Appendix G

Phase II Environmental Site Assessment

Euclid-Hazard 7-Eleven Service Station

Stantec Consulting Services, Inc.
9665 Granite Ridge Drive, Suite 220
San Diego, CA 92123-2636
(858) 751-1200

October 18, 2019
File: 185850892.800

Attention: Mr. Peter Gonzalez
7-Eleven, Inc.
330 East Lambert Road, Suite 150
Brea, CA 92821

Reference: **Phase II Environmental Site Assessment**
7-Eleven Store No. 38384 (1042163)
821 North Euclid Street
Santa Ana, CA 92703

Dear Mr. Gonzalez,

On behalf of 7-Eleven, Inc. (7-Eleven), Stantec has prepared the following report describing the results of assessment activities conducted at 7-Eleven Store No. 38384 (1042163), located at 821 North Euclid Street in Santa Ana, California (Figure 1). The 7-Eleven environmental services department requested the assessment to evaluate potential petroleum hydrocarbon impact(s) to soil and groundwater from former operation of the property as a gas station with a Leaking Underground Storage Tank (LUST) case.

Scope of Work

- Prepared a site-specific Health and Safety Plan (HASP);
- Prepared and submitted a well construction permit to Orange County Health Care Agency (OCHCA);
- Notified Underground Service Alert (USA) and a private utility locator (Pacific Coast Locators, Inc. [PCL]) to locate, identify, and mark-out subsurface utilities;
- Supervised the advancement of five soil boreholes (B1 through B5) at the locations shown on Figure 2;
- Collected soil and groundwater samples during drilling operations;
- Analyzed soil and groundwater samples from the boreholes for total petroleum hydrocarbons-gasoline range organics (TPH-GRO), benzene, toluene, ethylbenzene, and total xylenes (collectively BTEX), methyl tert-butyl ether (MTBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), diisopropyl ether (DIPE), and ethyl tert-butyl ether (ETBE) using EPA Method 8260B; and
- Prepared this report, which includes our findings and conclusions.

Reference: Phase II Environmental Site Assessment

Background

The Property is located at the northwest corner of West Hazard Avenue and North Euclid Street in Santa Ana, California, and is an approximately 0.60-acre parcel consisting of a vacant lot. Historical records indicate that the Property operated as a gas station from at least 1972 through 1987. The remaining parking lot and building were demolished sometime between 2005 and 2009. The Property is listed in the State of California's Water Board GeoTracker website as a LUST site with a cleanup status 'Completed – case closed as of July 5, 2005'. Gasoline was listed as the potential contaminant of concern and soil and groundwater were considered as potential media of concern. Due to historic use of the Property as a gasoline station with known or potential presence of residual contamination in soil, soil vapor and groundwater and former releases at the Property, a Phase II ESA was recommended.

Subsurface Investigation

Drilling

A well construction permit application for the soil boreholes was prepared and submitted to OCHCA. The approved permit in included in Attachment A.

A site-specific HASP was prepared to address potential hazards during the proposed drilling activities. Stantec personnel and subcontractors were required to acknowledge the HASP plan prior to the field work.

USA was notified of the work a minimum of 48 hours prior to drilling as required by law. USA notified local utility companies of the planned work in order to have the drilling area marked for utilities. Stantec also contracted a private utility locator (PCL) to mark the locations of any additional subsurface utilities.

On September 26, 2019, five proposed borehole locations were cleared for subsurface utilities with a hand auger by ABC Liovin Drilling (ABC) of Signal Hill, California to a depth of approximately eight feet below ground surface (bgs). Boreholes B1 through B5 were then advanced to a total depth of 15 feet bgs (Figure 2), using a direct push drilling rig equipped with 2.25-inch diameter probes and operated by ABC. Groundwater was initially encountered in all of the five boreholes between 13 and 14 feet bgs. Static groundwater was observed at depths ranging from 11.5 to 12 feet bgs. The drilling was directed by Stantec geologic staff working under the supervision of a State of California Professional Geologist.

Soil samples were collected approximately every five vertical feet and at total depth during the advancement of the boreholes. Soil samples were collected for soil classification, laboratory analysis, and field screening purposes. Samples collected during drilling were recovered using acetate sleeves lining the direct push probes. The ends of the acetate sleeves were covered with Teflon® sheets and plastic end-caps. The samples were then labeled, placed in a cooler with ice, and recorded using chain of custody (COC) protocols. The samples not submitted for laboratory analysis were used for soil description and field screening purposes. Stantec submitted 15 soil samples collected from the boreholes to the laboratory under COC, and six soil samples were analyzed.

All sampling equipment was decontaminated prior to sampling with a solution of Alconox® detergent and water and rinsed with clean water to prevent cross-contamination between boreholes.

Following soil sample collection, a temporary casing was set in each of the boreholes. Groundwater samples were collected from B1 through B5 using a reusable stainless-steel bailer. Collected water

samples were discharged directly into the appropriate sampling containers. The samples were labeled with the sample number, collection date, time, and type of preservative. The groundwater samples were placed in a cooler with ice and recorded using COC protocols.

Following collection of soil and groundwater samples, the soil boreholes were backfilled with Portland cement grout and capped with native soil to match the existing surface. Waste generated during drilling was stored in 55-gallon steel drums onsite. Borehole logs are presented in Attachment B.

Analytical Methods

The soil and groundwater samples were transported under appropriate COC to TestAmerica Laboratories, Inc. (TestAmerica) of Irvine, California, a State of California-certified analytical laboratory. Samples were analyzed for TPH-GRO, BTEX, TAME, TBA, DIPE, ETBE, and MTBE.

Soil Sample Analytical Results

TPH-GRO was detected in three of the six soil samples at concentrations ranging from 0.182 milligrams per kilogram (mg/kg) in B5-15 to 11,300 mg/kg in B3-15. TPH-GRO was not detected in the remaining three soil samples above laboratory reporting limits (LRLs).

Benzene, toluene, and total xylenes were detected in B3-15 at concentrations of 2.35 mg/kg, 1.17 mg/kg, and 524 mg/kg, respectively. Benzene, toluene, and total xylenes were not detected in the remaining five soil samples above their respective LRLs.

Ethylbenzene was detected in B3-10 and B3-15 at concentrations of 0.309 mg/kg and 190 mg/kg, respectively. Ethylbenzene was not detected in the remaining four soil samples above their LRLs.

TAME, TBA, DIPE, ETBE, and MTBE were not detected in any of the six soil samples above their respective LRLs.

Soil sample analytical results are summarized in Table 1. Copies of the certified analytical laboratory reports and COC documentation are presented in Attachment C.

Groundwater Sample Analytical Results

TPH-GRO was detected in B1-W, B3-W, and B4-W at concentrations of 1,310 micrograms per liter (µg/L), 148,000 µg/L, and 73.0 µg/L, respectively. TPH-GRO was not detected in the remaining two groundwater samples above the LRL.

Benzene was detected in B3-W at a concentration of 1,660 µg/L. Benzene was not detected in the remaining four groundwater samples above the LRL.

Toluene was detected in B1-W at 2.20 µg/L. Benzene was not detected in the remaining four groundwater samples above the LRL.

Ethylbenzene was detected in B3-W and B4-W at concentrations of 5,250 µg/L and 3.38 µg/L, respectively. Ethylbenzene was not detected in the remaining three groundwater samples above the LRL.

Reference: Phase II Environmental Site Assessment

Total xylenes were detected in four of the five groundwater samples at concentrations ranging from 3.57 µg/L in B5-W to 19,500 µg/L in B3-W. Total xylenes were not detected in B2-W above the LRL.

TAME, TBA, DIPE, ETBE, and MTBE were not detected in any of the five groundwater samples above their respective LRLs.

Groundwater sample analytical results are summarized in Table 2. Copies of the certified analytical laboratory reports and COC documentation are presented in Attachment C.

Phase II Summary and Conclusions

The lithologies observed in the boreholes drilled during this investigation consisted predominantly of silty sand, sandy silt, and poorly graded sand. Groundwater was initially encountered in all of the five boreholes between 13 and 14 feet bgs. Static groundwater was observed at depths ranging from 11.5 to 12 feet bgs.

TPH-GRO was detected in three of the six samples at concentrations ranging from 0.182 mg/kg in B5-15 to 11,300 mg/kg in B3-15. Benzene, toluene, and total xylenes were detected in B3-15 at concentrations of 2.35 mg/kg, 1.17 mg/kg, and 524 mg/kg, respectively. Ethylbenzene was detected in B3-10 and B3-15 at concentrations of 0.309 mg/kg and 190 mg/kg, respectively. None of the remaining constituents were detected in any of the soil samples above their respective LRLs.

TPH-GRO was detected in B1-W, B3-W, and B4-W at concentrations of 1,310 µg/L, 148,000 µg/L, and 73.0 µg/L, respectively. Benzene was detected in B3-W at 1,660 µg/L. Toluene was detected in B1-W at 2.20 µg/L. Ethylbenzene was detected in B3-W and B4-W at concentrations of 5,250 µg/L and 3.38 µg/L, respectively. Total xylenes was detected in four of the five groundwater samples with concentrations ranging from 3.57 µg/L in B5-W to 19,500 µg/L in B3-W. None of the remaining constituents were detected in any of the groundwater samples above their respective LRLs.

No additional assessment is recommended at this time. The hydrocarbon concentrations detected in the soil and groundwater samples appear to be residual from the closed LUST case on the site. However, the TPH GRO concentration in soil sample B3-15, and the TPH GRO and benzene concentrations in B3-W are above action levels and should be reported to the Santa Ana Water Board. Additional soil sampling will be needed in the future to provide information for soil and water disposal at the time of construction.

The closure letter states: “if land use changes at the site, a review of the corrective actions may be warranted if on-site excavation or construction activities expose contaminated soil or groundwater or if changes in land use indicate that the residual contamination at the site poses a risk to site occupants”. Agency notification will be required for the change in site use, and for the construction activities. Residual hydrocarbon impact in both soil and groundwater will likely be encountered during construction. A soil and groundwater management plan will be required prior to construction. Stantec recommends that environmental personnel be present on-site for excavation as needed.

Hydrocarbon impacted soil and groundwater could affect development plans for the site (planned as a fuel location), and costs should be included in the development plans to dispose of impacted soil and groundwater.

Reference: Phase II Environmental Site Assessment

Limitations

This report has been prepared for the exclusive use of 7-Eleven, Inc. as it pertains to their site located at 821 North Euclid Street in Santa Ana, California. The findings and conclusions rendered in this report are opinions based primarily on laboratory testing of soil samples collected during this project. This report does not reflect subsurface variations which may exist between sampling points. These variations cannot be anticipated, nor can they be entirely accounted for even with exhaustive additional testing.

All work has been performed with the degree of skill generally exercised by practicing engineers and geologists in the environmental field. Stantec makes no other warranty, either expressed or implied, concerning the conclusions and professional advice which is contained within the body of this report.

If you have any questions regarding this report, please contact the undersigned.

Regards,

STANTEC CONSULTING SERVICES INC.

Katie O'Neill
Katie O'Neill
Project Engineer
Phone: (925) 627-4536
Katie.ONeill@stantec.com

Jenna Martinez
Senior Scientist
Phone: (858) 633-4247
Jenna.Martinez@Stantec.com

Patrick McConnell
Principal Geologist, PG #7205
Phone: (858) 633-4222
Pat.McConnell@Stantec.com

Attachments:
Table 1 – Soil Sample Analytical Results
Table 2 – Groundwater Sample Analytical Results
Figure 1 – Site Location Map
Figure 2 – Site Map
Attachment A – Drilling Permit
Attachment B – Borehole Logs and Legend
Attachment C – Soil and Groundwater Sample Laboratory Analytical Reports and Chain-of-Custody Documentation

c. Jose Rios, 7-Eleven Inc.
John Wainwright, Stantec Consulting Services Inc, Salt Lake City, UT

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TABLES

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
7-Eleven Store No. 38384 (1042163)
821 North Euclid Street
Santa Ana, CA 92703
All concentrations in milligrams per kilogram (mg/kg).

Sample ID	Depth in feet	Sample Date	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	DIPE	ETBE	MTBE
B1-15	15	09/26/19	<0.0980	<0.00196	<0.00196	<0.00196	<0.00392	<0.00490	<0.0980	<0.00490	<0.00490	<0.00490
B2-15	15	09/26/19	<0.0973	<0.00195	<0.00195	<0.00195	<0.00389	<0.00486	<0.0973	<0.00486	<0.00486	<0.00486
B3-10	10	09/26/19	**117**	<0.00917	<0.00917	**0.309**	<0.0183	<0.0229	<0.459	<0.0229	<0.0229	<0.0229
B3-15	15	09/26/19	**11,300**	**2.35**	**1.17**	**190**	**524**	<0.997	<19.9	<0.997	<0.997	<0.997
B4-15	15	09/26/19	<0.101	<0.00201	<0.00201	<0.00201	<0.00402	<0.00503	<0.101	<0.00503	<0.00503	<0.00503
B5-15	15	09/26/19	**0.182**	<0.00198	<0.00198	<0.00198	<0.00396	<0.00495	<0.0990	<0.00495	<0.00495	<0.00495

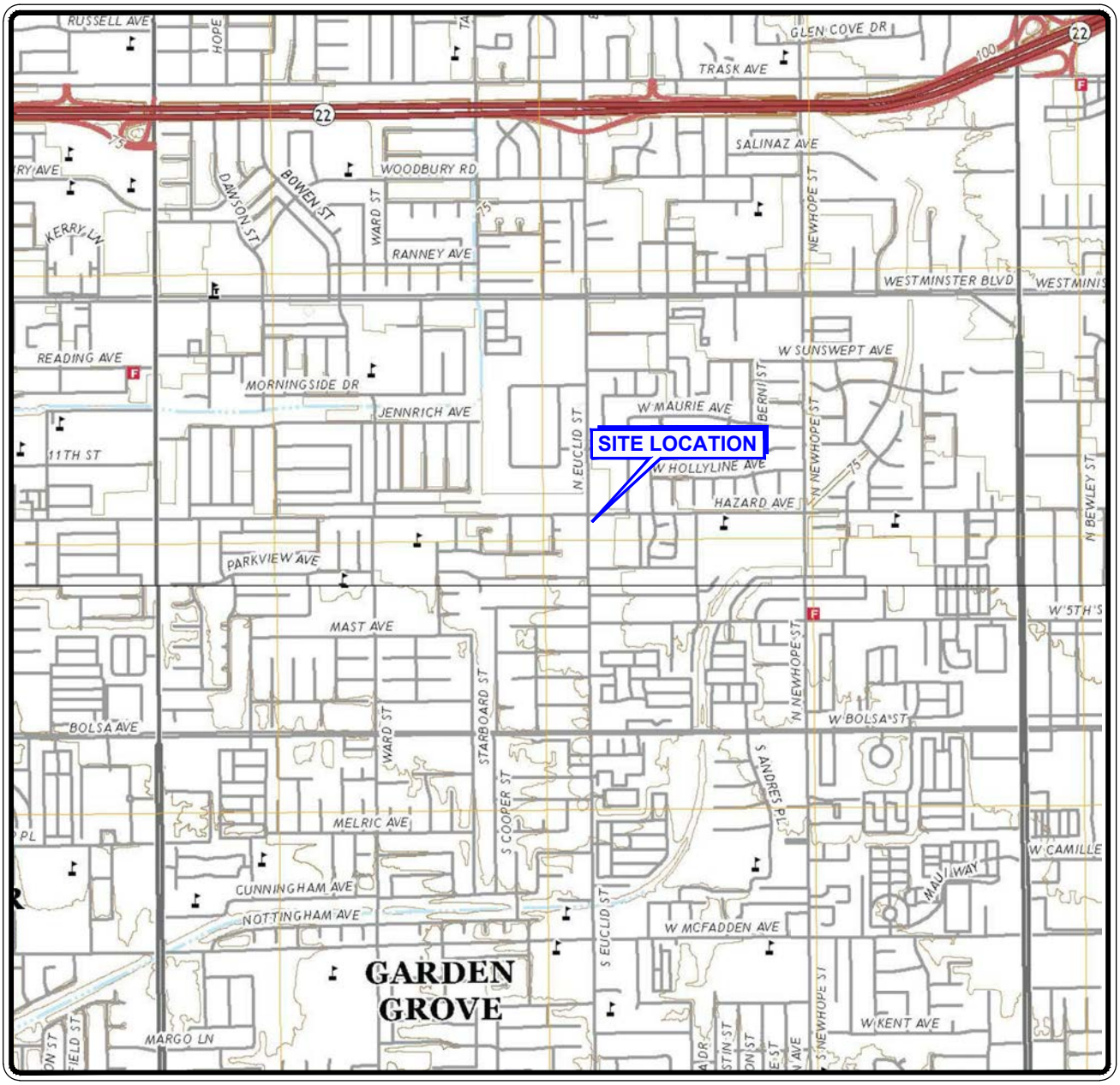
Notes: **Bold Print - concentration equals or exceeds laboratory reporting limit**
TPH-GRO = Total petroleum hydrocarbons gasoline range organics
TAME = Tert-amyl methyl ether
TBA = Tert-butanol
DIPE = Diisopropyl ether
ETBE = Ethyl-tert-butyl ether
MTBE = Methyl-tert-butyl ether
< = Below laboratory reporting limit shown
TPH-GRO, benzene, toluene, ethylbenzene, total xylenes, TAME, TBA, DIPE, ETBE, and MTBE analyzed by Environmental Protection Agency (EPA) Test Method 8260B.

TABLE 2
GROUNDWATER SAMPLE ANALYTICAL RESULTS
7-Eleven Store No. 38384 (1042163)
821 North Euclid Street
Santa Ana, CA 92703
All concentrations in micrograms per liter (µg/L).

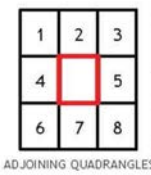
Sample ID	Sample Date	TPH-GRO	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TAME	TBA	DIPE	ETBE	MTBE
B1-W	09/26/19	**1,310**	<2.00	**2.20**	<2.00	**12.4**	<5.00	<10.0	<5.00	<5.00	<1.00
B2-W	09/26/19	<50.0	<2.00	<2.00	<2.00	<2.00	<5.00	<10.0	<5.00	<5.00	<1.00
B3-W	09/26/19	**148,000**	**1,660**	<500	**5,250**	**19,500**	<1,250	<2,500	<1,250	<1,250	<250
B4-W	09/26/19	**73.0**	<2.00	<2.00	**3.38**	**12.8**	<5.00	<10.0	<5.00	<5.00	<1.00
B5-W	09/26/19	<50.0	<2.00	<2.00	<2.00	**3.57**	<5.00	<10.0	<5.00	<5.00	<1.00

Notes: **Bold Print - concentration equals or exceeds laboratory reporting limit**
TPH-GRO = Total petroleum hydrocarbons gasoline range organics
TAME = Tert-amyl methyl ether
TBA = Tert-butanol
DIPE = Diisopropyl ether
ETBE = Ethyl-tert-butyl ether
MTBE = Methyl-tert-butyl ether
< = Below laboratory reporting limit shown
TPH-GRO, benzene, toluene, ethylbenzene, total xylenes, TAME, TBA, DIPE, ETBE, and MTBE analyzed by Environmental Protection Agency (EPA) Test Method 8260B.

FIGURES

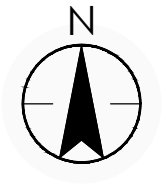


QUADRANGLE LOCATION



ADJOINING QUADRANGLES

1 Whittier
2 La Habra
3 Yorba Linda
4 Los Alamitos
5 Orange
6 Seal Beach
7 Newport Beach
8 Tustin



0 1000 2000

1 INCH = 2000 FEET

Reference: U.S.G.S., 2018 Anaheim, 2018 Newport Beach, California Quadrangles. 7.5–Minute Topographic Map.

Note: Coordinate system; NAD 83 California State Planes, Zone V (Ft).

ORIGINAL SHEET - ANSI A

September, 2019
185850892

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Stantec

9665 Granite Ridge Drive, Suite 220
San Diego, CA 92123-2636
www.stantec.com

Client/Project

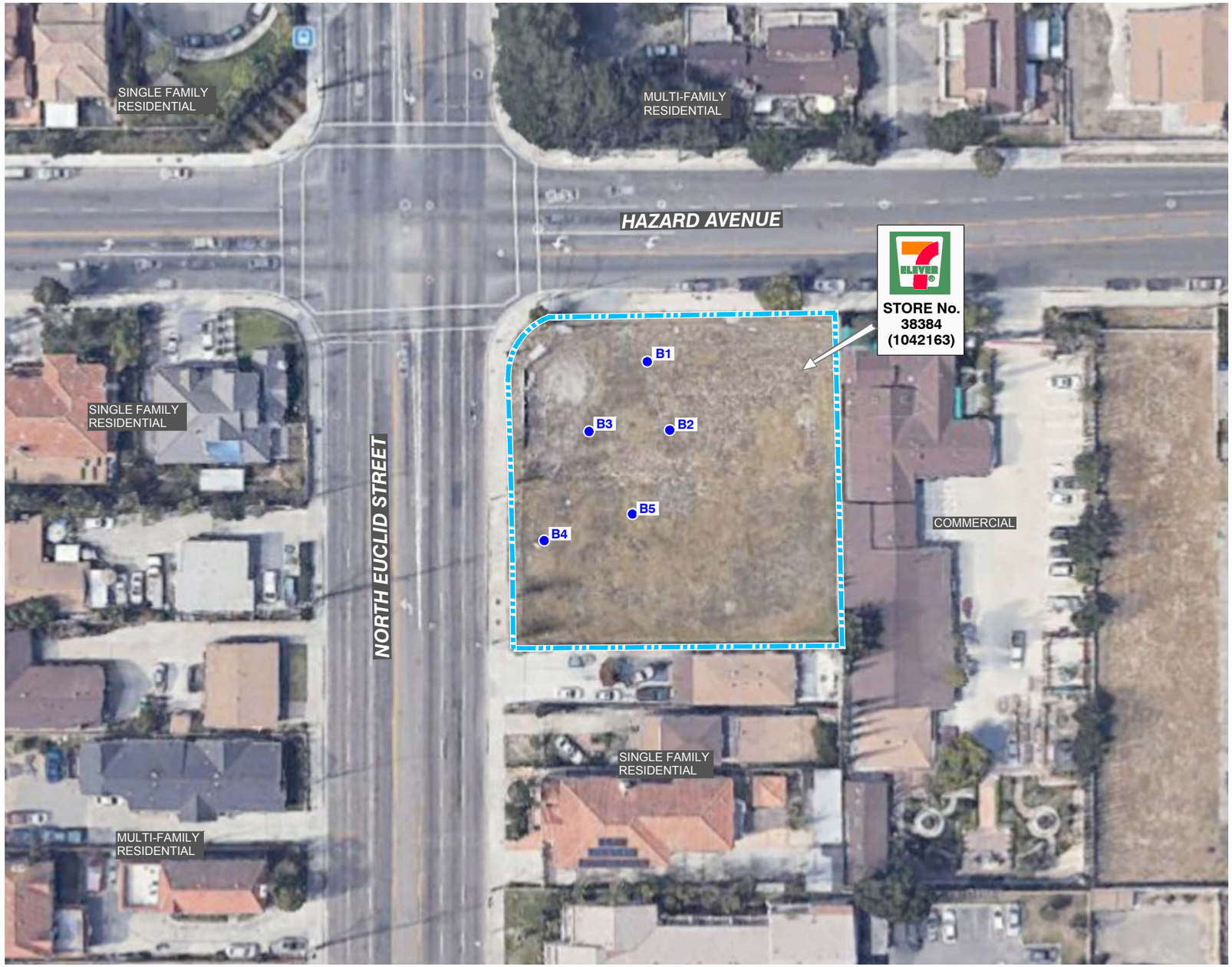
7-ELEVEN STORE No. 38384 (1042163)
821 North Euclid Street
Santa Ana, CA 92703

Figure No.

1

Title

SITE LOCATION MAP



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Legend

APPROXIMATE PROPERTY BOUNDARY

B1 SOIL BOREHOLE LOCATIONS

0 60 120

APPROXIMATE SCALE IN FEET

September, 2019
185850892

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ORIGINAL SHEET - ANSI B

Stantec

9665 Granite Ridge Drive, Suite 220
San Diego, CA 92123-2636
www.stantec.com

NOTES:

1. MAP REFERENCES; GOOGLE EARTH PROFESSIONAL AERIAL IMAGE, 2018.
2. COORDINATE SYSTEM; NAD 83 ZONE V (FT). NOT A SURVEYED MAP, SITE FEATURES AND LOCATIONS ARE APPROXIMATE.

Client/Project

7-ELEVEN STORE No. 38384 (1042163)
821 North Euclid Street
Santa Ana, CA 92703

Figure No.

2

Title

SITE PLAN

Stantec

ATTACHMENT A

DRILLING PERMIT

APPLICATION FOR WELL CONSTRUCTION PERMIT

ORANGE COUNTY HEALTH CARE AGENCY
ENVIRONMENTAL HEALTH DIVISION
1241 E. DYER ROAD, SUITE 120
SANTA ANA, CA 92705-5611
(714) 433-6000
FAX: (714) 433-6481

WELL PERMIT NUMBER 19-09-17

CITY: Santa Ana

DATE: 9/10/2019

WELL LOCATION (ADDRESS IF AVAILABLE): 821 North Euclid Street

NAME OF WELL OWNER: 7-Eleven , Inc.

ADDRESS: Attn: Gas Accounting, PO Box 711

CITY: Dallas, TX | ZIP: 75221 | TELEPHONE: 972-828-5593

NAME OF CONSULTING FIRM: Stantec Consulting Services, Inc.

BUSINESS ADDRESS: 9665 Granite Ridge Drive Suite 220

CITY: San Diego | ZIP: 92123 | TELEPHONE: 858-633-4222

NAME OF DRILLING CO.: ABC Liovin Drilling, Inc. | C-57 LICENSE NO.: 422904

CITY: Signal Hill | ZIP: 90755 | TELEPHONE: 562-981-8575

TYPE OF WELL (CHECK)

PRIVATE DOMESTIC	☐	PROBE SURVEY	☒
PUBLIC DOMESTIC	☐	MONITORING	☐
IRRIGATION	☐	SOIL BORING	☐
CATHODIC	☐	OTHER	☐

TOTAL NUMBER: 5

A. WELLS – SUBMIT A WELL CONSTRUCTION DIAGRAM (INCLUDE DIMENSIONS)

B. SOIL BORINGS AND PROBES –
TOTAL DEPTH: 15 ft bgs
SEALING MATERIAL: Bentonite/cement grout ✓

C. PROPOSED START DATE: 9/26/2019

DIAGRAM OF WELL SITE (Use additional sheets and/or attachments)

☑ SITE PLAN ATTACHED

I hereby agree to comply in every respect with all requirements of the Health Care Agency and with all ordinances and laws of the County of Orange and of the State of California pertaining to well construction, reconstruction and destruction, including the requirements to maintain the integrity of all significant confining zones.

Patrick McConnell — 9/10/2019
APPLICANT'S SIGNATURE — DATE

Patrick McConnell PG #7205
PRINT NAME

858-633-4222
PHONE NUMBER — FAX NUMBER

Permit expires on 09.18.2020.

FOR ACCOUNTING USE ONLY:

HSO NO. 400422 CHECK NO. 5015
DATE 9/12/19 AMOUNT $382.00
INTL. BV

APPROVAL BY OTHER AGENCIES:

JURISDICTION
REMARKS Direct push and CPT drilling only.

AUTHORIZED SIGNATURE — DATE

DISPOSITION OF PERMIT (DO NOT FILL IN):

☒ **APPROVED** SUBJECT TO THE FOLLOWING CONDITIONS:

A. NOTIFY THIS AGENCY AT LEAST **48 HOURS**
☒ PRIOR TO START. Notify of any changes.
☐ PRIOR TO SEALING THE ANNULAR SPACE OR FILLING OF THE CONDUCTOR CASING.

B. ☐ SUBMIT TO THE AGENCY WITHIN 30 DAYS AFTER COMPLETION OF WORK, A WELL COMPLETION REPORT AND/OR DRILLING LOGS. PLEASE REFERENCE PERMIT NO.

C. ☐ SECURE ALL MONITORING WELLS TO PREVENT TAMPERING.

D. ☒ OTHER Notify when all work is complete and include the depth to 1st water.

☐ **DENIED**

Juan Anzora — 09.17.2019
PERMIT ISSUED BY — DATE

Juan Anzora — 7144336287
PRINT NAME — PHONE NUMBER

WHEN SIGNED BY ORANGE COUNTY HEALTH CARE AGENCY REPRESENTATIVE, THIS APPLICATION IS A PERMIT.

@.F272-09.0803 (R11/01)

Stantec

ATTACHMENT B

BOREHOLE LOGS AND LEGEND

PROJECT: **7-Eleven Store No. 38384 (1042163)**
LOCATION: **821 Euclid Street, Santa Ana, CA**
PROJECT NUMBER: **185850892**

WELL / PROBEHOLE / BOREHOLE NO: **B1**

DRILLING / INSTALLATION:
STARTED: **9/26/2019** COMPLETED: **9/26/2019**
DRILLING COMPANY: **ABC Liovin Drilling**
DRILLING EQUIPMENT: **Geoprobe Rig 6712 DT**
DRILLING METHOD: **Direct Push Technology**
SAMPLING EQUIPMENT: **Acetate Liners / Slide Hammer**

NORTHING (ft):
LATITUDE:
GROUND ELEV (ft): **N/A**
INITIAL DTW (ft): **13 9/26/19**
STATIC DTW (ft): **12 9/26/19**
WELL CASING DIAM. (in): **N/A**
LOGGED BY: **G. Pankratz**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft): **N/A**
BOREHOLE DEPTH (ft): **15.0**
WELL DEPTH (ft): **N/A**
BOREHOLE DIAM. (in):**2.25**
CHECKED BY: **P. McConnell**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)	Borehole Backfill
			Native soil, minor vegetation and brush, cleared/hand augered to 8' bgs							Native Soil
		SM	SM; SILTY SAND, 2.5Y 5/4 light olive brown, ~85% fine-grained, subangular, ~15% fines, medium dense, moist, quartz, feldspar, poorly graded			8				
5					8:49 B1-5			1.7	5	
			Same as above, 5Y 7/2 light gray							Type I/II Portland Cement Grout
		ML	ML; SANDY SILT, 2.5Y 4/2 dark grayish brown, ~30% subrounded to subangular fine-grained sand, ~70% fines, firm, moist, micaceous, slow dilatancy, increase of fine-grained sand with depth			2				
10					9:07 B1-10			4.6	10	
						5				
		SM	SM; SILTY SAND, 5Y 5/1 gray, ~60% fine-grained, subrounded to subangular, ~40% fines, dense, wet, feldspar, poorly graded							
15					9:09 B1-15			11.8	15	
			Borehole terminated at 15 feet bgs.							
			Groundwater sample collected at 9:50							

PROJECT: **7-Eleven Store No. 38384 (1042163)**
LOCATION: **821 Euclid Street, Santa Ana, CA**
PROJECT NUMBER: **185850892**

WELL / PROBEHOLE / BOREHOLE NO: **B2**

Stantec

DRILLING / INSTALLATION:
STARTED: **9/26/2019** COMPLETED: **9/26/2019**
DRILLING COMPANY: **ABC Liovin Drilling**
DRILLING EQUIPMENT: **Geoprobe Rig 6712 DT**
DRILLING METHOD: **Direct Push Technology**
SAMPLING EQUIPMENT: **Acetate Liners / Slide Hammer**

NORTHING (ft):
LATITUDE:
GROUND ELEV (ft): **N/A**
INITIAL DTW (ft): **13 9/26/19**
STATIC DTW (ft): **12 9/26/19**
WELL CASING DIAM. (in): **N/A**
LOGGED BY: **G. Pankratz**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft): **N/A**
BOREHOLE DEPTH (ft): **15.0**
WELL DEPTH (ft): **N/A**
BOREHOLE DIAM. (in):**2.25**
CHECKED BY: **P. McConnell**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)	Borehole Backfill
			Native soil, minor vegetation and brush, cleared/hand augered to 8' bgs							Native Soil
		SP-SM	SP-SM; POORLY GRADED SAND WITH SILT, 2.5Y 5/3 light olive brown, ~90% fine-grained, subrounded to subangular, ~10% fines, medium dense, moist, quartz, feldspar, poorly graded			8				
5					9:36 B2-5			4.9	5	
			Same as above, 5Y 7/2 light gray, becomes lensed (~1-inch silt lenses) with depth			2				Type I/II Portland Cement Grout
		ML	ML; SANDY SILT, 5Y 4/2 olive gray, ~30% subrounded to subangular fine-grained sand, ~70% fines, firm, moist, quartz, trace pea gravel, slow dilatancy, increase of fine-grained sand with depth							
10					10:05 B2-10			3.5	10	
						5				
			Same as above, wet, mica		10:09 B2-15			5.3		
15			Borehole terminated at 15 feet bgs.						15	
			Groundwater sample collected at 10:55							

PROJECT: **7-Eleven Store No. 38384 (1042163)**
LOCATION: **821 Euclid Street, Santa Ana, CA**
PROJECT NUMBER: **185850892**

WELL / PROBEHOLE / BOREHOLE NO: **B3**

Stantec

DRILLING / INSTALLATION:
STARTED: **9/26/2019** COMPLETED: **9/26/2019**
DRILLING COMPANY: **ABC Liovin Drilling**
DRILLING EQUIPMENT: **Geoprobe Rig 6712 DT**
DRILLING METHOD: **Direct Push Technology**
SAMPLING EQUIPMENT: **Acetate Liners / Slide Hammer**

NORTHING (ft):
LATITUDE:
GROUND ELEV (ft): **N/A**
INITIAL DTW (ft): **14 9/26/19**
STATIC DTW (ft): **12 9/26/19**
WELL CASING DIAM. (in): **N/A**
LOGGED BY: **G. Pankratz**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft): **N/A**
BOREHOLE DEPTH (ft): **15.0**
WELL DEPTH (ft): **N/A**
BOREHOLE DIAM. (in):**2.25**
CHECKED BY: **P. McConnell**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)	Borehole Backfill
			Native soil, minor vegetation and brush, cleared/hand augered to 8' bgs							Native Soil
		SM	SM; SILTY SAND WITH GRAVEL, 2.5Y 4/4 olive brown, ~55% fine-grained, ~25% gravel, subrounded to subangular, ~20% fines, dense, dry, gabbro, quartz, trace medium-grained sand, poorly graded			8				
5					10:35 B3-5			5.4	5	
			Same as above							Type I/II Portland Cement Grout
		ML	ML; SILT WITH SAND, 5Y 4/2 olive gray, ~15% subrounded to subangular fine-grained sand, ~85% fines, firm, moist, mica, slow dilatancy			2				
10		SM	SM; SILTY SAND, GLEY-1 3/N (3/) very dark gray, ~70% fine-grained, subrounded to subangular, ~30% fines, dense, moist, slight hydrocarbon odor, quartz, trace feldspar, poorly graded		10:48 B3-10			161.7	10	
						5				
			Same as above, wet, strong hydrocarbon odor		10:50 B3-15			>15,000		
15			Borehole terminated at 15 feet bgs.						15	
			Groundwater sample collected at 11:40							

GEO FORM 304_STANTEC ENVIRO 101613 FIG_BORING_LOGS_SANTA_ANA_20191002.GPJ STANTECUS1342.GDT 10/8/19

PROJECT: **7-Eleven Store No. 38384 (1042163)**
LOCATION: **821 Euclid Street, Santa Ana, CA**
PROJECT NUMBER: **185850892**

WELL / PROBEHOLE / BOREHOLE NO: **B4**

Stantec

DRILLING / INSTALLATION:
STARTED: **9/26/2019** COMPLETED: **9/26/2019**
DRILLING COMPANY: **ABC Liovin Drilling**
DRILLING EQUIPMENT: **Geoprobe Rig 6712 DT**
DRILLING METHOD: **Direct Push Technology**
SAMPLING EQUIPMENT: **Acetate Liners / Slide Hammer**

NORTHING (ft):
LATITUDE:
GROUND ELEV (ft): **N/A**
INITIAL DTW (ft): **13.5 9/26/19**
STATIC DTW (ft): **11.5 9/26/19**
WELL CASING DIAM. (in): **N/A**
LOGGED BY: **G. Pankratz**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft): **N/A**
BOREHOLE DEPTH (ft): **15.0**
WELL DEPTH (ft): **N/A**
BOREHOLE DIAM. (in):**2.25**
CHECKED BY: **P. McConnell**

Time & Depth (feet)	USCS	Description	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)
		Native soil, minor vegetation and brush, cleared/hand augered to 8' bgs					
	SM	SM; SILTY SAND, 2.5Y 6/2 light brownish gray, ~85% fine-grained, subrounded to subangular, ~15% fines, medium dense, dry, quartz, feldspar, poorly graded		8			
5		Same as above	11:19 B4-5			3.7	5
	SP	SP; POORLY GRADED SAND, 5Y 7/1 light gray, ~95% fine-grained, subrounded to subangular, loose, dry, lensed (~1-2 inch silt lenses), quartz, feldspar, trace fines (~5%)		2			
	ML	ML; SILT WITH SAND, 2.5Y 4/3 olive brown, ~20% subrounded to subangular fine-grained sand, ~80% fines, dense, moist, iron-oxide staining, mica, slow dilatancy					
10	SM	SM; SILTY SAND, 5Y 5/2 olive gray, ~80% fine-grained, subrounded to subangular, ~20% fines, dense, moist, quartz, feldspar, poorly graded	11:30 B4-10			10.7	10
	ML	ML; SANDY SILT, 5Y 4/2 olive gray, ~30% subrounded to subangular fine-grained sand, ~70% fines, firm, moist, slow dilatancy		5			
		Wet					
	SM	SM; SILTY SAND, 5Y 4/2 olive gray, ~70% fine-grained, subrounded to subangular, ~30% fines, dense, wet, quartz, feldspar, trace mica, poorly graded	11:32 B4-15			9.9	
15		Borehole terminated at 15 feet bgs.					15
		Groundwater sample collected at 12:00					

Borehole Backfill: Native Soil; Type I/II Portland Cement Grout

PROJECT: **7-Eleven Store No. 38384 (1042163)**
LOCATION: **821 Euclid Street, Santa Ana, CA**
PROJECT NUMBER: **185850892**

WELL / PROBEHOLE / BOREHOLE NO: **B5**

Stantec

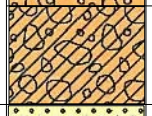
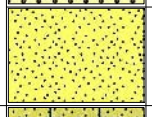
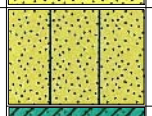
DRILLING / INSTALLATION:
STARTED: **9/26/2019** COMPLETED: **9/26/2019**
DRILLING COMPANY: **ABC Liovin Drilling**
DRILLING EQUIPMENT: **Geoprobe Rig 6712 DT**
DRILLING METHOD: **Direct Push Technology**
SAMPLING EQUIPMENT: **Acetate Liners / Slide Hammer**

NORTHING (ft):
LATITUDE:
GROUND ELEV (ft): **N/A**
INITIAL DTW (ft): **13 9/26/19**
STATIC DTW (ft): **12 9/26/19**
WELL CASING DIAM. (in): **N/A**
LOGGED BY: **G. Pankratz**

EASTING (ft):
LONGITUDE:
TOC ELEV (ft): **N/A**
BOREHOLE DEPTH (ft): **15.0**
WELL DEPTH (ft): **N/A**
BOREHOLE DIAM. (in):**2.25**
CHECKED BY: **P. McConnell**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (ppm)	Depth (feet)	Borehole Backfill
			Native soil, minor vegetation and brush, cleared/hand augered to 8' bgs							Native Soil
		SM	SM; SILTY SAND, 2.5Y 4/4 olive brown, ~60% fine-grained, subrounded, ~40% fines, medium dense, moist, trace gravel, trace plant roots, poorly graded			8				
5			Same as above		11:57 B5-5			4.8	5	
		SP	SP; POORLY GRADED SAND, 5Y 7/1 light gray, ~100% fine-grained, subrounded to subangular, loose, dry, iron-oxide staining, lensed (~1-2 inch silt lenses), quartz, feldspar			2				Type I/II Portland Cement Grout
		SM/ ML	SM/ML; SILTY SAND TO SANDY SILT, 5Y 5/2 olive gray, ~30% - 70% fines (top to bottom), ~30% - 70% subrounded to subangular fine-grained sand (top to bottom), dense to stiff, moist, mica, poorly graded before gradational change to sandy silt							
10					12:49 B5-10			3.2	10	
						5				
			Same as above, wet		12:51 B5-15			3.6		
15			Borehole terminated at 15 feet bgs.						15	
			Groundwater sample collected at 13:05							

DEFINITION OF TERMS

PRIMARY DIVISIONS			GRAPHIC SYMBOL	GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS More Than Half Of Material Is Larger Than No. 200 Sieve Size	GRAVELS More Than Half Of Coarse Fraction Is Larger Than No. 4 Sieve	Clean Gravels (Less Than 5% Fines)		GW	Well graded gravels, gravel-sand mixtures, little or no fines.
				GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		Gravel With Fines		GM	Silty gravels, gravel-sand-clay mixtures, non-plastic fines.
				GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS More Than Half Of Coarse Fraction Is Smaller Than No. 4 Sieve	Clean Sands (Less Than 5% Fines)		SW	Well graded sands or gravelly sands, little or no fines.
				SP	Poorly graded sands or gravelly sands, little or no fines.
		Sands With Fines		SM	Silty sands, sand-silt mixtures, plastic fines.
				SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS More Than Half Of Material Is Smaller Than No. 200 Sieve Size	SILTS AND CLAYS Liquid Limit Is Less Than 50%			ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
				OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS Liquid Limit Is Greater Than 50%			MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
				CH	Inorganic clays of high plasticity, fat clays.
				OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS				PT	Peat and other highly organic soils.

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BOREHOLE/WELL LOG LEGEND

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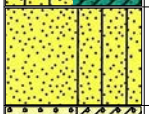
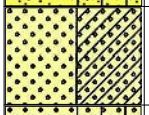
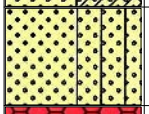
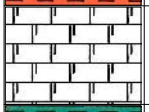
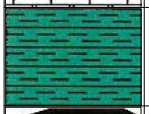
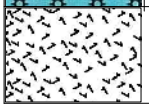
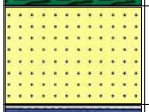
GRAPHIC SYMBOL	Description
	GP-GC - Poorly graded Gravel with Clay
	GW-GM - Well graded Gravel with Silt
	OLSH - High plasticity organic Clay or Silt with shells
	SM-SC - Silty Sand with Clay
	SP-SM - Poorly graded Sand with Silt
	SW-SC - Well graded Sand with Clay
	SW-SM - Well graded Sand with Silt
	Basalt
	Bedrock
	Boulders and Cobbles or Conglomerate
	Breccia
	Chalk
	Claystone
	Coal
	Concrete
	Coral
	Decomposed Granite

GRAPHIC SYMBOL	Description
	Fill
	Gypsum
	Igneous
	Limestone
	Metamorphic
	Sandstone
	Shale
	Siltstone
	Till
	Top Soil

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BOREHOLE/WELL LOG LEGEND

GRAIN SIZES

U.S. Standard Series Sieve				Clear Square Sieve Openings			
200	40	10	4	3/4"	3"	12"	
SILT and CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	Fine	Medium	Coarse	Fine	Coarse		

RELATIVE DENSITY

Sand and Gravels	Blows/Foot†
Very Loose	0 - 4
Loose	5-10
Medium Dense	11-30
Dense	31-50
Very Dense	Over 50

CONSISTENCY

Silt and Clays	Strength ‡	Blows/Foot†
Very Soft	0 - 1/4	0 - 2
Soft	1/4 - 1/2	2 - 4
Firm	1/2 - 1	4 - 8
Stiff	1 - 2	8 - 16
Very Stiff	2 - 4	16 - 32
Hard	Over 4	Over 32

GRAIN SIZE DISTRIBUTION

Term	Criteria	Description
Trace	0 - 5%	Minor fractions for both fine- and coarse-grained materials
Little	6 - 10%	Minor fractions for both fine- and coarse-grained materials
Some	11 - 15%	Minor fractions for fine-grained materials
With	16 - 25%	Minor fractions for fine-grained materials
"-y"	26 - 49%	Suffix for minor fractions for only fine-grained material, e.g., silty

ROCK HARDNESS / STRENGTH

Descriptor	Criteria
Extremely Hard	Core, Fragment, or exposure cannot be scratched with knife or sharp pick; can only be chipped with repeated heavy hammer blows.
Very Hard	Cannot be scratched with knife or sharp pick. Core or fragment breaks with repeated hammer blows.
Hard	Can be scratched with knife or sharp pick with difficulty (heavy pressure). Heavy hammer blow required to break specimen.
Moderately Hard	Can be scratched with knife or sharp pick with light or moderate pressure. Core or fragment breaks with moderate hammer blow
Moderately Soft	Can be grooved 1/16 inch (2 mm) deep by knife or sharp pick with moderate or heavy pressure. Core or fragment breaks with light hammer blow or heavy manual pressure.
Soft	Can be grooved or gouged easily by knife or sharp pick with light pressure, can be scratched with fingernail. Breaks with light to moderate manual pressure.
Very Soft	Can be readily indented, grooved or gouged with fingernail, or carved with a knife. Breaks with light manual pressure.

† Number of blows of 140 pound hammer falling approximately 30 inches to drive a 2 inch O.D. (1-3/8 inch I.D.) standard pentetration test (SPT) split spoon (ASTM D-2488).

‡ Unconfined compressive strength in tons/sq.ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D-2488), pocket penetrometer, torvane, or visual observation.

Graphic Log Symbols

- LPH OR PSH — Liquid-Phase Hydrocarbons/ Phase Separated Hydrocarbons
- Split-Spoon Interval
- Direct-Push
- Auger
- Hand Auger
- Continuous Core
- Sample
- Grab Sample
- ⅛ -inch Nylon Tube
- Perforated Sample Tip
- Ground Water (Initial)
- Ground Water (Static)

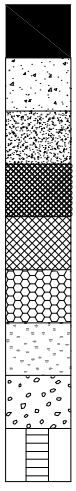
Well Design Symbol

< > Centralizer

Abbreviations Used

Abnd	Abandoned
A/C	Asphalt/Concrete
MSL	Mean Sea Level
Bent	Bentonite
bgs	Below Ground Surface
dia	Diameter
'	Feet
"	Inches
lb	Pound
LPH	Liquid-Phase Hydrocarbons
PSH	Phase Separated Hydrocarbons
GW	Groundwater
HC	Hydrocarbon
ID	Interior Diameter
mod	Moderate
med	Medium
mod	Moderate
NA	Not Applicable
NE	Not Encountered
NM	Not Measured
NR, –	Not Recorded

Well Design Fill Patterns



- Asphalt
- Concrete
- Concrete Slurry
- Bentonite Chips
- Bentonite Pellets
- Bentonite Grout
- Sand
- Soil Cuttings
- Screened Interval

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BOREHOLE/WELL LOG LEGEND

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ATTACHMENT C

SOIL AND GROUNDWATER SAMPLE LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-251186-1
Client Project/Site: 7-Eleven No. 38384 (1042163) (CA)

For:
Stantec Consulting Corp.
9665 Granite Ridge Drive
Suite 220
San Diego, California 92123

Attn: Pat McConnell

Authorized for release by:
10/7/2019 8:32:43 AM

Andy Johnson, Manager of Project Management
(615)301-5045
andy.johnson@testamericainc.com

Table of Contents

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Job ID: 440-251186-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-251186-3	B1-15	Solid	09/26/19 09:09	09/27/19 17:55	
440-251186-6	B2-15	Solid	09/26/19 10:09	09/27/19 17:55	
440-251186-8	B3-10	Solid	09/26/19 10:48	09/27/19 17:55	
440-251186-9	B3-15	Solid	09/26/19 10:50	09/27/19 17:55	
440-251186-12	B4-15	Solid	09/26/19 11:32	09/27/19 17:55	
440-251186-15	B5-15	Solid	09/26/19 12:51	09/27/19 17:55	

Job ID: 440-251186-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-251186-1

Comments
No additional comments.

Receipt
The samples were received on 9/27/2019 5:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
Method(s) 8260B: The laboratory control sample (LCS) for analytical batch 440-571433 recovered outside control limit for the following analyte: 2-Methyl-2-propanol. This analyte was biased high in the LCS and was not detected in the associated sample; therefore, the data have been reported.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 440-571778 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) was within acceptance limits.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 440-572014 was outside control limits for 2-Methyl-2-propanol. Sample matrix interference and/or non-homogeneity are suspected.

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

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

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Job ID: 440-251186-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

Glossary

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

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Job ID: 440-251186-1

Client Sample ID: B1-15
Date Collected: 09/26/19 09:09
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-3
Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.0980		mg/Kg			09/28/19 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*60 - 120*		*09/28/19 17:13*	*1*
4-Bromofluorobenzene (Surr)	*90*		*79 - 120*		*09/28/19 17:13*	*1*
Toluene-d8 (Surr)	*94*		*79 - 123*		*09/28/19 17:13*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00196		mg/Kg			09/28/19 17:13	1
Toluene	ND		0.00196		mg/Kg			09/28/19 17:13	1
Ethylbenzene	ND		0.00196		mg/Kg			09/28/19 17:13	1
Xylenes, Total	ND		0.00392		mg/Kg			09/28/19 17:13	1
Methyl tert-butyl ether	ND		0.00490		mg/Kg			09/28/19 17:13	1
Tert-amyl methyl ether	ND		0.00490		mg/Kg			09/28/19 17:13	1
tert-Butyl alcohol (TBA)	ND	*	0.0980		mg/Kg			09/28/19 17:13	1
Diisopropyl ether	ND		0.00490		mg/Kg			09/28/19 17:13	1
Ethyl tert-butyl ether	ND		0.00490		mg/Kg			09/28/19 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*79 - 123*		*09/28/19 17:13*	*1*
4-Bromofluorobenzene (Surr)	*90*		*79 - 120*		*09/28/19 17:13*	*1*
Dibromofluoromethane (Surr)	*107*		*60 - 120*		*09/28/19 17:13*	*1*

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Job ID: 440-251186-1

Client Sample ID: B2-15
Date Collected: 09/26/19 10:09
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-6
Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.0973		mg/Kg			09/28/19 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*116*		*60 - 120*		*09/28/19 17:42*	*1*
4-Bromofluorobenzene (Surr)	*94*		*79 - 120*		*09/28/19 17:42*	*1*
Toluene-d8 (Surr)	*98*		*79 - 123*		*09/28/19 17:42*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00195		mg/Kg			09/28/19 17:42	1
Toluene	ND		0.00195		mg/Kg			09/28/19 17:42	1
Ethylbenzene	ND		0.00195		mg/Kg			09/28/19 17:42	1
Xylenes, Total	ND		0.00389		mg/Kg			09/28/19 17:42	1
Methyl tert-butyl ether	ND		0.00486		mg/Kg			09/28/19 17:42	1
Tert-amyl methyl ether	ND		0.00486		mg/Kg			09/28/19 17:42	1
tert-Butyl alcohol (TBA)	ND	*	0.0973		mg/Kg			09/28/19 17:42	1
Diisopropyl ether	ND		0.00486		mg/Kg			09/28/19 17:42	1
Ethyl tert-butyl ether	ND		0.00486		mg/Kg			09/28/19 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*79 - 123*		*09/28/19 17:42*	*1*
4-Bromofluorobenzene (Surr)	*94*		*79 - 120*		*09/28/19 17:42*	*1*
Dibromofluoromethane (Surr)	*116*		*60 - 120*		*09/28/19 17:42*	*1*

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Job ID: 440-251186-1

Client Sample ID: B3-10
Date Collected: 09/26/19 10:48
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-8
Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	**117**		20.1		mg/Kg		10/01/19 17:03	10/02/19 14:32	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*55 - 140*	*10/01/19 17:03*	*10/02/19 14:32*	*200*
4-Bromofluorobenzene (Surr)	*105*		*65 - 140*	*10/01/19 17:03*	*10/02/19 14:32*	*200*
Toluene-d8 (Surr)	*108*		*60 - 140*	*10/01/19 17:03*	*10/02/19 14:32*	*200*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00917		mg/Kg			10/01/19 14:45	1
Toluene	ND		0.00917		mg/Kg			10/01/19 14:45	1
Ethylbenzene	**0.309**		0.00917		mg/Kg			10/01/19 14:45	1
Xylenes, Total	ND		0.0183		mg/Kg			10/01/19 14:45	1
Methyl tert-butyl ether	ND		0.0229		mg/Kg			10/01/19 14:45	1
Tert-amyl methyl ether	ND		0.0229		mg/Kg			10/01/19 14:45	1
tert-Butyl alcohol (TBA)	ND		0.459		mg/Kg			10/01/19 14:45	1
Diisopropyl ether	ND		0.0229		mg/Kg			10/01/19 14:45	1
Ethyl tert-butyl ether	ND		0.0229		mg/Kg			10/01/19 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*87*		*79 - 123*		*10/01/19 14:45*	*1*
4-Bromofluorobenzene (Surr)	*90*		*79 - 120*		*10/01/19 14:45*	*1*
Dibromofluoromethane (Surr)	*95*		*60 - 120*		*10/01/19 14:45*	*1*

Client Sample ID: B3-15

Date Collected: 09/26/19 10:50
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-9

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**11300**		997		mg/Kg		10/01/19 15:46	10/02/19 16:00	10000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*55 - 140*	*10/01/19 15:46*	*10/02/19 16:00*	*10000*
4-Bromofluorobenzene (Surr)	*100*		*65 - 140*	*10/01/19 15:46*	*10/02/19 16:00*	*10000*
Toluene-d8 (Surr)	*112*		*60 - 140*	*10/01/19 15:46*	*10/02/19 16:00*	*10000*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**2.35**		0.399		mg/Kg		10/01/19 15:46	10/02/19 15:02	400
Toluene	**1.17**		0.399		mg/Kg		10/01/19 15:46	10/02/19 15:02	400
Xylenes, Total	**524**		0.798		mg/Kg		10/01/19 15:46	10/02/19 15:02	400
Methyl tert-butyl ether	ND		0.997		mg/Kg		10/01/19 15:46	10/02/19 15:02	400
Tert-amyl methyl ether	ND		0.997		mg/Kg		10/01/19 15:46	10/02/19 15:02	400
tert-Butyl alcohol (TBA)	ND		19.9		mg/Kg		10/01/19 15:46	10/02/19 15:02	400
Diisopropyl ether	ND		0.997		mg/Kg		10/01/19 15:46	10/02/19 15:02	400
Ethyl tert-butyl ether	ND		0.997		mg/Kg		10/01/19 15:46	10/02/19 15:02	400

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*113*		*60 - 140*	*10/01/19 15:46*	*10/02/19 15:02*	*400*
4-Bromofluorobenzene (Surr)	*108*		*65 - 140*	*10/01/19 15:46*	*10/02/19 15:02*	*400*
Dibromofluoromethane (Surr)	*98*		*55 - 140*	*10/01/19 15:46*	*10/02/19 15:02*	*400*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	**190**		9.97		mg/Kg		10/01/19 15:46	10/02/19 16:00	10000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*112*		*60 - 140*	*10/01/19 15:46*	*10/02/19 16:00*	*10000*
4-Bromofluorobenzene (Surr)	*100*		*65 - 140*	*10/01/19 15:46*	*10/02/19 16:00*	*10000*
Dibromofluoromethane (Surr)	*99*		*55 - 140*	*10/01/19 15:46*	*10/02/19 16:00*	*10000*

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Job ID: 440-251186-1

Client Sample ID: B4-15
Date Collected: 09/26/19 11:32
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-12
Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.101		mg/Kg			10/02/19 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*108*		*60 - 120*		*10/02/19 16:16*	*1*
4-Bromofluorobenzene (Surr)	*91*		*79 - 120*		*10/02/19 16:16*	*1*
Toluene-d8 (Surr)	*94*		*79 - 123*		*10/02/19 16:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00201		mg/Kg			10/02/19 16:16	1
Toluene	ND		0.00201		mg/Kg			10/02/19 16:16	1
Ethylbenzene	ND		0.00201		mg/Kg			10/02/19 16:16	1
Xylenes, Total	ND		0.00402		mg/Kg			10/02/19 16:16	1
Methyl tert-butyl ether	ND		0.00503		mg/Kg			10/02/19 16:16	1
Tert-amyl methyl ether	ND		0.00503		mg/Kg			10/02/19 16:16	1
tert-Butyl alcohol (TBA)	ND		0.101		mg/Kg			10/02/19 16:16	1
Diisopropyl ether	ND		0.00503		mg/Kg			10/02/19 16:16	1
Ethyl tert-butyl ether	ND		0.00503		mg/Kg			10/02/19 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*79 - 123*		*10/02/19 16:16*	*1*
4-Bromofluorobenzene (Surr)	*91*		*79 - 120*		*10/02/19 16:16*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 120*		*10/02/19 16:16*	*1*

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Job ID: 440-251186-1

Client Sample ID: B5-15

Date Collected: 09/26/19 12:51
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-15

Matrix: Solid

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	0.182		0.0990		mg/Kg			09/28/19 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*94*		*60 - 120*		*09/28/19 19:10*	*1*
4-Bromofluorobenzene (Surr)	*93*		*79 - 120*		*09/28/19 19:10*	*1*
Toluene-d8 (Surr)	*100*		*79 - 123*		*09/28/19 19:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00198		mg/Kg			09/28/19 19:10	1
Toluene	ND		0.00198		mg/Kg			09/28/19 19:10	1
Ethylbenzene	ND		0.00198		mg/Kg			09/28/19 19:10	1
Xylenes, Total	ND		0.00396		mg/Kg			09/28/19 19:10	1
Methyl tert-butyl ether	ND		0.00495		mg/Kg			09/28/19 19:10	1
Tert-amyl methyl ether	ND		0.00495		mg/Kg			09/28/19 19:10	1
tert-Butyl alcohol (TBA)	ND	*	0.0990		mg/Kg			09/28/19 19:10	1
Diisopropyl ether	ND		0.00495		mg/Kg			09/28/19 19:10	1
Ethyl tert-butyl ether	ND		0.00495		mg/Kg			09/28/19 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*79 - 123*		*09/28/19 19:10*	*1*
4-Bromofluorobenzene (Surr)	*93*		*79 - 120*		*09/28/19 19:10*	*1*
Dibromofluoromethane (Surr)	*94*		*60 - 120*		*09/28/19 19:10*	*1*

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

Lab Sample ID: MB 440-571433/4
Matrix: Solid
Analysis Batch: 571433

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200		mg/Kg			09/28/19 09:23	1
Toluene	ND		0.00200		mg/Kg			09/28/19 09:23	1
Ethylbenzene	ND		0.00200		mg/Kg			09/28/19 09:23	1
Xylenes, Total	ND		0.00400		mg/Kg			09/28/19 09:23	1
Methyl tert-butyl ether	ND		0.00500		mg/Kg			09/28/19 09:23	1
Tert-amyl methyl ether	ND		0.00500		mg/Kg			09/28/19 09:23	1
tert-Butyl alcohol (TBA)	ND		0.100		mg/Kg			09/28/19 09:23	1
Diisopropyl ether	ND		0.00500		mg/Kg			09/28/19 09:23	1
Ethyl tert-butyl ether	ND		0.00500		mg/Kg			09/28/19 09:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*79 - 123*		*09/28/19 09:23*	*1*
4-Bromofluorobenzene (Surr)	*102*		*79 - 120*		*09/28/19 09:23*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 120*		*09/28/19 09:23*	*1*

Lab Sample ID: LCS 440-571433/5
Matrix: Solid
Analysis Batch: 571433

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0200	0.02112		mg/Kg		106	65 - 120
Toluene	0.0200	0.02098		mg/Kg		105	70 - 125
Ethylbenzene	0.0200	0.02062		mg/Kg		103	70 - 125
Xylenes, Total	0.0400	0.04075		mg/Kg		102	70 - 125
Methyl tert-butyl ether	0.0200	0.01864		mg/Kg		93	60 - 140
Tert-amyl methyl ether	0.0200	0.01907		mg/Kg		95	60 - 145
tert-Butyl alcohol (TBA)	0.200	0.3280	*	mg/Kg		164	70 - 135
Diisopropyl ether	0.0200	0.02009		mg/Kg		100	60 - 140
Ethyl tert-butyl ether	0.0200	0.01816		mg/Kg		91	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*97*		*79 - 123*
4-Bromofluorobenzene (Surr)	*97*		*79 - 120*
Dibromofluoromethane (Surr)	*104*		*60 - 120*

Lab Sample ID: MB 440-571778/4
Matrix: Solid
Analysis Batch: 571778

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200		mg/Kg			10/01/19 09:22	1
Toluene	ND		0.00200		mg/Kg			10/01/19 09:22	1
Ethylbenzene	ND		0.00200		mg/Kg			10/01/19 09:22	1
Xylenes, Total	ND		0.00400		mg/Kg			10/01/19 09:22	1
Methyl tert-butyl ether	ND		0.00500		mg/Kg			10/01/19 09:22	1
Tert-amyl methyl ether	ND		0.00500		mg/Kg			10/01/19 09:22	1
tert-Butyl alcohol (TBA)	ND		0.100		mg/Kg			10/01/19 09:22	1
Diisopropyl ether	ND		0.00500		mg/Kg			10/01/19 09:22	1

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

Lab Sample ID: MB 440-571778/4
Matrix: Solid
Analysis Batch: 571778

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl tert-butyl ether	ND		0.00500		mg/Kg			10/01/19 09:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*93*		*79 - 123*		*10/01/19 09:22*	*1*
4-Bromofluorobenzene (Surr)	*88*		*79 - 120*		*10/01/19 09:22*	*1*
Dibromofluoromethane (Surr)	*113*		*60 - 120*		*10/01/19 09:22*	*1*

Lab Sample ID: LCS 440-571778/5
Matrix: Solid
Analysis Batch: 571778

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0200	0.02321		mg/Kg		116	65 - 120
Toluene	0.0200	0.02114		mg/Kg		106	70 - 125
Ethylbenzene	0.0200	0.01987		mg/Kg		99	70 - 125
Xylenes, Total	0.0400	0.03876		mg/Kg		97	70 - 125
Methyl tert-butyl ether	0.0200	0.02113		mg/Kg		106	60 - 140
Tert-amyl methyl ether	0.0200	0.02040		mg/Kg		102	60 - 145
tert-Butyl alcohol (TBA)	0.200	0.1891		mg/Kg		95	70 - 135
Diisopropyl ether	0.0200	0.02192		mg/Kg		110	60 - 140
Ethyl tert-butyl ether	0.0200	0.02083		mg/Kg		104	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*93*		*79 - 123*
4-Bromofluorobenzene (Surr)	*92*		*79 - 120*
Dibromofluoromethane (Surr)	*106*		*60 - 120*

Lab Sample ID: MB 440-572014/4
Matrix: Solid
Analysis Batch: 572014

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200		mg/Kg			10/02/19 08:27	1
Toluene	ND		0.00200		mg/Kg			10/02/19 08:27	1
Ethylbenzene	ND		0.00200		mg/Kg			10/02/19 08:27	1
Xylenes, Total	ND		0.00400		mg/Kg			10/02/19 08:27	1
Methyl tert-butyl ether	ND		0.00500		mg/Kg			10/02/19 08:27	1
Tert-amyl methyl ether	ND		0.00500		mg/Kg			10/02/19 08:27	1
tert-Butyl alcohol (TBA)	ND		0.100		mg/Kg			10/02/19 08:27	1
Diisopropyl ether	ND		0.00500		mg/Kg			10/02/19 08:27	1
Ethyl tert-butyl ether	ND		0.00500		mg/Kg			10/02/19 08:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*94*		*79 - 123*		*10/02/19 08:27*	*1*
4-Bromofluorobenzene (Surr)	*95*		*79 - 120*		*10/02/19 08:27*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 120*		*10/02/19 08:27*	*1*

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

Lab Sample ID: LCS 440-572014/5
Matrix: Solid
Analysis Batch: 572014

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0200	0.02288		mg/Kg		114	65 - 120
Toluene	0.0200	0.01983		mg/Kg		99	70 - 125
Ethylbenzene	0.0200	0.01964		mg/Kg		98	70 - 125
Xylenes, Total	0.0400	0.04006		mg/Kg		100	70 - 125
Methyl tert-butyl ether	0.0200	0.02280		mg/Kg		114	60 - 140
Tert-amyl methyl ether	0.0200	0.02452		mg/Kg		123	60 - 145
tert-Butyl alcohol (TBA)	0.200	0.1849		mg/Kg		92	70 - 135
Diisopropyl ether	0.0200	0.02036		mg/Kg		102	60 - 140
Ethyl tert-butyl ether	0.0200	0.02250		mg/Kg		113	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*90*		*79 - 123*
4-Bromofluorobenzene (Surr)	*99*		*79 - 120*
Dibromofluoromethane (Surr)	*101*		*60 - 120*

Lab Sample ID: MB 440-572039/5
Matrix: Solid
Analysis Batch: 572039

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100		mg/Kg			10/02/19 10:10	100
Toluene	ND		0.100		mg/Kg			10/02/19 10:10	100
Ethylbenzene	ND		0.100		mg/Kg			10/02/19 10:10	100
Xylenes, Total	ND		0.200		mg/Kg			10/02/19 10:10	100
Methyl tert-butyl ether	ND		0.250		mg/Kg			10/02/19 10:10	100
Tert-amyl methyl ether	ND		0.250		mg/Kg			10/02/19 10:10	100
tert-Butyl alcohol (TBA)	ND		5.00		mg/Kg			10/02/19 10:10	100
Diisopropyl ether	ND		0.250		mg/Kg			10/02/19 10:10	100
Ethyl tert-butyl ether	ND		0.250		mg/Kg			10/02/19 10:10	100

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*113*		*60 - 140*		*10/02/19 10:10*	*100*
4-Bromofluorobenzene (Surr)	*106*		*65 - 140*		*10/02/19 10:10*	*100*
Dibromofluoromethane (Surr)	*108*		*55 - 140*		*10/02/19 10:10*	*100*

Lab Sample ID: LCS 440-572039/6
Matrix: Solid
Analysis Batch: 572039

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	1.00	0.8947		mg/Kg		89	65 - 120
Toluene	1.00	0.9134		mg/Kg		91	80 - 120
Ethylbenzene	1.00	0.9576		mg/Kg		96	80 - 120
Xylenes, Total	2.00	2.012		mg/Kg		101	70 - 125
Methyl tert-butyl ether	1.00	0.8578		mg/Kg		86	55 - 145
Tert-amyl methyl ether	1.00	1.025		mg/Kg		103	60 - 145
tert-Butyl alcohol (TBA)	10.0	8.567		mg/Kg		86	65 - 140
Diisopropyl ether	1.00	0.9503		mg/Kg		95	60 - 140

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

Lab Sample ID: LCS 440-572039/6
Matrix: Solid
Analysis Batch: 572039

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ethyl tert-butyl ether			1.00	0.9774		mg/Kg		98	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*60 - 140*
4-Bromofluorobenzene (Surr)	*107*		*65 - 140*
Dibromofluoromethane (Surr)	*106*		*55 - 140*

Lab Sample ID: LCSD 440-572039/7
Matrix: Solid
Analysis Batch: 572039

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			1.00	0.9019		mg/Kg		90	65 - 120	1	20
Toluene			1.00	0.9582		mg/Kg		96	80 - 120	5	20
Ethylbenzene			1.00	0.9977		mg/Kg		100	80 - 120	4	20
Xylenes, Total			2.00	2.048		mg/Kg		102	70 - 125	2	20
Methyl tert-butyl ether			1.00	0.8556		mg/Kg		86	55 - 145	0	25
Tert-amyl methyl ether			1.00	0.9946		mg/Kg		99	60 - 145	3	25
tert-Butyl alcohol (TBA)			10.0	10.25		mg/Kg		102	65 - 140	18	20
Diisopropyl ether			1.00	0.9927		mg/Kg		99	60 - 140	4	20
Ethyl tert-butyl ether			1.00	0.9752		mg/Kg		98	60 - 140	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*60 - 140*
4-Bromofluorobenzene (Surr)	*107*		*65 - 140*
Dibromofluoromethane (Surr)	*106*		*55 - 140*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-571434/4
Matrix: Solid
Analysis Batch: 571434

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.100		mg/Kg			09/28/19 09:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*109*		*60 - 120*		*09/28/19 09:23*	*1*
4-Bromofluorobenzene (Surr)	*102*		*79 - 120*		*09/28/19 09:23*	*1*
Toluene-d8 (Surr)	*99*		*79 - 123*		*09/28/19 09:23*	*1*

Lab Sample ID: LCS 440-571434/1003
Matrix: Solid
Analysis Batch: 571434

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)			1.00	0.8959		mg/Kg		90	60 - 135		

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

Lab Sample ID: LCS 440-571434/1003
Matrix: Solid
Analysis Batch: 571434

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

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*60 - 120*
4-Bromofluorobenzene (Surr)	*94*		*79 - 120*
Toluene-d8 (Surr)	*99*		*79 - 123*

Lab Sample ID: LCSD 440-571434/6
Matrix: Solid
Analysis Batch: 571434

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)			1.00	0.9113		mg/Kg		91	60 - 135	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*104*		*60 - 120*
4-Bromofluorobenzene (Surr)	*96*		*79 - 120*
Toluene-d8 (Surr)	*101*		*79 - 123*

Lab Sample ID: MB 440-572015/4
Matrix: Solid
Analysis Batch: 572015

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		0.100		mg/Kg			10/02/19 08:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*60 - 120*		*10/02/19 08:27*	*1*
4-Bromofluorobenzene (Surr)	*95*		*79 - 120*		*10/02/19 08:27*	*1*
Toluene-d8 (Surr)	*94*		*79 - 123*		*10/02/19 08:27*	*1*

Lab Sample ID: LCS 440-572015/1003
Matrix: Solid
Analysis Batch: 572015

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)			1.00	0.9040		mg/Kg		90	60 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*92*		*60 - 120*
4-Bromofluorobenzene (Surr)	*99*		*79 - 120*
Toluene-d8 (Surr)	*92*		*79 - 123*

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

Lab Sample ID: LCSD 440-572015/6
Matrix: Solid
Analysis Batch: 572015

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)			1.00	0.8690		mg/Kg		87	60 - 135	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*102*		*60 - 120*
4-Bromofluorobenzene (Surr)	*93*		*79 - 120*
Toluene-d8 (Surr)	*97*		*79 - 123*

Lab Sample ID: MB 440-572040/5
Matrix: Solid
Analysis Batch: 572040

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		10.0		mg/Kg			10/02/19 10:10	100
Volatile Fuel Hydrocarbons (C4-C12)	ND		10.0		mg/Kg			10/02/19 10:10	100

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*108*		*55 - 140*		*10/02/19 10:10*	*100*
4-Bromofluorobenzene (Surr)	*106*		*65 - 140*		*10/02/19 10:10*	*100*
Toluene-d8 (Surr)	*113*		*60 - 140*		*10/02/19 10:10*	*100*

Lab Sample ID: LCS 440-572040/8
Matrix: Solid
Analysis Batch: 572040

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
GRO (C4-C12)			50.0	33.98		mg/Kg		68	60 - 130
Volatile Fuel Hydrocarbons (C4-C12)			50.0	33.98		mg/Kg		68	60 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*102*		*55 - 140*
4-Bromofluorobenzene (Surr)	*104*		*65 - 140*
Toluene-d8 (Surr)	*111*		*60 - 140*

Lab Sample ID: LCSD 440-572040/9
Matrix: Solid
Analysis Batch: 572040

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			50.0	34.51		mg/Kg		69	60 - 130	2	25
Volatile Fuel Hydrocarbons (C4-C12)			50.0	34.51		mg/Kg		69	60 - 130	2	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*103*		*55 - 140*
4-Bromofluorobenzene (Surr)	*105*		*65 - 140*
Toluene-d8 (Surr)	*112*		*60 - 140*

GC/MS VOA

Analysis Batch: 571433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-251186-3	B1-15	Total/NA	Solid	8260B	
440-251186-6	B2-15	Total/NA	Solid	8260B	
440-251186-15	B5-15	Total/NA	Solid	8260B	
MB 440-571433/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-571433/5	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 571434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-251186-3	B1-15	Total/NA	Solid	8260B/CA_LUFT MS	
440-251186-6	B2-15	Total/NA	Solid	8260B/CA_LUFT MS	
440-251186-15	B5-15	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-571434/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-571434/1003	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 440-571434/6	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 571778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-251186-8	B3-10	Total/NA	Solid	8260B	
MB 440-571778/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-571778/5	Lab Control Sample	Total/NA	Solid	8260B	

Prep Batch: 571898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-251186-8	B3-10	Total/NA	Solid	5030B	
440-251186-9	B3-15	Total/NA	Solid	5030B	
440-251186-9 - DL	B3-15	Total/NA	Solid	5030B	

Analysis Batch: 572014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-251186-12	B4-15	Total/NA	Solid	8260B	
MB 440-572014/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-572014/5	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 572015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-251186-12	B4-15	Total/NA	Solid	8260B/CA_LUFT MS	
MB 440-572015/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-572015/1003	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 440-572015/6	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 572039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-251186-9	B3-15	Total/NA	Solid	8260B	571898
440-251186-9 - DL	B3-15	Total/NA	Solid	8260B	571898

GC/MS VOA (Continued)

Analysis Batch: 572039 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-572039/5	Method Blank	Total/NA	Solid	8260B	
LCS 440-572039/6	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 440-572039/7	Lab Control Sample Dup	Total/NA	Solid	8260B	

Analysis Batch: 572040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-251186-8	B3-10	Total/NA	Solid	8260B/CA_LUFT MS	571898
440-251186-9	B3-15	Total/NA	Solid	8260B/CA_LUFT MS	571898
MB 440-572040/5	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 440-572040/8	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 440-572040/9	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Job ID: 440-251186-1

Client Sample ID: B1-15
Date Collected: 09/26/19 09:09
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.1 g	10 mL	571433	09/28/19 17:13	AYL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.1 g	10 mL	571434	09/28/19 17:13	AYL	TAL IRV

Client Sample ID: B2-15
Date Collected: 09/26/19 10:09
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.14 g	10 mL	571433	09/28/19 17:42	AYL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.14 g	10 mL	571434	09/28/19 17:42	AYL	TAL IRV

Client Sample ID: B3-10
Date Collected: 09/26/19 10:48
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	1.09 g	10 mL	571778	10/01/19 14:45	AYL	TAL IRV
Total/NA	Prep	5030B			9.97 g	10 mL	571898	10/01/19 17:03	AYL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		200	10 mL	10 mL	572040	10/02/19 14:32	AYL	TAL IRV

Client Sample ID: B3-15
Date Collected: 09/26/19 10:50
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			10.03 g	10 mL	571898	10/01/19 15:46	AYL	TAL IRV
Total/NA	Analysis	8260B		400	10 mL	10 mL	572039	10/02/19 15:02	AYL	TAL IRV
Total/NA	Prep	5030B	DL		10.03 g	10 mL	571898	10/01/19 15:46	AYL	TAL IRV
Total/NA	Analysis	8260B	DL	10000	10 mL	10 mL	572039	10/02/19 16:00	AYL	TAL IRV
Total/NA	Prep	5030B			10.03 g	10 mL	571898	10/01/19 15:46	AYL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		10000	10 mL	10 mL	572040	10/02/19 16:00	AYL	TAL IRV

Client Sample ID: B4-15
Date Collected: 09/26/19 11:32
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	4.97 g	10 mL	572014	10/02/19 16:16	AYL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	4.97 g	10 mL	572015	10/02/19 16:16	WC	TAL IRV

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Job ID: 440-251186-1

Client Sample ID: B5-15

Date Collected: 09/26/19 12:51
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251186-15

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.05 g	10 mL	571433	09/28/19 19:10	AYL	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	5.05 g	10 mL	571434	09/28/19 19:10	AYL	TAL IRV

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Job ID: 440-251186-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTMS	Volatile Organic Compounds by GC/MS	SW846	TAL IRV
5030B	Purge and Trap	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 440-251186-1
Project/Site: 7-Eleven No. 38384 (1042163) (CA)

Laboratory: Eurofins TestAmerica, Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-20
Arizona	State	AZ0671	10-14-19
California	LA Cty Sanitation Districts	10256	06-30-20
California	Los Angeles County Sanitation Districts	10256	06-30-20
California	State	2706	06-30-20
Guam	State	19-005R	01-23-20
Hawaii	State	CA01531	01-29-20
Hawaii	State Program	N/A	01-29-20
Kansas	NELAP	E-10420	07-31-20
Nevada	State	CA015312020-2	07-31-20
New Mexico	State	CA01531	01-29-20
New Mexico	State Program	N/A	01-29-20
Oregon	NELAP	4028 - 006	01-29-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00214	07-09-21
Washington	State Program	C900	09-03-19 *

Laboratory: Eurofins TestAmerica, Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State Program	2938	06-30-20

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

TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM	Carrier Tracking No(s)	COC No
Client Contact: Pat McConnell	Garrett Pankratz	Jimmy Huckaba		Page: 1 of 2
Company: Stantec Consulting Services Inc	Phone: 562-537-7368	E-Mail: Jimmy.Huckaba@testamericainc.com		Job #

Address	Due Date Requested:
9665 Granite Ridge Drive, Suite 220	
City: San Diego	TAT Requested (days): Standard
State, Zip: CA, 92123	
Phone: 858-633-4222	PO #: NON ENFOS, Invoice Stantec AP/cc P McConnell
Email: Pat.McConnell@stantec.com	WO #
Project Name: 7-Eleven Store No 38384 (1042163)	Project #: 185850892.800
Site: 821 North Euclid Street, Santa Ana, CA	SSOW#

Analysis Requested

Preservation Codes.

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	GRO/BTEX/MTBE/Oxys (8260)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				I		
B1-5	9/26/19	8:49	G	S	N		X	1	Hold the following Samples: B1-5, B1-10, B1-15, B2-5, B2-10, B2-15, B3-5, B3-10, B3-15, B4-5, B4-10, B4-15, B5-5, B5-10, B5-15
B1-10		9:07	G	S	N		X	1	
B1-15		9:09	G	S	N		X	1	
B2-5		9:36	G	S	N		X	1	
B2-10		10:05	G	S	N		X	1	
B2-15		10:09	G	S	N		X	1	
B3-5		10:35	G	S	N		X	1	
B3-10		10:48	G	S	N		X	1	
B3-15		10:50	G	S	N		X	1	
B4-5		11:19	G	S	N		X	1	
B4-10		11:30	G	S	N		X	1	
B4-15		11:32	G	S	N		X	1	Analyze the following Samples: B1-15, B2-15, B3-15, B4-15, B5-15

440-251186 Chain of Custody

9/27/19 AK

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: NO EDF REQUIRED

Empty Kit Relinquished by	Date	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Garrett Pankratz	9/26/19 16:00	TA-IRV		9/27/19 1111	TA-IRV
2		9/27/19 1755	TA-IRV			
3					9/27/19 1755	TA IRV

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.6/2.8 IR-8 S

TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM	Carrier Tracking No(s)	COC No
Client Contact: Pat McConnell	Garrett Pankratz	Jimmy Huckaba		Page: 2 of 2
Company: Stantec Consulting Services Inc	Phone: 562-537-7368	E-Mail: Jimmy.Huckaba@testamericainc.com		Job #

Address	Due Date Requested:
9665 Granite Ridge Drive, Suite 220	
City: San Diego	TAT Requested (days): **Standard**
State, Zip: CA, 92123	
Phone: 858-633-4222	PO #: NON ENFOS, Invoice Stantec AP/cc P.McConnell
Email: Pat.McConnell@stantec.com	WO #
Project Name: 7-Eleven Store No. 38384 (1042163)	Project #: 185850892 800
Site: 821 North Euclid Street, Santa Ana, CA	SSOW#

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	GRO/BTEX/MTBE/Oxys (8260)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				1		
B5-5	9/26/19	11:57	G	S	N		X	1	Hold the following Samples
B5-10	↓	12:49	G	S	N		X	1	B1-5 B3-5 B5-5
B5-15	↓	12:51	G	S	N		X	1	B1-10 B3-10 B5-10
			G	S	N			1	B2-5 B4-5
			G	S	N			1	B2-10 B4-10
			G	S	N			1	
			G	S	N			1	
			G	S	N		9/27/19	1	Analyze the following Samples
			G	S	N			1	B1-15 B4-15
			G	S	N		AK	1	B2-15 B5-15
			G	S	N			1	B3-15
			G	S	N			1	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: NO EDF REQUIRED

Empty Kit Relinquished by.	Date:	Time	Method of Shipment

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Garrett Pankratz	9/26/19 16:00	TA-IRV		9/27/19 1111	TA-IRV
2		9/27/19 1250	TA-IRV			
3					9/27/19 1455	TA IRV

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks

10/7/2019

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 440-251186-1

Login Number: 251186 **List Source: Eurofins TestAmerica, Irvine**
List Number: 1
Creator: Skinner, Alma D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-251189-1
Client Project/Site: 7-Eleven No. 38384 (1042163)

For:
Stantec Consulting Corp.
9665 Granite Ridge Drive
Suite 220
San Diego, California 92123

Attn: Pat McConnell

Authorized for release by:
10/7/2019 8:33:20 AM

Andy Johnson, Manager of Project Management
(615)301-5045
andy.johnson@testamericainc.com

Table of Contents

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163)

Job ID: 440-251189-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-251189-1	B1-W	Water	09/26/19 09:50	09/27/19 17:55	
440-251189-2	B2-W	Water	09/26/19 10:55	09/27/19 17:55	
440-251189-3	B3-W	Water	09/26/19 11:40	09/27/19 17:55	
440-251189-4	B4-W	Water	09/26/19 12:00	09/27/19 17:55	
440-251189-5	B5-W	Water	09/26/19 13:05	09/27/19 17:55	

Job ID: 440-251189-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-251189-1

Comments
No additional comments.

Receipt
The samples were received on 9/27/2019 5:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
Method(s) 8260B: The matrix spike duplicate (MSD) recovery for analytical batch 440-571954 was outside control limit. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limit.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 440-571954 was outside control limits. Sample matrix interference is suspected.

Method(s) 8260B: The following sample was collected in a properly preserved vial; however, the sample pH of 5 was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved sample: B1-W (440-251189-1).

Method(s) 8260B: The following sample was collected in a properly preserved vial; however, the sample pH of 3 was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved sample: B2-W (440-251189-2).

Method(s) 8260B: The following samples were collected in a properly preserved vials; however, the sample pH of 7 was outside the required criteria when verified by the laboratory. The samples were analyzed within the 7-day holding time specified for unpreserved samples: B3-W (440-251189-3), B4-W (440-251189-4) and B5-W (440-251189-5).

Method(s) 8260B/CA_LUFTMS: The following sample was collected in a properly preserved vial; however, the sample pH of 5 was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved sample: B1-W (440-251189-1).

Method(s) 8260B/CA_LUFTMS: The following sample was collected in a properly preserved vial; however, the sample pH of 3 was outside the required criteria when verified by the laboratory. The sample was analyzed within the 7-day holding time specified for unpreserved sample: B2-W (440-251189-2).

Method(s) 8260B/CA_LUFTMS: The following samples were collected in a properly preserved vials; however, the sample pH of 7 was outside the required criteria when verified by the laboratory. The samples were analyzed within the 7-day holding time specified for unpreserved samples: B3-W (440-251189-3), B4-W (440-251189-4) and B5-W (440-251189-5).

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

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

Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163)

Job ID: 440-251189-1

Glossary

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

Client Sample ID: B1-W

Date Collected: 09/26/19 09:50
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251189-1

Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	**1310**		50.0		ug/L			10/01/19 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*10/01/19 21:05*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*10/01/19 21:05*	*1*
Toluene-d8 (Surr)	*101*		*80 - 128*		*10/01/19 21:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.00		ug/L			10/01/19 21:05	1
Toluene	**2.20**		2.00		ug/L			10/01/19 21:05	1
Ethylbenzene	ND		2.00		ug/L			10/01/19 21:05	1
Xylenes, Total	**12.4**		2.00		ug/L			10/01/19 21:05	1
Methyl-t-Butyl Ether (MTBE)	ND		1.00		ug/L			10/01/19 21:05	1
Tert-amyl-methyl ether (TAME)	ND		5.00		ug/L			10/01/19 21:05	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			10/01/19 21:05	1
Isopropyl Ether (DIPE)	ND		5.00		ug/L			10/01/19 21:05	1
Ethyl-t-butyl ether (ETBE)	ND		5.00		ug/L			10/01/19 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 128*		*10/01/19 21:05*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*10/01/19 21:05*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*10/01/19 21:05*	*1*

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163)

Job ID: 440-251189-1

Client Sample ID: B2-W
Date Collected: 09/26/19 10:55
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251189-2
Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		50.0		ug/L			10/01/19 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*10/01/19 21:31*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*10/01/19 21:31*	*1*
Toluene-d8 (Surr)	*100*		*80 - 128*		*10/01/19 21:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.00		ug/L			10/01/19 21:31	1
Toluene	ND		2.00		ug/L			10/01/19 21:31	1
Ethylbenzene	ND		2.00		ug/L			10/01/19 21:31	1
Xylenes, Total	ND		2.00		ug/L			10/01/19 21:31	1
Methyl-t-Butyl Ether (MTBE)	ND		1.00		ug/L			10/01/19 21:31	1
Tert-amyl-methyl ether (TAME)	ND		5.00		ug/L			10/01/19 21:31	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			10/01/19 21:31	1
Isopropyl Ether (DIPE)	ND		5.00		ug/L			10/01/19 21:31	1
Ethyl-t-butyl ether (ETBE)	ND		5.00		ug/L			10/01/19 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 128*		*10/01/19 21:31*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*10/01/19 21:31*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*10/01/19 21:31*	*1*

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163)

Job ID: 440-251189-1

Client Sample ID: B3-W
Date Collected: 09/26/19 11:40
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251189-3
Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	148000		12500		ug/L			10/01/19 21:58	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*10/01/19 21:58*	*250*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*10/01/19 21:58*	*250*
Toluene-d8 (Surr)	*102*		*80 - 128*		*10/01/19 21:58*	*250*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1660		500		ug/L			10/01/19 21:58	250
Toluene	ND		500		ug/L			10/01/19 21:58	250
Ethylbenzene	5250		500		ug/L			10/01/19 21:58	250
Xylenes, Total	19500		500		ug/L			10/01/19 21:58	250
Methyl-t-Butyl Ether (MTBE)	ND		250		ug/L			10/01/19 21:58	250
Tert-amyl-methyl ether (TAME)	ND		1250		ug/L			10/01/19 21:58	250
tert-Butyl alcohol (TBA)	ND		2500		ug/L			10/01/19 21:58	250
Isopropyl Ether (DIPE)	ND		1250		ug/L			10/01/19 21:58	250
Ethyl-t-butyl ether (ETBE)	ND		1250		ug/L			10/01/19 21:58	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 128*		*10/01/19 21:58*	*250*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*10/01/19 21:58*	*250*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*10/01/19 21:58*	*250*

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163)

Job ID: 440-251189-1

Client Sample ID: B4-W
Date Collected: 09/26/19 12:00
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251189-4
Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	**73.0**		50.0		ug/L			10/01/19 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*10/01/19 22:24*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*10/01/19 22:24*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*10/01/19 22:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.00		ug/L			10/01/19 22:24	1
Toluene	ND		2.00		ug/L			10/01/19 22:24	1
Ethylbenzene	**3.38**		2.00		ug/L			10/01/19 22:24	1
Xylenes, Total	**12.8**		2.00		ug/L			10/01/19 22:24	1
Methyl-t-Butyl Ether (MTBE)	ND		1.00		ug/L			10/01/19 22:24	1
Tert-amyl-methyl ether (TAME)	ND		5.00		ug/L			10/01/19 22:24	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			10/01/19 22:24	1
Isopropyl Ether (DIPE)	ND		5.00		ug/L			10/01/19 22:24	1
Ethyl-t-butyl ether (ETBE)	ND		5.00		ug/L			10/01/19 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 128*		*10/01/19 22:24*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*10/01/19 22:24*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*10/01/19 22:24*	*1*

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163)

Job ID: 440-251189-1

Client Sample ID: B5-W
Date Collected: 09/26/19 13:05
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251189-5
Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		50.0		ug/L			10/01/19 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*10/01/19 22:51*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*10/01/19 22:51*	*1*
Toluene-d8 (Surr)	*101*		*80 - 128*		*10/01/19 22:51*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.00		ug/L			10/01/19 22:51	1
Toluene	ND		2.00		ug/L			10/01/19 22:51	1
Ethylbenzene	ND		2.00		ug/L			10/01/19 22:51	1
Xylenes, Total	**3.57**		2.00		ug/L			10/01/19 22:51	1
Methyl-t-Butyl Ether (MTBE)	ND		1.00		ug/L			10/01/19 22:51	1
Tert-amyl-methyl ether (TAME)	ND		5.00		ug/L			10/01/19 22:51	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			10/01/19 22:51	1
Isopropyl Ether (DIPE)	ND		5.00		ug/L			10/01/19 22:51	1
Ethyl-t-butyl ether (ETBE)	ND		5.00		ug/L			10/01/19 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*80 - 128*		*10/01/19 22:51*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*10/01/19 22:51*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*10/01/19 22:51*	*1*

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

Lab Sample ID: MB 440-571954/5
Matrix: Water
Analysis Batch: 571954

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		2.00		ug/L			10/01/19 19:19	1
Toluene	ND		2.00		ug/L			10/01/19 19:19	1
Ethylbenzene	ND		2.00		ug/L			10/01/19 19:19	1
Xylenes, Total	ND		2.00		ug/L			10/01/19 19:19	1
Methyl-t-Butyl Ether (MTBE)	ND		1.00		ug/L			10/01/19 19:19	1
Tert-amyl-methyl ether (TAME)	ND		5.00		ug/L			10/01/19 19:19	1
tert-Butyl alcohol (TBA)	ND		10.0		ug/L			10/01/19 19:19	1
Isopropyl Ether (DIPE)	ND		5.00		ug/L			10/01/19 19:19	1
Ethyl-t-butyl ether (ETBE)	ND		5.00		ug/L			10/01/19 19:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*100*		*80 - 128*		*10/01/19 19:19*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*10/01/19 19:19*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*10/01/19 19:19*	*1*

Lab Sample ID: LCS 440-571954/1002
Matrix: Water
Analysis Batch: 571954

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	25.78		ug/L		103	68 - 130
Toluene	25.0	25.86		ug/L		103	70 - 130
Ethylbenzene	25.0	25.35		ug/L		101	70 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	25.46		ug/L		102	63 - 131
Tert-amyl-methyl ether (TAME)	25.0	25.65		ug/L		103	57 - 139
tert-Butyl alcohol (TBA)	250	257.3		ug/L		103	70 - 130
Isopropyl Ether (DIPE)	25.0	25.45		ug/L		102	58 - 139
Ethyl-t-butyl ether (ETBE)	25.0	24.45		ug/L		98	60 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*80 - 128*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-571955/5
Matrix: Water
Analysis Batch: 571955

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		50.0		ug/L			10/01/19 19:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*10/01/19 19:19*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*10/01/19 19:19*	*1*
Toluene-d8 (Surr)	*100*		*80 - 128*		*10/01/19 19:19*	*1*

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

Lab Sample ID: LCS 440-571955/1003
Matrix: Water
Analysis Batch: 571955

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			500	528.2		ug/L		106	55 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*76 - 132*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 128*

Lab Sample ID: LCSD 440-571955/4
Matrix: Water
Analysis Batch: 571955

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			500	518.3		ug/L		104	55 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*76 - 132*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 128*

QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163)

Job ID: 440-251189-1

GC/MS VOA

Analysis Batch: 571954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-251189-1	B1-W	Total/NA	Water	8260B	
440-251189-2	B2-W	Total/NA	Water	8260B	
440-251189-3	B3-W	Total/NA	Water	8260B	
440-251189-4	B4-W	Total/NA	Water	8260B	
440-251189-5	B5-W	Total/NA	Water	8260B	
MB 440-571954/5	Method Blank	Total/NA	Water	8260B	
LCS 440-571954/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 571955

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-251189-1	B1-W	Total/NA	Water	8260B/CA_LUFT MS	
440-251189-2	B2-W	Total/NA	Water	8260B/CA_LUFT MS	
440-251189-3	B3-W	Total/NA	Water	8260B/CA_LUFT MS	
440-251189-4	B4-W	Total/NA	Water	8260B/CA_LUFT MS	
440-251189-5	B5-W	Total/NA	Water	8260B/CA_LUFT MS	
MB 440-571955/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	
LCS 440-571955/1003	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 440-571955/4	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163)

Job ID: 440-251189-1

Client Sample ID: B1-W
Date Collected: 09/26/19 09:50
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251189-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	571954	10/01/19 21:05	JB	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	571955	10/01/19 21:05	JB	TAL IRV

Client Sample ID: B2-W
Date Collected: 09/26/19 10:55
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251189-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	571954	10/01/19 21:31	JB	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	571955	10/01/19 21:31	JB	TAL IRV

Client Sample ID: B3-W
Date Collected: 09/26/19 11:40
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251189-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		250	10 mL	10 mL	571954	10/01/19 21:58	JB	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		250	10 mL	10 mL	571955	10/01/19 21:58	JB	TAL IRV

Client Sample ID: B4-W
Date Collected: 09/26/19 12:00
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251189-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	571954	10/01/19 22:24	JB	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	571955	10/01/19 22:24	JB	TAL IRV

Client Sample ID: B5-W
Date Collected: 09/26/19 13:05
Date Received: 09/27/19 17:55

Lab Sample ID: 440-251189-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	571954	10/01/19 22:51	JB	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	571955	10/01/19 22:51	JB	TAL IRV

Laboratory References:
TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method Summary

Client: Stantec Consulting Corp.
Project/Site: 7-Eleven No. 38384 (1042163)

Job ID: 440-251189-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTMS	Volatile Organic Compounds by GC/MS	SW846	TAL IRV
5030B	Purge and Trap	SW846	TAL IRV

Protocol References:

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

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Accreditation/Certification Summary

Client: Stantec Consulting Corp.
Job ID: 440-251189-1
Project/Site: 7-Eleven No. 38384 (1042163)

Laboratory: Eurofins TestAmerica, Irvine

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

Authority	Program	Identification Number	Expiration Date
Alaska	State	CA01531	06-30-20
Arizona	State	AZ0671	10-14-19
California	LA Cty Sanitation Districts	10256	06-30-20
California	Los Angeles County Sanitation Districts	10256	06-30-20
California	State	2706	06-30-20
Guam	State	19-005R	01-23-20
Hawaii	State	CA01531	01-29-20
Hawaii	State Program	N/A	01-29-20
Kansas	NELAP	E-10420	07-31-20
Nevada	State	CA015312020-2	07-31-20
New Mexico	State	CA01531	01-29-20
New Mexico	State Program	N/A	01-29-20
Oregon	NELAP	4028 - 006	01-29-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00214	07-09-21
Washington	State Program	C900	09-03-19 *

Laboratory: Eurofins TestAmerica, Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State Program	2938	06-30-20

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

TestAmerica Nashville
2960 Foster Creighton Drive
Nashville, TN 37204
Phone (615) 726-0177 Fax (615) 726-3404

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM	Carrier Tracking No(s)	COC No
Client Contact: Pat McConnell	Phone: 562-537-7368	E-Mail: Jimmy.Huckaba@testamericainc.com		Page: 1 of 1
Company: Stantec Consulting Services Inc	Garrett Pankratz	Jimmy Huckaba		Job #: 440-251189

Address: 9665 Granite Ridge Drive, Suite 220	Due Date Requested:	
City: San Diego	TAT Requested (days): Standard	
State, Zip: CA, 92123		
Phone: 858-633-4222	PO #: NON ENFOS, Invoice Stantec AP/cc P McConnell	
Email: Pat.McConnell@stantec.com	WO #	
Project Name: 7-Eleven Store No. 38384 (1042163)	Project #: 185850892.800	
Site: 821 North Euclid Street, Santa Ana, CA	SSOW#	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	GRO/BTEX/MTBE/Oxys (8260)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				I		
B1-W	9/26/19	9:50	G	S	N		X	1	Analyze all Groundwater Samples
B2-W		10:55	G	S	N		X	1	
B3-W		11:40	G	S	N		X	1	
B4-W		12:00	G	S	N		X	1	
B5-W	↓	13:05	G	S	N		X	1	
			G	S	N			1	
			G	S	N			1	
			G	S	N			1	
			G	S	N			1	
			G	S	N			1	
			G	S	N			1	
			G	S	N			1	

440-251189 Chain of Custody

9/27/19 AR

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ■ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: NO EDF REQUIRED

Empty Kit Relinquished by:	Date	Time:	Method of Shipment

	Date/Time	Company		Date/Time	Company
Relinquished by: Garrett Pankratz	9/26/19 16:00	TA-IRV	Received by:	9/27/19 1111	TA-IRV
Relinquished by:	9/27/19 1755	TA-IRV	Received by:		
Relinquished by:	Date/Time	Company	Received by:	9/27/19 1755	TA-IRV

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.6/2.8 IR89

Login Sample Receipt Checklist

Client: Stantec Consulting Corp. Job Number: 440-251189-1

Login Number: 251189 **List Source: Eurofins TestAmerica, Irvine**
List Number: 1
Creator: Skinner, Alma D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	