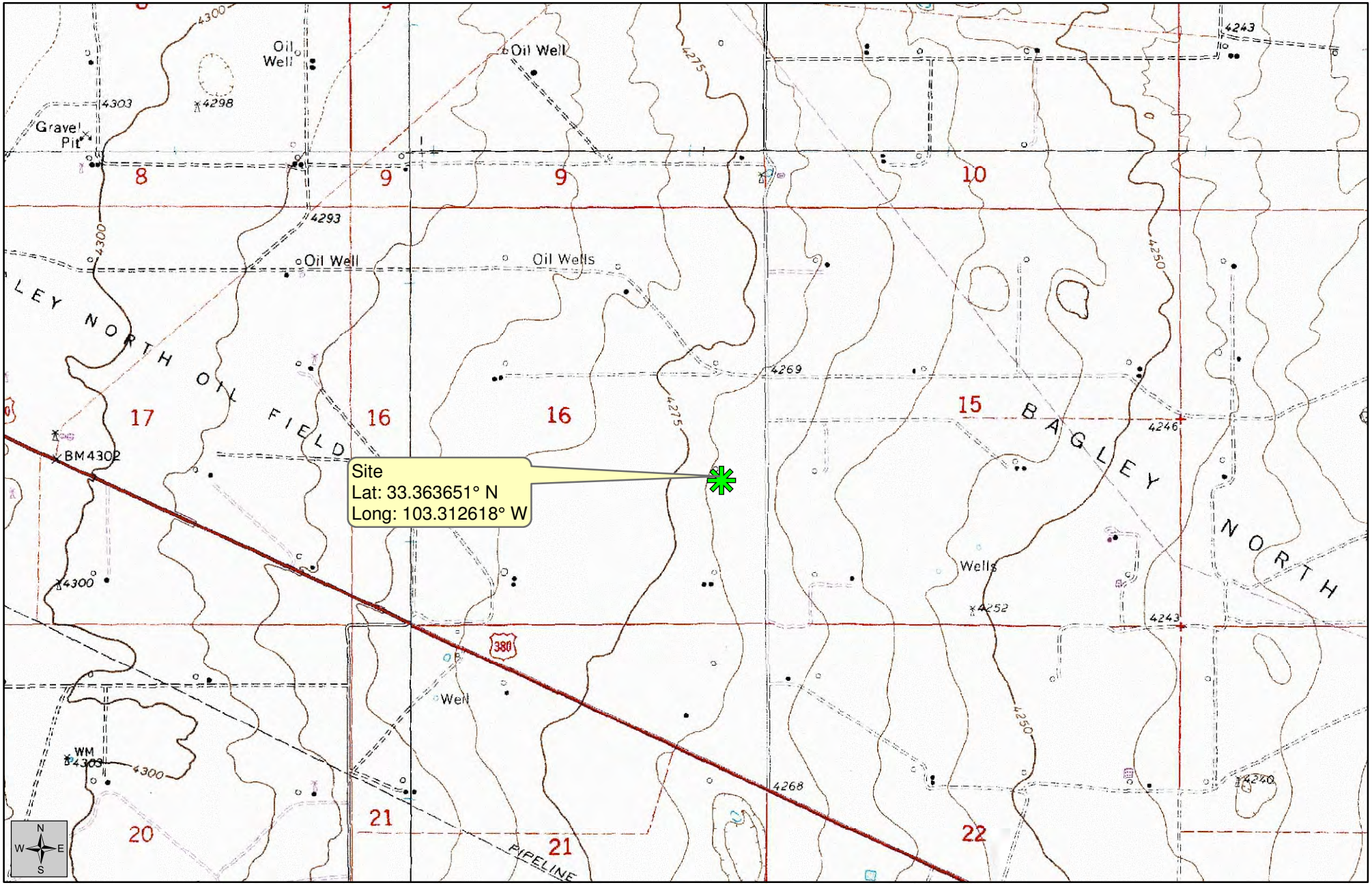

Figure 2
Topographic Map

Site Characterization Report and Remedial Action Plan (1RP-4714)

June 25, 2018

TIMBERWOLF ENVIRONMENTAL

1:24,000

0 0.5 1 1.5 2 2.5 Miles

Created By:
Blaine Stevens
TE Project No.: ISR-170054

Enfield No. 1 Facility Storage Tank Release
Jay Management, LLC
Bagley North Oil Field, Lea County, New Mexico

Datum: NAD83
Imagery Source: USGS
Quads: Soldier Hill, Dallas Store, Caprock, and Lane Salt Lake
Vector Source: TE

Site

Figure 3
Aerial Map

Site Characterization Report and Remedial Action Plan (1RP-4714)

June 25, 2018

TIMBERWOLF ENVIRONMENTAL

1:5,000

0 500 1,000 1,500 2,000 2,500 Feet

Enfield No. 1 Facility Storage Tank Release
Jay Management, LLC
Bagley North Oil Field, Lea County, New Mexico

Created By:
Blaine Stevens
TE Project No.: ISR-170054

Datum: NAD83
Imagery Source: ESRI
Vector Source: TE

Site

Sample ID	Volatile Organic Compounds (mg/kg)				Total BTEX	Total Petroleum Hydrocarbons (mg/kg)				Chloride (mg/kg)
	B	T	E	X		GRO	DRO	MRO	Total	
SB1 4-5'	0.0029	0.0066	0.0037	0.053	0.0662	7.0[B]	3.6[J]	5.5[J]	16.1	610
SB1 9-10'	< 0.00069	0.00093[J]	< 0.00069	< 0.0013	0.00361	< 2.9	200	160	362.9	360
SB1 14-15'	--	--	--	--	--	--	--	--	--	200[F1]
SB1 19-20'	--	--	--	--	--	--	--	--	--	33
SB1 24-25'	--	--	--	--	--	--	--	--	--	10[J]
SB2 0-1'	< 0.00084	0.0011[J]	< 0.00084	0.0015	0.00428	< 3.6	7.1	28	38.7	< 9.2
SB3 0-1'	0.0032	0.004	< 0.00073	0.0041[J]	0.01203	3.9[JB]	32	61	96.9	160
SB4 0-1'	< 0.00085	0.0014[J]	< 0.00085	< 0.0016	0.0047	3.9[JB]	8.6	32	44.5	< 9.6
NMOCD Site-Specific Criteria	**10**	**--**	**--**	**--**	**50**	**--**	**--**	**--**	**100**	**600**

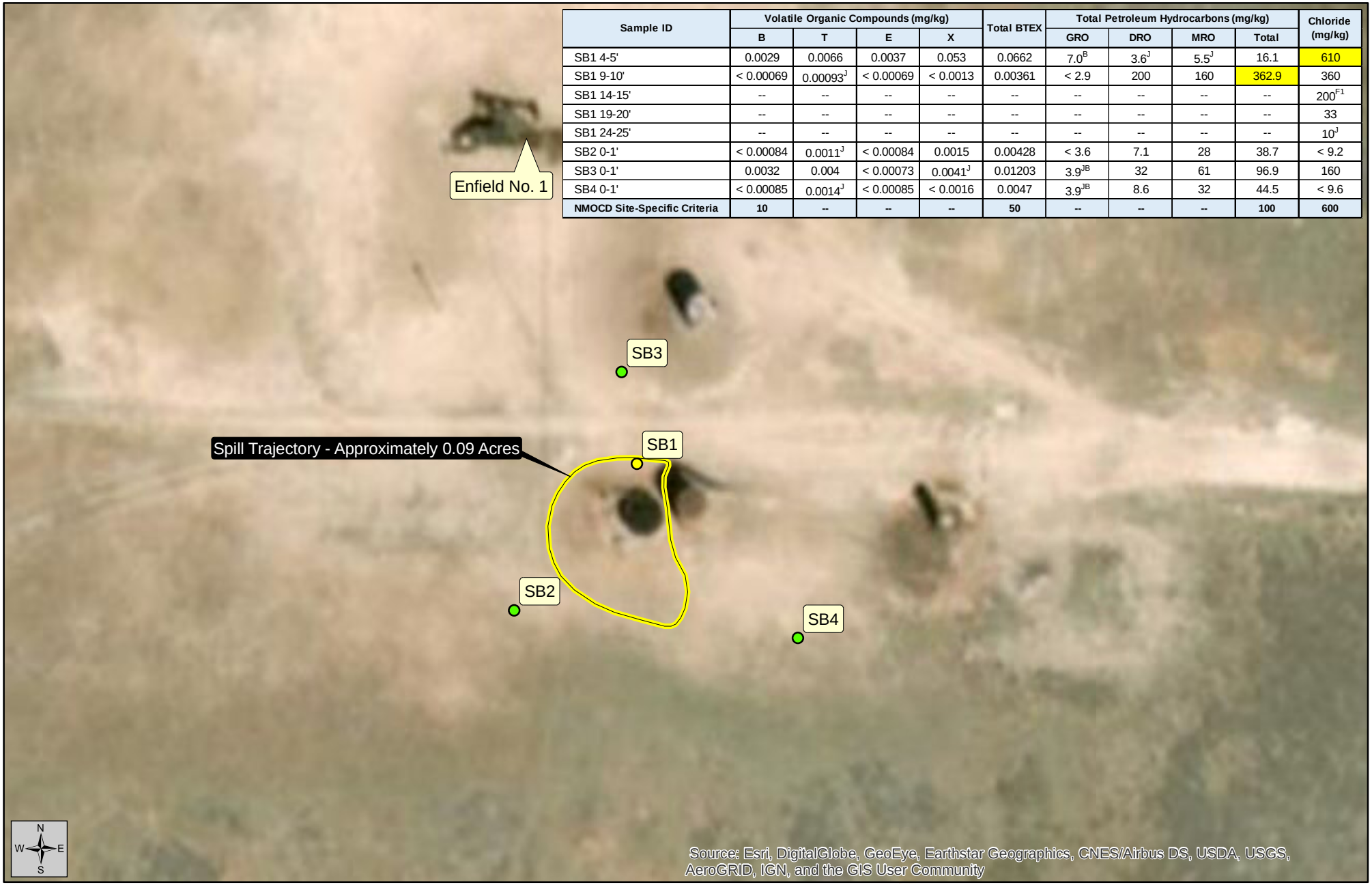

Figure 4
Sample Location and Spill Trajectory Map

Site Characterization Report and Remedial Action Plan (1RP-4714)

Sample Date:
June 6, 2018

TIMBERWOLF ENVIRONMENTAL

1:750

0 100 200 300 400 Feet

Created By:
Russell Greer
June 14, 2018
TE Project No.: ISR-170054

Enfield No. 1 Facility Storage Tank Release
Jay Management, LLC
Bagley North Oil Field, Lea County, New Mexico

Datum: NAD83
Imagery Source: ESRI
Vector Source: TE

- Soil Sample (Clean)
- Soil Sample (Elevated)
- Spill Trajectory

Figure 5
Proposed Monitor Well Location Map

Site Characterization Report and Remedial Action Plan (1RP-4714)

July 20, 2018

TIMBERWOLF ENVIRONMENTAL

1:750

0 100 200 300 400 Feet

Enfield No. 1 Facility Storage Tank Release
Jay Management, LLC
Bagley North Oil Field, Lea County, New Mexico

Created By:
Russell Greer
TE Project No.: ISR-170054

Datum: NAD83
Imagery Source: ESRI
Vector Source: TE

Proposed Monitor Well
Spill Trajectory

FORM C-141

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 April 3, 2017

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Jay Management Company	Contact: Jim Foster
Address: 2425 W Loop South, Ste. 810, Houston, Texas 77027	Telephone No.: 979-324-2139
Facility Name: Enfield No. 1	Facility Type: Well with Tank Battery

Surface Owner: Fee land	Mineral Owner: State of New Mexico	API No.: 30-025-21932

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	16	11S	33E	1,980	South	660	East	Lea

Latitude 33.363651° N **Longitude** 103.612618° W NAD83

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release: 27 bbls	Volume Recovered: 22 bbls
Source of Release: Tank overfilling due to fuse pulled from electrical box.	Date and Hour of Occurrence: 06/02/2017	Date and Hour of Discovery: 06/02/2017 1455
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Olivia Yu	
By Whom? Amir Sanker	Date and Hour: 06/02/2017 1526	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*
No watercourse was impacted.

Describe Cause of Problem and Remedial Action Taken.*
The release was caused by someone removing a pump fuse; the fuse was found on the ground beside the electrical box. The fuse was replaced. All equipment is in good repair.

Describe Area Affected and Cleanup Action Taken.*
Release occurred within the secondary containment area of the tank battery. None of the released fluids left the site. Approximately 22 bbls of fluid was recovered with a vacuum truck for off-site disposal.

Site conditions are documented in the attached photographs (e.g., Photographs 1 – 4).

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:	OIL CONSERVATION DIVISION	
Printed Name: Jim Foster	Approved by Environmental Specialist:	
Title: Environmental Consultant	Approval Date:	Expiration Date:
E-mail Address: jim@teamtimberwolf.com	Conditions of Approval:	Attached ☐
Date: 06/05/17 Phone: 979-324-2139		

* Attach Additional Sheets If Necessary

PHOTOGRAPHIC DOCUMENTATION

1920 W Villa Maria, Ste. 205
Bryan, TX 77807
(979) 324-2139
www.teamtimberwolf.com

PHOTOGRAPHIC LOG

Project No.:	ISR-170054	**Client:**	Jay Management, LLC
Project Name:	Enfield No. 1 Release	**Site Location:**	Lea County, New Mexico
Task Description:	Site Characterization	**Date:**	June 5, 2018

Photo No.:
1

Direction:
South

Comments:
View of the point of release and SB1 sample location.

Photo No.:
2

Direction:
South

Comments:
View of surface soil impacts.

1920 W Villa Maria, Ste. 205
Bryan, TX 77807
(979) 324-2139
www.teamtimberwolf.com

PHOTOGRAPHIC LOG

Project No.:	ISR-170054	**Client:**	Jay Management, LLC
Project Name:	Enfield No. 1 Release	**Site Location:**	Lea County, New Mexico
Task Description:	Site Characterization	**Date:**	June 6, 2018

Photo No.: 3

Direction: West

Comments: View of SB1 sample location.

Photo No.: 4

Direction: East

Comments: View of impacted area and SB4 sample location.

Note: Above-ground flowlines present.

SOIL BORING LOGS

SOIL BORING REPORT

SB1

TIMBERWOLF ENVIRONMENTAL

Client: Jay Management, LLC	Completion Date: 06/06/18
Project Name: State OG SWD No. 2	Logged By: Morgan Vizi, Joe Whiteley
Site Location:Lea County, NM	Drilled By: Enviro-Drill, Inc.
Project Number: 170054	Drilling Method & Boring Diameter: Direct Push Technology 2"
Boring Coordinates: 33.36369, -103.61266	Total Depth (ft): 25'
Ground Surface Elevation (ft, msl): 4,280 ft	First Water Encountered (ft): NA

Depth (feet)	USCS	PID Reading (ppm)	Soil Sample	Soil Description	Well Completion
0				SAND (TAN)	
5	SW				
10					
15	SP			GRAVELLY SAND (TAN)	
20	SW			SAND (TAN)	
25				TD = 25'	

Notes:
Well Completion:

LABORATORY REPORT AND CHAIN OF CUSTODY DOCUMENTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-153479-1
Client Project/Site: Enfield 170054

For:
Timberwolf Environmental LLC
1920 W. Vill Maria
Suite 305-2 Box 205
Bryan, Texas 77807

Attn: Mr. James Foster

Dean A. Joiner

Authorized for release by:
6/19/2018 6:28:32 PM

Dean Joiner, Project Manager II
(713)690-4444
dean.joiner@testamericainc.com

Table of Contents

Sample Summary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-153479-1	SB2 0-1'	Solid	06/06/18 11:22	06/08/18 09:20
490-153479-2	SB3 0-1'	Solid	06/06/18 11:28	06/08/18 09:20
490-153479-3	SB4 0-1'	Solid	06/06/18 11:35	06/08/18 09:20
490-153479-4	SB1 4-5'	Solid	06/06/18 11:22	06/08/18 09:20
490-153479-5	SB1 9-10'	Solid	06/06/18 11:27	06/08/18 09:20

Job ID: 490-153479-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-153479-1

Comments
No additional comments.

Receipt
The samples were received on 6/8/2018 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2º C.

GC/MS VOA
Method(s) 8260B: Internal standard responses were outside of acceptance limits for the following sample: SB3 0-1' (490-153479-2). The sample(s) shows evidence of matrix interference.

Method(s) 8260B: Batch 490-521957 is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was originally performed on another client's sample, and this test was canceled at client request. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC
Method(s) 9056: The method blank for preparation batch 490-521347 and analytical batch 490-521596 contained Chloride above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction or re-analysis of samples was not performed.

Method(s) 9056: The method blank for analytical batch 490-521724 contained Chloride above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

Method(s) 9056: The following sample was diluted due to the nature of the sample matrix: SB1 4-5' (490-153479-4). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8015C: Batch 490-521795 is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was originally performed on another client's sample, and this test was canceled at client request. This MS/MSD result does not have immediate bearing on any samples except for the actual sample spiked. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

Method(s) 8015C: The following sample was diluted to bring the concentration of target analytes within the calibration range: SB1 9-10' (490-153479-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	ISTD response or retention time outside acceptable limits

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: SB2 0-1'

Date Collected: 06/06/18 11:22
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-1

Matrix: Solid
Percent Solids: 75.6

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00084	U	0.0025	0.00084	mg/Kg	☼	06/11/18 09:49	06/15/18 10:39	1
Ethylbenzene	0.00084	U	0.0025	0.00084	mg/Kg	☼	06/11/18 09:49	06/15/18 10:39	1
Xylenes, Total	0.0015	U	0.0075	0.0015	mg/Kg	☼	06/11/18 09:49	06/15/18 10:39	1
Toluene	**0.0011**	**J**	0.0025	0.00093	mg/Kg	☼	06/11/18 09:49	06/15/18 10:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*06/11/18 09:49*	*06/15/18 10:39*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*70 - 130*	*06/11/18 09:49*	*06/15/18 10:39*	*1*
Toluene-d8 (Surr)	*108*		*70 - 130*	*06/11/18 09:49*	*06/15/18 10:39*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*	*06/11/18 09:49*	*06/15/18 10:39*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	3.6	U	7.2	3.6	mg/Kg	☼	06/11/18 09:49	06/17/18 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*50 - 150*	*06/11/18 09:49*	*06/17/18 20:10*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	**7.1**		6.6	3.3	mg/Kg	☼	06/09/18 12:00	06/15/18 02:42	1
C24-C40	**28**		6.6	3.3	mg/Kg	☼	06/09/18 12:00	06/15/18 02:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*97*		*50 - 150*	*06/09/18 12:00*	*06/15/18 02:42*	*1*

Method: 9056 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.2	U	13	9.2	mg/Kg	☼		06/13/18 17:35	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**24.4**		0.1	0.1	%			06/12/18 14:37	1
Percent Solids	**75.6**		0.1	0.1	%			06/12/18 14:37	1

Client Sample ID: SB3 0-1'

Date Collected: 06/06/18 11:28
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-2

Matrix: Solid
Percent Solids: 82.2

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**0.0032**		0.0022	0.00073	mg/Kg	☼	06/11/18 09:49	06/15/18 11:07	1
Ethylbenzene	0.00073	U	0.0022	0.00073	mg/Kg	☼	06/11/18 09:49	06/15/18 11:07	1
Xylenes, Total	**0.0041**	**J**	0.0065	0.0013	mg/Kg	☼	06/11/18 09:49	06/15/18 11:07	1
Toluene	**0.0040**		0.0022	0.00080	mg/Kg	☼	06/11/18 09:49	06/15/18 11:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*	*	*70 - 130*	*06/11/18 09:49*	*06/15/18 11:07*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*70 - 130*	*06/11/18 09:49*	*06/15/18 11:07*	*1*
Toluene-d8 (Surr)	*112*		*70 - 130*	*06/11/18 09:49*	*06/15/18 11:07*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 130*	*06/11/18 09:49*	*06/15/18 11:07*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	**3.9**	**J B**	6.9	3.5	mg/Kg	☼	06/11/18 09:49	06/17/18 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*50 - 150*	*06/11/18 09:49*	*06/17/18 20:40*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	**32**		6.1	3.0	mg/Kg	☼	06/09/18 12:00	06/15/18 03:00	1
C24-C40	**61**		6.1	3.0	mg/Kg	☼	06/09/18 12:00	06/15/18 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*99*		*50 - 150*	*06/09/18 12:00*	*06/15/18 03:00*	*1*

Method: 9056 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**160**		12	8.5	mg/Kg	☼		06/13/18 18:19	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**17.8**		0.1	0.1	%			06/12/18 14:37	1
Percent Solids	**82.2**		0.1	0.1	%			06/12/18 14:37	1

Client Sample ID: SB4 0-1'

Date Collected: 06/06/18 11:35
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-3

Matrix: Solid
Percent Solids: 74.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00085	U	0.0026	0.00085	mg/Kg	☼	06/11/18 09:49	06/15/18 11:35	1
Ethylbenzene	0.00085	U	0.0026	0.00085	mg/Kg	☼	06/11/18 09:49	06/15/18 11:35	1
Xylenes, Total	0.0016	U	0.0077	0.0016	mg/Kg	☼	06/11/18 09:49	06/15/18 11:35	1
Toluene	**0.0014**	**J**	0.0026	0.00094	mg/Kg	☼	06/11/18 09:49	06/15/18 11:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*06/11/18 09:49*	*06/15/18 11:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*70 - 130*	*06/11/18 09:49*	*06/15/18 11:35*	*1*
Toluene-d8 (Surr)	*104*		*70 - 130*	*06/11/18 09:49*	*06/15/18 11:35*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 130*	*06/11/18 09:49*	*06/15/18 11:35*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	**3.9**	**J B**	7.4	3.7	mg/Kg	☼	06/11/18 09:49	06/17/18 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*50 - 150*	*06/11/18 09:49*	*06/17/18 21:10*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	**8.6**		6.5	3.3	mg/Kg	☼	06/09/18 12:00	06/15/18 03:17	1
C24-C40	**32**		6.5	3.3	mg/Kg	☼	06/09/18 12:00	06/15/18 03:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*89*		*50 - 150*	*06/09/18 12:00*	*06/15/18 03:17*	*1*

Method: 9056 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.6	U	14	9.6	mg/Kg	☼		06/13/18 18:34	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**25.5**		0.1	0.1	%			06/12/18 14:37	1
Percent Solids	**74.5**		0.1	0.1	%			06/12/18 14:37	1

Client Sample ID: SB1 4-5'
Date Collected: 06/06/18 11:22
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-4
Matrix: Solid
Percent Solids: 80.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0029		0.0023	0.00076	mg/Kg	☼	06/11/18 09:49	06/15/18 12:02	1
Ethylbenzene	0.0037		0.0023	0.00076	mg/Kg	☼	06/11/18 09:49	06/15/18 12:02	1
Xylenes, Total	0.053		0.0068	0.0014	mg/Kg	☼	06/11/18 09:49	06/15/18 12:02	1
Toluene	0.0066		0.0023	0.00084	mg/Kg	☼	06/11/18 09:49	06/15/18 12:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*06/11/18 09:49*	*06/15/18 12:02*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*70 - 130*	*06/11/18 09:49*	*06/15/18 12:02*	*1*
Toluene-d8 (Surr)	*106*		*70 - 130*	*06/11/18 09:49*	*06/15/18 12:02*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*	*06/11/18 09:49*	*06/15/18 12:02*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	7.0	B	6.9	3.4	mg/Kg	☼	06/11/18 09:49	06/17/18 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*92*		*50 - 150*	*06/11/18 09:49*	*06/17/18 21:40*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	3.6	J	6.2	3.1	mg/Kg	☼	06/09/18 12:00	06/15/18 03:35	1
C24-C40	5.5	J	6.2	3.1	mg/Kg	☼	06/09/18 12:00	06/15/18 03:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*92*		*50 - 150*	*06/09/18 12:00*	*06/15/18 03:35*	*1*

Method: 9056 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	610		62	43	mg/Kg	☼		06/14/18 12:51	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19.7		0.1	0.1	%			06/12/18 14:37	1
Percent Solids	80.3		0.1	0.1	%			06/12/18 14:37	1

Client Sample ID: SB1 9-10'

Date Collected: 06/06/18 11:27
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-5

Matrix: Solid
Percent Solids: 88.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00069	U	0.0021	0.00069	mg/Kg	☼	06/11/18 09:49	06/15/18 12:30	1
Ethylbenzene	0.00069	U	0.0021	0.00069	mg/Kg	☼	06/11/18 09:49	06/15/18 12:30	1
Xylenes, Total	0.0013	U	0.0062	0.0013	mg/Kg	☼	06/11/18 09:49	06/15/18 12:30	1
Toluene	**0.00093**	**J**	0.0021	0.00077	mg/Kg	☼	06/11/18 09:49	06/15/18 12:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*06/11/18 09:49*	*06/15/18 12:30*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*	*06/11/18 09:49*	*06/15/18 12:30*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*	*06/11/18 09:49*	*06/15/18 12:30*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 130*	*06/11/18 09:49*	*06/15/18 12:30*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	2.9	U	5.9	2.9	mg/Kg	☼	06/11/18 09:49	06/17/18 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*90*		*50 - 150*	*06/11/18 09:49*	*06/17/18 22:10*	*1*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	**200**		5.6	2.8	mg/Kg	☼	06/09/18 12:00	06/15/18 03:52	1
C24-C40	**160**		28	14	mg/Kg	☼	06/09/18 12:00	06/16/18 18:10	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*67*		*50 - 150*	*06/09/18 12:00*	*06/15/18 03:52*	*1*

Method: 9056 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**360**		11	7.8	mg/Kg	☼		06/13/18 19:04	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	**11.9**		0.1	0.1	%			06/12/18 14:37	1
Percent Solids	**88.1**		0.1	0.1	%			06/12/18 14:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-521957/7
Matrix: Solid
Analysis Batch: 521957

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00067	U	0.0020	0.00067	mg/Kg			06/15/18 03:45	1
Ethylbenzene	0.00067	U	0.0020	0.00067	mg/Kg			06/15/18 03:45	1
Xylenes, Total	0.0012	U	0.0060	0.0012	mg/Kg			06/15/18 03:45	1
Toluene	0.00074	U	0.0020	0.00074	mg/Kg			06/15/18 03:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*		*06/15/18 03:45*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*70 - 130*		*06/15/18 03:45*	*1*
Toluene-d8 (Surr)	*102*		*70 - 130*		*06/15/18 03:45*	*1*
Dibromofluoromethane (Surr)	*99*		*70 - 130*		*06/15/18 03:45*	*1*

Lab Sample ID: LCS 490-521957/3
Matrix: Solid
Analysis Batch: 521957

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene			0.0500	0.0519		mg/Kg		104	70 - 130		
Ethylbenzene			0.0500	0.0473		mg/Kg		95	70 - 130		
Xylenes, Total			0.100	0.0963		mg/Kg		96	70 - 130		
Toluene			0.0500	0.0514		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*92*		*70 - 130*
Toluene-d8 (Surr)	*99*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 490-521957/4
Matrix: Solid
Analysis Batch: 521957

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			0.0500	0.0501		mg/Kg		100	70 - 130	4	37
Ethylbenzene			0.0500	0.0460		mg/Kg		92	70 - 130	3	38
Xylenes, Total			0.100	0.0959		mg/Kg		96	70 - 130	0	38
Toluene			0.0500	0.0497		mg/Kg		99	70 - 130	3	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*90*		*70 - 130*
Toluene-d8 (Surr)	*98*		*70 - 130*
Dibromofluoromethane (Surr)	*98*		*70 - 130*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)

Lab Sample ID: MB 490-520847/1-A
Matrix: Solid
Analysis Batch: 522497

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 520847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C10	2.5	U	5.0	2.5	mg/Kg		06/11/18 09:44	06/17/18 19:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
a,a,a-Trifluorotoluene	*91*		*50 - 150*	*06/11/18 09:44*	*06/17/18 19:40*	*1*

Lab Sample ID: LCS 490-520847/2-A
Matrix: Solid
Analysis Batch: 522497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 520847

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C10			500	484		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*84*		*50 - 150*

Lab Sample ID: LCSD 490-520847/3-A
Matrix: Solid
Analysis Batch: 522497

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 520847

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10			500	461		mg/Kg		92	70 - 130	5	21

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*83*		*50 - 150*

Lab Sample ID: 490-153479-1 MS
Matrix: Solid
Analysis Batch: 522497

Client Sample ID: SB2 0-1'
Prep Type: Total/NA
Prep Batch: 520847

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C6-C10	3.6	U	725	636		mg/Kg	☼	88	56 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*83*		*50 - 150*

Lab Sample ID: 490-153479-1 MSD
Matrix: Solid
Analysis Batch: 522497

Client Sample ID: SB2 0-1'
Prep Type: Total/NA
Prep Batch: 520847

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C10	3.6	U	725	606		mg/Kg	☼	84	56 - 130	5	21

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
a,a,a-Trifluorotoluene	*83*		*50 - 150*

Method: 8015C - Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Lab Sample ID: MB 490-520680/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 521795 — **Prep Batch: 520680**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C10-C28	2.5	U	5.0	2.5	mg/Kg		06/09/18 12:00	06/15/18 00:57	1
C24-C40	2.5	U	5.0	2.5	mg/Kg		06/09/18 12:00	06/15/18 00:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl (Surr)	*99*		*50 - 150*	*06/09/18 12:00*	*06/15/18 00:57*	*1*

Lab Sample ID: LCS 490-520680/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 521795 — **Prep Batch: 520680**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			40.0	36.8		mg/Kg		92	54 - 130		

Surrogate		*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl (Surr)		*96*		*50 - 150*

Lab Sample ID: LCSD 490-520680/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 521795 — **Prep Batch: 520680**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28			40.0	42.4		mg/Kg		106	54 - 130	14	47

Surrogate		*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl (Surr)		*107*		*50 - 150*

Method: 9056 - Anions, Ion Chromatography

Lab Sample ID: MB 490-521724/3 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 521724

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.70	U	1.0	0.70	mg/Kg			06/14/18 12:07	1

Lab Sample ID: LCS 490-521724/4 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 521724

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			10.0	9.84		mg/Kg		98	80 - 120		

Method: 9056 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 490-521724/5
Matrix: Solid
Analysis Batch: 521724

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			10.0	9.92		mg/Kg		99	80 - 120	1	20

Lab Sample ID: MB 490-521347/1-A
Matrix: Solid
Analysis Batch: 521596

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.9	U	9.9	6.9	mg/Kg			06/13/18 16:50	1

Lab Sample ID: LCS 490-521347/2-A
Matrix: Solid
Analysis Batch: 521596

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			101	107		mg/Kg		106	80 - 120		

Lab Sample ID: LCSD 490-521347/3-A
Matrix: Solid
Analysis Batch: 521596

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			98.8	105		mg/Kg		106	80 - 120	2	20

Lab Sample ID: 490-153479-1 MS
Matrix: Solid
Analysis Batch: 521596

Client Sample ID: SB2 0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	9.2	U	132	140		mg/Kg	☼	106	80 - 120		

Lab Sample ID: 490-153479-1 MSD
Matrix: Solid
Analysis Batch: 521596

Client Sample ID: SB2 0-1'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.2	U	132	133		mg/Kg	☼	101	80 - 120	5	20

GC/MS VOA

Prep Batch: 520848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-1	SB2 0-1'	Total/NA	Solid	5030B	
490-153479-2	SB3 0-1'	Total/NA	Solid	5030B	
490-153479-3	SB4 0-1'	Total/NA	Solid	5030B	
490-153479-4	SB1 4-5'	Total/NA	Solid	5030B	
490-153479-5	SB1 9-10'	Total/NA	Solid	5030B	

Analysis Batch: 521957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-1	SB2 0-1'	Total/NA	Solid	8260B	520848
490-153479-2	SB3 0-1'	Total/NA	Solid	8260B	520848
490-153479-3	SB4 0-1'	Total/NA	Solid	8260B	520848
490-153479-4	SB1 4-5'	Total/NA	Solid	8260B	520848
490-153479-5	SB1 9-10'	Total/NA	Solid	8260B	520848
MB 490-521957/7	Method Blank	Total/NA	Solid	8260B	
LCS 490-521957/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-521957/4	Lab Control Sample Dup	Total/NA	Solid	8260B	

GC VOA

Prep Batch: 520847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-1	SB2 0-1'	Total/NA	Solid	5030B	
490-153479-2	SB3 0-1'	Total/NA	Solid	5030B	
490-153479-3	SB4 0-1'	Total/NA	Solid	5030B	
490-153479-4	SB1 4-5'	Total/NA	Solid	5030B	
490-153479-5	SB1 9-10'	Total/NA	Solid	5030B	
MB 490-520847/1-A	Method Blank	Total/NA	Solid	5030B	
LCS 490-520847/2-A	Lab Control Sample	Total/NA	Solid	5030B	
LCSD 490-520847/3-A	Lab Control Sample Dup	Total/NA	Solid	5030B	
490-153479-1 MS	SB2 0-1'	Total/NA	Solid	5030B	
490-153479-1 MSD	SB2 0-1'	Total/NA	Solid	5030B	

Analysis Batch: 522497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-1	SB2 0-1'	Total/NA	Solid	8015C	520847
490-153479-2	SB3 0-1'	Total/NA	Solid	8015C	520847
490-153479-3	SB4 0-1'	Total/NA	Solid	8015C	520847
490-153479-4	SB1 4-5'	Total/NA	Solid	8015C	520847
490-153479-5	SB1 9-10'	Total/NA	Solid	8015C	520847
MB 490-520847/1-A	Method Blank	Total/NA	Solid	8015C	520847
LCS 490-520847/2-A	Lab Control Sample	Total/NA	Solid	8015C	520847
LCSD 490-520847/3-A	Lab Control Sample Dup	Total/NA	Solid	8015C	520847
490-153479-1 MS	SB2 0-1'	Total/NA	Solid	8015C	520847
490-153479-1 MSD	SB2 0-1'	Total/NA	Solid	8015C	520847

GC Semi VOA

Prep Batch: 520680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-1	SB2 0-1'	Total/NA	Solid	3550C	

GC Semi VOA (Continued)

Prep Batch: 520680 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-2	SB3 0-1'	Total/NA	Solid	3550C	
490-153479-3	SB4 0-1'	Total/NA	Solid	3550C	
490-153479-4	SB1 4-5'	Total/NA	Solid	3550C	
490-153479-5	SB1 9-10'	Total/NA	Solid	3550C	
MB 490-520680/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 490-520680/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 490-520680/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Analysis Batch: 521795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-1	SB2 0-1'	Total/NA	Solid	8015C	520680
490-153479-2	SB3 0-1'	Total/NA	Solid	8015C	520680
490-153479-3	SB4 0-1'	Total/NA	Solid	8015C	520680
490-153479-4	SB1 4-5'	Total/NA	Solid	8015C	520680
490-153479-5	SB1 9-10'	Total/NA	Solid	8015C	520680
MB 490-520680/1-A	Method Blank	Total/NA	Solid	8015C	520680
LCS 490-520680/2-A	Lab Control Sample	Total/NA	Solid	8015C	520680
LCSD 490-520680/3-A	Lab Control Sample Dup	Total/NA	Solid	8015C	520680

Analysis Batch: 522376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-5	SB1 9-10'	Total/NA	Solid	8015C	520680

HPLC/IC

Leach Batch: 521347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-1	SB2 0-1'	Soluble	Solid	DI Leach	
490-153479-2	SB3 0-1'	Soluble	Solid	DI Leach	
490-153479-3	SB4 0-1'	Soluble	Solid	DI Leach	
490-153479-4	SB1 4-5'	Soluble	Solid	DI Leach	
490-153479-5	SB1 9-10'	Soluble	Solid	DI Leach	
MB 490-521347/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 490-521347/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 490-521347/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
490-153479-1 MS	SB2 0-1'	Soluble	Solid	DI Leach	
490-153479-1 MSD	SB2 0-1'	Soluble	Solid	DI Leach	

Analysis Batch: 521596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-1	SB2 0-1'	Soluble	Solid	9056	521347
490-153479-2	SB3 0-1'	Soluble	Solid	9056	521347
490-153479-3	SB4 0-1'	Soluble	Solid	9056	521347
490-153479-5	SB1 9-10'	Soluble	Solid	9056	521347
MB 490-521347/1-A	Method Blank	Soluble	Solid	9056	521347
LCS 490-521347/2-A	Lab Control Sample	Soluble	Solid	9056	521347
LCSD 490-521347/3-A	Lab Control Sample Dup	Soluble	Solid	9056	521347
490-153479-1 MS	SB2 0-1'	Soluble	Solid	9056	521347
490-153479-1 MSD	SB2 0-1'	Soluble	Solid	9056	521347

HPLC/IC (Continued)

Analysis Batch: 521724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-4	SB1 4-5'	Soluble	Solid	9056	521347
MB 490-521724/3	Method Blank	Total/NA	Solid	9056	
LCS 490-521724/4	Lab Control Sample	Total/NA	Solid	9056	
LCSD 490-521724/5	Lab Control Sample Dup	Total/NA	Solid	9056	

General Chemistry

Analysis Batch: 521273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-1	SB2 0-1'	Total/NA	Solid	Moisture	
490-153479-2	SB3 0-1'	Total/NA	Solid	Moisture	
490-153479-3	SB4 0-1'	Total/NA	Solid	Moisture	
490-153479-4	SB1 4-5'	Total/NA	Solid	Moisture	
490-153479-5	SB1 9-10'	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-1

Client Sample ID: SB2 0-1'
Date Collected: 06/06/18 11:22
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			521273	06/12/18 14:37	BAA	TAL NSH

Client Sample ID: SB2 0-1'
Date Collected: 06/06/18 11:22
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-1
Matrix: Solid
Percent Solids: 75.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.26 g	5.0 mL	520848	06/11/18 09:49	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	521957	06/15/18 10:39	S1S	TAL NSH
Total/NA	Prep	5030B			5.87 g	5.0 mL	520847	06/11/18 09:49	JLP	TAL NSH
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	522497	06/17/18 20:10	S1S	TAL NSH
Total/NA	Prep	3550C			25.10 g	1.00 mL	520680	06/09/18 12:00	AMD	TAL NSH
Total/NA	Analysis	8015C		1			521795	06/15/18 02:42	LOJ	TAL NSH
Soluble	Leach	DI Leach			3.01 g	30 mL	521347	06/13/18 12:00	LDC	TAL NSH
Soluble	Analysis	9056		1			521596	06/13/18 17:35	T1C	TAL NSH

Client Sample ID: SB3 0-1'
Date Collected: 06/06/18 11:28
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			521273	06/12/18 14:37	BAA	TAL NSH

Client Sample ID: SB3 0-1'
Date Collected: 06/06/18 11:28
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-2
Matrix: Solid
Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.60 g	5.0 mL	520848	06/11/18 09:49	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	521957	06/15/18 11:07	S1S	TAL NSH
Total/NA	Prep	5030B			5.18 g	5.0 mL	520847	06/11/18 09:49	JLP	TAL NSH
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	522497	06/17/18 20:40	S1S	TAL NSH
Total/NA	Prep	3550C			25.05 g	1.00 mL	520680	06/09/18 12:00	AMD	TAL NSH
Total/NA	Analysis	8015C		1			521795	06/15/18 03:00	LOJ	TAL NSH
Soluble	Leach	DI Leach			3.02 g	30 mL	521347	06/13/18 12:00	LDC	TAL NSH
Soluble	Analysis	9056		1			521596	06/13/18 18:19	T1C	TAL NSH

Lab Chronicle

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-1

Client Sample ID: SB4 0-1'
Date Collected: 06/06/18 11:35
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			521273	06/12/18 14:37	BAA	TAL NSH

Client Sample ID: SB4 0-1'
Date Collected: 06/06/18 11:35
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-3
Matrix: Solid
Percent Solids: 74.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.26 g	5.0 mL	520848	06/11/18 09:49	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	521957	06/15/18 11:35	S1S	TAL NSH
Total/NA	Prep	5030B			5.86 g	5.0 mL	520847	06/11/18 09:49	JLP	TAL NSH
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	522497	06/17/18 21:10	S1S	TAL NSH
Total/NA	Prep	3550C			25.63 g	1.00 mL	520680	06/09/18 12:00	AMD	TAL NSH
Total/NA	Analysis	8015C		1			521795	06/15/18 03:17	LOJ	TAL NSH
Soluble	Leach	DI Leach			2.95 g	30 mL	521347	06/13/18 12:00	LDC	TAL NSH
Soluble	Analysis	9056		1			521596	06/13/18 18:34	T1C	TAL NSH

Client Sample ID: SB1 4-5'
Date Collected: 06/06/18 11:22
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			521273	06/12/18 14:37	BAA	TAL NSH

Client Sample ID: SB1 4-5'
Date Collected: 06/06/18 11:22
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-4
Matrix: Solid
Percent Solids: 80.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.52 g	5.0 mL	520848	06/11/18 09:49	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	521957	06/15/18 12:02	S1S	TAL NSH
Total/NA	Prep	5030B			5.52 g	5.0 mL	520847	06/11/18 09:49	JLP	TAL NSH
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	522497	06/17/18 21:40	S1S	TAL NSH
Total/NA	Prep	3550C			25.12 g	1.00 mL	520680	06/09/18 12:00	AMD	TAL NSH
Total/NA	Analysis	8015C		1			521795	06/15/18 03:35	LOJ	TAL NSH
Soluble	Leach	DI Leach			3.03 g	30 mL	521347	06/13/18 12:00	LDC	TAL NSH
Soluble	Analysis	9056		5			521724	06/14/18 12:51	SW1	TAL NSH

Client Sample ID: SB1 9-10'
Date Collected: 06/06/18 11:27
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			521273	06/12/18 14:37	BAA	TAL NSH

Lab Chronicle

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-1

Client Sample ID: SB1 9-10'
Date Collected: 06/06/18 11:27
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-5
Matrix: Solid
Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			5.48 g	5.0 mL	520848	06/11/18 09:49	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5 g	5 mL	521957	06/15/18 12:30	S1S	TAL NSH
Total/NA	Prep	5030B			5.48 g	5.0 mL	520847	06/11/18 09:49	JLP	TAL NSH
Total/NA	Analysis	8015C		1	0.1 mL	5 mL	522497	06/17/18 22:10	S1S	TAL NSH
Total/NA	Prep	3550C			25.14 g	1.00 mL	520680	06/09/18 12:00	AMD	TAL NSH
Total/NA	Analysis	8015C		1			521795	06/15/18 03:52	LOJ	TAL NSH
Total/NA	Prep	3550C			25.14 g	1.00 mL	520680	06/09/18 12:00	AMD	TAL NSH
Total/NA	Analysis	8015C		5			522376	06/16/18 18:10	GMH	TAL NSH
Soluble	Leach	DI Leach			3.05 g	30 mL	521347	06/13/18 12:00	LDC	TAL NSH
Soluble	Analysis	9056		1			521596	06/13/18 19:04	T1C	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8015C	Nonhalogenated Organics using GC/FID -Modified (Gasoline Range Organics)	SW846	TAL NSH
8015C	Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	SW846	TAL NSH
9056	Anions, Ion Chromatography	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH
3550C	Ultrasonic Extraction	SW846	TAL NSH
5030B	Purge and Trap	SW846	TAL NSH
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL NSH

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-1

Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-19
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-18
Arizona	State Program	9	AZ0473	05-05-19
Arkansas DEQ	State Program	6	88-0737	04-25-19
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-18
Georgia	State Program	4	E87358(FL)/453.07(A2LA)	06-30-18
Illinois	NELAP	5	200010	12-09-18
Iowa	State Program	7	131	04-01-18 *
Kansas	NELAP	7	E-10229	10-31-18
Kentucky (UST)	State Program	4	19	06-30-18
Kentucky (WW)	State Program	4	90038	12-31-18
Louisiana	NELAP	6	30613	06-30-18
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-19
Massachusetts	State Program	1	M-TN032	06-30-18
Minnesota	NELAP	5	047-999-345	12-31-18
Mississippi	State Program	4	N/A	06-30-18
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-18
New Hampshire	NELAP	1	2963	10-09-18
New Jersey	NELAP	2	TN965	06-30-18
New York	NELAP	2	11342	03-31-19
North Carolina (WW/SW)	State Program	4	387	12-31-18
North Dakota	State Program	8	R-146	06-30-18
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-18
Oregon	NELAP	10	TN200001	04-26-19
Pennsylvania	NELAP	3	68-00585	06-30-18
Rhode Island	State Program	1	LAO00268	12-30-18
South Carolina	State Program	4	84009 (001)	02-28-18 *
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-18
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-18
Virginia	NELAP	3	460152	06-14-18 *
Washington	State Program	10	C789	07-19-18
West Virginia DEP	State Program	3	219	02-28-19
Wisconsin	State Program	5	998020430	08-31-18
Wyoming (UST)	A2LA	8	453.07	12-31-19

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-1

Laboratory: TestAmerica Houston (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Texas	NELAP	6	T104704223-17-22	10-31-18
USDA	Federal		P330-18-00130	04-30-21

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

490-153479 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 6/8/2018 @ 0920

Time Samples Removed From Cooler 1853 Time Samples Placed In Storage 1902 (2 Hour Window)

1. Tracking # 7055 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17610176 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 3.2 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 (Front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) 2d

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) GH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) GH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) GH

I certify that I attached a label with the unique LIMS number to each container (intial) GH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040-5862
Phone: 713.690.4444 Fax: 713.690.5646

Chain of Custody Record

177261

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Dean Joiner	Site Contact:	Date: 6/7/18	COC No:
Company Name: Timberwolf	Tel/Fax:	Lab Contact:	Carrier:	1 of 1 COCs
Address: 1920 W. Villa Maria	Analysis Turnaround Time			Sampler:
City/State/Zip: Bryan TX 77807	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Enfield 170054	☑ 1 week			
Site:	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	TPH 8015 Extended	BTEX	Chloride	HOLD	Sample Specific Notes:
SB2 0-1'	6/6/18	1122	G	Soil	2	N		✓	✓	✓		
SB3 0-1'		1128						✓	✓	✓		
SB4 0-1'		1135						✓	✓	✓		
SB1 4-5'		1122						✓	✓	✓		
SB1 9-10'		1127						✓	✓	✓		
SB1 14-15'		1135									✓	
SB1 19-20'		1142									✓	
SB1 24-25'		1147									✓	

Loc: 490
153479

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

3-2°C

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Ronald Green	Timberwolf	6/7/18 1110		TA-NAS	6-8-18 / 0920
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

6/19/2018

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Tel: (615)726-0177

TestAmerica Job ID: 490-153479-2
Client Project/Site: Enfield 170054

For:
Timberwolf Environmental LLC
1920 W. Vill Maria
Suite 305-2 Box 205
Bryan, Texas 77807

Attn: Mr. James Foster

Authorized for release by:
6/27/2018 12:44:42 PM
Taylor Bruzzio, Project Management Assistant I
(361)289-2673
taylor.bruzzio@testamericainc.com

Designee for

Dean Joiner, Project Manager II
(713)690-4444
dean.joiner@testamericainc.com

Table of Contents

Sample Summary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-153479-6	SB1 14-15'	Solid	06/06/18 11:35	06/08/18 09:20
490-153479-7	SB1 19-20'	Solid	06/06/18 11:42	06/08/18 09:20
490-153479-8	SB1 24-25'	Solid	06/06/18 11:47	06/08/18 09:20

Case Narrative

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Job ID: 490-153479-2

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-153479-2

Comments
No additional comments.

Receipt
The samples were received on 6/8/2018 9:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.2º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Client Sample ID: SB1 14-15'
Date Collected: 06/06/18 11:35
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-6
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	15.4		0.1	0.1	%			06/21/18 14:24	1
Percent Solids	84.6		0.1	0.1	%			06/21/18 14:24	1

Client Sample Results

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Client Sample ID: SB1 14-15'
Date Collected: 06/06/18 11:35
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-6
Matrix: Solid
Percent Solids: 84.6

Method: 9056 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	200	F1	12	8.2	mg/Kg	☼		06/25/18 20:36	1

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Client Sample ID: SB1 19-20'
Date Collected: 06/06/18 11:42
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-7
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.9		0.1	0.1	%			06/21/18 14:24	1
Percent Solids	92.1		0.1	0.1	%			06/21/18 14:24	1

Client Sample Results

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Client Sample ID: SB1 19-20'
Date Collected: 06/06/18 11:42
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-7
Matrix: Solid
Percent Solids: 92.1

Method: 9056 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	33		11	7.6	mg/Kg	☼		06/25/18 21:20	1

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Client Sample ID: SB1 24-25'
Date Collected: 06/06/18 11:47
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-8
Matrix: Solid

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	6.1		0.1	0.1	%			06/21/18 14:24	1
Percent Solids	93.9		0.1	0.1	%			06/21/18 14:24	1

Client Sample Results

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Client Sample ID: SB1 24-25'
Date Collected: 06/06/18 11:47
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-8
Matrix: Solid
Percent Solids: 93.9

Method: 9056 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10	J	11	7.4	mg/Kg	☼		06/25/18 21:35	1

Method: 9056 - Anions, Ion Chromatography

Lab Sample ID: MB 490-524060/1-A
Matrix: Solid
Analysis Batch: 524613

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.0	U	10	7.0	mg/Kg			06/25/18 19:52	1

Lab Sample ID: LCS 490-524060/2-A
Matrix: Solid
Analysis Batch: 524613

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			100	93.9		mg/Kg		94	80 - 120		

Lab Sample ID: LCSD 490-524060/3-A
Matrix: Solid
Analysis Batch: 524613

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride			101	95.6		mg/Kg		95	80 - 120	2	20

Lab Sample ID: 490-153479-6 MS
Matrix: Solid
Analysis Batch: 524613

Client Sample ID: SB1 14-15'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	200	F1	116	320		mg/Kg	☼	102	80 - 120		

Lab Sample ID: 490-153479-6 MSD
Matrix: Solid
Analysis Batch: 524613

Client Sample ID: SB1 14-15'
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	200	F1	117	362	F1	mg/Kg	☼	138	80 - 120	12	20

Method: Moisture - Percent Moisture

Lab Sample ID: 490-153479-6 DU
Matrix: Solid
Analysis Batch: 523650

Client Sample ID: SB1 14-15'
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	15.4			14.5		%				6	20
Percent Solids	84.6			85.5		%				1	20

QC Association Summary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

HPLC/IC

Leach Batch: 524060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-6	SB1 14-15'	Soluble	Solid	DI Leach	
490-153479-7	SB1 19-20'	Soluble	Solid	DI Leach	
490-153479-8	SB1 24-25'	Soluble	Solid	DI Leach	
MB 490-524060/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 490-524060/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 490-524060/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
490-153479-6 MS	SB1 14-15'	Soluble	Solid	DI Leach	
490-153479-6 MSD	SB1 14-15'	Soluble	Solid	DI Leach	

Analysis Batch: 524613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-6	SB1 14-15'	Soluble	Solid	9056	524060
490-153479-7	SB1 19-20'	Soluble	Solid	9056	524060
490-153479-8	SB1 24-25'	Soluble	Solid	9056	524060
MB 490-524060/1-A	Method Blank	Soluble	Solid	9056	524060
LCS 490-524060/2-A	Lab Control Sample	Soluble	Solid	9056	524060
LCSD 490-524060/3-A	Lab Control Sample Dup	Soluble	Solid	9056	524060
490-153479-6 MS	SB1 14-15'	Soluble	Solid	9056	524060
490-153479-6 MSD	SB1 14-15'	Soluble	Solid	9056	524060

General Chemistry

Analysis Batch: 523650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-153479-6	SB1 14-15'	Total/NA	Solid	Moisture	
490-153479-7	SB1 19-20'	Total/NA	Solid	Moisture	
490-153479-8	SB1 24-25'	Total/NA	Solid	Moisture	
490-153479-6 DU	SB1 14-15'	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Client Sample ID: SB1 14-15'
Date Collected: 06/06/18 11:35
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			523650	06/21/18 14:24	BAA	TAL NSH

Client Sample ID: SB1 14-15'
Date Collected: 06/06/18 11:35
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-6
Matrix: Solid
Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			3.01 g	30 mL	524060	06/23/18 08:45	JHS	TAL NSH
Soluble	Analysis	9056		1			524613	06/25/18 20:36	SW1	TAL NSH

Client Sample ID: SB1 19-20'
Date Collected: 06/06/18 11:42
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			523650	06/21/18 14:24	BAA	TAL NSH

Client Sample ID: SB1 19-20'
Date Collected: 06/06/18 11:42
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-7
Matrix: Solid
Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			3.00 g	30 mL	524060	06/23/18 08:45	JHS	TAL NSH
Soluble	Analysis	9056		1			524613	06/25/18 21:20	SW1	TAL NSH

Client Sample ID: SB1 24-25'
Date Collected: 06/06/18 11:47
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			523650	06/21/18 14:24	BAA	TAL NSH

Client Sample ID: SB1 24-25'
Date Collected: 06/06/18 11:47
Date Received: 06/08/18 09:20

Lab Sample ID: 490-153479-8
Matrix: Solid
Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			3.04 g	30 mL	524060	06/23/18 08:45	JHS	TAL NSH
Soluble	Analysis	9056		1			524613	06/25/18 21:35	SW1	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Method Summary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Method	Method Description	Protocol	Laboratory
9056	Anions, Ion Chromatography	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL NSH

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Accreditation/Certification Summary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-19
Alaska (UST)	State Program	10	UST-087	06-30-18 *
Arizona	State Program	9	AZ0473	05-05-19
Arkansas DEQ	State Program	6	88-0737	04-25-19
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-19
Florida	NELAP	4	E87358	06-30-18 *
Georgia	State Program	4	NA: NELAP & A2LA	12-31-19
Illinois	NELAP	5	200010	12-09-18
Iowa	State Program	7	131	04-01-18 *
Kansas	NELAP	7	E-10229	10-31-18
Kentucky (UST)	State Program	4	19	06-30-18 *
Kentucky (WW)	State Program	4	90038	12-31-18
Louisiana	NELAP	6	30613	06-30-18 *
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-19
Massachusetts	State Program	1	M-TN032	06-30-18 *
Minnesota	NELAP	5	047-999-345	12-31-18
Mississippi	State Program	4	N/A	06-30-19
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-18
New Hampshire	NELAP	1	2963	10-09-18
New Jersey	NELAP	2	TN965	06-30-18 *
New York	NELAP	2	11342	03-31-19
North Carolina (WW/SW)	State Program	4	387	12-31-18
North Dakota	State Program	8	R-146	06-30-18 *
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-18
Oregon	NELAP	10	TN200001	04-26-19
Pennsylvania	NELAP	3	68-00585	06-30-18 *
Rhode Island	State Program	1	LAO00268	12-30-18
South Carolina	State Program	4	84009 (001)	02-28-18 *
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-18
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-18
Virginia	NELAP	3	460152	06-14-19
Washington	State Program	10	C789	07-19-18
West Virginia DEP	State Program	3	219	02-28-19
Wisconsin	State Program	5	998020430	08-31-18
Wyoming (UST)	A2LA	8	453.07	12-31-19

Laboratory: TestAmerica Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	17-051-0	08-04-18
Louisiana	NELAP	6	01967	06-30-18
Oklahoma	State Program	6	2017-138	08-31-18
Texas	NELAP	6	T104704223-17-22	10-31-18

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Timberwolf Environmental LLC
Project/Site: Enfield 170054

TestAmerica Job ID: 490-153479-2

Laboratory: TestAmerica Houston (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
USDA	Federal		P330-18-00130	04-30-21

Joiner, Dean

From: Russell Greer <russell@teamtimberwolf.com>
Sent: Wednesday, June 20, 2018 10:07 AM
To: Joiner, Dean; Bailey Moore; Clay Morris; Jim Foster; Kaitlyn Jacisin; Kevin Cole; Morgan Vizi; Preston Kocian; Ryan Mersmann
Subject: RE: TestAmerica report files from 490-153479-1 Enfield 170054

-External Email-

Dean,

We need to run the following samples for chloride and TPH using Method 8015 extended range:

- SB1 14-15'
- SB1 19-20'
- SB1 24-25'

Please let me know if you have any questions. Thanks,

Russell Greer

TIMBERWOLF ENVIRONMENTAL

1920 W. Villa Maria, Suite 205 (Box 205)
Bryan, Texas 77807
(979) 450-1509

From: Joiner, Dean [mailto:dean.joiner@testamericainc.com]
Sent: Tuesday, June 19, 2018 6:35 PM
To: Bailey Moore <bailey@teamtimberwolf.com>; Clay Morris <clay@teamtimberwolf.com>; Jim Foster <jim@teamtimberwolf.com>; Kaitlyn Jacisin <kaitlyn@teamtimberwolf.com>; Kevin Cole <kevin@teamtimberwolf.com>; Morgan Vizi <morgan@teamtimberwolf.com>; Preston Kocian <preston@teamtimberwolf.com>; Russell Greer <russell@teamtimberwolf.com>; Ryan Mersmann <ryan@teamtimberwolf.com>
Subject: TestAmerica report files from 490-153479-1 Enfield 170054

Hello,

Attached please find the report files for job 490-153479-1; Enfield 170054

Please feel free to contact me if you have any questions.

Thank you.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback

DEAN A JOINER
Project Manager

TestAmerica Houston
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 713.690.4444
www.testamericainc.com

Reference: [430564]
Attachments: 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

490-153479 Chain of Custody

COOLER RECEIPT FORM

Cooler Received/Opened On 6/8/2018 @ 0920

Time Samples Removed From Cooler 1853 Time Samples Placed In Storage 1902 (2 Hour Window)

1. Tracking # 7055 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 17610176 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 3.2 *Degrees Celsius*

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1 (Front)

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) 2d

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

Larger than this.

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) GH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) GH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) GH

I certify that I attached a label with the unique LIMS number to each container (intial) GH

21. Were there Non-Conformance issues at login? YES...NO Was a NCM generated? YES...NO...#_____

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 8/23/17

TestAmerica Houston
6310 Rothway Street
Houston, TX 77040-5862
Phone: 713.690.4444 Fax: 713.690.5646

Chain of Custody Record

177261

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Dean Joiner	Site Contact:	Date: 6/7/18	COC No:
Company Name: Timberwolf	Tel/Fax:	Lab Contact:	Carrier:	1 of 1 COCs
Address: 1920 W. Villa Maria	Analysis Turnaround Time			Sampler:
City/State/Zip: Bryan TX 77807	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Enfield 170054	☑ 1 week			
Site:	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	TPH 8015 Extended	BTEX	Chloride	H2O	Sample Specific Notes:
SB2 0-1'	6/6/18	1122	G	Soil	2	N		✓	✓	✓		
SB3 0-1'		1128						✓	✓	✓		
SB4 0-1'		1135						✓	✓	✓		
SB1 4-5'		1122						✓	✓	✓		
SB1 9-10'		1127						✓	✓	✓		
SB1 14-15'		1135									✓	
SB1 19-20'		1142									✓	
SB1 24-25'		1147									✓	

Loc: 490
153479

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

3-2°C

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Dwight Green	Timberwolf	6/7/18 1110		TA-NAS	6-8-18 / 0920
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: