UST Closure Report
Former Molgora Property

6002 Raeford Road
Fayetteville, North Carolina

Prepared for:
N.C. Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, NC 27699

Prepared by:
Draper Aden Associates
1101 Nowell Road
Raleigh, NC 27607

18110156-010701

February 12, 2019

Draper Aden Associates
Engineering • Surveying • Environmental Services

UST CLOSURE REPORT

Site Name and Location:	Former Molgora Property UST Closure 6002 Raeford Road Fayetteville, North Carolina 28314
Facility ID Number:	N/A
Latitude and Longitude:	35.044469 North, -78.976918 West (Source: Google Maps)
Date of Report:	February 5, 2019
Land Use Category:	Industrial/commercial
UST System Owner:	NCDOT- Abandoned USTs
Land Owner:	Carlos Ramirez Garcia 6002 Raeford Road Fayetteville, North Carolina 28314
Consultant:	Draper Aden Associates 1101 Nowell Road Raleigh, North Carolina 27607

Release Information: The UST system at the site included two 4000-gallon petroleum, one 1,000-gallon petroleum, and one 550-gallon kerosene tanks. Staining and odors were observed below the kerosene UST; all excavated soils, including contaminated soils, excavated USTs, and connective piping were disposed off-site by EVO Corporation.

Seal and Signature of Certifying Licensed Geologist

I, Michael Branson, a **Licensed Geologist**/Professional Engineer for Draper Aden Associates, do certify that the information contained in this report is correct and accurate to the best of my knowledge.

DocuSigned by:
Mike Branson
942B7ACDE09841E...

NORTH CAROLINA LICENSED SEAL 467 GEOLOGIST MICHAEL W. BRANSON

Michael W. Branson, P.G. 2/15/2019
NC License No. 467

Draper Aden Associates is licensed to practice geology in North Carolina. The certification number of the company or corporation is C-379.

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1.0 INTRODUCTION

On July 2, 2018, the North Carolina Department of Transportation (NCDOT) requested that Draper Aden Associates (DAA) conduct closure activities and prepare a report for petroleum underground storage tanks (USTs) in the parking lot at 6002 Raeford Road, Fayetteville, North Carolina (site). Prior to DAA's mobilization to the site, the property was sold to the current owner, Carlos Ramirez Garcia. As a result of the sale, the NCDOT did not have a valid access agreement. The access agreement with Mr. Garcia was finalized in early December 2018. Although not the owner or user of the tanks, NCDOT was allowed to remove the tanks from the proposed right-of-way and easement for improvements on Raeford Road.

The site is located at 6002 Raeford Rd., Fayetteville, NC, approximately 150 feet west to the intersection of Raeford Road and Skibo Road (**Figure 1**). On January 7th through January 9th, 2019, DAA personnel observed excavation activities and collected required soil samples to achieve closure for the UST. This report documents these activities and has been prepared following the most recent version of the *Underground Storage Tank Section Guidelines For Site Checks, Tank Closure, and Initial Response and Abatement,* published by the UST Section, North Carolina Department of Environmental Quality (NCDEQ) Division of Waste Management ("*Guidelines*").

2.0 SITE HISTORY AND CHARACTERIZATION

2.1 UST OWNER AND OPERATOR INFORMATION

According to the NCDEQ on-line UST registration database, no USTs were registered for the property address. Although the NCDOT did not own or operate the UST, they accepted responsibility for the UST closure in order to perform improvements on Raeford Road. UST owner and operator information was summarized in **Table 1**.

2.2 UST INFORMATION

Solutions-IES, Inc., performed a Preliminary Site Assessment (PSA) at the above-referenced property in December of 2016. Three USTs were closed in-place as referenced in a UST Closure Report by Environmental Hydrogeological Consultants, Inc., dated November 22, 2004.

The 2004 closure report indicated that the USTs were two 3,000-gallon petroleum tanks and one 550-gallon kerosene tank. Subsequent field observations for the removal indicated one 1,000-gallon, one 550-gallon and two 4,000-gallon tanks. **Table 2** summarizes the UST information including the last known tank contents, tank capacity and construction, tank dimensions (based on observations during the current closure activities), status of the tank, and known release information. The USTs location is between the business and Raeford Road (**Figures 2 and 3)**. The previous report also indicated that the USTs were closed in-place; however, the USTs were not filled with inert material.

2.3 NON-UST INFORMATION

No non- UST sources of contamination were observed.

2.4 HISTORIAL RELEASE DESCRIPTION

According to the NCDEQ on-line records for releases, no incident has been reported at this location. The UST Closure Report referenced in Section 2.2, states that soil samples were collected from six borings around the USTs. One sample detected 12 millgrams per kilogram (mg/kg) of total petroleum hydrocarbons (TPH) as diesel range organics (DRO). Following the closure, S&ME conducted soil and groundwater sampling reported in 2004, to evaluate the site. One of the five soil samples collected (near kerosene tank) detected concentrations of gasoline range organics (GRO) of 1,100 mg/kg and DRO concentration of 3,400 mg/kg. These values were above the 2004 action limits. During

groundwater sampling, volatile petroleum contituents were analzed and the results concluded that all target compounds were below the 2004 groundwater quality standard.

2.5 SITE CHARACTERISTICS

Land use at the site is a commercial business with parking lot in an industrial/commercial area of Fayetteville, just 150 feet west of the intersection of Raeford Road and Skibo Road. The business on the property include an electronic repair shop, owned my Mr. Garcia. Land use within 1,500 feet of the property is a mix of retail and commercial enterprises.

3.0 CLOSURE PROCEDURES

3.1 PREPARATION OF UST CLOSURE

DAA contracted EVO Corporation of Winston-Salem, North Carolina, for the UST's excavation, removal, and disposal. Prior to mobilizing to the site, a UST-3 form was completed and submitted to the NCDEQ (**Appendix A**) and North Carolina One Call was notified to locate underground utilities.

Due to the heavy traffic associated with Raeford Road and Skibo Road at the site, a private traffic control contractor was used to block lanes and direct traffic flow when necessary.

3.2 DESCRIPTION OF CLOSURE PROCEDURES

On January 7, 2019, DAA field personnel arrived at the site to begin the closure procedure with EVO . EVO began by cutting, removing, and disposing of concrete above the proposed UST area. Liquid contents were vacuumed and disposed off-site prior to adding dry ice pellets to the inside of the tanks for oxygen removal. Three USTs (UST-1 — UST-3) were removed from excavation area and transported for disposal on January 8, 2019. Soil samples were screened during the excavation with a MiniRAE photoionization detector (PID) and analyzed by RED Lab, LLC using an onsite mobile laboratory. During sampling procedures, a fourth UST was discovered in the southwestern portion of excavated area. Removal and soil sampling procedures for UST-4 took place on January 9, 2019.

DAA inspected the tanks and observed no holes in the UST walls. Product lines were observed in the vicinity of the larger USTs. The USTs and their contents were disposed at the Foss Recycling, 3459 Thomasville Road, Winston-Salem, North Carolina (**Appendix B)**. Following removal, DAA completed the UST-2B "Site Investigation Report for Permanent Closure or Change-in-Service of Unregistered UST" form. This form is included as **Appendix C**.

3.3 RESIDUAL MATERIAL REMOVED

Approximately 675 gallons of diluted petroleum contact water were removed during the tank cleaning activities. The material was disposed off-site at the permitted EVO facility (**Appendix B**).

3.4 SOIL EXCAVATION ACTIVITIES

Soils removed prior to removal of USTs were disposed off-site by EVO. Three tanks (UST-1, UST-2, and UST-4) were buried to a depth of about 2.5 feet below ground surface (ft bgs); UST-3 (the kerosene UST) was located at a depth of about 4 ft bgs. During soil excavation, the excavation sidewall and base conditions were observed. Staining and odors were identified in the soil located at the side walls and base of UST-3, but no staining or odors were observed at the other USTs. Additional excavation was completed beneath UST-3 and soils samples were analyzed to a final depth of 10 ft bgs, where soils reached a value below the DRO/GRO action limits.

About 155 tons of nonhazardous contaminated soil were disposed off-site by EVO. Excavation activities did not encounter groundwater or bedrock. The excavation was backfilled with 154 tons of clean soil and 22 tons of quarry fill on top. Photographs taken during the excavation activities are presented in **Appendix D**.

3.5 SITE INVESTIGATION

Field Screening of Soils

Soils were screened in the field using a calibrated photoionization detector (PID). Discrete soil samples collected from the excavated areas were placed in resealable plastic bags. The bags were sealed and the headspace within the bag was allowed to equilibrate out of direct sunlight. The probe of the PID was then inserted into the headspace of the bag and the concentration of volatile organic compound (VOC) vapors present in the headspace was recorded in the field log book. All field measurements are summarized in **Table 3.**

Closure Soil Sampling

In compliance with the *Guidelines*, DAA collected 3 confirmation soil samples from below the bottom of the 4,000-gallon USTs; 3 confirmation soil samples, two from the base and one from the sidewall, of the 1,000-gallon UST-3 excavation; and one confirmation sample from the excavation base for the 550-gallon UST-4. The confirmation samples were collected directly from the backhoe bucket, sample depths are presented on **Table 3**. The soil sample locations are shown in **Figure 3**.

Samples were collected in clear plastic bags, labeled with the sample location information and given to RED Lab, LLC, a North Carolina-certified laboratory in Wilmington, North Carolina, to perform on site

analysis. RED Lab, LLC performed analytical testing using their mobile laboratory equipment on January 8th and 9th, 2019. All samples were analyzed for diesel range and gasoline range organics (DRO/GRO) using the ultraviolet fluorescence (UVF) method.

The analytical results indicate that no GRO concentrations were detected in closure samples from below UST-1, UST-2, or UST-4. The closure sample from below UST-3 contained a GRO concentration of 180.7 milligrams per kilogram (mg/kg), which is above the GRO action level of 50 mg/kg. DRO concentrations were detected in all the closure samples, but only the closure sample from below UST-3 contained DRO (1,606 mg/kg) above the action level of 100 mg/kg. Based on the analytical results, additional soil was removed from the UST-3 area. Confirmation samples were collected at depths of 9 and 10 ft bgs below UST-3. Analysis of the confirmation sample at 10 ft bgs detected no GRO above the method detection level and a DRO concentration 0.06 mg/kg. Both of these results were below their respective action level. ` **Table 4** summarizes the laboratory analytical results for the soil samples and **Appendix E** provides a copy of the laboratory analytical reports.

Groundwater and Surface Water Samples

Groundwater was neither encountered during the UST removal activities nor sampled. No surface water features from which samples can be collected exist at the site.

Quality Control Measures

Samples collected by field staff were taken directly from the backhoe bucket by hand, using a new pair of Nitrile gloves for each sample. Samples submitted for laboratory analysis were collected using NCDEQ-approved methods and placed in non-preserved plastic bags with sample location information and given directly to REC Lab, LLC personnel for requested analysis. RED Lab, LLC completed on-site analyses required for UST closure.

4.0 SUMMARY AND CONCLUSIONS

On January 9th, 2019 DAA personnel permanently closed two 4,000-gallon petroleum USTs, one 1,000-gallon kerosene UST, and one 550-petroleum UST from a parking lot at 6002 Raeford Road. Fayetteville, North Carolina. The tanks and approximately 675 gallons of petroleum and water were removed from the site. Confirmation sampling included 3 soil samples from below the bottom of the 4,000-gallon USTs; 3 soil samples in the sidewall and base of the 1,000-gallon UST-3; and one sample from beneath the 550-gallon UST-4. Odor and staining were observed in the samples located at UST-3 prior to over excavation, but were not observed after the over excavation. No groundwater or bedrock was observed during the excavation.

The analytical report indicated that soils from beneath UST-3 contained DRO and GRO concentrations above the action levels for UST-3. Following over excavation, detected concentrations were below the action limit (<0.47 mg/kg for GRO and 0.06 mg/kg for DRO) for UST-3. No other samples indicated DRO or GRO concentrations above action limits. As a result, DAA recommends that this report be submitted to the NCDEQ UST Section Fayetteville Regional Office with a request for no further action.

TABLES

TABLE 1
SITE HISTORY – UST OWNER AND OPERATOR INFORMATION
Molgora UST Closure
6002 Raeford Road
Fayetteville, Cumberland County, North Carolina
Draper Aden Associates Project No. 18110156-010701

Incident Number and Name: UST Closures, Molgora

UST ID Number	**Not Applicable**	Facility ID Number	Not Applicable
Name of Owner		Dates of Operation (mm/dd/yy to mm/dd/yy)	
NCDOT- Abandoned in right-of-way		**Unknown**	
Street Address			
6002 Raeford Road			
City	State	Zip	Telephone Number
Fayetteville	**NC**	**28314**	**N/A**
Name of Operator		Dates of Operation (mm/dd/yy to mm/dd/yy)	
Abandoned in right-of-way		**Unknown**	
Street Address			
6002 Raeford Road			
City	State	Zip	Telephone Number
Fayetteville	**NC**	**28314**	**N/A**

TABLE 2

SITE HISTORY - UST/AST SYSTEM INFORMATION
Molgora UST Closure
6002 Raeford Road
Fayetteville, Cumberland County, North Carolina
Draper Aden Associates Project No. 18110156-010701

Incident Number and Name: 6002 Raeford Road UST Closure Report

UST ID Number	Current/Last Contents *	Previous Contents *	Depth (ft bgs)	Capacity (in gallons)	Construction Details **	Tank Dimensions (ft)	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST***	Was release associated with the UST System?
1	Petroleum	Contents unknown	2.5	4,000	Steel	5.5' x 24'	Product piping	Unknown (1960s?)	Closed 11/22/2004 Removed 1/8/2019	No
2	Petroleum	Contents unknown	2.5	4,000	Steel	5.5' x 24'	Product piping	Unknown (1960s?)	Closed 11/22/2004 Removed 1/8/2019	No
3	Kerosene	Contents unknown	4.0	1,000	Steel	4' x 11'	Product piping	Unknown (1960s?)	Closed 11/22/2004 Removed 1/8/2019	Yes
4	Petroleum	Contents unknown	2.5	550	Steel	3.5' x 7.5'	None	Unknown (1960s?)	Removed 1/8/2019	No

* Gasoline (unleaded or leaded), diesel, used oil, waste oil, aviation fuel, etc., or pesticides, non-halogenated or halogenated solvents, etc.
** Fiberglass (single- or double-walled), steel (single- or double-walled), steel with FRP (single- or double-walled), steel with liner, other, unknown.
*** Currently operational, not in use or temporarily closed (specify date), permanently closed in place (specify date), permanently closed by removal (specify date)

TABLE 3
SUMMARY OF FIELD SCREENING RESULTS
Molgora UST Closure
6002 Raeford Road
Fayetteville, Cumberland County, North Carolina
Draper Aden Associates Project No. 18110156-010701

Sample ID	Depth (ft bgs)	Location	Sample Type	PID Reading (ppm)
UST-1-E	9	UST-1	Soil	0
UST-1-C	9	UST-1	Soil	0
UST-1-W	9	UST-1	Soil	0
UST-2-E	9	UST-2	Soil	0
UST-2-C	9	UST-2	Soil	0
UST-2-W	9	UST-2	Soil	0
UST-3-SW-S	6	UST-3	Soil	230
UST-3-C	9	UST-3	Soil	57.3
UST-3-2C	10	UST-3	Soil	7.7
UST-4	8	UST-4	Soil	0

Notes:
ppm = parts per million.
ft bgs = feet below ground surface

TABLE 4
ANALYTICAL RESULTS FOR SOIL
Molgora UST Clousre
6002 Raeford Road
Fayetteville Cumberland County, North Carolina
Draper Aden Associates Project No. 18110156-010701

Incident Number: Not assigned Facility ID#:Not Applicable

Sample Information				Laboratory Results	
Sample ID	Date Collected	Depth (ft bgs)	Incident Phase	GRO (C5 - C10)	DRO (C10 - C35)
UST-1-E	1/8/2019	9	Closure	<0.45	0.08
UST-1-C	1/8/2019	9	Closure	<0.49	0.41
UST-1-W	1/8/2019	9	Closure	<0.51	0.05
UST-2-E	1/8/2019	9	Closure	<0.56	0.07
UST-2-C	1/8/2019	9	Closure	<0.66	0.09
UST-2-W	1/8/2019	9	Closure	<0.57	0.78
UST-3-SW-S	1/8/2019	6	Closure	**180.7**	**1606**
UST-3-C	1/8/2019	9	Confirmation	15.5	**133.4**
UST-3-2C	1/8/2019	10	Confirmation	<0.47	0.06
UST-4	1/9/2019	8	Closure	<0.46	0.29
Action level (ppm)				50	100

Notes:

All constituent concentrations are reported as milligram per kilogram (mg/kg)

ft bgs = feet below ground surface

Bold value indicates compound is above the reporting limit.

Shaded values exceed the action level

FIGURES

PROJECT NUMBER 18110156-010701

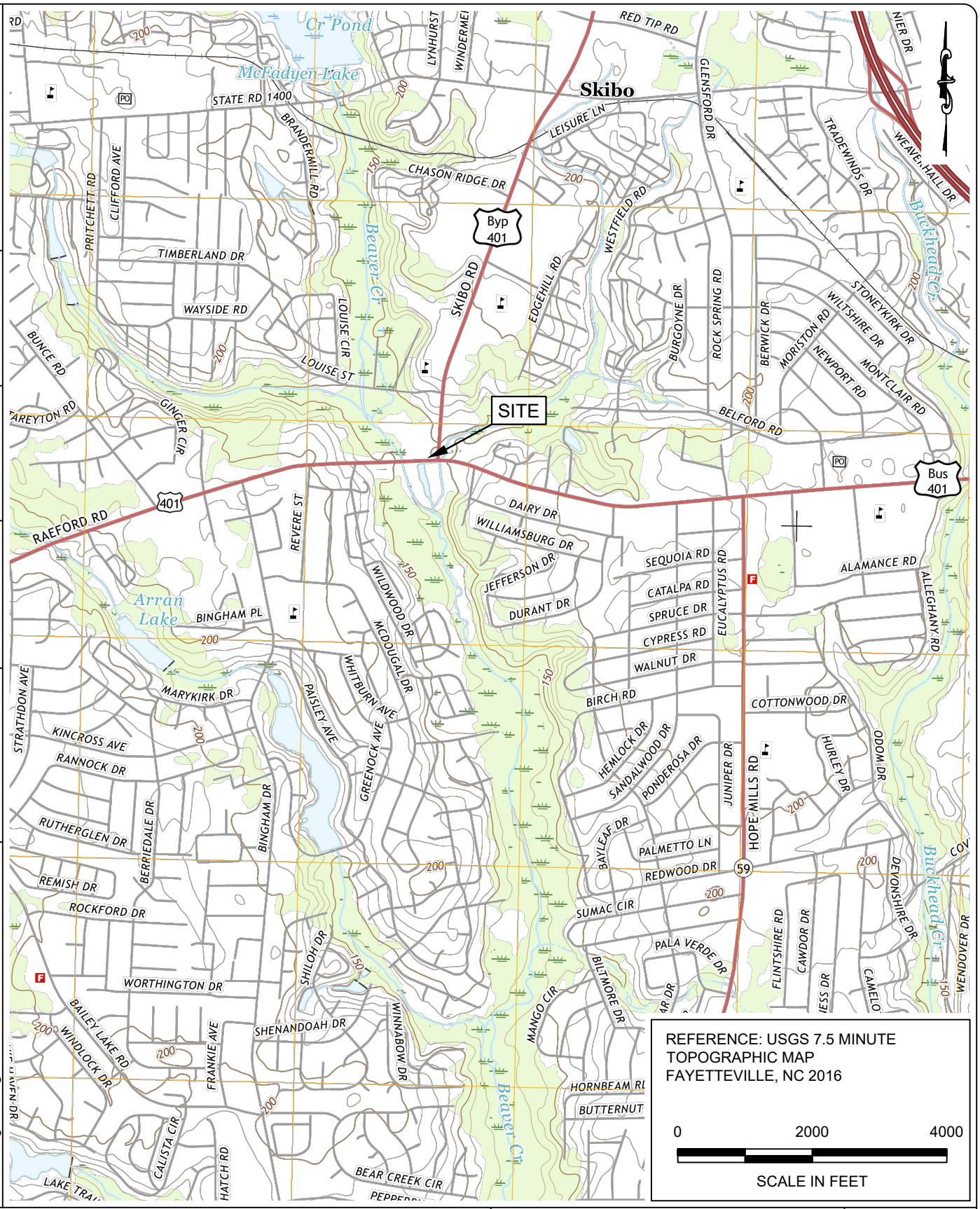
DRAFTER KTS

CHECKED BY BB

PROJECT MANAGER MB

DATE 1/23/2018

FILE Molgora.dwg



REFERENCE: USGS 7.5 MINUTE
TOPOGRAPHIC MAP
FAYETTEVILLE, NC 2016

0 2000 4000

SCALE IN FEET

Draper Aden Associates

Engineering • Surveying • Environmental Services

1101 Nowell Road
Raleigh, NC 27607
919-873-1060 Fax: 919-873-1074

Richmond, VA
Blacksburg, VA
Charlottesville, VA
Hampton Roads, VA
Fayetteville, NC
Northern Virginia
Virginia Beach, VA

SITE LOCATION MAP
6002 RAEFORD ROAD
FAYETTEVILLE, NORTH CAROLINA

FIGURE:

1

P:\2018\1811\0100\18110156\18110156-010701 Molgora UST\REPORTS\Figures\Molgora.dwg

PROJECT NUMBER 1811056-010701

DRAFTER MWB

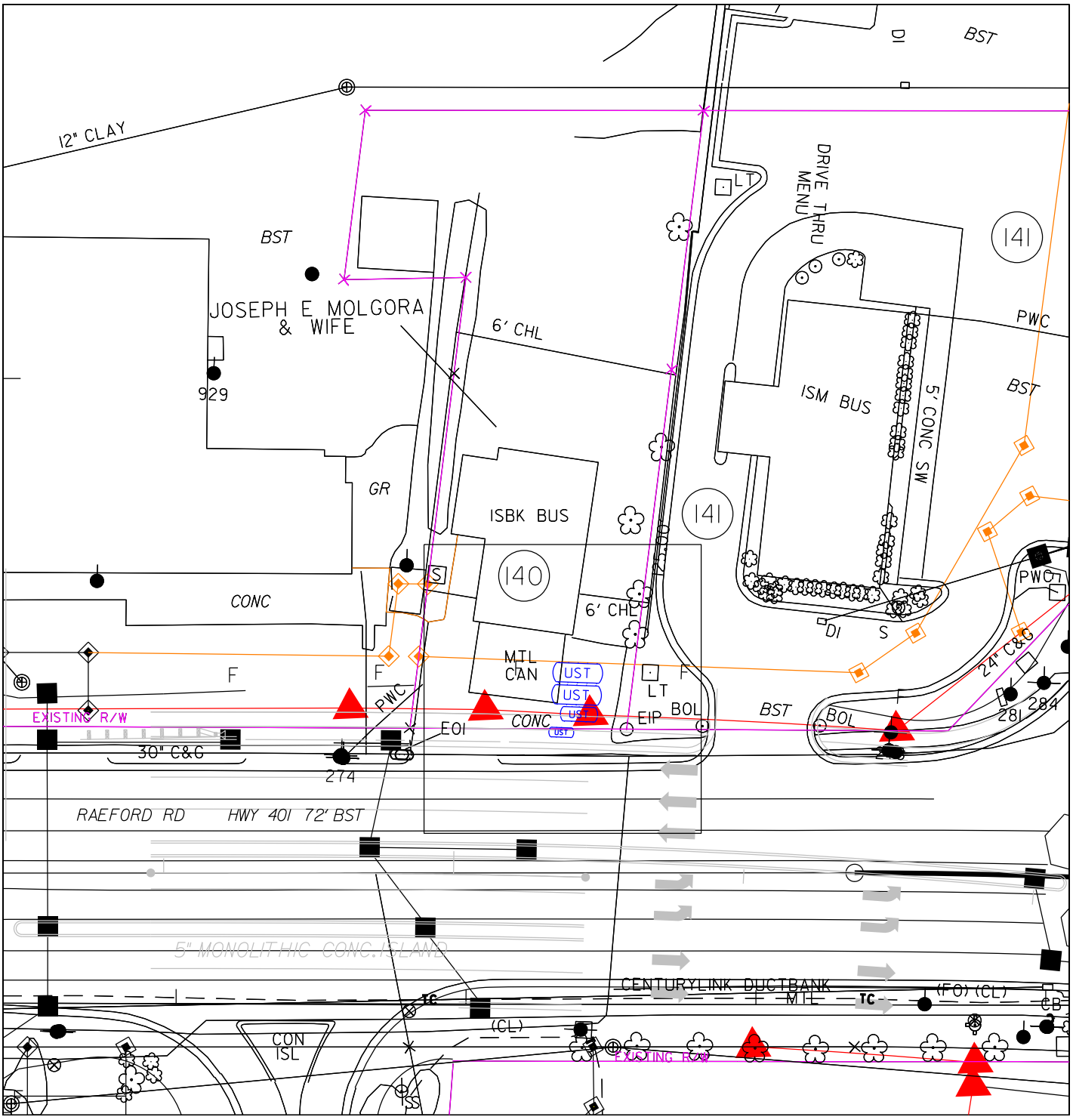
CHECKED BY JP

PROJECT MANAGER MWB

DATE JANUARY 2019

MOLGORA UST CLOSURE

FILE



LEGEND

UST — APPROXIMATE LOCATION OF USTS

PROPOSED RIGHT-OF-WAY

PERMANENT UTILITY EASEMENT

EXISTING RIGHT-OF-WAY

0 25 50

GRAPHIC SCALE (FEET)

Draper Aden Associates
Engineering • Surveying • Environmental Services
1101 NOWELL ROAD
RALEIGH, NORTH CAROLINA 27607
TEL: (919) 873-1060 FAX: (919) 873-1074

SITE LAYOUT MAP
6002 RAEFORD ROAD
FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA

FIGURE
2

PROJECT NUMBER 181101560107.01

DRAFTER MWB

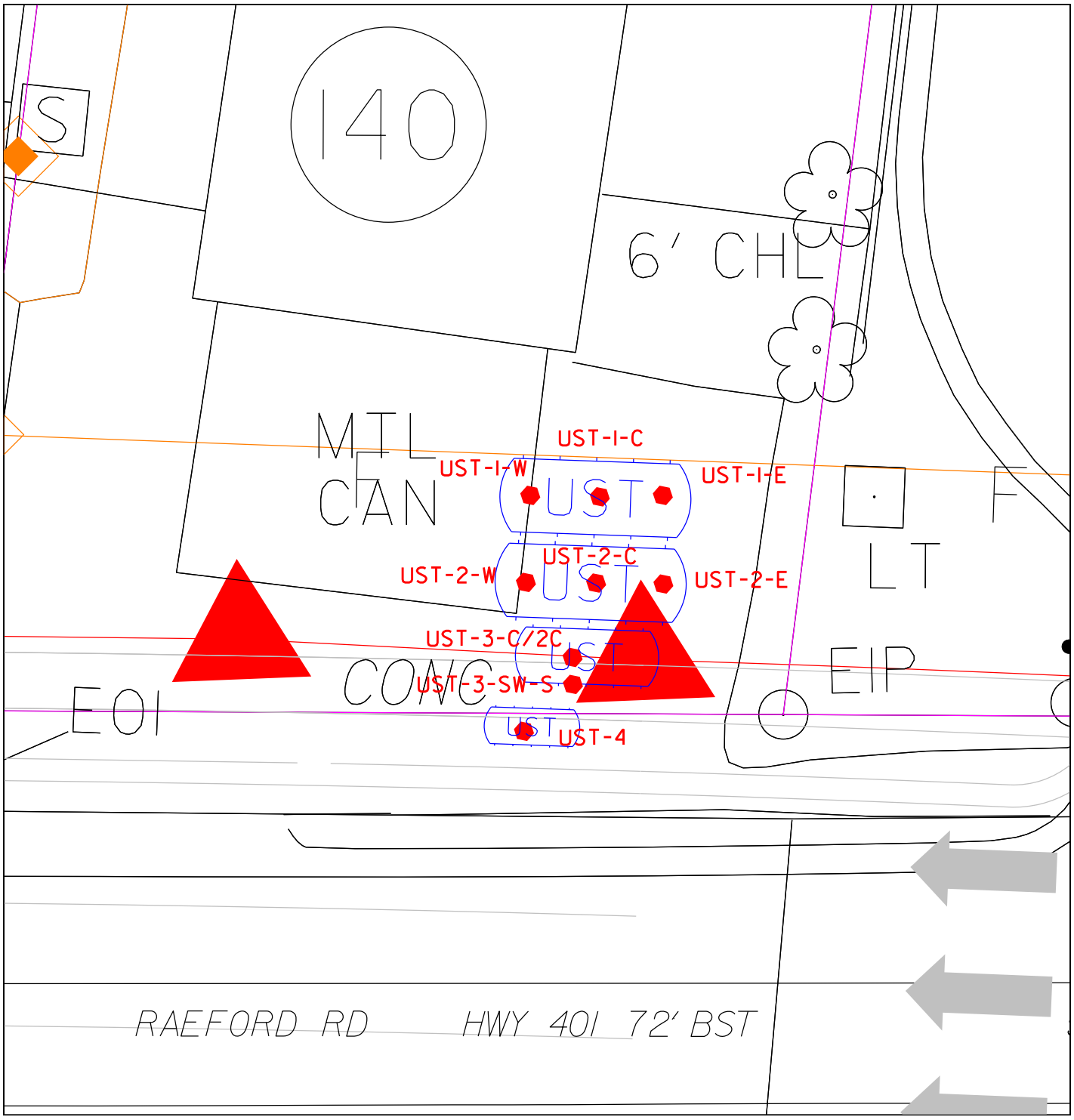
CHECKED BY JP

PROJECT MANAGER MWB

DATE JANUARY 2019

MOLGORA UST CLOSURE

FILE



LEGEND

UST-4 SOIL SAMPLE LOCATION AND IDENTIFICATION

UST APPROXIMATE LOCATION OF USTS

PROPOSED RIGHT-OF-WAY

PERMANENT UTILITY EASEMENT

EXISTING RIGHT-OF-WAY

0 5 10

GRAPHIC SCALE (FEET)

Draper Aden Associates

Engineering • Surveying • Environmental Services

1101 NOWELL ROAD

RALEIGH, NORTH CAROLINA 27607

TEL: (919) 873-1060 FAX: (919) 873-1074

UST LOCATION MAP

6002 RAEFORD ROAD

FAYETTEVILLE, CUMBERLAND COUNTY, NORTH CAROLINA

FIGURE

3

APPENDIX A

UST-3 Form - "Notice of Intent: UST Permanent Closure or Change-in-Service"

UST-3 Notice of Intent: UST Permanent Closure or Change-in-Service

Return completed form to:
The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out.
SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY
I.D. #_____
Date Received_____

INSTRUCTIONS (READ THIS FIRST)

Complete and return at least **thirty (30) days** prior to closure or change-in-service activities. If a Professional Engineer (P.E.) or a Licensed Geologist (L.G.) provides supervision for closure or change-in-service site assessment activities and signs and seals all closure reports then at least a **five (5) working days** notice is acceptable.

Completed UST closure or change-in-service site assessment reports, along with a copy of the UST-2 form, should be submitted to the appropriate Division of Waste Management (DWM) Regional Office within thirty (30) days following closure activities. The UST-2 form should also be submitted to the Central Office in Raleigh so that the status of the tanks may be changed to permanently closed and your tank fee account can be closed out.

UST closure and change-in-service site assessments must be completed in accordance with the latest version of the *Guidelines for Site Checks, Tank Closure and Initial Response*. The guidelines can be obtained at http://www.wastenotnc.org/web/wm/. Note: To close tanks in place you must obtain prior approval from the DWM Regional office located in the region where the facility is located.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

I. OWNERSHIP OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity) Abandoned in right-of-way		
Street Address 6002 Raeford Road		
City Fayetteville	County Cumberland	
State NC	Zip Code	
Phone Number (910) 237-3210		

II. LOCATION

Facility Name or Company Unknown		
Facility ID # (If known)		
Street Address 6002 Raeford Road		
City Fayetteville	County Cumberland	Zip Code
Phone Number (910) 23		

III. CONTACT PERSONNEL

Name:	Company Name:	Job Title:	Phone Number:
Craig Haden	NCDOT	Project Manager	9197076871

IV. TANK REMOVAL, CLOSURE IN PLACE, CHANGE-IN SERVICE

1. Contact local fire marshal.
2. Plan entire closure event.
3. Conduct Site Soil Assessment.
4. If removing tanks or closing in place, refer to API Publication 2015 *Cleaning Petroleum Storage Tanks* and 1604 *Removal and Disposal of Used Underground Petroleum Storage Tanks.*
5. Provide a sketch locating piping, tanks and soil sampling locations.
6. Submit a closure report in the format of UST-12 (including the form UST-2) within thirty (30) days following the site investigation.
7. If a release from the tanks has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G. If a release has not occurred, the supervision, signature or seal of a P.E. or L.G. is not required.
8. Keep closure records for three (3) years.

V. WORK TO BE PERFORMED BY

Contractor Name: Tony Disher	Contractor Company Name: EVO Corp		
Address: 1703 Vargrave, Winston-Salem	State: NC	Zip Code: 27107	Phone No: 3367255844
Primary Consultant Name: Michael Branson	Primary Consultant Company Name: Draper Aden Associates		Consultant Phone No: 919-873-1060

VI. TANKS SCHEDULED FOR CLOSURE OR CHANGE-IN-SERVICE

Tank ID No.	Size in Gallons	Last Contents	Proposed Activity: Closure – Removal	Proposed Activity: Closure – Abandonment in Place *	Proposed Activity: Change-In-Service – New Contents Stored
1	3000	Petroleum	☒	☐	
2	3000	Petroleum	☒	☐	
3	550	Petroleum	☒	☐	
			☐	☐	
			☐	☐	

* Prior written approval to abandon a tank in place must be received from a DWM Regional Office.

VII. OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE

I understand that I can be held responsible for environmental damage resulting from the improper disposal of my USTs.

Print name and official title: Michael Branson, DAA Project Manager for NCDOT

Signature	Date Signed	SCHEDULED REMOVAL DATE	**Notify your DWM Regional Office 48 hours before this date if scheduled removal date changes**
Michael Branson	12/27/2018	01/07/2019	

APPENDIX B

Certificate of Disposal & Non-Hazardous Materials Manifest

EVO CORPORATION

1703 Vargrave Street
Winston-Salem, NC 27107
ph 336-725-5844
fax 336-725-6244

TANK DISPOSAL CERTIFICATE

Tank Owner: NCDOT

Site Address: 6002 Raeford Road
Fayetteville, NC

Description of Tanks:

Tank Number	Size of Tank	Contents
1	4,000 Gallons	Gasoline
1	4,000 Gallons	Gasoline
1	1,000 Gallons	Gasoline
1	550 Gallons	Kerosene

Transporter: Evo Corporation

EC Project #: 011907

Disposal Certification:

Evo Corporation does hereby certify that the above named storage tanks were transported to Foss Recycling, 3459 Thomasville Road, Winston-Salem, NC for proper disposal and recycling.

Signature

Thomas W. Hammett
CEO
Evo Corporation

EVO CORPORATION

1703 Vargrave Street
Winston-Salem, NC 27107
ph 336-725-5844
fax 336-725-6244

CERTIFICATE OF DISPOSAL

Evo Corporation does hereby certify that 675 gallons of non-hazardous contaminated water received on 1/8/2019 and 1/9/2019 from:

Generator: NCDOT

Originating at: 6002 Raeford Road
Fayetteville, NC

EC Waste ID #: 011907

has been disposed of by Evo Corporation in a manner approved by the North Carolina Department of Environmental Quality.

Thomas W. Hammett

Signature

Thomas W. Hammett
CEO
Evo Corporation

EVO CORPORATION

1703 Vargrave Street
Winston-Salem, NC 27107
ph 336-725-5844
fax 336-725-6244

CERTIFICATE OF DISPOSAL

Evo Corporation does hereby certify that 154.56 tons of non-hazardous contaminated material received on 1/7/2019, 1/8/2019 and 1/9/2019 from:

Generator: NCDOT

Originating at: 6002 Raeford Road
Fayetteville, NC

EC Waste ID #: 011907

has been disposed of by Evo Corporation in a manner approved by the North Carolina Department of Environmental Quality.

Signature

Thomas W. Hammett
CEO
Evo Corporation

APPENDIX C

UST-2B Form – "Site Investigation Report for Permanent Closure or Change in Service of Unregistered UST"

UST-2B

Site Investigation Report for Permanent Closure or Change-in-Service of UN-REGISTERED UST

Return completed form to:

NC DEQ / DWM / UST SECTION
1646 MAIL SERVICE CENTER
RALEIGH, NC 27699-1646
ATTN: REGISTRATION & PERMITTING

phone (919) 707-8171 fax (919) 715-1117 http://www.wastenotnc.org/

STATE USE ONLY:
Facility ID #

Date Received

INSTRUCTIONS (READ THIS FIRST)

1. UST permanent closure or change in service must be completed in accordance with the latest version of the Guidelines for Site Checks, Tank Closure and Initial Response and Abatement. The guidelines can be obtained at http://deq.nc.gov/about/divisions/waste-management/waste-management-permit-guidance/underground-storage-tanks-section.
2. Permanent closure: Complete all sections of this form.
3. Change-in-service: Where UST systems will be converted from storing a regulated substance to a non-regulated substance, complete sections I, II, III, IV, and VI.
4. For more than 5 un-registered UST systems, attach additional forms as needed.
5. **Un-Registered USTs may be subject to unpaid fees and late penalties**.
6. REGISTERED USTs use Form UST-2A.

I. OWNERSHIP OF TANKS

Owner Name (Corporation, Individual, Public Agency, or Other Entity): Abandoned in right-of-way

Street Address: 6002 Raeford Road

City: Fayetteville County: Cumberland

State: NC Zip Code: 28304

Phone Number: NA

II. LOCATION OF TANKS

Facility Name or Company: Abandoned in right-of-way

Facility ID # (If known):

Street Address: 6002 Raeford Road

City: Fayetteville County: Cumberland Zip Code: 28304

Phone Number: NA

III. CONTACT PERSONNEL

Contact for Facility: Craig Haden, NCDOT		Job Title: Project Manager	Phone #: 919-707-6871
Closure Contractor Name: Tony Disher	Closure Contractor Company: EVO Corporation	Address: 1703 Vargrave St, Wins	Phone # 336-725-5844
Primary Consultant Name: Micheal Branson	Primary Consultant Company: Draper Aden Associates	Address: 1101 Nowell Road, Ralei	Phone # 919-873-1060

IV. UST INFORMATION FOR UN-REGISTERED UST SYSTEMS

REGISTERED USTs use Form UST-2A.

V. EXCAVATION CONDITION

Tank ID No.	Size in Gallons	Last Contents	Last Use Date	Permanent Close Date	Method of Permanent Closure: Indicate REMOVED or enter fill material, such as foam/ concrete/ sand	Change-in-Service Date	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
1	4000	Petroleum	Unknown	1/8/2019	Removed		☐	■	☐	■	☐	■
2	4000	Petroleum	Unknown	1/8/2019	Removed		☐	■	☐	■	☐	■
3	1000	Petroleum	Unknown	1/8/2019	Removed		☐	■	☐	■	■	☐
4	550	Petroleum	Unknown	1/9/2019	Removed		☐	■	☐	■	☐	■
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐

VI. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true accurate and complete.

Print name and official title of owner or owner's authorized representative

Michael Branson, DAA Project Manager for NCDOT

Signature: Michael Branson

Date Signed: 2/5/2019

APPENDIX D

Photographs

Photo 1: Site photo of parking lot, toward East

Photo 2: Backhoe excavation of abandoned UST

Photo 3: Excavation area prior to tank removal, facing the South.

Photo 4: UST-3 removal, 550-gallon kerosene UST

Photo 5: UST-2 removal, 4,000-gallon petroleum UST, facing West

Photo 6: UST-2 removal, 4,000-gallon petroleum UST, facing Northwest

Photo 7: UST-1 removal, 4,000-gallon petroleum UST, facing West

Photo 8: Backhoe excavation of abandoned UST, discovery of UST-4

Photo 9: UST-4, 1000-gallon petroleum UST, facing Southwest

Photo 10: UST connections

Photo 11: Backfill of excavated area, facing West

Photo 12: Backfill of excavated area, facing Northwest

APPENDIX E

Laboratory Analytical Report and Chain of Custody

QED

REDLAB RAPID ENVIRONMENTAL DIAGNOSTICS

QROS

Hydrocarbon Analysis Results

Client: DRAPER ADEN
Address:

Samples taken Tuesday, January 8, 2019
Samples extracted Tuesday, January 8, 2019
Samples analysed Tuesday, January 8, 2019

Contact: BRANDY BARNES

Operator MAX MOYER

Project: MOLGORA UST CLOSURE

U04049

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	% Ratios			HC Fingerprint Match
										C5 - C10	C10 - C18	C18	
Soil	UST-1-E	18.1	<0.45	<0.45	0.08	0.08	0.08	0.005	<0.005	0	46.2	53.8	Residual HC,(P)
Soil	UST-1-C	19.5	<0.49	<0.49	0.41	0.41	0.23	0.01	0.001	0	67.1	32.9	V.Deg.PHC 58.7%,(FCM)
Soil	UST-1-W	20.5	<0.51	<0.51	0.05	0.05	0.05	0.003	<0.006	0	34	66	Residual HC,(P)
Soil	UST-2-E	22.4	<0.56	<0.56	0.07	0.07	0.06	0.004	<0.007	0	34	66	Residual HC,(P)
Soil	UST-2-C	26.5	<0.66	<0.66	0.09	0.09	0.08	0.006	<0.008	0	34.1	65.9	Residual HC,(P)
Soil	UST-2-W	22.6	<0.57	<0.57	0.78	0.78	0.42	0.02	0.001	0	68.5	31.5	V.Deg.PHC 58.6%,(FCM)
Soil	UST-3-SW-S	136.0	<3.4	180.7	1606	1787	129.6	4.6	<0.041	62.7	37.3	0	No Match found
Soil	UST-3-C	20.6	<0.52	15.5	133.4	148.9	9.9	0.35	<0.006	65.3	34.4	0.2	Deg.Kerosene 73.9%,(FCM),(P)
Soil	UST-3-2C	18.7	<0.47	<0.47	0.06	0.06	0.06	0.004	<0.006	0	62.4	37.6	Residual HC,(P)

Initial Calibrator QC check OK

Final FCM QC Check OK 99.7%

Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.

Abbreviations :- FCM = Results calculated using Fundamental Calibration Mode : % = confidence of hydrocarbon identification : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate detected

B = Blank Drift : (SBS)/(LBS) = Site Specific or Library Background Subtraction applied to result : (BO) = Background Organics detected : (OCR) = Outside cal range : (M) = Modifed Result.

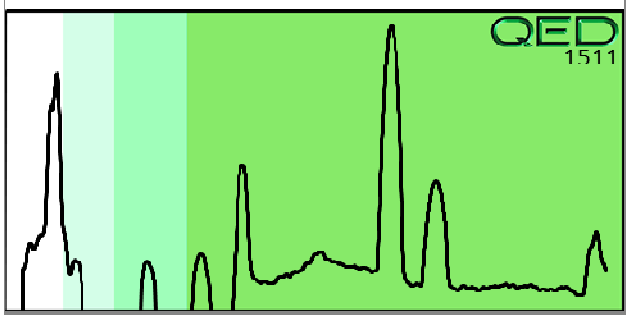
% Ratios estimated aromatic carbon number proportions : HC = Hydrocarbon : PHC = Petroleum HC : FP = Fingerprint only. **Data generated by HC-1 Analyser**

QED Hydrocarbon Fingerprints

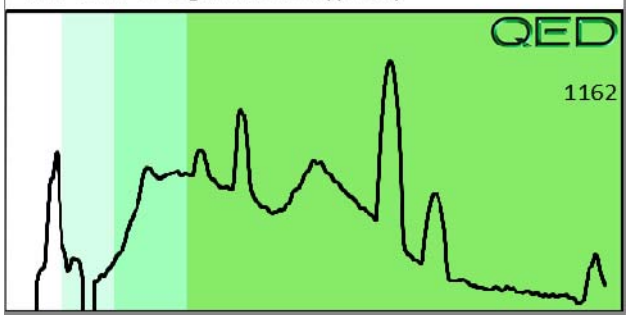
Project: MOLGORA UST CLOSURE

Tuesday, January 8, 2019

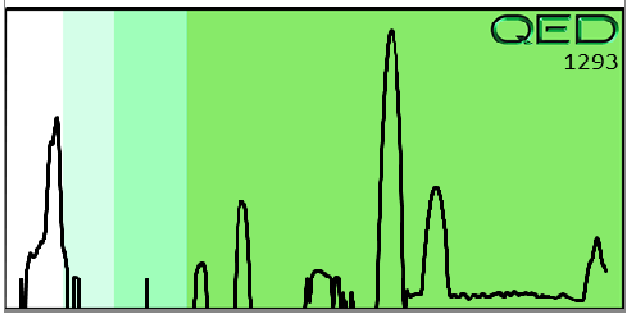
UST-1-E : Residual HC,(P)



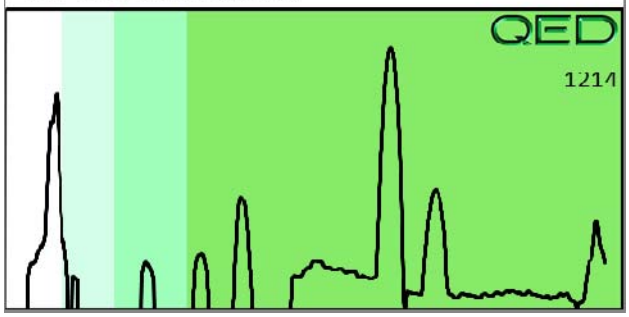
UST-1-C : V.Deg.PHC 58.7%,(FCM)



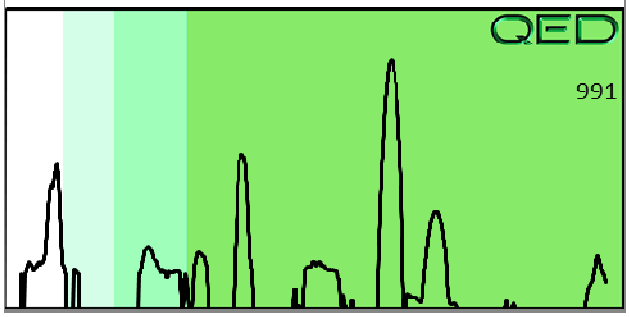
UST-1-W : Residual HC,(P)



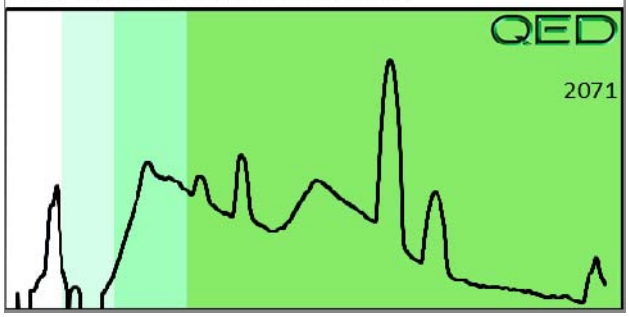
UST-2-E : Residual HC,(P)



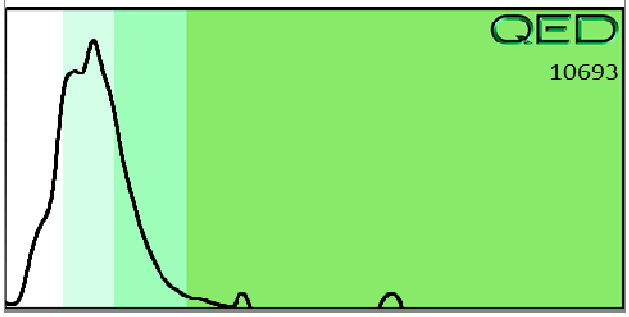
UST-2-C : Residual HC,(P)



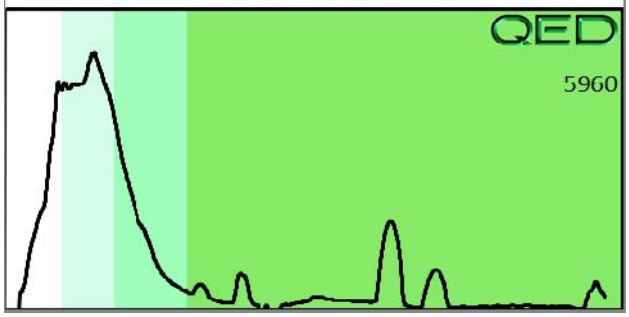
UST-2-W : V.Deg.PHC 58.6%,(FCM)



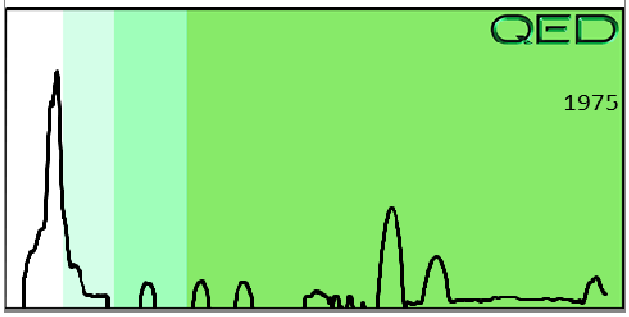
UST-3-SW-S : No Match found



UST-3-C : Deg.Kerosene 73.9%,(FCM),(P)



UST-3-2C : Residual HC,(P)



QED

REDLAB RAPID ENVIRONMENTAL DIAGNOSTICS

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Hydrocarbon Analysis Results

Client: DRAPER ADEN
Address:

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Samples extracted Wednesday, January 9, 2019
Samples analysed Wednesday, January 9, 2019

Contact: BRANDY BARNES

Operator MAX MOYER

Project: MOLGORA UST CLOSURE

U04049

Matrix	Sample ID	Dilution used	BTEX (C6 - C9)	GRO (C5 - C10)	DRO (C10 - C35)	TPH (C5 - C35)	Total Aromatics (C10-C35)	16 EPA PAHs	BaP	% Ratios			HC Fingerprint Match
										C5 - C10	C10 - C18	C18	
Soil	UST-4	18.3	<0.46	<0.46	0.29	0.29	0.06	0.004	<0.005	0	100	0	Deg Fuel 69.8%,(FCM)

Initial Calibrator QC check OK

Final FCM QC Check OK 105.6%

Concentration values in mg/kg for soil samples and mg/L for water samples. Soil values uncorrected for moisture or stone content. Fingerprints provide a tentative hydrocarbon identification.

Abbreviations :- FCM = Results calculated using Fundamental Calibration Mode : % = confidence of hydrocarbon identification : (PFM) = Poor Fingerprint Match : (T) = Turbid : (P) = Particulate detected

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QED Hydrocarbon Fingerprints

Project: MOLGORA UST CLOSURE

Wednesday, January 9, 2019