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MAY 16 2012

Dept of Ecology
Toxics Cleanup Program



Stantec

Underground Storage Tank Closure Report

7-Eleven Store No. 25331
12720 4th Avenue West
Everett, Washington
Stantec Project No. 212302789

May 15, 2012

1.0 Introduction

Stantec Consulting Services, Inc. (Stantec) was retained by 7-Eleven, Inc. (7-Eleven) to provide documentation of underground storage tank (UST) removal at 7-Eleven Store Number 25331 (the Site). The Site is located at 12720 4th Avenue West, Everett, Washington (**Figures 1 and 2**). The work was conducted on February 16 through March 7, 2012 in accordance with the Washington Department of Ecology (Ecology) document: "*Guidance for Site Checks and Site Assessments for Underground Storage Tanks*" [Ecology, February 1991 (revised April 2003)]. Site assessment activities were performed by a certified Washington State Site Assessor (#8012337-U7) as required by Washington Administrative Code (WAC) 173-360-610.

1.1 Purpose and Scope of Work

Stantec supervised and observed the removal of three 12,000-gallon, single-wall fiberglass reinforced plastic USTs, three dispensers, associated product piping, concrete pump island, canopy, and vent risers. Stantec collected UST closure soil samples to assess subsurface conditions in the vicinity of the former USTs and dispenser island. Stantec's scope of work consisted of the following tasks:

- Preparation of a site-specific Health and Safety Plan (HASP);
- Notification of 7-Eleven 10-business days in advance of construction activities;
- Notification to Ecology 30 days prior to UST removal;
- Supervision and documentation of the dispenser island, product piping, and UST decommissioning activities;
- Inspection of the condition of the USTs and product piping upon removal;
- Collection of soil samples from the UST excavation, stockpiles, and beneath the product lines and dispensers for the purposes of logging subsurface conditions, field screening soil samples for organic vapors using a photoionization detector (PID), and submitting selected soil samples for laboratory analysis of benzene, toluene, ethyl benzene and total xylenes (BTEX), 1-2 dibromoethane (EDB), 1-2 dichloroethane (EDC), methyl tertiary butyl ether (MtBE), naphthalenes (naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene), total lead, total petroleum hydrocarbons characterized as gasoline (TPH-G), volatile petroleum hydrocarbons (VPH);
- Field screen soil samples collected from soil stockpiles;
- Removal and disposal of petroleum contaminated soil; and,

- Preparation of this report documenting UST removal activities and site restoration.

1.2 Site Background

In December 1999, Adapt Engineering of Seattle, WA (Adapt) completed a limited Phase I Site Assessment and Limited Soil Vapor Sampling & Testing Report at the Site (Adapt 1999). The assessment identified the Site as a potential source of a release. Vapor samples containing elevated concentrations of tetrachloroethene (PCE) were collected near a dry cleaner adjacent to the Site (labeled as Fazio Cleaners on **Figure 3**).

In May 2006, Adapt conducted a limited subsurface assessment at the Site (Adapt 2006) which indicated that groundwater was deeper than 60 feet bgs. PCE was not detected in the soil samples analyzed during the May 2006 investigation.

Petroleum hydrocarbon impacts were first identified in soil at the Site when Adapt conducted a limited Phase II Site Assessment in June 2009 (Adapt 2009) on behalf of Empire Holdings, which included the advancement of four geoprobes; GP-1 through GP-4, located near the dispenser islands and the USTs (**Figure 2**). Petroleum hydrocarbon concentrations that exceeded Ecology's Model Toxics Control Act (MTCA) Method A cleanup levels (CULs) were reported in soil samples collected from GP-1 at 8 to 10 feet bgs, GP-2 at 8 to 10 feet bgs, and GP-4 at 8-10 feet bgs and 18-20 feet bgs. The results of the Phase II Site Assessment indicated that the lateral and vertical extent of petroleum-impacted soils was not completely defined.

In January 2010, Stantec conducted an Additional Subsurface Assessment which included the advancement of five geoprobes (GP-5 through GP-7, GP-9 and GP-10, **Figure 3**) to further delineate the extent of petroleum-impacted soil. Soil analytical results confirmed that petroleum hydrocarbons were present in vadose zone soils located in the area surrounding the dispenser island, extending south to southwest of the dispenser island and southwest of the UST basin, to a depth of at least 20 feet bgs (at GP-6 and GP-10).

Additional subsurface assessments performed in July 2010, April 2011, and September 2011 will be discussed in the future Cleanup Action Report.

Historical soil analytical data is summarized in **Table 1**.

1.3 Regulatory Status

Stantec reviewed Ecology's electronic databases regarding the regulatory status of the Site. The Site is listed in Ecology's UST and Tank Summary databases as UST Site Number 8634 and Facility Site ID number 76937186. A release was reported to Ecology in 2009 under ERTS number 614653 presumably from soil sample results obtained from Adapt's Phase II investigation. As of August 2011 the Site is not in Ecology's Leaking Underground Storage Tank (LUST) Sites database.

2.0 Facility Description

2.1 Site Location

The Site is located at the northwest corner of the intersection of 128th Street SW and 4th Avenue West in Everett (**Figures 1 and 2**).

2.2 Site Description

The Site is currently occupied by an operating 7-Eleven convenience store located in a mini strip mall in a commercial and residential area (**Figure 2**). Three 12,000-gallon fiberglass reinforced plastic USTs installed in 1984 were formerly located in the northeastern portion of the Site. One dispenser island containing three individual product dispensers covered by a canopy was formerly located to the southwest of the former USTs. The Site is approximately 475 feet above mean sea level (amsl) and the topography in the area is moderately level, sloping gently to the east-southeast.

2.3 Surrounding Land Use

The Site is located in a mini strip mall in a mixed commercial and residential area in Everett, Washington (**Figure 2**). The Site and strip mall are bordered to the north by an apartment complex. The Site and strip mall are bordered to the east by 4th Avenue West, and beyond that by commercial businesses and a casino. The Site and strip mall are bordered to the south by 128th Street West, and beyond that by a credit union and Albertson's grocery store. The Site and strip mall are bordered to the west by commercial businesses.

2.4 Regional Geology

The Site sits upon a glacial drift plain. The closest body of water is North Creek, located approximately ¾ miles east of the Site. Surface waters at the Site drain in an easterly direction towards North Creek. North Creek drains south to the Sammamish River, which releases into Lake Washington, and eventually into Puget Sound via the Ship Canal.

2.5 Regional Hydrogeology

Groundwater was not encountered during the investigation. Adapt conducted a limited subsurface assessment at the Site in May 2006 (Adapt 2006) and reported that groundwater was not encountered at a maximum depth of 60 feet bgs. According to Ecology, there are four Water Well Reports on file within the same township, range, and section as the Site. All four of the wells are resource protection wells. The closest well is less than 1.5 miles from the site. According to available information, no domestic water supply wells are located within ¼-mile of the Site.

3.0 Field Activities

3.1 UST Removal and Replacement Activities

Stantec contracted Clearcreek Contractors, Inc. (Clearcreek) of Everett, Washington to remove the three 12,000-gallon fiberglass reinforced plastic USTs and ancillary equipment at the Site. Prior to commencement of closure activities, a 30 day notice of UST closure was submitted to Ecology on January 6, 2012 (**Appendix A**). Prior to tank closure activities, the USTs were emptied by 7-Eleven, and One Call was contacted to determine the presence of underground utilities. Prior to excavation activities, electrical service to the dispenser island and USTs was isolated and removed by a certified electrician.

A site-specific HASP was prepared for the Site as part of the project. The HASP identified potential physical and chemical hazards associated with the proposed field activities and established personal protection standards and mandatory safety practices. The HASP also included information on suspected chemical compounds to be encountered; a list of monitoring equipment; the required protective clothing and equipment, a map and directions to the nearest hospital and a list of emergency telephone numbers. The HASP was available on site during the field activities. Stantec personnel and subcontractors working on the Site were required to review, sign and comply with the provision set forth in the HASP.

The Ecology Underground Storage Tank Closure and Site Assessment Notice and Underground Storage Tank Site Check / Site Assessment Checklist are included in **Appendix A**.

On February 17, 2012, the remaining product was pumped and the USTs were triple-rinsed. Approximately 772 gallons of product and rinsate were removed from the three USTs by Emerald Services, Inc. of Seattle, Washington (Emerald) and transported to a permitted hazardous waste treatment and disposal facility on February 22, 2012.

The USTs were rendered inert by venting using carbon dioxide and dry ice. A Washington State certified marine chemist checked the organic vapor levels in the tanks with a PID prior to removal. Visual inspection indicated that the product delivery piping appeared to be in good condition. Upon exposure and visual inspection, the USTs appeared to be in overall good condition, and no apparent failures were observed.

On February 23 and 24, 2012, Stantec observed the removal of three 12,000-gallon fiberglass reinforced plastic USTs at the Site. The three USTs were transported by Clearcreek to Allied Waste's Airport Way transfer station in Seattle, Washington as construction debris. Final disposition will be Roosevelt Regional Landfill in Roosevelt, Washington. Waste manifests are provided in **Appendix B**.

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Field Activities

May 15, 2012

During the UST removal, approximately 1,557 tons of petroleum impacted soil (PCS) was removed from the tank excavation and transported to the CEMEX Soil Remediation Plant in Everett, WA. Disposal receipts are attached in **Appendix B**.

3.2 Field Screening

Field screening consisted of visual observations of potential hydrocarbon contamination and headspace analysis for volatile organic vapors. Backfill material removed from the UST and dispenser island excavation was screened for organic vapors with a MiniRae, Inc., Organic Vapor Meter PID to monitor volatile vapors given off by the sampled soil. A sample of the soil matrix was placed in a re-sealable plastic bag, and allowed to equilibrate for approximately 10 minutes. The probe of the PID was used to pierce the plastic, and was extended into the headspace above the soil surface. The highest vapor reading obtained during the next 60 seconds was then recorded. Prior to use, the PID was calibrated to known concentrations of isobutylene, in accordance with the manufacturer's specifications.

Headspace vapor measurements for all soil sample locations collected at the Site are summarized on **Table 1**. Elevated PID readings, hydrocarbon odors, and/or staining were encountered from the product lines to the north end of the dispenser island. The highest PID readings were obtained from the sample collected from underneath the north dispenser (DPN-1@2') at 3,824 parts per million (ppm). Material with elevated PID readings or visible staining was stockpiled separately on plastic and sampled before final disposal.

3.3 Soil Sampling Activities

During excavation activities, Stantec personnel collected soil samples from beneath the three USTs, dispenser island, product lines, and from the four sidewalls of the excavation in accordance with published EPA and Ecology guidelines. Maximum depth of the excavation was 15 feet bgs. Sampling was conducted at locations associated with visual evidence of soil staining, noticeable odors, and elevated headspace vapor concentration measurements. Samples from the sidewalls and base of the excavation were collected on an approximate 10 foot vertical by 10 foot horizontal grid when possible. Soil samples from the UST excavation were collected from the excavator bucket due to safety concerns. Additionally, soil samples were taken from the limits of the over-excavation in order to horizontally and vertically delineate the extent of contaminated soil. Additionally, six soil samples were collected from the stockpile for analysis prior to disposal. Sample locations are depicted on **Figure 2**.

Based on elevated PID readings, soil sample SS-3@15' was collected from beneath the middle UST at the bottom of the UST basin. The soil from the bottom of the UST basin was removed and stockpiled. Excavation soil samples PL-1@2', DPM-1@2', and DPN-1@2' were collected from the soil underneath the product lines, middle and north dispenser island to confirm the existence of petroleum hydrocarbons. The soil from the area of the product lines, southwest corner of the UST basin and the dispenser island was then removed and stockpiled separately. Additional confirmation soil sampling will be described in the Cleanup Action Report.

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All soil samples were placed into laboratory-supplied unpreserved pre-weighed 40 milliliter VOAs and delivered to the laboratory within 48-hours of sample collection according to the requirements of United States Environmental Protection Agency (EPA) Method 5035A. Additional soil was placed into 4-ounce jars for measurement of soil moisture. Care was taken to obtain representative soil samples and to place the soils directly and quickly into the sample container to minimize loss of volatile constituents. The threads of the VOAs were wiped clean of soil particles that would interfere with an airtight seal, and a septum cap was immediately placed on the vial. The sample containers were labeled (i.e., soil sample name, type of analysis, date, and time of sampling), placed in a cooler on ice, and transported under chain-of-custody protocol to Friedman & Bruya, Inc. (F&B) of Seattle, Washington.

3.4 Soil Analytical Methods

Seven UST excavation sample locations (SS-1 through SS-7) were selected to collect soil samples for laboratory analysis based on PID readings, soil staining, and location from the four sidewalls and beneath each of the USTs. Eight confirmation soils samples (SS-8 through SS-16) were collected as part of the remedial action performed at the Site. One sample (PL-1) was collected from beneath the product lines, and three soil samples (DPN-1, DPM-1, and DPS-1) were collected from beneath the dispensers. Six soil samples (SP-1 through SP-6) were collected from the stockpiles of excavated soil. Samples were analyzed for TPH-G by EPA Method NWTPH-Gx and BTEX by Method 8021B. Several soil samples with the highest PID readings (DPN-1@2', PL-1@2', and SP-6) were also analyzed for EDB, EDC, MtBE, naphthalenes, total lead, and VPH.

3.5 Soil Analytical Results

Analytical results for the submitted soil samples from the UST closure activities and remedial action, as well as historical soil sampling activities, are summarized in **Table 1** and the results for this sampling event are shown on **Figure 2**. The confirmation soil samples associated with the remedial action performed at the Site will be discussed in the future Cleanup Action Report. Complete laboratory results and chain-of-custody documentation are included in **Appendix C**.

Soil samples that exceeded MTCA Method A CULs are summarized below:

- Benzene: SS-3@15', SP-6, DPN-1@2', DPM-1@2', PL-1@2', SS-11@17', SS-12@24', SS-16@15'
- Toluene: SP-6, DPN-1@2', SS-16@15'
- Ethylbenzene: SP-6, DPN-1@2', SS-16@15'
- Total Xylenes: SP-6, DPN-1@2', PL-1@2', SS-16@15'
- TPH-G: SP-6, DPN-1@2', DPM-1@2', DPS-1@2', PL-1@2', SS-11@17', SS-16@15'

Petroleum hydrocarbon concentrations were either not reported exceeding laboratory reporting limits or were reported below their respective MTCA Method A CULs in the remaining submitted soil samples.

3.6 Soil Disposal

Subsequent to the UST removal activities, the south side of the excavation was further over-excavated to remove PCS. During UST removal and excavation, approximately 1,557 tons of petroleum impacted soil was removed from the tank excavation and finally disposed of at CEMEX Soil Remediation Plant in Everett, WA. Disposal receipts are attached in **Appendix B**.

4.0 Summary and Conclusions

Three 12,000 gallon, single-wall fiberglass reinforced plastic USTs, associated piping, canopy and one dispenser island were closed by removal at the Site from February 16, 2012 to March 7, 2012. Based on field observations and analytical data, Stantec concludes the following:

- Upon exposure and visual inspection, all three tanks appeared to be in overall good condition, and no apparent failures were observed.
- Petroleum hydrocarbon concentrations were reported exceeding MTCA Method A CULs in soil samples SS-3@15', SS-11@17', SS-12@24', SS-16@15', SP-6, DPN-1@2', DPM-1@2', DPS-1@2', and PL-1@2'.
- Approximately 1,557 tons of petroleum impacted soil was removed from the tank excavation and disposed of in an appropriately permitted landfill.

Subsequent to the UST removal activities, the area south and southwest of the former UST basin and dispenser island of the excavation was further over-excavated to remediate PCS to 15 feet bgs. The results of the remedial excavation will be discussed further in the Cleanup Action Report.



UNDERGROUND STORAGE TANK 30 DAY NOTICE

See back of form for instructions

Please ✓ the appropriate box: ☐ Intent to Install ☒ Intent to Close ☐ Both

RECEIVED

FOR OFFICE USE ONLY

Site ID #:

8634

FS ID #:

76937186

Site Information

MAY 16 2012

Owner Information

(This form will be returned to this address)

UBI Number 578-070-490 001 0269

Department of Ecology
Toxics Cleanup Program

UST Owner/Operator 7-Eleven Incorporated

Site/Business Name 7-Eleven Store # 25331

Street

Mailing Address

Street

Site Address 12720 4th Avenue West

P.O. Box 7-11

P.O. Box

City/State Everett, WA

City/State Dallas, Texas

Zip Code 98204-5707 Telephone (509) 347-1228

Zip Code 75221 Telephone (214) 415-0416

Tank Installation Company (if known). Fill out this section ONLY if tanks are being installed.

Service Company

Contact Name

Address

Street

P.O. Box

Telephone ()

City

State

Zip Code

Tank Permanent Closure Company (if known). Fill out this section ONLY if tanks are being closed.

Service Company Clear Creek Construction

Contact Name Daren Ness

Address 3203 15th Street

Street

P.O. Box

Everett

WA

98201

Telephone () 425-252-5800

City

State

Zip Code

Tank Closure Information

Fill out this section ONLY if tanks are being closed.

Tank ID	Projected Closure Date	Tank Capacity	Substance Stored	Date Tank Last Used	Is There Product In the Tank (Yes/No)	If No, Date Tank Was Pumped
1# REG (21836)	2/13/12	12,000	Unleaded Gasoline	N/A	Yes	N/A
2# NOL (12929)	2/13/12	12,000	Unleaded Gasoline	N/A	Yes	N/A
3# SNL (12424)	2/13/12	12,000	Unleaded Gasoline	N/A	Yes	N/A

Tank Installation Information

Fill out this section ONLY if tanks are being installed.

Tank ID Approx. Install Date



UNDERGROUND STORAGE TANK Closure and Site Assessment Notice

See back of form for instructions

FOR OFFICE USE ONLY	
Site ID #:	8634
Facility Site ID #:	76937186

Please ☒ the appropriate box(es)
☐ Temporary Tank Closure ☐ Change-In-Service ☐ Permanent Tank Closure ☒ Site Check/Site Assessment

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Site Information

MAY 16 2012

Owner Information

Site ID Number 8634 (Available from Ecology if the tanks are registered)
Site/Business Name 7-Eleven Store No. 25331 Street 12720 4th Avenue West
City/State Everett/WA. Zip Code 98204 Telephone (425) 347-1228
Mailing Address Department of Ecology Street P.O. Box 711
City/State Dallas/TX. Zip Code 75221-0711 Telephone (214) 415-0416

Owners Signature _____

Tank Closure/Change-In-Service Company

Service Company Clear Creek Contractors
Certified Supervisor Paul Curnett Decommissioning Certification No. 1042763-U2
Supervisor's Signature Paul R. Curnett Date 3/14/12
Address 3203 15th Street Street Everett City WA. State 98201 P.O. Box Telephone (425) 252-5800
City State Zip Code

Site Check/Site Assessor

Certified Site Assessor Deitrie M. Hanson WA. State Site Assessor #8012337-U7
Address 12034 134th Court NE Suite 102 Street Redmond City WA. State 98052 P.O. Box Telephone (425) 298-1073
City State Zip Code

Tank Information

Tank ID	Closure Date	Closure Method	Tank Capacity	Substance Stored
1# REG (21836)	2/13/2012	Removal	12,000	Unleaded Gasoline
2# NOL (12929)	2/13/2012	Removal	12,000	Unleaded Gasoline
3# SNL (12424)	2/13/2012	Removal	12,000	Unleaded Gasoline

Contamination Present at the Time of Closure

☒ Yes ☐ No ☐ Unknown
Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

☒ Yes ☐ No
If contamination is present, has the release been reported to the appropriate regional office?

To receive this document in an alternative format, contact the Toxics Cleanup Program at 360-407-7170 (voice) or 1-800-833-6388 OR 711 (TTY)



UNDERGROUND STORAGE TANK Site Check/Site Assessment Checklist

RECEIVED

FOR OFFICE USE ONLY

Site #: 8634
Facility Site ID #: 76937186

MAY 16 2012

INSTRUCTIONS

When a release has not been confirmed and reported, this Site Check/Site Assessment Checklist must be completed and signed by a person certified by ICC or a Washington registered professional engineer who is competent, by means of examination, experience, or education, to perform site assessments. **The results of the site check or site assessment must be included with this checklist.** This form must be submitted to Ecology at the address shown below within 30 days after completion of the site check/site assessment.

SITE INFORMATION: Include the Ecology site ID number if the tanks are registered with Ecology. This number may be found on the tank owner's invoice or tank permit.

TANK INFORMATION: Please list all tanks for which the site check or site assessment is being conducted. Use the owner's tank ID numbers if available, and indicate tank capacity and substance stored.

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT: Please check the appropriate item.

CHECKLIST: Please initial each item in the appropriate box.

SITE ASSESSOR INFORMATION: This information must be signed by the registered site assessor who is responsible for conducting the site check/site assessment.

Underground Storage Tank Section
Department of Ecology
PO Box 47655
Olympia WA 98504-7655

SITE INFORMATION

Site ID Number (Available from Ecology if the tanks are registered): 8634

Site/Business Name: 7-Eleven Store No. 25331

Site Address: 12720 4th Avenue West Telephone: (360) 347-1228

Everett

Street

WA.

98204

City

State

Zip Code

TANK INFORMATION

Tank ID No.	Tank Capacity	Substance Stored
1# REG (21836)	12,000	Unleaded Gasoline
2# NOL (12929)	12,000	Unleaded Gasoline
3# SNL (12424)	12,000	Unleaded Gasoline

REASON FOR CONDUCTING SITE CHECK/SITE ASSESSMENT

Check one:

- ☐ Investigate suspected release due to on-site environmental contamination.
☐ Investigate suspected release due to off-site environmental contamination.
☐ Extend temporary closure of UST system for more than 12 months.
☐ UST system undergoing change-in-service.
☒ UST system permanently closed with tank removed.
☐ Abandoned tank containing product.
☐ Required by Ecology or delegated agency for UST system closed before 12/22/88.
☐ Other (describe): _____

CHECKLIST

Each item of the following checklist shall be initialed by the person registered with the Department of Ecology whose signature appears below.

	YES	NO
1. The location of the UST site is shown on a vicinity map.	X	
2. A brief summary of information obtained during the site inspection is provided. (see Section 3.2 in site assessment guidance)	X	
3. A summary of UST system data is provided. (see Section 3.1.)	X	
4. The soils characteristics at the UST site are described. (see Section 5.2)	X	
5. Is there any apparent groundwater in the tank excavation?		X
6. A brief description of the surrounding land use is provided. (see Section 3.1)	X	
7. Information has been provided indicating the number and types of samples collected, methods used to collect and analyze the samples, and the name and address of the laboratory used to perform the analyses.	X	
8. A sketch or sketches showing the following items is provided:		
- location and ID number for all field samples collected	X	
- groundwater samples distinguished from soil samples (if applicable)		X
- samples collected from stockpiled excavated soil	X	
- tank and piping locations and limits of excavation pit	X	
- adjacent structures and streets	X	
- approximate locations of any on-site and nearby utilities	X	
9. If sampling procedures different from those specified in the guidance were used, has justification for using these alternative sampling procedures been provided? (see Section 3.4)		X
10. A table is provided showing laboratory results for each sample collected including; sample ID number, constituents analyzed for and corresponding concentration, analytical method and detection limit for that method.	X	
11. Any factors that may have compromised the quality of the data or validity of the results are described.		X
12. The results of this site check/site assessment indicate that a confirmed release of a regulated substance has occurred.	X	

SITE ASSESSOR INFORMATION

Deitrie M. Hanson WA. State Site Assessor #8012337-U7

Person registered with Ecology

Stantec Consulting Services, Inc.

Firm Affiliated with

Business Address: 12034 134th Court NE Suite 102

Street

Telephone: (425) 298-1000

Redmond

City

WA.

State

98052

Zip Code

I hereby certify that I have been in responsible charge of performing the site check/site assessment described above. Persons submitting false information are subject to penalties under Chapter 173.360 WAC.

3-13-2012

Date



Signature of Person Registered with Ecology

If you need this publication in an alternate format, please contact Toxics Cleanup Program at (360) 407-7170. For persons with a speech or hearing impairment call 711 for relay service or 800-833-6388 for TTY.