



BRANCH ADDRESS
6947 E. 13th St.
Tulsa, OK 74112-5615
Phone: 918-838-0494
Toll-Free: 866-304-7136
Fax: 918-838-0743

CORPORATE HEADQUARTERS
4140 E. 14th St.
Des Moines, IA 50313-3804
Toll-Free: 800-369-5500

The Complete Solution

UNDERGROUND STORAGE TANK CLOSURE REPORT

**FACILITY # 51-00389
PAC-0023907**

**Kum & Go #853
29 West Southside Boulevard
Muskogee, Oklahoma**

INTRODUCTION

Seneca Companies, Inc. (Seneca) was contracted by Kum & Go L.C. to permanently close two (2) 10,000-gallon gasoline and one (1) 10,000-gallon diesel underground storage tanks (USTs), associated product piping, and dispensers. The subject property is located at 29 West Southside Boulevard, Muskogee, Muskogee County, Oklahoma. The tanks were located in a single pit on the property. Seneca notified the Oklahoma Corporation Commission (OCC) of the planned UST tank removal through the OCC Portal Website. The confirmation number for the scheduling is PAC-0023907.

DESCRIPTION OF THE UST SYSTEMS

The UST system consisted of the three (3) USTs, product piping, and two (2) associated dispenser islands. The content and size are as follows:

Tank No. 1 – 10,000-gallon, gasoline, single-wall, fiberglass

Tank No. 2 – 10,000-gallon, gasoline, single-wall, fiberglass

Tank No. 3 – 10,000-gallon, diesel, single-wall, fiberglass

Product piping consisted of single-wall fiberglass lines. Additionally, there were two (2) dispenser islands located west of the UST basin.

All USTs and all associated equipment were removed. The location of the tank basin, USTs, product piping, and dispenser islands is shown on the Site Map. An area map showing the subject property and surrounding properties is included in the attachments. Currently, no other tanks are known to be located or registered onsite.

Branch Locations

Des Moines, IA • Davenport, IA • Oreana, IL • Kansas City, MO • South Sioux City, NE • Denver, CO
Tulsa, OK • Grand Island, NE • Creston, IA • Nashville, TN

www.senecaco.com

Fuel Systems • General Contracting • Environmental Services • Waste Solutions Services
Remediation & Process Controls • Automotive & Fleet Equipment

NATIVE SOIL AND GROUNDWATER SAMPLING

On October 23 and 24, 2019, backfill samples were collected by Ms. Margaret Fehn at the facility as the USTs were uncovered. The backfill consisted of pea gravel. Three (3) backfill samples were collected, one (1) for every 50 cubic yards of backfill material. Each backfill sample was submitted to Pace National Center for Testing and Innovation (Pace National), 12065 Lebanon Road, Mt. Juliet, TN 37112 under chain of custody and analyzed for total petroleum hydrocarbon-gasoline range organics (TPH-GRO), total petroleum hydrocarbon-diesel range organics (TPH-DRO), and benzene, toluene, ethyl-benzene and xylenes (BTEX).

A native soil sample from the down-gradient wall at a depth of 8 feet below ground surface (bgs) was collected as well as native soil samples from beneath the fill ports of each UST at depths of 14 feet bgs. Water was encountered during the removal. The water was removed from the UST basin using a 2" water pump discharging into a frac tank. The UST basin did recharge so the recovered water was assumed to be groundwater. A groundwater sample was collected. As each of the native soil samples were collected, a portion of each sample was placed in a sealed plastic bag and tested utilizing a MiniRae 3000 photo-ionization detector (PID) for indications of petroleum hydrocarbons. Each soil sample was submitted to Pace National under chain-of-custody and analyzed for TPH-GRO, TPH-DRO, and BTEX.

Following removal of the USTs and sampling of the tank basin, the product piping and dispenser islands were removed. Native soil samples were collected every twenty (20) feet of product piping, at each connection, and under each dispenser at a depth of 3 feet bgs. As described above, as each of the native soil samples were collected, a portion of each sample was placed in a sealed plastic bag and tested utilizing a PID for indications of petroleum hydrocarbons. Each soil sample was submitted to Pace National under chain-of-custody and analyzed for TPH-GRO, TPH-DRO, and BTEX.

The sample locations are labeled and presented on the Site Map. **Table 1** includes the results of the native soil and backfill sampling and PID readings. **Table 2** includes the results of the groundwater sampling. The laboratory analytical results for the native soil samples are included in the attachments.

TABLE 1

Sample Location	Sample Depth	PID Reading	Benzene	Toluene	Ethyl-benzene	Xylene	TPH (DRO)	TPH (GRO)
Native Soil	Below Ground Surface	(ppm)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Backfill 50 yds	N/A	9.0	0.0155	<0.128	<0.0128	<0.0383	661	4.14
Downgradient Wall	8 feet	12.4	<0.0152	<0.152	0.0193	0.126	<4.85	<3.03
Tank 1	14 feet	0.4	<0.0158	<0.158	<0.0158	<0.0475	<5.07	<3.17
Backfill 100 yds	N/A	7.3	0.0171	<0.130	<0.0130	0.0466	70.8	<2.60
Tank 2	14 feet	0.7	<0.0161	<0.161	<0.0161	<0.0482	<5.15	<3.22
Tank 3	14 feet	0.8	<0.0148	<0.148	<0.0148	<0.0445	<4.75	<2.97

Line 1	3 feet	25.5	<0.0153	<0.153	<0.0153	<0.0460	<4.90	<3.06
Line 2	3 feet	22.3	<0.0149	<0.149	0.0171	0.121	13.1	4.25
Line 3	3 feet	59.2	0.0261	0.168	0.0678	0.384	<5.17	5.54
Line 4	3 feet	37.9	<0.0150	<0.150	0.0170	0.103	11.8	<3.00
Dispenser 1	3 feet	70.4	<0.0146	<0.146	<0.0146	<0.0438	<4.68	<2.92
Dispenser 2	3 feet	220.7	0.0583	0.314	0.102	0.537	228	16.2
Backfill 150 yds	N/A	131.7	0.0686	0.519	0.264	1.61	150	37.8
OCC Action Levels-Soil			0.50	40.0	15.0	200.0	50.0*	50.0*

All Results in mg/kg (soil)

Bold red indicates concentrations above OCC action levels

*if BTEX concentrations are below action levels, a TPH concentration of 500 mg/kg is used

Table 2

Sample Location	Benzene	Toluene	Ethyl-benzene	Xylene	TPH (DRO)	TPH (GRO)
	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Tank Pit Water	0.0451	<0.0100	0.00966	<0.0150	696	Not Tested
OCC Action Levels-Soil	0.005	1.0	0.7	10.0	2.0	2.0

All Results in mg/l (water)

Bold red indicates concentrations above OCC action levels

UST CLOSURE

On October 22, 2019, the concrete over the tank basin was removed exposing the backfill material. Two (2) 10,000-gallon gasoline and one (1) 10,000-gallon diesel, single-walled fiberglass USTs, and associated single-walled fiberglass piping was removed by Seneca at the former Kum & Go #853. These activities were witnessed and documented by Ms. Margaret Fehn, Licensed Oklahoma Corporation Commission Underground Storage Tank Remover #2902. Tank 1 was noted to have small holes in the bottom at the time of removal. The remaining tanks were in good condition at the time of removal. The certificate of destruction from for these USTs is included in the attachments.

LABORATORY ANALYTICAL RESULTS AND ADDITIONAL SITE ACTIVITIES

Laboratory analytical results of the backfill indicated Backfill 50 yds had TPH-DRO (661 mg/kg) above OCC action level of 500 mg/kg. Laboratory analytical results of native soil samples were all below OCC action levels. The groundwater laboratory analytical results indicated benzene (0.0451 mg/l) and TPH-DRO (696 mg/l) above OCC action levels. The concentrations were reported to the OCC. Seneca discussed the samples with Mr. David Poulsen. An email from Mr. Poulsen, dated November 7, 2019, stated the

following, "The UST system closure soil sample analytical results you have reported do not indicate the presence of significant levels of any gasoline or diesel-range compounds. Based upon the information submitted, further assessment does not appear to be warranted and none is required. The backfill soil samples do not indicate the presence of any significant levels of gasoline or diesel-range compounds. The backfill may be placed back in the pit"

The Notification for Underground Storage Tanks - Form 7530-1 documenting the change in status of the USTs at the facility is included in the attachments. Photographs of the tank removal activities are included in the attachments.

WARRANTY


The field observations and analytical results reported herein are considered sufficient in detail and scope to form a reasonable basis for a general tank closure at this site. The environmental methods have been developed to provide the client with information regarding apparent existing environmental conditions relating to the subject property and are necessarily limited to the conditions observed at the time of the project. The report is also limited to the information available at the time that it was prepared. In the event additional information is provided to Seneca Companies following issuance of the report, it will be forwarded to the client in the form received for evaluation by the client. There is a possibility that conditions may exist which were not apparent during this project. Seneca Companies believes that the information provided during this project is reliable. However, Seneca Companies cannot warrant or guarantee that the information provided by others is complete or accurate.

DATE: December 9, 2019



MARGARET FEHN
ENVIRONMENTAL SCIENTIST
OKLAHOMA UST REMOVER #2902

DATE: December 9, 2019



P. MICHAEL FITTER, JR.
OKLAHOMA UST REMOVER #219
OKLAHOMA REMEDIATION CONSULTANT #219