REVIEWED
By TK at 8:33 am, May 20, 2025

AMERICAN
ENGINEERING TESTING

REPORT OF UNDERGROUND STORAGE TANK SYSTEM REMOVAL

Rafter J Bar Ranch Campground
12325 Rafter J Bar Road
Hill City, South Dakota

AET Project No. P-0037360
DANR Tank Facility ID 02-00263

Date:
May 16, 2025

Prepared for:
Rafter J Bar Ranch Campground
12325 Rafter J Bar Road
Hill City, South Dakota 57745

Geotechnical • Materials
Forensic • Environmental
Building Technology
Petrography/Chemistry

American Engineering Testing
1745 Samco Road
Rapid City, SD 57702
TeamAET.com • 800.792.6364

May 16, 2025

Rafter J Bar Ranch Campground
12325 Rafter J Bar Road
Hill City, SD 57745

Attn: Sam Ferebee, General Manager
Email: rafterjcampground@icloud.com

Re: Report of Underground Storage Tank System Removal
Rafter J Bar Ranch Campground
12325 Rafter J Bar Road
Hill City, South Dakota
AET Project No. P-0037360
DANR Tank Facility ID 02-00263

Dear Mr. Ferebee,

American Engineering Testing (AET) has completed the enclosed report of Underground Storage Tank System Removal at the Rafter J Bar Ranch Campground. These services were performed according to our proposal dated September 19, 2024, and signed authorization to proceed on October 3, 2024. The attached report of our findings is being submitted as an E-document. If you require hard copies of the report, please let us know and they will be made available.

We appreciate the opportunity to have been of service to you on this project. If you have any questions regarding the information presented in this report or if we can be of additional assistance, please contact me.

Sincerely,
American Engineering Testing

Bradley P. Bishop, CPRR
Senior Environmental Project Manager
bbishop@teamaet.com
Office: (605) 388-0029

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UNDERGROUND STORAGE TANK SYSTEM REMOVAL
RAFTER J BAR RANCH CAMPGROUND
12325 RAFTER J BAR ROAD, HILL CITY, SOUTH DAKOTA
AET REPORT No. P-0037360

1. INTRODUCTION

1.1 Site Description

The physical location of the project site (site) is 12325 Rafter J Bar Road, Hill City, South Dakota (SD) (Figures 1 and 2, Appendix A). The Public Land Survey System (PLSS) location of the site is described as the SW ¼ of the NW ¼ of Section 12, Township 2 South, Range 4 East, Black Hills Principal Meridian, Pennington County, SD. The latitude/longitude of the site is 43.891434°, -103.593106° as determined using Google Earth Pro software.

1.2 Background Information

According to information provided by Rafter J Bar Ranch Campground (client), the site maintained an underground storage tank (UST) system including two 6,000-gallon USTs and two dispensers used for the storage and distribution of gasoline. Records maintained through the SD Department of Agriculture and Natural Resources (DANR) online database indicate that the system was installed in 1991. The DANR Facility Number for this tank site is 02-00263.

1.3 Site Geology and Hydrogeology

The native soil surrounding the area of the UST basin was indicative of metamorphosed tuffaceous shale and consisted predominantly of silty to sandy lean clay with weathered schist and inclusions of muscovite. This is consistent with SD Geologic Survey document titled “Geologic Map of South Dakota” by Martin, J.E., Sawyer, J.F., Fahrenbach, M.D., Tomhave, D.W., and Schulz, L.D., 2004, which describes metamorphosed tuffaceous shale in the site area as light-gray to light-tan, muscovite schist and muscovite phyllite with a thickness of approximately 1,000 - 3,000 feet (ft).

Groundwater was not encountered during the UST basin excavation but is estimated to be at a depth greater than 20 ft below grade (bg). The nearest surface water is Spring Creek which is located approximately 700 ft east of the site and flows to the north.

1.4 Scope of Work

The scope of work we performed on this project consisted of the following items:

1. coordinating the removal of the UST system with an excavation contractor hired by the property client;

2. mobilizing one environmental professional that is a licensed Petroleum Release Remediator from our Rapid City, SD, office to observe and document the removal of the UST system;

3. monitoring the ambient air present within the USTs for percent oxygen content using a combustible gas indicator (CGI) prior to removal of the USTs from the UST basin;

4. observing and documenting the condition of the overburden and bedding material adjacent to the USTs as they were uncovered during excavation activities;

5. screening the overburden and bedding material adjacent to the USTs for the presence of organic vapors as an indication of petroleum hydrocarbon impacts;

6. observing and documenting the physical condition of the USTs upon their removal;

7. observing and documenting the condition of the soils beneath the USTs and distribution pumps;

8. screening the soils beneath the USTs and distribution pumps for the presence of organic vapors as an indication of petroleum hydrocarbon impacts;

9. collecting a representative sample of soil exhibiting petroleum impacts and analyzing the sample for the presence and concentration of total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethylbenzene, xylenes (BTEX), naphthalene, and TCLP eight RCRA metals, as required for landfill disposal;

10. coordinate with the Rapid City Landfill to obtain approval for the excavation contractor to dispose of the petroleum impacted soil;

11. collecting representative closure soil samples from the floor of the final UST basin excavation, and beneath distribution pumps, in accordance with DANR Handbook

guidelines, and analyzing the samples for the presence and concentration of TPH-G, BTEX, and naphthalene; and

12. providing a report containing data obtained during our field work, along with our conclusions and recommendations based on that data.

2. PROJECT RESULTS

2.1 UST Excavation Activities

AET personnel mobilized to the site on April 1, 2025, to meet with the excavation contractor (Nielsen Construction), to inspect the site, and initiate the field activities associated with the UST system removal. Upon arrival, Nielsen Construction personnel began the process of inerting each of the USTs with dry ice via carbon dioxide displacement. The tanks were both inerted and confirmed to have oxygen concentrations below 10%. Nielsen Construction then removed the concrete surface cover from over the tanks and began excavation and removal activities. The soil profile encountered during the UST excavation activities at the site consisted mostly of granular bedding material (crushed limestone) surrounding the tanks. The native soil in the sidewalls of the UST basin consisted of silty to sandy lean clay with weathered schist and inclusions of muscovite. Groundwater was not encountered within the excavation. Visual and olfactory indications of petroleum hydrocarbon impacts were observed in the upper foot of the excavated material near the northwest and southeast corners of the raised concrete pump island. No other evident petroleum impacted soil or bedding material was encountered during the UST system removal.

2.2 Soil Sample Screening Results

For field observation and screening purposes, AET collected a total of 20 soil samples in the area of the UST basin and dispensers. Samples were collected and screened for the presence and concentration of organic vapors as an indication of petroleum hydrocarbon impacts using methods presented in Appendix B.

Elevated organic vapor headspace concentrations (>50 parts per million [ppm]) were observed near the northwest and southeast corners of the pump island within the bedding material extending approximately 1 ft bg. The highest screening concentration was observed near the southeast corner of the pump island with an organic vapor concentration of 226.4 ppm at a depth of 0.5 ft bg. Other than directly beneath the pump island, no elevated organic vapor concentrations were observed during the UST system removal activities. Refer to Figure 3, Appendix A for an illustration of the USTs, dispensers, soil sample screening locations, and organic vapor screening results.

2.3 Soil Sample Analytical Results

Upon observation of petroleum impacted bedding material directly beneath the concrete around the pump island (near the northeast and southwest corners of the pump island), AET directed the segregation of the impacted soil into a stockpile to be hauled to the Rapid City Landfill at a later date. One representative composite soil sample was collected from the petroleum impacted soil stockpile to provide the laboratory analytical documentation required for disposal at the Rapid City Landfill. The soil was analyzed for the presence and concentration of TPH-G, BTEX, naphthalene, and TCLP eight RCRA metals, using methods described in Appendix B. The analytical results of the petroleum impacted soil stockpile sample are presented below in Table 1 (Sample ID: “Bulk Stockpile”), and the laboratory report is included in Appendix C.

Per the DANR Handbook requirements, AET selected UST system closure samples which included one soil sample from beneath each of the dispensers and two soil samples from beneath each of the USTs (6 samples total) to document potential petroleum impacts remaining in the soil surrounding the former UST system. The samples were analyzed for the presence and concentration of TPH-G, BTEX, and naphthalene, using methods described in Appendix B. The laboratory analytical results for the closure soil samples are presented in Table 1 and the laboratory report is included in Appendix C. For comparison, the DANR Tier 1 Trigger/Action Levels for soils at petroleum release sites are also presented in Table 1.

Review of the laboratory analytical results indicate that the soil which was segregated and stockpiled for removal and disposal at the Rapid City Landfill had a petroleum constituent concentration in exceedance of the respective DANR Tier 1 Trigger Level for TPH-G. The analytical results for the closure samples collected from beneath the dispensers and USTs indicate that all petroleum constituent concentrations were below their respective practical quantitation limits (PQLs) which are below the DANR Tier 1 Trigger/Action Levels.

Table 1
Laboratory Analytical Data[1]

Sample ID	Depth[2]	TPH-G	Benzene	Toluene	Ethyl Benzene	Xylenes	Naphthalene
Bulk Stockpile	--	***557***[3]	<0.200[4]	<0.453	5.61	29.3	~~<0.200~~ 2.15
W. Dispenser (7)	0.7	<10.0	<0.050	<0.100	<0.100	<0.200	<0.200
E. Dispenser (8)	0.7	<10.0	<0.050	<0.100	<0.100	<0.200	<0.200
S Tank E (13)	12	<10.0	<0.050	<0.100	<0.100	<0.200	<0.200
S Tank W (12)	12	<10.0	<0.050	<0.100	<0.100	<0.200	<0.200
N Tank E (3)	12	<10.0	<0.050	<0.100	<0.100	<0.200	<0.200
N Tank W (2)	12	<10.0	<0.050	<0.100	<0.100	<0.200	<0.200
DANR Tier 1 Trigger/Action Levels		500	0.2	15	10	300	25

[1] All values are in mg/kg, which is equivalent to parts per million, unless otherwise noted.
[2] Depth measured in feet below grade.
[3] Values listed in ***bold italics*** indicate concentration exceeded Tier 1 Trigger or Action Levels.
[4] "<" denotes analyte not detected at or above the practical quantitation limit following the "less than" symbol.

2.4 UST System Observations

The 6,000-gallon tanks were of steel construction and were approximately 8 ft wide by 16 ft long. The tanks appeared to be in excellent condition with no corrosion and no visible evidence of holes or pitting. The dispensers also appeared to be in good condition and did not show any evidence of significant leaking.

Photographs taken during the UST system removal and excavation activities are enclosed in Appendix D.

2.5 Petroleum Impacted Soil Disposal

Upon observation of petroleum impacted bedding material directly beneath the concrete pump island (near the northeast and southwest corners of the pump island), AET directed the segregation of the impacted soil into a stockpile to be hauled to the Rapid City Landfill at a later date. On May 1, 2025, Nielsen Construction transported and disposed of the stockpiled petroleum impacted soil at the Rapid City Landfill. According to the landfill scale ticket, approximately 6.23 tons of soil were removed from the site and disposed of. A copy of the landfill scale ticket can be found in Appendix E.

3. CONCLUSIONS & RECOMMENDATIONS

During UST system removal activities, AET's observations and soil screening results identified the presence of petroleum hydrocarbon impacts within the shallow bedding material directly beneath the concrete near the corners of the raised concrete pump island. The petroleum impacts to the bedding material appeared to be the result of past surface releases during vehicle filling activities that infiltrated through the seams in the concrete. The impacted material was excavated, segregated, and sampled for petroleum constituents. Laboratory analytical results confirmed that the segregated soil had a TPH-G concentration in excess of the DANR Tier 1 Trigger Level. The segregated soil was subsequently disposed of as petroleum impacted soil at the Rapid City Landfill (total of 6.23 tons).

No other significant organic vapor concentrations or visual indications of petroleum impacts were observed within the native soil or bedding material during the UST system removal activities. UST system closure soil samples collected from beneath the dispensers and the USTs confirmed that petroleum analyte constituent concentrations were all below the laboratory PQLs, which are below the respective DANR Tier 1 Trigger/Action Levels. Based on the removal of the petroleum impacted soil from the site and the lack of petroleum hydrocarbon impacts measured in the closure soil samples, AET recommends no further assessment or remedial activity in association with the former UST system.

In addition, AET recommends that copies of this report be filed with the DANR, Office of Inspection, Compliance, and Remediation Program, Pierre and Rapid City, SD.

4. STANDARD OF CARE

The recommendations contained in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

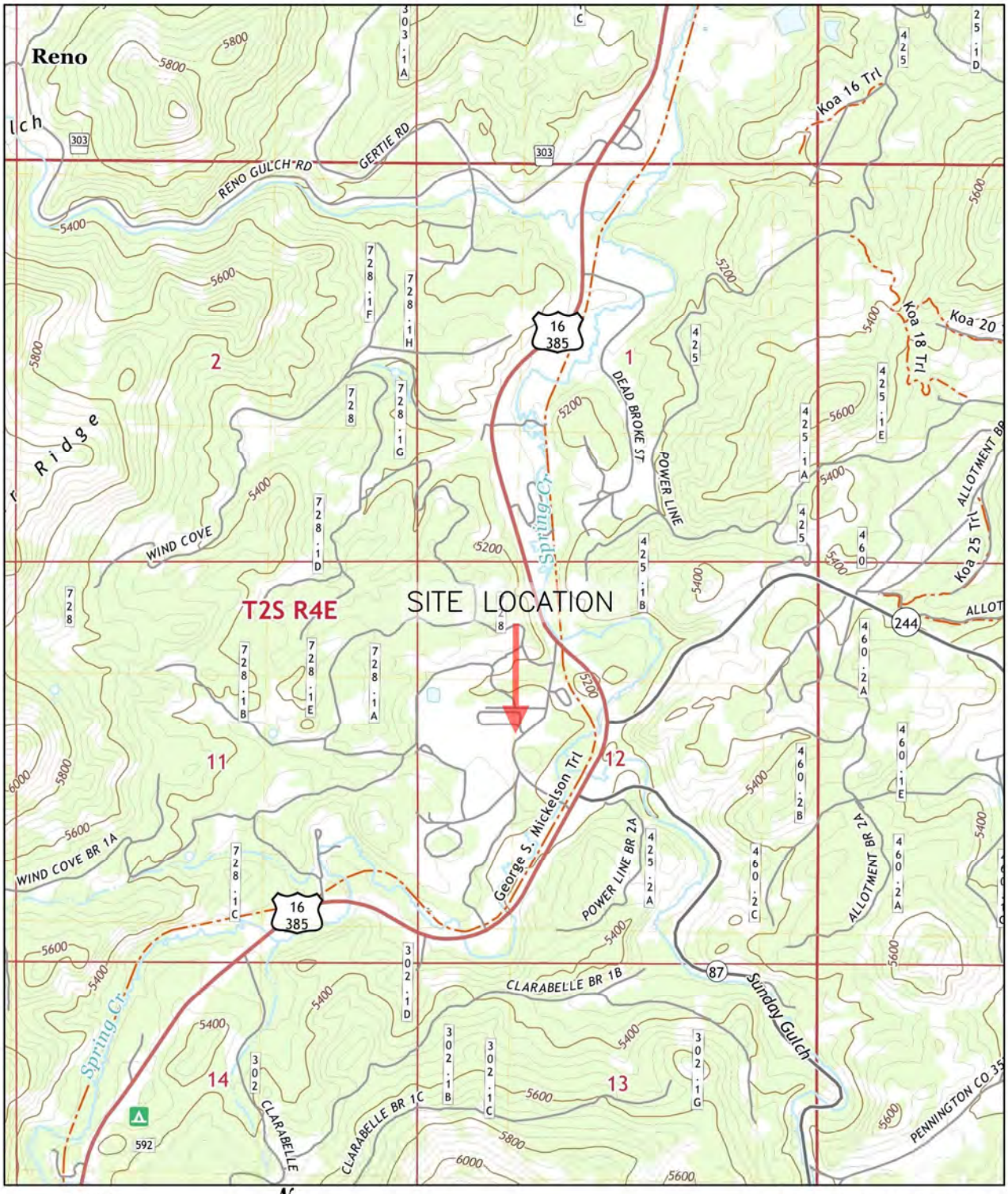
This report was prepared by:

Jeremy J. Huot, CPRR
Environmental Geologist

This report was reviewed by:

Bradley P. Bishop, CPRR
Senior Project Manager

APPENDIX A
Figures



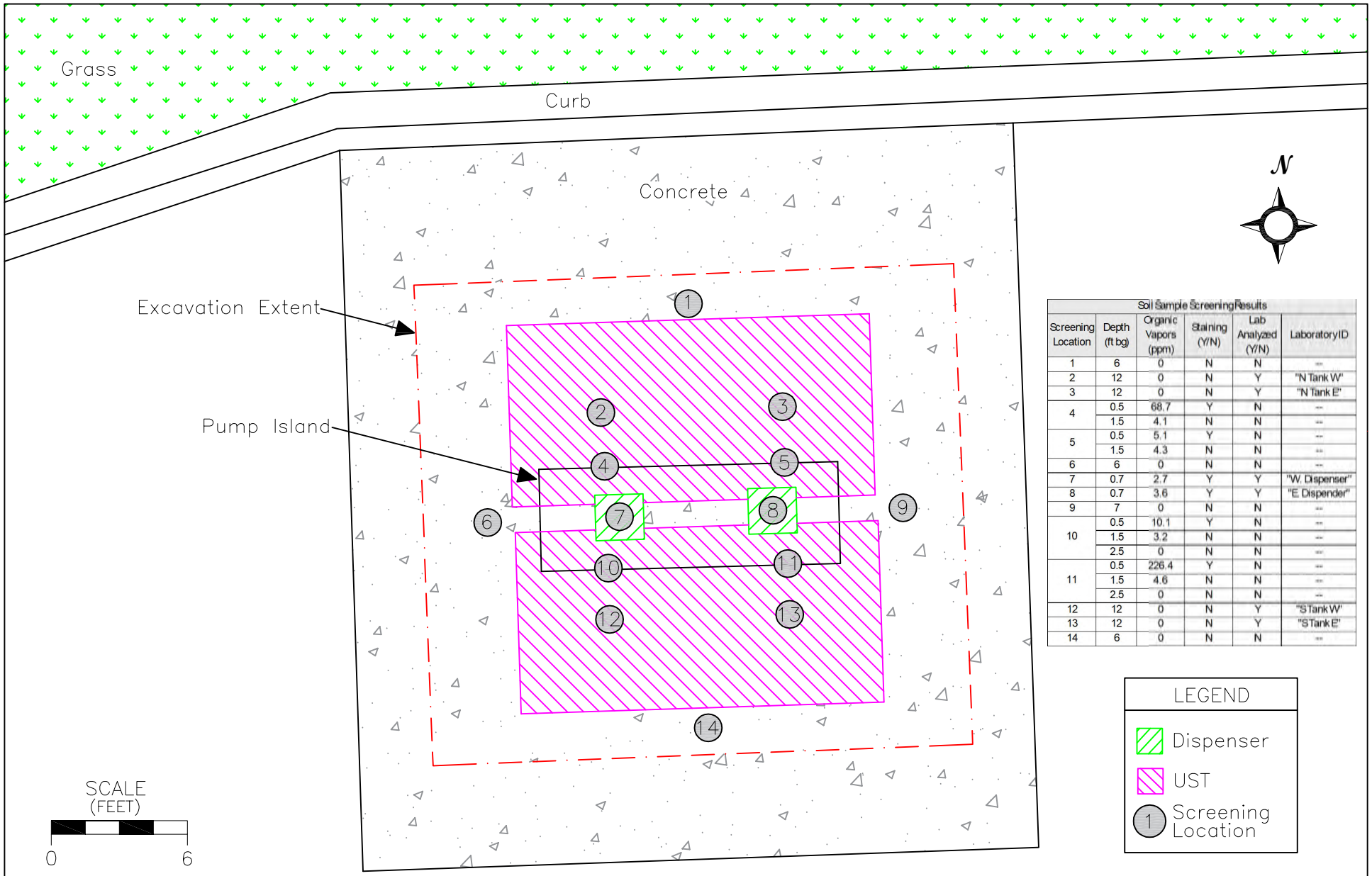
USGS TOPOGRAPHIC MAP
PROVIDED BY USGS DATABASE
DATED: 2021 SCALE: 1:24,000

AMERICAN
ENGINEERING TESTING

PROJECT: RAFTER J BAR RANCH UST REMOVAL 12325 RAFTER J–BAR ROAD, HILL CITY, SD		PROJECT NO.: P–0037360
SUBJECT: SITE LOCATION TOPO MAP	DRAWN BY: JJH	DATE: MAY 14, 2025
SCALE: 1 INCH = 2,000 FEET	REVIEWED BY: BPB	FIGURE: 1



AMERICAN ENGINEERING TESTING	PROJECT: RAFTER J BAR RANCH UST SYSTEM REMOVAL 12325 RAFTER J–BAR ROAD, HILL CITY, SD		PROJECT NO. P–0037360
	SUBJECT: SITE LOCATION AERIAL	DRAWN BY: JJH	DATE: MAY 14, 2025
	SCALE: 1 INCH = 200 FEET	REVIEWED BY: BPB	FIGURE: 2



Soil Sample Screening Results

Screening Location	Depth (ft bg)	Organic Vapors (ppm)	Staining (Y/N)	Lab Analyzed (Y/N)	Laboratory ID
1	6	0	N	N	--
2	12	0	N	Y	"N Tank W"
3	12	0	N	Y	"N Tank E"
4	0.5	68.7	Y	N	--
	1.5	4.1	N	N	--
5	0.5	5.1	Y	N	--
	1.5	4.3	N	N	--
6	6	0	N	N	--
7	0.7	2.7	Y	Y	"W. Dispenser"
8	0.7	3.6	Y	Y	"E. Dispender"
9	7	0	N	N	--
10	0.5	10.1	Y	N	--
	1.5	3.2	N	N	--
	2.5	0	N	N	--
11	0.5	226.4	Y	N	--
	1.5	4.6	N	N	--
	2.5	0	N	N	--
12	12	0	N	Y	"S Tank W"
13	12	0	N	Y	"S Tank E"
14	6	0	N	N	--

AMERICAN ENGINEERING TESTING

PROJECT: RAFTER J BAR RANCH UST SYSTEM REMOVAL 12325 RAFTER J-BAR ROAD, HILL CITY, SD		PROJECT NO. P-0037360
SUBJECT: SITE SKETCH WITH SOIL SAMPLE AND SCREENING LOCATIONS	DRAWN BY: JJH	DATE: MAY 14, 2025
SCALE: 1 INCH = 6 FEET	REVIEWED BY: BPB	FIGURE: 3

APPENDIX B
Methodologies

METHODOLOGIES

Soil Sample Screening

Soil screening and sampling activities included the collection of soil samples from the UST basin excavation and the dispenser pumps. The soils were visually examined during the excavation for discoloration and other indications of petroleum impacts. Organic vapor headspace analysis was conducted according to Standard Operating Procedures detailed in Appendix C, Section 1 of the DANR “Handbook for Investigation and Corrective Action Requirements for Discharges from Storage Tanks, Piping Systems, and Other Releases”.

The soil samples were screened for the presence of organic vapors as indications of hydrocarbon contamination using an Ion Science PhoCheck TIGER photoionization detector (PID). This instrument provides readings in parts per million (ppm) equivalents of the calibration gas. The lower detectable limit is approximately 1 ppm. Erratic responses were discounted as a result of high organic vapor concentrations or conditions of elevated headspace moisture. Occasionally, vapor interference may also be encountered from the plastic sample bags utilized for headspace analysis. The PID is calibrated on-site using the concentration (as recommended by the manufacturer) of Isobutylene gas with a 10.6 eV lamp source. Headspace vapor readings are obtained by partially filling a sealable plastic sample bag. The sample bag is agitated, and the soil is allowed to warm within the sealed container. The probe of the PID is inserted through the top of the sample container to obtain a headspace reading. Concentrations are recorded as the maximum level reached after insertion of the probe.

Chemical Analysis

The confirmation soil samples were analyzed in a certified laboratory for the presence and concentration of total petroleum hydrocarbons as gasoline (TPH-G), benzene, toluene, ethylbenzene, xylenes (BTEX), naphthalene and TCLP 8 RCRA metals. The samples were analyzed according to the appropriate Environmental Protection Agency (EPA) and/or California/United States Geological Survey (USGS) methods.

Chain of Custody

Upon collection of a sample to be analyzed in the laboratory, a chain of custody log was initiated. The chain of custody log includes the following information: project name, project number, shipped by, shipped to, project manager, sampling point, location, field identification number, date taken, sample type, number of containers, analysis required and sampler's signature. The chain of custody log is shipped with the samples to the laboratory. On arrival at the laboratory, the samples are checked in and signed over to the appropriate laboratory personnel. A copy of the chain of custody log is maintained by the project manager.

Reporting

Reports are prepared that 1) present and summarize the results of the work conducted, 2) include site location and study area maps, 3) give our opinion regarding the presence of petroleum hydrocarbons and the necessity for additional work, and 4) if the results of the study warrant additional work, recommend the scope of additional work.

APPENDIX C
Analytical Laboratory Report

MIDCONTINENT
TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

REVIEWED
By Jeremy Huot at 12:18 pm, May 15, 2025

AET
1745 SAMCO ROAD
RAPID CITY, SD 57702

Sample Site:	Bulk Stockpile
Project Name:	Rafter J Bar Ranch UST Removal
Project Number:	P-0037360
Sampled:	04/01/25 at 10:15 AM by Jeremy Huot
Sample Matrix:	Soil
Lab ID#:	20250402541
Received:	04/02/25 at 11:40 AM by Tanya Nelsen
Account:	W1202 - AET - Rapid City

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst	Date
Metals - TCLP								
Arsenic (As)	< 0.005	mg/L	10	0.00036	0.005	EPA SW846 6020	TNA	04/09/25
Barium (Ba)	1.05	mg/L	10	0.00073	0.005	EPA SW846 6020	TNA	04/09/25
Cadmium (Cd)	0.002	mg/L	10	0.000303	0.001	EPA SW846 6020	TNA	04/09/25
Chromium (Cr)	< 0.001	mg/L	10	0.000109	0.001	EPA SW846 6020 DRC	TNA	04/09/25
Lead (Pb)	0.002	mg/L	10	0.00015	0.001	EPA SW846 6020	TNA	04/09/25
Mercury (Hg)	< 0.0002	mg/L	1	0.000045	0.0002	EPA SW846 7471B	GRT	04/09/25
Selenium (Se)	< 0.005	mg/L	10	0.001	0.005	EPA SW846 6020	TNA	04/09/25
Silver (Ag)	< 0.001	mg/L	10	0.00014	0.001	EPA SW846 6020	TNA	04/09/25
Volatile								
Benzene	< 0.200	mg/kg	4	0.071	0.200	SW846 8021B-S	SAC	04/12/25
Ethylbenzene	5.61	mg/kg	4	0.064	0.400	SW846 8021B-S	SAC	04/12/25
Methyl tertiary-Butyl Ether	< 0.400	mg/kg	4	0.093	0.400	SW846 8021B-S	SAC	04/12/25
Naphthalene	2.15	mg/kg	4	0.099	0.800	SW846 8021B-S	SAC	04/12/25
Toluene	0.453	mg/kg	4	0.060	0.400	SW846 8021B-S	SAC	04/12/25
Xylenes(o,m,p)	29.3	mg/kg	4	0.240	0.800	SW846 8021B-S	SAC	04/12/25
Total Volatile Hydrocarbons								
TPH as Gasoline	557	mg/kg	4	2.76	40.0	SW846 8015B-S	SAC	04/12/25

Quality Control Data

Parameter	Result	Limits	DF	Method	Analyst	Date
Surrogate Recovery-Volatile						
4-Bromofluorobenzene	118.0 %	(65.70) - (142.0)	4	SW846 8021B QC	SAC	04/09/25

Report Approved By:



Report Approved On: 4/25/2025 11:18:54 AM

MIDCONTINENT
TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

Sample Site:	W. Dispenser
Project Name:	Rafter J Bar Ranch UST Removal
Project Number:	P-0037360
Sampled:	04/01/25 at 10:45 AM by Jeremy Huot
Sample Matrix:	Soil

AET
1745 SAMCO ROAD
RAPID CITY, SD 57702

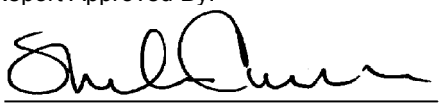
Lab ID#:	20250402542
Received:	04/02/25 at 11:40 AM by Tanya Nelsen
Account:	W1202 - AET - Rapid City

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
Volatile							
Benzene	< 0.050	mg/kg	1	0.018	0.050	SW846 8021B-S	SAC 04/09/25
Ethylbenzene	< 0.100	mg/kg	1	0.016	0.100	SW846 8021B-S	SAC 04/09/25
Methyl tertiary-Butyl Ether	< 0.100	mg/kg	1	0.023	0.100	SW846 8021B-S	SAC 04/09/25
Naphthalene	< 0.200	mg/kg	1	0.025	0.200	SW846 8021B-S	SAC 04/09/25
Toluene	< 0.100	mg/kg	1	0.015	0.100	SW846 8021B-S	SAC 04/09/25
Xylenes(o,m,p)	< 0.200	mg/kg	1	0.060	0.200	SW846 8021B-S	SAC 04/09/25
Total Volatile Hydrocarbons							
TPH as Gasoline	< 10.0	mg/kg	1	0.689	10.0	SW846 8015B-S	SAC 04/09/25

Quality Control Data

Parameter	Result	Limits	DF	Method	Analyst/Date
Surrogate Recovery-Volatile					
4-Bromofluorobenzene	99.90%	(65.70) - (142.0)	1	SW846 8021B QC	SAC 04/09/25

Report Approved By:



Report Approved On: 4/25/2025 11:18:54 AM

MIDCONTINENT
TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

Sample Site:	E. Dispenser
Project Name:	Rafter J Bar Ranch UST Removal
Project Number:	P-0037360
Sampled:	04/01/25 at 10:45 AM by Jeremy Huot
Sample Matrix:	Soil

AET
1745 SAMCO ROAD
RAPID CITY, SD 57702

Lab ID#:	20250402543
Received:	04/02/25 at 11:40 AM by Tanya Nelsen
Account:	W1202 - AET - Rapid City

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
Volatile							
Benzene	< 0.050	mg/kg	1	0.018	0.050	SW846 8021B-S	SAC 04/09/25
Ethylbenzene	< 0.100	mg/kg	1	0.016	0.100	SW846 8021B-S	SAC 04/09/25
Methyl tertiary-Butyl Ether	< 0.100	mg/kg	1	0.023	0.100	SW846 8021B-S	SAC 04/09/25
Naphthalene	< 0.200	mg/kg	1	0.025	0.200	SW846 8021B-S	SAC 04/09/25
Toluene	< 0.100	mg/kg	1	0.015	0.100	SW846 8021B-S	SAC 04/09/25
Xylenes(o,m,p)	< 0.200	mg/kg	1	0.060	0.200	SW846 8021B-S	SAC 04/09/25
Total Volatile Hydrocarbons							
TPH as Gasoline	< 10.0	mg/kg	1	0.689	10.0	SW846 8015B-S	SAC 04/09/25

Quality Control Data

Parameter	Result	Limits	DF	Method	Analyst/Date
Surrogate Recovery-Volatile					
4-Bromofluorobenzene	101.9 %	(65.70) - (142.0)	1	SW846 8021B QC	SAC 04/09/25

Report Approved By:

Report Approved On: 4/25/2025 11:18:54 AM

MIDCONTINENT
TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

Sample Site:	S Tank E
Project Name:	Rafter J Bar Ranch UST Removal
Project Number:	P-0037360
Sampled:	04/01/25 at 01:07 PM by Jeremy Huot
Sample Matrix:	Soil

AET
1745 SAMCO ROAD
RAPID CITY, SD 57702

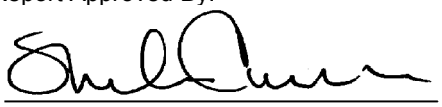
Lab ID#:	20250402544
Received:	04/02/25 at 11:40 AM by Tanya Nelsen
Account:	W1202 - AET - Rapid City

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst	Date
Volatile								
Benzene	< 0.050	mg/kg	1	0.018	0.050	SW846 8021B-S	SAC	04/09/25
Ethylbenzene	< 0.100	mg/kg	1	0.016	0.100	SW846 8021B-S	SAC	04/09/25
Methyl tertiary-Butyl Ether	< 0.100	mg/kg	1	0.023	0.100	SW846 8021B-S	SAC	04/09/25
Naphthalene	< 0.200	mg/kg	1	0.025	0.200	SW846 8021B-S	SAC	04/09/25
Toluene	< 0.100	mg/kg	1	0.015	0.100	SW846 8021B-S	SAC	04/09/25
Xylenes(o,m,p)	< 0.200	mg/kg	1	0.060	0.200	SW846 8021B-S	SAC	04/09/25
Total Volatile Hydrocarbons								
TPH as Gasoline	< 10.0	mg/kg	1	0.689	10.0	SW846 8015B-S	SAC	04/09/25

Quality Control Data

Parameter	Result	Limits	DF	Method	Analyst	Date
Surrogate Recovery-Volatile						
4-Bromofluorobenzene	102.4 %	(65.70) - (142.0)	1	SW846 8021B QC	SAC	04/09/25

Report Approved By:



Report Approved On: 4/25/2025 11:18:54 AM

MIDCONTINENT
TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

Sample Site:	S Tank W
Project Name:	Rafter J Bar Ranch UST Removal
Project Number:	P-0037360
Sampled:	04/01/25 at 01:00 PM by Jeremy Huot
Sample Matrix:	Soil

AET
1745 SAMCO ROAD
RAPID CITY, SD 57702

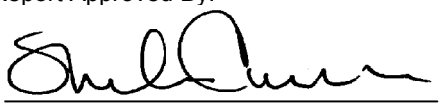
Lab ID#:	20250402545
Received:	04/02/25 at 11:40 AM by Tanya Nelsen
Account:	W1202 - AET - Rapid City

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
Volatile							
Benzene	< 0.050	mg/kg	1	0.018	0.050	SW846 8021B-S	SAC 04/09/25
Ethylbenzene	< 0.100	mg/kg	1	0.016	0.100	SW846 8021B-S	SAC 04/09/25
Methyl tertiary-Butyl Ether	< 0.100	mg/kg	1	0.023	0.100	SW846 8021B-S	SAC 04/09/25
Naphthalene	< 0.200	mg/kg	1	0.025	0.200	SW846 8021B-S	SAC 04/09/25
Toluene	< 0.100	mg/kg	1	0.015	0.100	SW846 8021B-S	SAC 04/09/25
Xylenes(o,m,p)	< 0.200	mg/kg	1	0.060	0.200	SW846 8021B-S	SAC 04/09/25
Total Volatile Hydrocarbons							
TPH as Gasoline	< 10.0	mg/kg	1	0.689	10.0	SW846 8015B-S	SAC 04/09/25

Quality Control Data

Parameter	Result	Limits	DF	Method	Analyst/Date
Surrogate Recovery-Volatile					
4-Bromofluorobenzene	101.8 %	(65.70) - (142.0)	1	SW846 8021B QC	SAC 04/09/25

Report Approved By:



Report Approved On: 4/25/2025 11:18:54 AM

MIDCONTINENT
TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

Sample Site:	N Tank E
Project Name:	Rafter J Bar Ranch UST Removal
Project Number:	P-0037360
Sampled:	04/01/25 at 01:50 PM by Jeremy Huot
Sample Matrix:	Soil

AET
1745 SAMCO ROAD
RAPID CITY, SD 57702

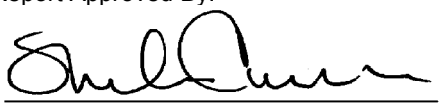
Lab ID#:	20250402546
Received:	04/02/25 at 11:40 AM by Tanya Nelsen
Account:	W1202 - AET - Rapid City

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst	Date
Volatile								
Benzene	< 0.050	mg/kg	1	0.018	0.050	SW846 8021B-S	SAC	04/09/25
Ethylbenzene	< 0.100	mg/kg	1	0.016	0.100	SW846 8021B-S	SAC	04/09/25
Methyl tertiary-Butyl Ether	< 0.100	mg/kg	1	0.023	0.100	SW846 8021B-S	SAC	04/09/25
Naphthalene	< 0.200	mg/kg	1	0.025	0.200	SW846 8021B-S	SAC	04/09/25
Toluene	< 0.100	mg/kg	1	0.015	0.100	SW846 8021B-S	SAC	04/09/25
Xylenes(o,m,p)	< 0.200	mg/kg	1	0.060	0.200	SW846 8021B-S	SAC	04/09/25
Total Volatile Hydrocarbons								
TPH as Gasoline	< 10.0	mg/kg	1	0.689	10.0	SW846 8015B-S	SAC	04/09/25

Quality Control Data

Parameter	Result	Limits	DF	Method	Analyst	Date
Surrogate Recovery-Volatile						
4-Bromofluorobenzene	102.4 %	(65.70) - (142.0)	1	SW846 8021B QC	SAC	04/09/25

Report Approved By:



Report Approved On: 4/25/2025 11:18:54 AM

MIDCONTINENT
TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

Sample Site:	N Tank W
Project Name:	Rafter J Bar Ranch UST Removal
Project Number:	P-0037360
Sampled:	04/01/25 at 02:00 PM by Jeremy Huot
Sample Matrix:	Soil

AET
1745 SAMCO ROAD
RAPID CITY, SD 57702

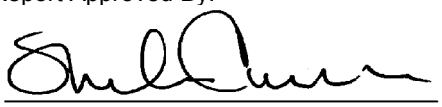
Lab ID#:	20250402547
Received:	04/02/25 at 11:40 AM by Tanya Nelsen
Account:	W1202 - AET - Rapid City

Parameter	Result	Units	DF	MDL	PQL	Method	Analyst/Date
Volatile							
Benzene	< 0.050	mg/kg	1	0.018	0.050	SW846 8021B-S	SAC 04/09/25
Ethylbenzene	< 0.100	mg/kg	1	0.016	0.100	SW846 8021B-S	SAC 04/09/25
Methyl tertiary-Butyl Ether	< 0.100	mg/kg	1	0.023	0.100	SW846 8021B-S	SAC 04/09/25
Naphthalene	< 0.200	mg/kg	1	0.025	0.200	SW846 8021B-S	SAC 04/09/25
Toluene	< 0.100	mg/kg	1	0.015	0.100	SW846 8021B-S	SAC 04/09/25
Xylenes(o,m,p)	< 0.200	mg/kg	1	0.060	0.200	SW846 8021B-S	SAC 04/09/25
Total Volatile Hydrocarbons							
TPH as Gasoline	< 10.0	mg/kg	1	0.689	10.0	SW846 8015B-S	SAC 04/09/25

Quality Control Data

Parameter	Result	Limits	DF	Method	Analyst/Date
Surrogate Recovery-Volatile					
4-Bromofluorobenzene	102.4 %	(65.70) - (142.0)	1	SW846 8021B QC	SAC 04/09/25

Report Approved By:



Report Approved On: 4/25/2025 11:18:54 AM

MIDCONTINENT
TESTING LABORATORIES, INC.

2381 South Plaza Drive P.O. Box 3388 Rapid City, SD 57709
(605) 348-0111 -- www.thechemistrylab.com

Lab Numbers: 20250402541 - 20250402547

QC Sample Report

Parameter	Lab#	QC Value	Smp Value	Spike	DF	Result	Limits	Method
Spike								
Arsenic - D	0409201	1.47	1.23	0.025	10	96.8 %	(79.72) - (108.7)	EPA 200.8
Barium - D	0409201	0.282	0.027	0.025	10	101.9 %	(82.97) - (105.1)	EPA 200.8
Cadmium - D	0409201	0.247	< 0.001	0.025	10	98.8 %	(91.26) - (106.3)	EPA 200.8
Chromium - D	0409201	0.241	0.003	0.025	10	95.3 %	(90.14) - (107.4)	EPA 200.8 DRC
Lead - D	0409201	0.2503	< 0.0010	0.025	10	100.1 %	(90.58) - (107.6)	EPA 200.8
Selenium - D	0409201	1.22	0.024	0.125	10	95.4 %	(83.48) - (108.2)	EPA 200.8
Silver - D	0409201	0.186	0.001	0.025	10	73.7 %	(71.50) - (117.8)	EPA 200.8
Mercury - T	0408201	0.0020	< 0.0002	0.002	1	100.0 %	(87.74) - (115.1)	EPA 245.1
Mercury - T	0408208	0.0021	< 0.0002	0.002	1	104.5 %	(87.74) - (115.1)	EPA 245.1
Mercury - T	0407105	0.0021	< 0.0002	0.002	1	106.0 %	(87.74) - (115.1)	EPA 245.1
Mercury - T	0408112	0.0021	< 0.0002	0.002	1	103.0 %	(87.74) - (115.1)	EPA 245.1
Arsenic - TR	0409306	0.254	0.009	0.025	10	97.9 %	(86.90) - (106.8)	EPA 200.8
Arsenic - TR	0409212	0.109	0.008	0.025	4	100.1 %	(86.90) - (106.8)	EPA 200.8
Arsenic - TR	0408303	0.503	0.022	0.025	20	96.3 %	(86.90) - (106.8)	EPA 200.8
Barium - TR	0409212	0.165	0.067	0.025	4	99.0 %	(85.48) - (101.6)	EPA 200.8
Barium - TR	0409306	0.257	0.010	0.025	10	98.5 %	(85.48) - (101.6)	EPA 200.8
Barium - TR	0408303	0.583	0.089	0.025	20	98.8 %	(85.48) - (101.6)	EPA 200.8
Cadmium - TR	0408303	0.498	0.014	0.025	20	96.9 %	(90.32) - (106.6)	EPA 200.8
Cadmium - TR	0409306	0.247	< 0.001	0.025	10	98.9 %	(90.32) - (106.6)	EPA 200.8
Cadmium - TR	0409212	0.100	< 0.000	0.025	4	99.71%	(90.32) - (106.6)	EPA 200.8
Chromium - TR	0408303	0.4941	0.0042	0.025	20	98.0 %	(86.25) - (109.9)	EPA 200.8 DRC
Chromium - TR	0409212	0.0906	< 0.0004	0.025	4	90.6 %	(86.25) - (109.9)	EPA 200.8 DRC
Chromium - TR	0409306	0.2368	< 0.0010	0.025	10	94.7 %	(86.25) - (109.9)	EPA 200.8 DRC
Lead - TR	0409212	0.0980	< 0.0004	0.025	4	98.0 %	(88.11) - (108.6)	EPA 200.8
Lead - TR	0409306	0.2444	< 0.0010	0.025	10	97.8 %	(88.11) - (108.6)	EPA 200.8
Lead - TR	0408303	0.5031	< 0.0020	0.025	20	100.6 %	(88.11) - (108.6)	EPA 200.8
Selenium - TR	0409306	1.22	< 0.005	0.125	10	97.2 %	(86.22) - (108.8)	EPA 200.8
Selenium - TR	0408303	2.43	0.050	0.125	20	95.2 %	(86.22) - (108.8)	EPA 200.8
Selenium - TR	0409212	0.503	0.004	0.125	4	99.77%	(86.22) - (108.8)	EPA 200.8
Silver - TR	0408303	0.4669	< 0.0020	0.025	20	93.4 %	(80.86) - (109.5)	EPA 200.8
Silver - TR	0409306	0.2394	< 0.0010	0.025	10	95.8 %	(80.86) - (109.5)	EPA 200.8
Silver - TR	0409212	0.0965	< 0.0004	0.025	4	96.5 %	(80.86) - (109.5)	EPA 200.8
Benzene	0402544	1.03	< 0.050	1.00	1	102.9 %	(67.47) - (114.9)	SW846 8021B-S
Ethylbenzene	0402544	1.04	< 0.100	1.00	1	103.8 %	(81.50) - (110.2)	SW846 8021B-S
MTBE	0402544	1.02	< 0.100	1.00	1	102.3 %	(65.36) - (110.5)	SW846 8021B-S
Naphthalene	0402544	0.843	< 0.200	1.00	1	84.3 %	(63.22) - (144.9)	SW846 8021B-S
Toluene	0402544	1.09	< 0.100	1.00	1	108.8 %	(75.28) - (111.5)	SW846 8021B-S
Xylenes(o,m,p)	0402544	3.22	< 0.200	3.00	1	107.3 %	(75.50) - (116.8)	SW846 8021B-S

Lab Numbers: **20250402541 - 20250402547**

Parameter	Lab#	QC Value	Smp Value	Spike	DF	Result	Limits	Method
Spike								
TPH Gas	0402545	87.7	< 10.0	100	1	87.7 %	(54.94) - (130.7)	SW846 8015B-S
Matrix Spike Duplicate								
Arsenic - D	0409201	1.49	1.47		10	0.754%	(-3.811) - (4.942)	EPA 200.8
Barium - D	0409201	0.276	0.282		10	-2.19%	(-4.074) - (4.391)	EPA 200.8
Cadmium - D	0409201	0.240	0.247		10	-2.79%	(-4.310) - (4.645)	EPA 200.8
Chromium - D	0409201	0.245	0.241		10	1.62%	(-4.026) - (3.713)	EPA 200.8 DRC
Lead - D	0409201	0.2474	0.2503		10	-1.18%	(-2.388) - (2.532)	EPA 200.8
Selenium - D	0409201	1.23	1.22		10	0.806%	(-3.644) - (4.472)	EPA 200.8
Silver - D	0409201	0.180	0.186		10	-3.25%	(-4.838) - (4.875)	EPA 200.8
Mercury - T	0408201	0.0021	0.0020		1	3.44%	(-10.90) - (6.919)	EPA 245.1
Mercury - T	0408208	0.0021	0.0021		1	0.477%	(-10.90) - (6.919)	EPA 245.1
Mercury - T	0407105	0.0022	0.0021		1	1.41%	(-10.90) - (6.919)	EPA 245.1
Mercury - T	0408112	0.0022	0.0021		1	4.28%	(-10.90) - (6.919)	EPA 245.1
Arsenic - TR	0408303	0.496	0.503		20	-1.50%	(-5.641) - (5.863)	EPA 200.8
Arsenic - TR	0409212	0.106	0.109		4	-2.19%	(-5.641) - (5.863)	EPA 200.8
Arsenic - TR	0409306	0.262	0.254		10	3.45%	(-5.641) - (5.863)	EPA 200.8
Barium - TR	0409306	0.261	0.257		10	1.82%	(-4.173) - (5.165)	EPA 200.8
Barium - TR	0408303	0.581	0.583		20	-0.378%	(-4.173) - (5.165)	EPA 200.8
Barium - TR	0409212	0.165	0.165		4	-0.079%	(-4.173) - (5.165)	EPA 200.8
Cadmium - TR	0408303	0.496	0.498		20	-0.574%	(-4.251) - (5.011)	EPA 200.8
Cadmium - TR	0409212	0.100	0.100		4	0.450%	(-4.251) - (5.011)	EPA 200.8
Cadmium - TR	0409306	0.251	0.247		10	1.68%	(-4.251) - (5.011)	EPA 200.8
Chromium - TR	0408303	0.4957	0.4941		20	0.323%	(-6.760) - (8.123)	EPA 200.8 DRC
Chromium - TR	0409212	0.0932	0.0906		4	2.84%	(-6.760) - (8.123)	EPA 200.8 DRC
Chromium - TR	0409306	0.2331	0.2368		10	-1.55%	(-6.760) - (8.123)	EPA 200.8 DRC
Lead - TR	0409306	0.2486	0.2444		10	1.70%	(-3.754) - (4.556)	EPA 200.8
Lead - TR	0408303	0.5046	0.5031		20	0.308%	(-3.754) - (4.556)	EPA 200.8
Lead - TR	0409212	0.0982	0.0980		4	0.265%	(-3.754) - (4.556)	EPA 200.8
Selenium - TR	0408303	2.42	2.43		20	-0.518%	(-5.644) - (5.928)	EPA 200.8
Selenium - TR	0409306	1.24	1.22		10	2.16%	(-5.644) - (5.928)	EPA 200.8
Selenium - TR	0409212	0.496	0.503		4	-1.43%	(-5.644) - (5.928)	EPA 200.8
Silver - TR	0409306	0.2431	0.2394		10	1.54%	(-5.814) - (7.590)	EPA 200.8
Silver - TR	0408303	0.4650	0.4669		20	-0.414%	(-5.814) - (7.590)	EPA 200.8
Silver - TR	0409212	0.0964	0.0965		4	-0.114%	(-5.814) - (7.590)	EPA 200.8
Benzene	0402544	1.02	1.03		1	-0.780%	(-17.53) - (13.40)	SW846 8021B-S
Ethylbenzene	0402544	1.04	1.04		1	0.00%	(-18.94) - (15.29)	SW846 8021B-S
MTBE	0402544	1.02	1.02		1	-0.098%	(-14.54) - (12.15)	SW846 8021B-S
Naphthalene	0402544	0.832	0.843		1	-1.31%	(-31.92) - (27.97)	SW846 8021B-S
Toluene	0402544	1.09	1.09		1	0.00%	(-17.40) - (14.09)	SW846 8021B-S
Xylenes(o,m,p)	0402544	3.22	3.22		1	-0.093%	(-18.91) - (15.62)	SW846 8021B-S
TPH Gas	0402545	87.6	87.7		1	-0.082%	(-18.90) - (14.36)	SW846 8015B-S
Initial Calibration Verification								
Arsenic - D		0.050	0.050		1	-0.620%	(-8.913) - (6.959)	EPA 200.8
Barium - D		0.050	0.050		1	0.560%	(-8.387) - (7.073)	EPA 200.8

Lab Numbers: **20250402541 - 20250402547**

Parameter	Lab#	QC Value	Smp Value	Spike	DF	Result	Limits	Method
Initial Calibration Verification								
Cadmium - D		0.049	0.050		1	-2.56%	(-8.855) - (8.167)	EPA 200.8
Chromium - D		0.054	0.050		1	7.48%	(-10.48) - (12.03)	EPA 200.8 DRC
Lead - D		0.0492	0.0500		1	-1.68%	(-7.530) - (10.05)	EPA 200.8
Selenium - D		0.249	0.250		1	-0.404%	(-9.079) - (6.674)	EPA 200.8
Silver - D		0.049	0.050		1	-1.76%	(-5.826) - (8.562)	EPA 200.8
Mercury - T		0.0031	0.0030		1	3.33%	(-7.750) - (11.45)	EPA 245.1
Continuing Calibration Verification								
Arsenic - D		0.047	0.050		1	-5.34%	(-10.97) - (4.618)	EPA 200.8
Arsenic - D		0.049	0.050		1	-1.60%	(-10.97) - (4.618)	EPA 200.8
Arsenic - D		0.048	0.050		1	-3.50%	(-10.97) - (4.618)	EPA 200.8
Arsenic - D		0.047	0.050		1	-5.34%	(-10.97) - (4.618)	EPA 200.8
Arsenic - D		0.049	0.050		1	-1.58%	(-10.97) - (4.618)	EPA 200.8
Arsenic - D		0.049	0.050		1	-1.78%	(-10.97) - (4.618)	EPA 200.8
Arsenic - D		0.049	0.050		1	-2.92%	(-10.97) - (4.618)	EPA 200.8
Arsenic - D		0.050	0.050		1	-0.260%	(-10.97) - (4.618)	EPA 200.8
Barium - D		0.050	0.050		1	0.020%	(-8.114) - (3.206)	EPA 200.8
Barium - D		0.051	0.050		1	1.54%	(-8.114) - (3.206)	EPA 200.8
Barium - D		0.051	0.050		1	1.30%	(-8.114) - (3.206)	EPA 200.8
Barium - D		0.050	0.050		1	-0.300%	(-8.114) - (3.206)	EPA 200.8
Barium - D		0.051	0.050		1	2.04%	(-8.114) - (3.206)	EPA 200.8
Barium - D		0.049	0.050		1	-2.84%	(-8.114) - (3.206)	EPA 200.8
Barium - D		0.051	0.050		1	2.76%	(-8.114) - (3.206)	EPA 200.8
Barium - D		0.050	0.050		1	-1.10%	(-8.114) - (3.206)	EPA 200.8
Cadmium - D		0.049	0.050		1	-1.20%	(-8.041) - (5.121)	EPA 200.8
Cadmium - D		0.050	0.050		1	-0.580%	(-8.041) - (5.121)	EPA 200.8
Cadmium - D		0.049	0.050		1	-1.36%	(-8.041) - (5.121)	EPA 200.8
Cadmium - D		0.049	0.050		1	-2.76%	(-8.041) - (5.121)	EPA 200.8
Cadmium - D		0.050	0.050		1	-0.940%	(-8.041) - (5.121)	EPA 200.8
Cadmium - D		0.049	0.050		1	-2.78%	(-8.041) - (5.121)	EPA 200.8
Cadmium - D		0.048	0.050		1	-3.28%	(-8.041) - (5.121)	EPA 200.8
Cadmium - D		0.051	0.050		1	1.00%	(-8.041) - (5.121)	EPA 200.8
Chromium - D		0.054	0.050		1	7.08%	(-9.024) - (10.11)	EPA 200.8 DRC
Chromium - D		0.053	0.050		1	5.72%	(-9.024) - (10.11)	EPA 200.8 DRC
Chromium - D		0.049	0.050		1	-2.52%	(-9.024) - (10.11)	EPA 200.8 DRC
Chromium - D		0.049	0.050		1	-2.38%	(-9.024) - (10.11)	EPA 200.8 DRC
Chromium - D		0.051	0.050		1	1.42%	(-9.024) - (10.11)	EPA 200.8 DRC
Chromium - D		0.054	0.050		1	8.56%	(-9.024) - (10.11)	EPA 200.8 DRC
Chromium - D		0.049	0.050		1	-2.88%	(-9.024) - (10.11)	EPA 200.8 DRC
Chromium - D		0.050	0.050		1	-0.440%	(-9.024) - (10.11)	EPA 200.8 DRC
Lead - D		0.0517	0.0500		1	3.40%	(-6.564) - (4.830)	EPA 200.8
Lead - D		0.0503	0.0500		1	0.580%	(-6.564) - (4.830)	EPA 200.8
Lead - D		0.0499	0.0500		1	-0.280%	(-6.564) - (4.830)	EPA 200.8
Lead - D		0.0492	0.0500		1	-1.54%	(-6.564) - (4.830)	EPA 200.8
Lead - D		0.0486	0.0500		1	-2.90%	(-6.564) - (4.830)	EPA 200.8
Lead - D		0.0507	0.0500		1	1.48%	(-6.564) - (4.830)	EPA 200.8

Lab Numbers: **20250402541 - 20250402547**

Parameter	Lab#	QC Value	Smp Value	Spike	DF	Result	Limits	Method
Continuing Calibration Verification								
Lead - D		0.0511	0.0500		1	2.14%	(-6.564) - (4.830)	EPA 200.8
Lead - D		0.0508	0.0500		1	1.62%	(-6.564) - (4.830)	EPA 200.8
Selenium - D		0.244	0.250		1	-2.57%	(-10.47) - (3.521)	EPA 200.8
Selenium - D		0.248	0.250		1	-0.932%	(-10.47) - (3.521)	EPA 200.8
Selenium - D		0.250	0.250		1	0.064%	(-10.47) - (3.521)	EPA 200.8
Selenium - D		0.236	0.250		1	-5.56%	(-10.47) - (3.521)	EPA 200.8
Selenium - D		0.240	0.250		1	-3.84%	(-10.47) - (3.521)	EPA 200.8
Selenium - D		0.246	0.250		1	-1.48%	(-10.47) - (3.521)	EPA 200.8
Selenium - D		0.250	0.250		1	-0.148%	(-10.47) - (3.521)	EPA 200.8
Selenium - D		0.244	0.250		1	-2.48%	(-10.47) - (3.521)	EPA 200.8
Silver - D		0.050	0.050		1	-0.900%	(-8.374) - (6.214)	EPA 200.8
Silver - D		0.049	0.050		1	-2.22%	(-8.374) - (6.214)	EPA 200.8
Silver - D		0.050	0.050		1	0.040%	(-8.374) - (6.214)	EPA 200.8
Silver - D		0.052	0.050		1	4.10%	(-8.374) - (6.214)	EPA 200.8
Silver - D		0.050	0.050		1	0.780%	(-8.374) - (6.214)	EPA 200.8
Silver - D		0.051	0.050		1	1.52%	(-8.374) - (6.214)	EPA 200.8
Silver - D		0.051	0.050		1	1.84%	(-8.374) - (6.214)	EPA 200.8
Silver - D		0.050	0.050		1	-0.880%	(-8.374) - (6.214)	EPA 200.8
Mercury - T		0.0020	0.0020		1	-2.00%	(-10.07) - (9.669)	EPA 245.1
Mercury - T		0.0020	0.0020		1	-2.00%	(-10.07) - (9.669)	EPA 245.1
Mercury - T		0.0019	0.0020		1	-3.00%	(-10.07) - (9.669)	EPA 245.1
Mercury - T		0.0019	0.0020		1	-3.00%	(-10.07) - (9.669)	EPA 245.1
Mercury - T		0.0020	0.0020		1	-1.00%	(-10.07) - (9.669)	EPA 245.1
Mercury - T		0.0010	0.0010		1	-2.00%	(-10.07) - (9.669)	EPA 245.1
Mercury - T		0.0020	0.0020		1	1.50%	(-10.07) - (9.669)	EPA 245.1
Mercury - T		0.0051	0.0050		1	1.60%	(-10.07) - (9.669)	EPA 245.1
Benzene		26.1	25.0		1	4.21%	(-7.530) - (6.430)	SW846 8021B
Benzene		25.2	25.0		1	0.768%	(-7.899) - (7.369)	SW846 8021B
Benzene		26.6	25.0		1	6.24%	(-7.587) - (7.388)	SW846 8021B
Benzene		26.7	25.0		1	6.69%	(-8.479) - (10.71)	SW846 8021B
Ethylbenzene		26.0	25.0		1	4.04%	(-10.47) - (6.030)	SW846 8021B
Ethylbenzene		25.0	25.0		1	-0.136%	(-11.18) - (7.165)	SW846 8021B
Ethylbenzene		26.4	25.0		1	5.80%	(-11.01) - (7.345)	SW846 8021B
Ethylbenzene		26.4	25.0		1	5.73%	(-12.63) - (11.64)	SW846 8021B
MTBE		25.1	25.0		1	0.524%	(-9.647) - (10.13)	SW846 8021B
MTBE		23.2	25.0		1	-7.07%	(-9.601) - (10.17)	SW846 8021B
MTBE		26.0	25.0		1	3.98%	(-11.08) - (11.00)	SW846 8021B
MTBE		27.3	25.0		1	9.14%	(-11.24) - (12.47)	SW846 8021B
Naphthalene		23.4	25.0		1	-6.48%	(-41.34) - (20.93)	SW846 8021B
Naphthalene		17.8	25.0		1	-28.9 %	(-37.96) - (19.62)	SW846 8021B
Naphthalene		22.0	25.0		1	-12.0 %	(-41.81) - (21.55)	SW846 8021B
Naphthalene		26.3	25.0		1	5.35%	(-39.46) - (17.83)	SW846 8021B
Toluene		27.2	25.0		1	8.87%	(-4.062) - (10.23)	SW846 8021B
Toluene		26.2	25.0		1	4.82%	(-4.741) - (11.51)	SW846 8021B
Toluene		27.7	25.0		1	10.7 %	(-4.681) - (11.66)	SW846 8021B

- Recovery was within 20% of expected value

Lab Numbers: **20250402541 - 20250402547**

Parameter	Lab#	QC Value	Smp Value	Spike	DF	Result	Limits	Method
Continuing Calibration Verification								
Toluene		27.7	25.0		1	10.9 %	(-6.408) - (15.68)	SW846 8021B
Xylenes(o,m,p)		80.5	75.0		1	7.27%	(-6.090) - (7.648)	SW846 8021B
Xylenes(o,m,p)		77.9	75.0		1	3.83%	(-6.992) - (9.246)	SW846 8021B
Xylenes(o,m,p)		81.7	75.0		1	8.97%	(-6.965) - (9.594)	SW846 8021B
- Recovery was within 10% of expected value								
Xylenes(o,m,p)		81.9	75.0		1	9.17%	(-9.139) - (14.15)	SW846 8021B
TPH Gas		2030	2000		1	1.35%	(-16.61) - (2.424)	SW846 8015B
TPH Gas		1900	2000		1	-4.82%	(-17.77) - (4.145)	SW846 8015B
TPH Gas		1890	2000		1	-5.46%	(-17.76) - (4.122)	SW846 8015B
TPH Gas		1740	2000		1	-12.8 %	(-17.67) - (4.225)	SW846 8015B
Lab Control Spike								
Benzene		1.13	0.00	1.00	1	113.3 %	(75.61) - (124.2)	SW846 8021B-S
Ethylbenzene		1.15	0.00	1.00	1	115.4 %	(84.74) - (122.9)	SW846 8021B-S
MTBE		1.17	0.00	1.00	1	116.9 %	(75.07) - (125.2)	SW846 8021B-S
Naphthalene		0.808	0.00	1.00	1	80.8 %	(35.74) - (168.7)	SW846 8021B-S
Toluene		1.20	0.00	1.00	1	120.0 %	(80.12) - (127.4)	SW846 8021B-S
Xylenes(o,m,p)		3.59	0.00	3.00	1	119.5 %	(80.40) - (129.1)	SW846 8021B-S
TPH Gas		92.0	0.00	100	1	92.0 %	(67.18) - (112.3)	SW846 8015B-S
Initial Calibration Blank								
Mercury - T		0.0000	0.000		1	-0.00001	(-0.0003) - (0.0002)	EPA 245.1
Continuing Calibration Blank								
Arsenic - D		0.000	0.00		1	0.00002	(0.0000) - (0.0001)	EPA 200.8
Barium - D		0.000	0.00		1	0.00001	(0.0000) - (0.0000)	EPA 200.8
Cadmium - D		0.000	0.00		1	0.00003	(0.0000) - (0.0001)	EPA 200.8
Chromium - D		0.000	0.00		1	0.00003	(0.0000) - (0.0001)	EPA 200.8 DRC
Lead - D		0.0000	0.000		1	0.00002	(0.0000) - (0.0000)	EPA 200.8
Selenium - D		0.000	0.00		1	0.00016	(0.0000) - (0.0005)	EPA 200.8
Silver - D		0.000	0.00		1	0.00004	(0.0000) - (0.0001)	EPA 200.8
Mercury - T		0.0000	0.000		1	-0.00001	(-0.0001) - (0.0001)	EPA 245.1
Mercury - T		0.0000	0.000		1	-0.00001	(-0.0001) - (0.0001)	EPA 245.1
Mercury - T		0.0000	0.000		1	-0.00001	(-0.0001) - (0.0001)	EPA 245.1
Mercury - T		0.0000	0.000		1	-0.00003	(-0.0001) - (0.0001)	EPA 245.1
Mercury - T		0.0000	0.000		1	-0.00001	(-0.0001) - (0.0001)	EPA 245.1
Mercury - T		0.0000	0.000		1	-0.00001	(-0.0001) - (0.0001)	EPA 245.1
Lab Reagent Blank								
Benzene		0.00	0.00		1	0	(0.000) - (0.000)	SW846 8021B-S
Ethylbenzene		0.00	0.00		1	0	(0.000) - (0.000)	SW846 8021B-S
MTBE		0.045	0.00		1	0.04511	(-0.0334) - (0.0883)	SW846 8021B-S
Naphthalene		0.00	0.00		1	0	(-0.0544) - (0.0774)	SW846 8021B-S
Toluene		0.021	0.00		1	0.02086	(-0.0305) - (0.0393)	SW846 8021B-S
Xylenes(o,m,p)		0.00	0.00		1	0	(-0.0755) - (0.1459)	SW846 8021B-S
TPH Gas		0.270	0.00		1	0.26951	(-0.8134) - (1.261)	SW846 8015B-S

Approved By: 

AMERICAN ENGINEERING TESTING, INC.

☐ St. Paul Office
550 Cleveland Ave. N.
St. Paul, MN 55114
651-659-9001
651-659-1379 (fax)

☒ OTHER Rapid City Office
ADDRESS: 1745 Samco Road
Rapid City, SD
PHONE: 605-388-0029

16265

PAGE 1 OF 1

AET PROJECT NUMBER P-0037360 P.O. # 18-1129
PROJECT NAME/LOCATION Rafter J Bar Ranch UST Removal
AET PROJECT MANAGER Brad Bishop
SEND REPORT TO B. Bishop & J. Huot
SAMPLED BY (PRINT) Jeremy Huot
SAMPLER SIGNATURE Jeremy Huot

REQUESTED TURNAROUND TIME: ☒ NORMAL ☐ RUSH
DATE NEEDED BY:

ITEM#	SAMPLE DESCRIPTION	DATE	TIME	SAMPLE TYPE	NO. OF CONTAINERS	PRESERVATIVES: UNPRESERVED	MeOH	HCL	H_2SO_4	HNO_3	FIELD FILTERED Y/N	ANALYSIS: TPH-GRO, BTEX, MTBE	TCLP RCRA 8 Metals	REMARKS
1	Bulk Stockpile	4/1/25	10:15	Soil	2	X					N	X	X	20250402541
2	W. Dispenser		10:45	Soil	1	X					N	X		20250402542
3	E. Dispenser		10:45	Soil	1	X					N	X		543
4	S Tank E		13:07	Soil	1	X					N	X		544
5	S Tank W		13:00	Soil	1	X					N	X		545
6	N Tank E		13:50	Soil	1	X					N	X		546
7	N Tank W	↓	14:00	Soil	1	X					N	X		547

NOTE:
Temp. 4.7°C
on ice

ITEM NUMBER	RELINQUISHED BY/AFFILIATION	ACCEPTED BY/AFFILIATION	DATE	TIME
1-7	Jeremy Huot / AET		4/2/25	
	J Nelsen	MCT	4/2/25	11:40am

Approved On: 04/25/2025 11:18 AM

MIDCONTINENT TESTING LABORATORIES

SAMPLE RECEIPT CHECKLIST

Company Name: AET

Date/Time Received: 04/02/2025 (Date) / 1140 (Time)

Project: P-0037360

Received by: TN

Lab Number(s): 20250402541-547

Carrier Name: Hand Delivered

UNPACKING

Yes	No		Initials
☑	☐	1. Shipping container in good condition?	KW
☐	☑	2. Custody seals present on shipping container? Condition: Intact ☐ Broken ☐	
☑	☐	3. (Ice) / Blue Ice (circle one) present in shipping container? Container(s) Temp. 1. 4.7°C 2. _____ 3. _____ 4. _____	
☐	☑	4. Bottles broken and/or leaking? (Photograph broken bottles.)	
☐	☑	5. Custody seals on sample bottles? Condition: Intact ☐ Broken ☐	

LABELING

Yes	No		Initials
☑	☐	6. Chain of custody Present?	KW
☑	☐	7. Chain of custody includes signatures, dates, and times when relinquished and received?	
☑	☐	8. Chain of custody agrees with bottle count?	
☑	☐	9. Chain of custody agrees with labels?	
☑	☐	10. Samples received within holding times?	
☑	☐	11. Samples in proper container?	
☑	☐	12. Sufficient sample volume for indicated tests?	

PRESERVATIVE

Yes	No		Initials	Yes	No		Initials
☐	☐	13. Metals bottle(s) pH < 2?		☐	☐	17. TOC bottle(s) pH < 2?	
☐	☐	14. Nutrient bottle(s) pH < 2?		☐	☐	18. Oil & Grease bottle(s) pH < 2?	
☐	☐	15. Cyanide bottle(s) pH > 12?		☐	☐	19. Volatiles pH < 2?	
☐	☐	16. Sulfide bottle(s) pH > 9?					

COMMENTS:

APPENDIX D
Photographs

PHOTOGRAPHS



Photo 1:	**View of Nielsen Construction inerting the south UST.**
Photo 2:	**View of Nielsen Construction inerting the north UST.**



PHOTOGRAPHS



Photo 3:	**View of visible petroleum impacts to soil directly below the concrete near the raised pump island.**
Photo 4:	**View of dispensers after they had been removed from the pump island.**



PHOTOGRAPHS



Photo 5:	**View of excavation activities immediately after pump island and the majority of the visibly impacted surface soil had been removed.**
Photo 6:	**View of excavation activities near the south UST.**



PHOTOGRAPHS



Photo 7:	**View of south UST being removed.**
Photo 8:	**View of south UST upon removal.**



PHOTOGRAPHS



Photo 9:	**View of void space upon removal of the south UST.**
Photo 10:	**View of north UST being removed.**



PHOTOGRAPHS



Photo 11:	**View of north UST upon removal.**
Photo 12:	**View of void space upon removal of the north UST.**



PHOTOGRAPHS



Photo 13:	**View of former tank basin area after backfilling was completed.**
Photo 14:	**View of petroleum impacted soil stockpile covered.**



APPENDIX E
Landfill Soil Disposal Ticket

10210449
Rapid City Solid Waste
5555 S Highway 79
Rapid City, SD 57701
Phone: (605) 394-4197

Ticket: 10210449
Date: 5/1/2025
Time: 09:00:35 - 09:14:15

Customer: 9999999999/Cash (Taxed)
Truck: 49346C
Truck Type: NA/Not Applicable
Comment: rafter j bar

Gross: 38200 LB In Scale 1
Tare: 25740 LB Out Scale 2
Net: 12460 LB
Tons: 6.23

Materials & Services

Origin: NA/Not Applicable
Material: 007/hydrocarbon soil
Quantity: 6.23 Ton
Rate: $30.00/TON
Amount: $ 186.90

Total Taxes: $ 11.59
Total Amount: $ 198.49
Visa: xxxx-3218 - Approved: SALE:055471:512115
Change: 0.00

Please reimburse
-Rob

Weighmaster: Linda H.

Driver:
****

MARK PAID him