Limited Phase II Environmental Site Assessment

Proposed Starbucks Site – Building 3
1875 West 190th Street
Torrance, California

Prepared For:

Calbay Development LLC
Manhattan Beach, California

October 28, 2019
Project No. 2E-1908009

GILES
ENGINEERING ASSOCIATES, INC.

GILES
ENGINEERING ASSOCIATES, INC.
GEOTECHNICAL, ENVIRONMENTAL & CONSTRUCTION MATERIALS CONSULTANTS

• Atlanta, GA
• Dallas, TX
• Los Angeles, CA
• Manassas, VA
• Milwaukee, WI

October 28, 2019

Calbay Development LLC
3770 Highland Ave. Suite 208
Manhattan Beach, CA 90266

Attention: Mr. Ryan Shea
Managing Partner

Subject: Limited Phase II Environmental Site Assessment
Proposed Starbucks Site - Building 3
1875 West 190th Street
Torrance, California
Giles Project No. 2E-1908009

Dear Mr. Shea:

In accordance with your request and authorization, Giles Engineering Associates, Inc. (Giles) completed a Limited Phase II Environmental Site Assessment for the above-referenced property. Descriptions of the completed work, findings, conclusions, and recommendations are detailed in the accompanying report.

We appreciate and thank you for the opportunity to be of service on this project. If there are any questions or concerns, or you require additional information regarding the information contained herein, please contact the undersigned.

Sincerely,

GILES ENGINEERING ASSOCIATES, INC.

Jonathan C. Lewis
Senior Project Manager

Michael F. Pisarik
Regional Director

Distribution: Calbay Development LLC.
Attn: Mr. Ryan Shea (email: Ryan@CalbayCorp.com)

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TORRANCE, CALIFORNIA
GILES PROJECT NO. 2E-1908009

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LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

PROPOSED STARBUCKS SITE- BUILDING 3
1875 WEST 190TH STREET BOULEVARD
TORRANCE, CALIFORNIA
GILES PROJECT NO. 2E-1908009

EXECUTIVE SUMMARY

Calbay Development LLC (Calbay) retained Giles Engineering Associates, Inc. (Giles) to provide pre-acquisition/redevelopment due diligence environmental consulting services for a property located at 1875 West 190th Street, Torrance, Los Angeles County, California (the "Site"). Starbucks is considering redeveloping the Site into a new restaurant. A closed leaking underground storage tank (LUST) site is located on the Site.

The Site is located in the city of Torrance in a commercial area along West 190th Street. The Site currently is vacant.

RPS Group, Inc. completed a Phase I Environmental Site Assessment (Phase I ESA) during 2018 (RPS Group, Inc., 2018) that included the Site. The Site formerly was used as a gasoline and automotive service station (Unocal #6075) between the late 1960s and late 1980s. Petroleum underground storage tanks (USTs) associated with the station were removed between 1986 and 1996. Released petroleum fuel was identified, investigated, soil and groundwater were remediated and groundwater monitoring was completed between 1987 and 2013. The Los Angeles Water Quality Control Board (LA RWQCB) closed the leaking UST case on October 31, 2013 with residual impacted soil and groundwater at the Site (LA RWQCB, 2013). The Phase I ESA identified the LUST site as an historic recognized environmental condition but did not address potential vapor intrusion associated with the Site. The Site has been vacant since the Unocal station was removed during 1996.

Potential vapor intrusion from residual impacted soil and groundwater at the Site was not measured and represents a recognized environmental condition (REC).

Giles recommended and completed a Limited Phase II Environmental Site Assessment (Phase II ESA) to assess the presence of impacted soil and soil gas at the Site from the residual impacted soil and groundwater at the Site. The Phase II ESA was authorized by Mr. Ryan Shea of Calbay.

Giles performed the field activities for the Phase II ESA on September 9, 2019. Eight soil borings were completed to evaluate subsurface conditions. Soil samples were collected from borings B-1 through B4 and VP-1 through VP-4 were described, field screened using a photoionization detector (PID), and laboratory analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH) as gasoline, diesel, and oil range organics (GRO, DRO, and ORO, respectively), and total lead. The soil sampling containing the highest detected TPH concentration was also analyzed for semi-volatile organic compounds (SVOCs). Borings VP-1 through VP-4 were completed as temporary soil gas monitor points. Soil gas samples were collected from VP-1 through VP-4 and laboratory analyzed for VOCs.

Soil sample laboratory results were compared to their respective current California Environmental Protection Agency Department of Toxic Substance Control (DTSC) soil

screening levels (SLs) and San Francisco Bay Regional Water Quality Control Board (SFB-RWQCB) for residential and commercial land use sites and Los Angeles Regional Water Quality Control Board (LA-RWQCB) groundwater protection SLs. DTSC does not have groundwater protection soil SLs. Soil gas sample laboratory results were compared to their respective current attenuated DTSC ambient air SL for residential and commercial land use sites. The SLs generally are used to evaluate the need for further investigation or evaluation and are not intended as cleanup levels.

The following conclusions and recommendations are provided based upon findings of this Phase II ESA.

- The Site is vacant and grass-covered. The ground surface at the Site is generally flat and dips downward to the south with about one--foot of topographic relief across the Site.

- Up to 2 feet of sandy gravel (fill) over layered native clay, silty clay, and sand was encountered in the borings to at least 20 feet bgs, the maximum depth explored. Groundwater was not encountered in any of the boring. Groundwater likely is approximately 70 feet bgs and flows south to southeast across the Site.

- No elevated (greater than 5 instrument units as isobutylene) or unusual soil staining or odors were observed in samples from any of the borings. .

- Estimated concentrations of TPH as ORO were detected in all soil samples except sample VP-2, 0-3 feet and VP-4, 0-3 feet. These two samples contained the highest detected ORO concentrations (210 and 120 mg/kg respectively). TPH as DRO also was detected in these two samples (25 and 17 mg/kg, respectively). TPH as GRO was not detected in any of the samples. TPH as DRO and ORO were not detected above their respective DTSC or SFB-RWQCB SL level for residential or commercial land uses, or LA-RWQCB SL for groundwater protection. No further environmental investigation with respect to TPH as GRO, DRO, or ORO in soil at the Site is warranted.

- Low concentrations of two VOCs (acetone and tert-butyl alcohol) were detected in the soil samples. No VOCs were detected above their respective DTSC SL for residential and commercial land use or USEPA SSL. No SVOCs were detected in the sample containing the highest TPH results (sample VP-2, 0-3 feet). No further environmental investigation with respect to VOCs or SVOCs in soil at the Site is warranted.

- Total lead was detected in each soil sample below its DTSC SL for residential and commercial land uses. Total lead was detected above its SFB-RWQCB groundwater protection in two samples. The detected lead concentrations are within the range of background concentrations documented by the University of California and United States Geological Survey. Giles believes the detected total lead concentrations represent naturally-occurring background concentrations. No further environmental investigation with respect to total lead in soil at the Site is warranted

- VOCs were detected in soil gas at the Site. 1,3-Butadiene and benzene were detected above their respective DTSC attenuated ambient air SL for commercial land use sites.

1,3-Butadiene, benzene, acrylonitrile, and vinyl chloride were detected above their respective DTSC attenuated ambient air SL for residential land use sites. No other VOC was detected above its SL for residential or commercial land uses.

The risk of soil gas migration into structures at the Site is considered low to moderate. Residual impacted soil associated with the closed leaking UST case was left at the Site. It is Giles' opinion that it would be prudent to install a passive vapor mitigation system for the proposed building at the Site.

A business risk tolerance evaluation should be completed by Starbucks to further evaluate the need for vapor mitigation measures.

1. INTRODUCTION

Giles Engineering Associates, Inc. (Giles) performed a Limited Phase II Environmental Site Assessment (Phase II ESA) at 1875 West 190th Street, Torrance, Los Angeles County, California (the "Site"). Important information regarding this geoenvironmental report is included in Appendix A.

The purpose of the Phase II ESA was to evaluate subsurface materials and the presence of volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH) as gasoline, diesel, and oil range organics (GRO, DRO, and ORO, respectively), semi-volatile organic compounds (SVOCs), and total lead in soil; and VOCs in soil gas. The field activities were performed in general accordance with applicable state of California and American Society for Testing and Materials (ASTM) standards and guidance.

2. BACKGROUND INFORMATION

Starbucks is considering redeveloping the Site into a new restaurant. Calbay Development LLC (Calbay) retained Giles to provide pre-acquisition due diligence environmental consulting services for the Site.

RPS Group, Inc. completed a Phase I Environmental Site Assessment (Phase I ESA) during 2018 (RPS Group, Inc., 2018) that included the Site. The Site formerly was used as a gasoline and automotive service station (Unocal #6075) between the late 1960s and late 1980s. Petroleum underground storage tanks (USTs) associated with the station were removed between 1986 and 1996. Released petroleum fuel was identified, investigated, soil and groundwater were remediated and groundwater monitoring was completed between 1987 and 2013. The Los Angeles Water Quality Control Board (LA RWQCB) closed the leaking UST case on October 31, 2013 with residual impacted soil and groundwater at the Site (LA RWQCB, 2013). The Phase I ESA identified the LUST site as an historic recognized environmental condition but did not address potential vapor intrusion associated with the Site. The Site has been vacant since the Unocal station was removed during 1996.

Potential vapor intrusion from residual impacted soil and groundwater at the Site was not measured and represents a recognized environmental condition (REC).

Based on the historic use of and potential impacted soil gas at the Site, Giles recommended and completed a Phase II ESA in accordance to assess the presence of impacted from the residual impacted soil and groundwater at the Site. The Phase II ESA was authorized by Mr. Ryan Shea of Calbay and completed in general conformance with a Giles August 22, 2019 proposal (Giles, 2019).

3. SCOPE OF SERVICES

The scope of services completed for the Phase II ESA included the following tasks.

- Obtained a permit to install four soil borings from the Los Angeles County Department of Public Health (LADPH)

- Prepared and implemented a site-specific health and safety plan in accordance with 29 CFR 1910 for all field activities performed at the site.
- Marked boring location. Arranged for public utilities locator and retained private utility locator to clear boring locations.
- Completed four direct-push borings to 20 feet below ground surface (bgs) to obtain soil samples.
- Completed four hand-augered soil borings to six feet bgs to obtain soil and soil gas samples. Installed a temporary soil gas monitoring point in each boring between 5 and 6 feet to facilitate soil gas sample collection.
- Described and field screened soil encountered in the borings for organic vapors using a photoionization detector (PID).
- Collected and submitted one soil sample from each boring for laboratory analyses by a California-accredited laboratory. All samples were analyzed for VOCs, TPH as GRO, DRO, and ORO, and total lead. The sample with the highest TPH result also was analyzed for SVOCs.
- Collected one soil gas sample from each soil gas point and submitted the samples to a California-accredited laboratory for VOCs analysis.
- Properly backfilled hand-augured borings in accordance with LADPH requirements.
- Verified, reduced, and evaluated the data, and prepared this draft Phase II ESA report that summarized the tasks performed and field and laboratory results, and provided conclusions and recommendations.
- Project management and peer review.

4. SITE DESCRIPTION

4.1. Setting and Location

The Site is located in the city of Torrance in a commercial area along West 190th Street near the northeast corner of West 190th Street and Interstate 405 entrance ramp. The Site currently is vacant, fenced, and grass-covered. The ground surface at the Site is generally flat and dips downward to the south with about one foot of topographic relief across the Site. The Site location and local topography are shown on Figure 1.

4.2. Historic and Current Site Use

The Site was developed for agricultural uses (crops) between at least 1927 and the early 1950s. The Site was redeveloped and used for a Unocal gasoline and automotive service station between the late 1960s and 1996. Petroleum-impacted soil and groundwater was identified when underground storage tanks (USTs) and the building associated with the Unocal station were removed during 1996. Petroleum-impacted soil and groundwater associated with the UST systems were investigated and remediated, and the Los Angeles Regional Water Quality Control Board closed the leaking UST case during October 2013 with residual impacted soil and groundwater at the Site. Potential

vapor intrusion from the residual impacted soil and groundwater was not evaluated. The Site has been vacant since the Unocal station was removed.

5. INVESTIGATION PROCEDURES

Giles used several methods to investigate for the presence of impacts to soil and soil gas at the Site. The methods used to investigate soil and soil gas quality are described below.

5.1. Soil Sampling, Screening, and Analyses

Giles retained J&H Drilling Company, Inc. (J&H) to sample borings B-1 through B-4 using truck-mounted 2.5-inch diameter direct-push drilling and sampling methods. A 2-inch diameter 5-foot long acetate-lined sampler was advanced ahead of the borehole and used to collect samples from the direct-push borings. J&H obtained soil samples from borings VP-1 through VP-4 using a 2-inch diameter hand auger. Soil samples were collected from regular depth intervals from each boring to total borehole depth.

A Giles geologist maintained a log of the boreholes, field screened samples, and collected duplicate samples for laboratory analysis. No lubricants or solvents were used on any downhole boring or sampling equipment.

A portion of each 2-foot sampled interval was immediately transferred into a 1 quart resealable plastic bag stored on ice in a cooler where it was maintained chilled for possible laboratory analysis.

A duplicate portion of each 2-foot sampled interval was subjected to headspace analysis in the field for VOCs using a PID. The headspace analysis sample was sealed in a 1-quart plastic bag. Care was taken to maintain a relatively constant soil volume-to-headspace volume ratio for all samples. The sealed headspace sample was agitated to break up the soil before being left in a warm environment for at least 20 minutes to allow volatilization to occur. The PID probe was inserted into the bag and the highest stable response occurring in 10 to 20 seconds was recorded. A Rae Systems MiniRae Model 2000 organic vapor meter equipped with a 10.6 electron-volt lamp was used to field screen the samples. The PID calibration was checked before use using isobutylene (benzene equivalent) calibration gas.

Each sampled interval was visually described in general conformance with ASTM D-2488 in the field. Logs were prepared presenting information on color, soil type, grain size distribution, odor, moisture content, and PID response. All boreholes were backfilled in accordance with LADPH and California requirements using hydrated granular bentonite after sampling was completed. A minimal quantity of soil cuttings were generated from the boreholes and the cutting were left on the ground surface.

One apparently "most-impacted" soil sample from each boring, based on PID response, appearance, and odor was selected for laboratory analysis to evaluate potential chemical concentration. If no apparently impacted samples were encountered, various intervals from the borings were laboratory analyzed. Samples selected for laboratory analyses were transferred from the initially-collected sample portion into labeled laboratory prepared and preserved containers. Soil samples were packed with ice in a

cooler and shipped via FedEx under chain-of-custody protocol to document sample number, date/time collected, requested analyses, and handling to Eurofins/Test America Laboratories, Inc. (Test America) for analyses. The samples were analyzed for VOCs using SW846 Method 8260; TPH as GRO, DRO, and ORO using SW846 Method 8015, and total lead using SW846 Method 6010. One sample was analyzed for SVOCs using SW846 Method 8270.

5.2. Soil Gas Point Construction, Sampling, and Analysis

J&H installed a temporary soil gas point in each of borings VP-1 through VP-4. The soil gas points were constructed using a 1-inch long filter joined to the down-hole end of an 8-foot length of ¼-inch diameter Teflon® tubing. The down-hole end of the tubing was placed at approximately 5.5 feet below ground surface (bgs). Filter sand was used to fill the boring to 5 fbg and hydrated granular bentonite was used to fill the remainder of the borings and formed the soil gas point seal.

Soil gas samples were collected from each temporary soil gas point. Each sample was collected by joining the soil gas point tubing to an evacuated 6-liter Summa canister. Each sample was collected in the Summa canister using a 200-milliliter per minute flow regulator for a period of at least 30 minutes. The samples were shipped via FedEx under chain-of-custody protocol to document sample number, date/time collected, requested analyses, and handling to Test America for analyses. The soil gas samples were laboratory analyzed for VOCs using EPA Method TO-15.

6. INVESTIGATION RESULTS AND DISCUSSION

The field activities were performed on September 9, 2019. The Phase II ESA results are presented and discussed below.

6.1. Subsurface Soil and Hydrogeologic Conditions

Borings B-1 through B-4 were advanced to 20 feet bgs. Borings VP-1 through VP-4 were advanced to 6 feet bgs. The soil borings provided information about subsurface materials at the Site.

Up to 2 feet of sandy gravel (fill) over layered native clay, silty clay, and sand was encountered in the borings to at least 20 feet bgs, the maximum depth explored. Soil descriptions are provided on borehole logs provided in Appendix B.

Groundwater was not encountered in any of the boring. Based upon previous investigations performed at the Site by others (AECOM, 2013), groundwater likely is approximately 70 feet bgs and flows south to southeast across the Site.

6.2. Soil Sample Field Screening and Laboratory Analytical Results

The soil sample field screening and laboratory results are provided and discussed below. The analytical results are summarized and compared to their respective current California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) soil screening levels (SLs) and San Francisco Bay Regional Water Quality Control Board (SFB-RWQCB) for residential and commercial land use sites

(DTSC, 2019), and groundwater protection SLs calculated in accordance with Los Angeles Regional Water Quality Control Board (LA-RWQCB) (LA-RWQCB, 1996) on Table 1. The DTSC does not have groundwater protection soil SLs. The screening levels generally are used to evaluate the need for further investigation or evaluation. The laboratory reports and chain-of-custody documentation are provided in Appendix C.

6.2.1. Field Screening

No elevated (greater than 5 instrument units as isobutylene) PID responses were detected any soil sample from any of the borings. No unusual soil staining or odors were observed in samples from any of the borings. PID field screening results are provided on the borehole logs in Appendix B.

6.2.2. TPH

Estimated concentrations of TPH as ORO were detected in all soil samples except sample VP-2, 0-3 feet and VP-4, 0-3 feet. Samples VP-2, 0-3 feet and VP-4, 0-3 feet contained the highest detected ORO concentrations (210 and 120 milligram per kilogram [mg/kg], respectively). ORO also was detected in the laboratory method blank. TPH as DRO also was detected in samples VP-2, 0-3 feet and VP-4, 0-3 feet (25 and 17 mg/kg, respectively). TPH as GRO was not detected in any of the samples. TPH as DRO and ORO were not detected above their respective DTSC or SFB-RWQCB SL level for residential or commercial land uses, or LA-RWQCB SL for groundwater protection.

6.2.3. VOCs and SVOCs

Low concentrations of acetone and tert-butyl alcohol (VOCs) were detected in the soil samples. No VOCs were detected above their respective DTSC or SFB-RWQCB SL level for residential or commercial land uses, or LA-RWQCB SL for groundwater protection in any of the samples. No SVOCs were detected in the sample containing the highest TPH results (sample VP-2, 0-3 feet).

6.2.4. Total Lead

Total lead was detected in each soil sample below its DTSC SL for residential and commercial land uses. Total lead was detected above its SFB-RWQCB groundwater protection SL in two samples (VP-2, 0-3 feet and VP-4, 0-3 feet). The detected lead concentrations are within the range of background concentrations documented by the University of California (UC) (UC, 2006) and United States Geological Survey (USGS) (USGS, 2008).

6.3. Soil Gas

The soil gas sample laboratory results are discussed below and the analytical results are summarized and compared to their respective current Cal/EPA DTSC attenuated ambient air SL for residential and commercial land use sites (DTSC, 2019) on Table 2. Because the soil gas samples were collected from between 5 and 6 fbg, Giles evaluated the potential for the identified compounds to affect indoor air quality if the soil gas traveled through the soil and into the CFA building. A DTSC attenuated air SL was calculated by dividing the DTSC ambient SL by 0.03. The attenuated value accounts for

analyte concentration attenuation as it travels through the soil and building floor and into a building. The laboratory report and chain-of-custody documentation are provided in Appendix D.

VOCs were detected in soil gas at the Site. 1,3-Butadiene and benzene were detected above their respective DTSC attenuated ambient air SL for commercial land use sites 1,3-Butadiene, benzene, acrylonitrile, and vinyl chloride were detected above their respective DTSC attenuated ambient air SL for residential land use sites. No other VOC was detected above its SL for residential or commercial land uses.

7. CONCLUSIONS AND RECOMMENDATIONS

Giles completed a Phase II ESA to assess the presence of VOCs, TPH, SVOCs, and total lead in soil and VOCs in soil gas at the Site. Eight soil borings (B-1 through B4 and VP-1 through VP-4) were sampled to assess subsurface soils and evaluate soil quality. Borings VP-1 through VP-4 were completed as temporary soil gas monitoring points and sampled to evaluate soil gas quality.

Soil samples were described, field screened using a PID, and one sample from each boring was laboratory analyzed for VOCs, TPH as GRO, DRO, and ORO, and total lead. The sample with the highest TPH results was also analyzed for SVOCs. Soil gas samples were laboratory analyzed for VOCs.

The following conclusions and recommendations are provided based upon findings of this Phase II ESA.

- The Site is vacant and grass-covered. The ground surface at the Site is generally flat and dips downward to the south with about one-foot of topographic relief across the Site.
- Up to 2 feet of sandy gravel (fill) over layered native clay, silty clay, and sand was encountered in the borings to at least 20 feet bgs, the maximum depth explored. Groundwater was not encountered in any of the boring. Groundwater likely is approximately 70 feet bgs and flows south to southeast across the Site.
- No elevated (greater than 5 instrument units as isobutylene) or unusual soil staining or odors were observed in samples from any of the borings. .
- Estimated concentrations of TPH as ORO were detected in all soil samples except sample VP-2, 0-3 feet and VP-4, 0-3 feet. These two samples contained the highest detected ORO concentrations (210 and 120 mg/kg respectively). TPH as DRO also was detected in these two samples (25 and 17 mg/kg, respectively). TPH as GRO was not detected in any of the samples. TPH as DRO and ORO were not detected above their respective DTSC or SFB-RWQCB SL level for residential or commercial land uses, or LA-RWQCB SL for groundwater protection. No further environmental investigation with respect to TPH as GRO, DRO, or ORO in soil at the Site is warranted.
- Low concentrations of two VOCs (acetone and tert-butyl alcohol) were detected in the soil samples. No VOCs were detected above their respective DTSC SL for residential and commercial land use or USEPA SSL. No SVOCs were detected in

any of the samples. No SVOCs were detected in the sample containing the highest TPH results (sample VP-2, 0-3 feet). No further environmental investigation with respect to VOCs or SVOCs in soil at the Site is warranted.

- Total lead was detected in each soil sample below its DTSC SL for residential and commercial land uses. Total lead was detected above its SFB-RWQCB groundwater protection in two samples. The detected lead concentrations are within the range of background concentrations documented by the UC and USGS. Giles believes the detected total lead concentrations represent naturally-occurring background concentrations. No further environmental investigation with respect to total lead in soil at the Site is warranted

- VOCs were detected in soil gas at the Site. 1,3-Butadiene and benzene were detected above their respective DTSC attenuated ambient air SL for commercial land use sites 1,3-Butadiene, benzene, acrylonitrile, and vinyl chloride were detected above their respective DTSC attenuated ambient air SL for residential land use sites. No other VOC was detected above its SL for residential or commercial land uses.

  The risk of soil gas migration into structures at the Site is considered low to moderate. Residual impacted soil associated with the closed leaking UST case was left at the Site. It is Giles' opinion that it would be prudent to install a passive vapor mitigation system for the proposed building at the Site.

  A business risk tolerance evaluation should be completed by Starbucks to further evaluate the need for vapor mitigation measures.

8. REFERENCES

AECOM, "California Low-Threat Closure Request, Chevron Facility No. 306640, (Former Unocal Service Station No. 6075), 1875 West 190th Street, Torrance, California, LARWQCB Case No. 905040170A", February, 2013.

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RPS Group, Inc., Phase I Environmental Site Assessment, 1875 West 190th Street, Torrance, California," December 12, 2018.

San Francisco Bay Regional Water Quality Control Board (SFB-RWQCB), "Environmental Screening Levels," obtained from RWQCB website: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.html, updated January 2019.

United States Geological Survey (USGS), National Geochemical Survey, Open-File Report 2004-1001, Version 5.0, September 2008, Los Angeles County, California.

University of California (UC), Kerney Foundation Special Report, "Background Concentrations of Trace and Major Elements in California Soils," March 1996.

9. GENERAL COMMENTS

This report is an instrument of service prepared for the exclusive use of Calbay, 2207 Lincoln Bell, LLC, Rand 2207 Lincoln Bell, LLC, CB Newark Partners, LLC, MidFirst Bank (a federally chartered savings association), and Starbucks and may not be reproduced or distributed without written authorization from Giles and Calbay. The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, expressed or implied, is made. These services were performed consistent with Giles' agreement with Calbay. This report is solely for the use and information of Calbay, 2207 Lincoln Bell, LLC, Rand 2207 Lincoln Bell, LLC, CB Newark Partners, LLC, MidFirst Bank (a federally chartered savings association), and Starbucks or as otherwise noted. Any unauthorized use of this report is strictly prohibited and we assume no liability for any such use.

This report was prepared to aid in the evaluation of a site located at 1875 West 190th Street, Torrance, California with regard to the potential for hazardous substance and/or petroleum hydrocarbon presence at the time of this study. The boring logs and related information provided in the appendix depict subsurface conditions only at specific locations drilled and at the particular times designated on the logs. Soil and soil gas conditions at other locations may differ from conditions occurring at these boring locations. In addition, the passage of time may result in a change of soil and soil gas conditions at the boring locations.

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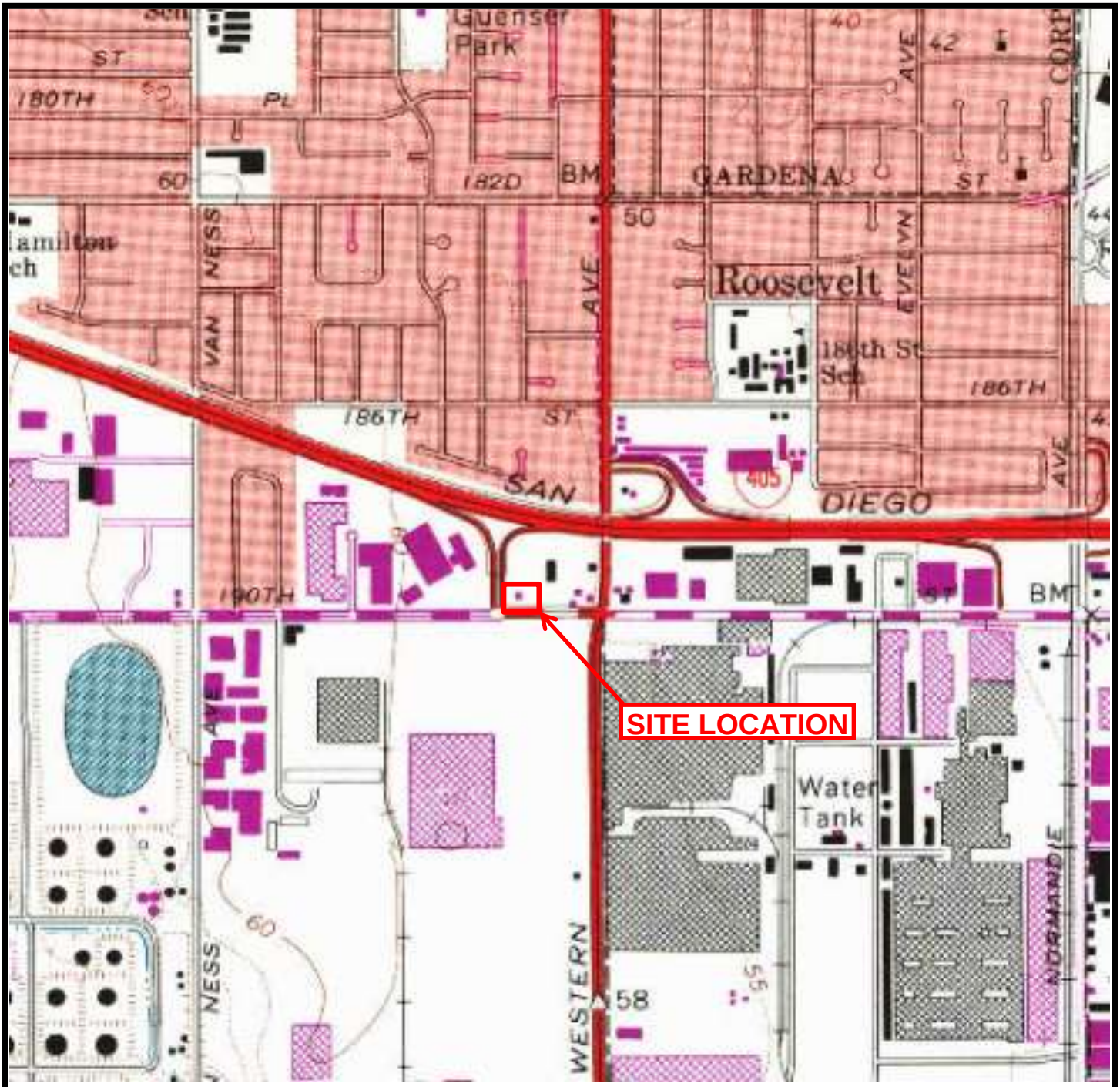
FIGURES



Source: USGS Torrance, California 7.5-Minute Series (topographic) Quadrangle Map 1964, photorevised 1982.

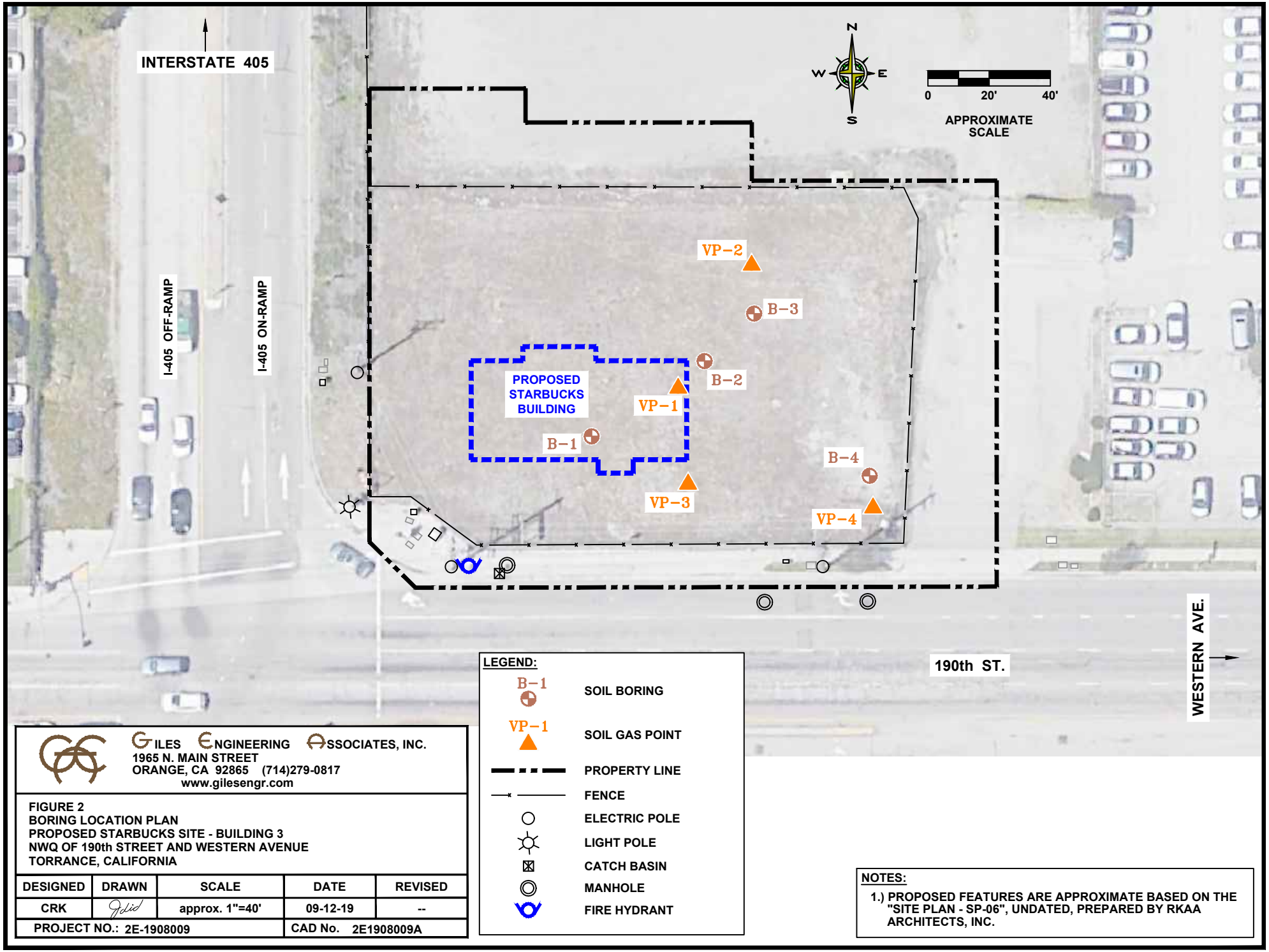
Approximate Scale: 1:24,000

Contour Interval: 20 Feet

N
W E
S

FIGURE 1
SITE LOCATION
Proposed Starbucks
1875 West 190th Street
Torrance, California
Project No. 2E-1908009

GILES
ENGINEERING ASSOCIATES, INC.



LEGEND:

- B-1 — SOIL BORING
- VP-1 — SOIL GAS POINT
- PROPERTY LINE
- FENCE
- ELECTRIC POLE
- LIGHT POLE
- CATCH BASIN
- MANHOLE
- FIRE HYDRANT

NOTES:

1.) PROPOSED FEATURES ARE APPROXIMATE BASED ON THE "SITE PLAN - SP-06", UNDATED, PREPARED BY RKAA ARCHITECTS, INC.

GILES ENGINEERING ASSOCIATES, INC.
1965 N. MAIN STREET
ORANGE, CA 92865 (714)279-0817
www.gilesengr.com

FIGURE 2
BORING LOCATION PLAN
PROPOSED STARBUCKS SITE - BUILDING 3
NWQ OF 190th STREET AND WESTERN AVENUE
TORRANCE, CALIFORNIA

DESIGNED	DRAWN	SCALE	DATE	REVISED
CRK	Jdid	approx. 1"=40'	09-12-19	--
PROJECT NO.: 2E-1908009			CAD No. 2E1908009A	

TABLES

TABLE 1
SOIL ANALYTICAL RESULTS SUMMARY

Proposed Starbucks - Building 3
1875 West 190th Street
Torrance, California
Giles Project No. 2E-1908009

Sample Location	B-1	B-2	B-3	B-4	VP-1	VP-2	VP-3	VP-4	Cal/EPA DTSC Soil Screening Level (mg/kg)		SFB-RWQCB Environmental Screening Level (mg/kg)		Los Angeles Regional Water Quality Control Board Groundwater Protection Screening Level (mg/kg)	Reported Background Concentration (mg/kg)
Sample Date	9/9/19	9/9/19	9/9/19	9/9/19	9/9/19	9/9/19	9/9/19	9/9/19						
Sample Depth (feet below grade)	15-20	15-20	15-20	5-10	3-6	0-3	3-6	0-3	Land Use					
PID Response (instrument units)	<5	<5	<5	<5	<5	<5	<5	<5	Residential	Commercial	Residential	Commercial		
Detected Volatile Organic Compound (mg/kg)														
Acetone	**0.27**	**0.18**	**0.31**	<0.0060	<0.0069	<0.0096	<0.0052	<0.0082	**61,000**	**670,000**	**NA**	**NA**	**279,125**	
tert-Butyl alcohol (TBA, n-Butanol)	**0.026 J ID**	**0.030 J ID**	**0.038 J**	<0.0079	**0.0091 J**	**0.020 J**	**0.0072 J**	**0.020 J**	**7800**	**120,000**	**NA**	**NA**	**39,875**	
Detected Total Petroleum Hydrocarbon (mg/kg)														**Not Applicable**
Gasoline Range Organics	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	**NS**	**NS**	**430**	**1800**	**500**	
Diesel Range Organics	<2.4	<2.5	<2.5	<4.8	<4.9	**25**	<2.5	**17**	**NS**	**NS**	**260**	**1100**	**1000**	
Oil Range Organics	**3.6 J B**	**3.6 J B**	**3.9 J B**	**6.5 J B**	**7.8 J B**	**210 B**	**4.7 J B**	**120 B**	**NS**	**NS**	**12,000**	**54,000**	**10,000**	
No Semi-Volatile Organic Compound Detected (mg/kg)														
Detected Metal (mg/kg)														
Total Lead	**7.8**	**6.9**	**5.7**	**6.2**	**5.6**	**22**	**6.9**	**17**	**400**	**800**	**16^**		**NA**	**12.4-97.1* & 2.205-634.625****

NOTES:
CalEPA DTSC: Califonial Environmental Protection Agency Department of Toxic Substances Control
SFB-RWQCB: San Francisco Bay Regional Water Quality Control Board
mg/kg: milligram per kilogram
PID: photoionization detector
NA: not applicable
ND: no data provided in the referenced sources
NS: no established screening level
ID: Analyte identified by RT & presence of single mass ion screening level
J: Estimated value. Analyte detected between the laboratory method reporting and detection limits
B: Compound was found in the laboratory blank and sample
<X: Analyte not detected above its laboratory method detection limit of X.
XXX: Analyte detected above its SFB-RWQCB screening level for groundwater protection
^ Source: Southern California Regional Background Arsenic Concentration in Soil," California DTSC, March 2008.
^: Value represents SFB-RWQCB screening level for groundwater protection
***** Source: Kerney Foundation Special Report, "Background Concentrations of Trace and Major Elements in California Soils," Kerney Foundation of Soil Science, Division of Agriculture and Natural Resources, University of California, March 1996.
****** Source: National Geochemical Survey, United States Geological Survey, Open-File Report 2004-1001, Version 5.0, September 2008, Los Angeles County, CA (https://mrdata.usgs.gov/geochem/doc/averages/countydata.htm)
Cal/EPA DTSC soil screening levels obtained from "Human Health Risk Assessment Note 3, DTSC-modified Screening Levels," Cal/EPA DTSC Human and Ecological Risk Office, April 2019, https://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm. The lower of the analyte's carcinogenic or non-carcinogenic health effect value listed.
Los Angeles Regional Water Quality Control Board (LA-RWQCB) groundwater protection value determined in general accordance with "LA-RWQCB Interim Site Assessment & Cleanup Guidebook," May 1996.
SFB-RWQCB environmental screening level obtained from SFB-RWQCB website: https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.html, updated January 2019. The lower of the maximum contaminant level-based value or risk-based value listed.

TABLE 2
SOIL GAS ANALYTICAL RESULTS SUMMARY

Proposed Starbucks - Building 3
1875 West 190th Street
Torrance, California
Giles Project No. 2E-1908009

Sample Location	VP-1	VP-2	VP-3	VP-4	Attenuated Cal/EPA DTSC Ambient Air Screening Level (µg/m^3)	
Sample Depth (feet below grade)	5	5	5	5	Land Use	
Sample Date	9/9/19	9/9/19	9/9/19	9/9/19	Residential	Commercial
Detected Volatile Organic Compound (µg/m3)						
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon TF)	**0.90 J**	**0.72 J**	<0.95	**0.63 J**	173,333.33	733,333.33
1,2,4-Trimethylbenzene	**4.5**	**3.6**	**4.4**	**3.3**	2,100.00	8,666.67
1,3,5-Trimethylbenzene	**1.3**	**1.1**	**1.3 J**	**0.94 J**	2,100.00	8,666.67
1,3-Butadiene	**25**	**11**	<0.57	**(1.9)**	0.57	2.40
1,3-Dichlorobenzene	**1.6**	**1.0 J**	<1.6	**0.66 J**	NS	NS
1,4-Dichlorobenzene	**0.51 J**	0.43 J	<1.5	**0.44 J**	8.67	36.67
2-Butanone (Methyl Ethyl Ketone)	**26**	**35**	**23**	**14**	173,333.33	733,333.33
2-Hexanone (Methyl Butyl Ketone)	**1.4 J**	**2.2**	**1.3 J**	**0.37 J**	1,033.33	4,333.33
4-Methyl-2-pentanone (MIBK)	**4.7**	**5.5**	**6.0 J**	**1.2 J**	103,333.33	433,333.33
Acetone	**140**	**150**	**110**	**130**	1,066,666.67	4,666,666.67
Acrylonitrile	**(3.3 J)**	<0.43	<1.7	<0.43	0.32	1.40
Benzene	**(15)**	**(8.1)**	**19**	**(3.4)**	3.23	14.00
Bromodichloromethane	**0.84 J**	**0.98 J**	<1.2	**0.87 J**	2.53	11.00
Bromoform	**1.5 J**	**1.5 J**	**2.5 J**	**1.3 J**	86.67	366.67
Butane	**130**	**79**	**160**	**19**	NS	NS
Carbon Disulfide	**13**	**5.4**	**3.3 J**	**1.2**	24,333.33	103,333.33
Carbon Tetrachloride	**0.82 J**	**0.63 J**	<0.96	**0.25 J**	15.67	66.67
Chlorodifluoromethane	**1.9**	**1.6**	**9.0**	**1.4**	1,733,333.33	7,333,333.33
Chloroethane (Ethyl Chloride)	**0.47 J**	<0.092	<0.37	<0.092	333,333.33	1,466,666.67
Chloroform	**1.5**	**1.3**	**1.2 J**	**4.3**	4.00	17.67
Chloromethane	**2.2**	**4.1**	**3.9 J**	**3.1**	3,133.33	13,000.00
Cyclohexane	**12**	**6.5**	**8.3**	**4.5**	210,000.00	866,666.67
Dibromochloromethane	**0.97 J**	**1.6 J**	**2.2 J**	**0.95 J**	NS	NS
Dichlorodifluoromethane	**1.6**	**1.4**	**2.6 J**	**1.3**	3,333.33	14,666.67
Ethylbenzene	**2.7**	**3.0**	**9.4**	**1.3**	36.67	163.33
Heptane	**17**	**8.0**	**5.1 J**	**1.2 J**	14,000.00	60,000.00
Hexane	**28**	**13**	**17**	**3.4**	24,333.33	103,333.33
Isopropylbenzene (cumene)	**0.55 J**	**0.69 J**	<1.2	<0.29	14,000.00	60,000.00
Methylene Chloride (dichloromethane)	**3.1 J B**	**6.8 B**	**11 J B**	**4.4 B**	33.33	400.00
m&p-Xylenes	**8.1**	**8.4**	**14**	**4.8**	3,333.33	14,666.67
Naphthalene	**0.56 J**	<0.47	<1.9	**0.57 J**	2.77	12.00
o-Xylene	**3.3**	**3.5**	**4.0**	**1.9**	3,333.33	14,666.67
Propylbenzene	**0.70 J**	**0.87 J**	**1.4 J**	**0.50 J**	33,333.33	146,666.67
Styrene	**1.1**	**1.2**	**<0.99**	**0.50 J**	31,333.33	130,000.00
Tetrachloroethene (PCE)	**0.47 J**	**0.51 J**	<1.1	**2.2**	15.33	66.67
Toluene	**17**	**16**	**21**	**7.7**	10,333.33	43,333.33
Trichlorofluoromethane	**1.9**	**1.6**	**1.8 J**	**1.3**	43,333.33	176,666.67
Vinyl chloride	**(1.0)**	**(0.39 J)**	<0.73	**0.28 J**	0.32	5.33

NOTES:

CalEPA DTSC: Californial Environmental Protection Agency Department of Toxic Substances Control

µg/m^3: microgram per cubic meter

--: not detected above laboratory method detection limit

NS: no CalEPA DTSC established standard

B: Analyte was found in the laboratory method blank and sample

J: Estimated value. Analyte detected between the laboratory method reporting and detection limits

<X: Analyte not detected above its laboratory method detection limit of X.

XXX: Analyte detected above its laboratory method detection limit

(XXX): Analyte detected above the lower of its carcinogenic or non-carcenogenic health effect attenuated Cal/EPA DTSC ambient air screening level for residential land use

XXX: Analyte detected above the lower of its carcinogenic or non-carcenogenic health effect attenuated Cal/EPA DTSC ambient air screening level for residential and commercial land use

Cal/EPA DTSC ambient air screening levels obtained from "Human Health Risk Assessment Note 3, DTSC-modified Screening Levels," Cal/EPA DTSC Human and Ecological Risk Office, April 2019, https://www.dtsc.ca.gov/assessingrisk/humanrisk2.cfm or USEPA website: https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables, updated April 2019.

Attenuated DTSC ambient air screening level calculated by dividing the anayte's DTSC ambient air screening level by the DTSC attenuation factor of 0.03

Each soil gas sample collected for approximately 30 minutes using a 200 milliliter per minute flow controller in an evacuated 6-liter Summa canister.

APPENDIX A

Important Information About Your Geoenvironmental Report

Important Information About Your Geoenvironmental Report

Geoenvironmental studies are commissioned to gain information about environmental conditions on and beneath the surface of a site. The more comprehensive the study, the more reliable the assessment is likely to be. But remember: Any such assessment is to a greater or lesser extent based on professional opinions about conditions that cannot be seen or tested. Accordingly, no matter how many data are developed, risks created by unanticipated conditions will always remain. *Have realistic expectations.* Work with your geoenvironmental consultant to manage known and unknown risks. Part of that process should already have been accomplished, through the risk allocation provisions you and your geoenvironmental professional discussed and included in your contract's general terms and conditions. This document is intended to explain some of the concepts that may be included in your agreement, and to pass along information and suggestions to help you manage your risk.

Beware of Change; Keep Your Geoenvironmental Professional Advised

The design of a geoenvironmental study considers a variety of factors that are subject to change. Changes can undermine the applicability of a report's findings, conclusions, and recommendations. *Advise your geoenvironmental professional about any changes you become aware of.* Geoenvironmental professionals cannot accept responsibility or liability for problems that occur because a report fails to consider conditions that did not exist when the study was designed. Ask your geoenvironmental professional about the types of changes you should be particularly alert to. Some of the most common include:

- modification of the proposed development or ownership group,
- sale or other property transfer,
- replacement of or additions to the financing entity,
- amendment of existing regulations or introduction of new ones, or
- changes in the use or condition of adjacent property.

Should you become aware of any change, *do not rely on a geoenvironmental report.* Advise your geoenvironmental professional immediately; follow the professional's advice.

Recognize the Impact of Time

A geoenvironmental professional's findings, recommendations, and conclusions cannot remain valid indefinitely. The more time that passes, the more likely it is that important latent changes will occur. *Do not rely on a geoenvironmental report if too much time has elapsed since it was completed.* Ask your environmental professional to define "too much time." In the case of Phase I Environmental Site Assessments (ESAs), for example, more than 180 days after submission is generally considered "too much."

Prepare To Deal with Unanticipated Conditions

The findings, recommendations, and conclusions of a Phase I ESA report typically are based on a review of historical information, interviews, a site "walkover," and other forms of noninvasive research. When site subsurface conditions are not sampled in any way, the risk of unanticipated conditions is higher than it would otherwise be.

While borings, installation of monitoring wells, and similar invasive test methods can help reduce the risk of unanticipated conditions, *do not overvalue the effectiveness of testing.* Testing provides information about actual conditions only at the precise locations where samples are taken, and only when they are taken. Your geoenvironmental professional has applied that specific information to develop a general opinion about environmental conditions. *Actual conditions in areas not sampled may differ (sometimes sharply) from those predicted in a report.* For example, a site may contain an unregistered underground storage tank that shows no surface trace of its existence. *Even conditions in areas that were tested can change,* sometimes suddenly, due to any number of events, not the least of which include occurrences at

adjacent sites. Recognize, too, that *even some conditions in tested areas may go undiscovered,* because the tests or analytical methods used were designed to detect only those conditions assumed to exist.

Manage your risks by retaining your geoenvironmental professional to work with you as the project proceeds. Establish a contingency fund or other means to enable your geoenvironmental professional to respond rapidly, in order to limit the impact of unforeseen conditions. And to help prevent any misunderstanding, identify those empowered to authorize changes and the administrative procedures that should be followed.

Do Not Permit Any Other Party To Rely on the Report

Geoenvironmental professionals design their studies and prepare their reports to meet the specific needs of the clients who retain them, in light of the risk management methods that the client and geoenvironmental professional agree to, and the statutory, regulatory, or other requirements that apply. The study designed for a developer may differ sharply from one designed for a lender, insurer, public agency...or even another developer. *Unless the report specifically states otherwise, it was developed for you and only you.* Do not unilaterally permit any other party to rely on it. The report and the study underlying it may not be adequate for another party's needs, and you could be held liable for shortcomings your geoenvironmental professional was powerless to prevent or anticipate. Inform your geoenvironmental professional when you know or expect that someone else—a third-party—will want to use or rely on the report. *Do not permit third-party use or reliance until you first confer with the geoenvironmental professional who prepared the report.* Additional testing, analysis, or study may be required and, in any event, appropriate terms and conditions should be agreed to so both you and your geoenvironmental professional are protected from third-party risks. *Any party who relies on a geoenvironmental report without the express written permission of the professional who prepared it and the client for whom it was prepared may be solely liable for any problems that arise.*

Avoid Misinterpretation of the Report

Design professionals and other parties may want to rely on the report in developing plans and specifications. They need to be advised, in writing, that their needs may not have been considered when the study's scope was developed, and, even if their needs were considered, they might misinterpret geoenvironmental findings, conclusions, and recommendations. *Commission your geoenvironmental professional to explain pertinent elements of the report to others who are permitted to rely on it, and to review any plans, specifications or other instruments of professional service that incorporate any of the report's findings, conclusions, or recommendations.* Your geoenvironmental professional has the best understanding of the issues involved, including the fundamental assumptions that underpinned the study's scope.

Give Contractors Access to the Report

Reduce the risk of delays, claims, and disputes by giving contractors access to the full report, *providing that it is accompanied by a letter of transmittal that can protect you* by making it unquestionably clear that: 1) the study was not conducted and the report was not prepared for purposes of bid development, and 2) the findings, conclusions, and recommendations included in the report are based on a variety of opinions, inferences, and assumptions and are subject to interpretation. Use the letter to also advise contractors to consult with your geoenvironmental professional to obtain clarifications, interpretations, and guidance (a fee may be required for this service), and that—in any event—they should conduct additional studies to obtain the specific type and extent of information each prefers for preparing a bid or cost estimate. Providing access to the full report, with the appropriate caveats, helps prevent formation of adversarial attitudes and claims of concealed or differing conditions. If a contractor elects to ignore the warnings and advice in the letter of transmittal, it would do so at its own risk. Your geoenvironmental professional should be able to help you prepare an effective letter.

Do Not Separate Documentation from the Report

Geoenvironmental reports often include supplemental documentation, such as maps and copies of regulatory files, permits, registrations, citations, and correspondence with regulatory agencies. If subsurface explorations were performed, the report may contain final boring logs and copies of laboratory data. If remediation activities occurred on site, the report may include: copies of daily field reports; waste manifests; and information about the disturbance of subsurface materials, the type and thickness of any fill placed on site, and fill placement practices, among other types of documentation. *Do not separate supplemental documentation from the report. Do not, and do not permit any other party to redraw or modify any of the supplemental documentation for incorporation into other professionals' instruments of service.*

Understand the Role of Standards

Unless they are incorporated into statutes or regulations, standard practices and standard guides developed by the American Society for Testing and Materials (ASTM) and other recognized standards-developing organizations (SDOs) are little more than aspirational methods agreed to by a consensus of a committee. The committees that develop standards may not comprise those best-qualified to establish methods and, no matter what, no standard method can possibly consider the infinite client- and project-specific variables that fly in the face of the theoretical "standard conditions" to which standard practices and standard guides apply. In fact, these variables can be so pronounced that geoenvironmental professionals who comply with every directive of an ASTM or other standard procedure could run afoul of local custom and practice, thus violating the standard of care.

Accordingly, when geoenvironmental professionals indicate in their reports that they have performed a service "in general compliance" with one standard or another, it means they have applied professional judgement in creating and implementing a scope of service designed for the specific client and project involved, and which follows some of the general precepts laid out in the referenced standard. To the extent that a report indicates "general compliance" with a standard, you may wish to speak with your geoenvironmental professional to learn more about what was and was not done. *Do not assume a given standard was followed to the letter.* Research indicates that that seldom is the case.

Realize That Recommendations May Not Be Final

The technical recommendations included in a geoenvironmental report are based on assumptions about actual conditions, and so are preliminary or tentative. Final recommendations can be prepared only by observing actual conditions as they are exposed. For that reason, you should retain the geoenvironmental professional of record to observe construction and/or remediation activities on site, to permit rapid response to unanticipated conditions. *The geoenvironmental professional who prepared the report cannot assume responsibility or liability for the report's recommendations if that professional is not retained to observe relevant site operations.*

Understand That Geotechnical Issues Have Not Been Addressed

Unless geotechnical engineering was specifically included in the scope of professional service, a report is not likely to relate any findings, conclusions, or recommendations about the suitability of subsurface materials for construction purposes, especially when site remediation has been accomplished through the removal, replacement, encapsulation, or chemical treatment of on-site soils. The equipment, techniques, and testing used by geotechnical engineers differ markedly from those used by geoenvironmental professionals; their education, training, and experience are also significantly different. If you plan to build on the subject site, but have not yet had a geotechnical engineering study conducted, your geoenvironmental professional should be able to provide guidance about the next steps you should take. The same firm may provide the services you need.

Read Responsibility Provisions Closely

Geoenvironmental studies cannot be exact; they are based on professional judgement and opinion. Nonetheless, some clients, contractors, and others assume geoenvironmental reports are or certainly should be unerringly precise. Such assumptions have created unrealistic expectations that have led to wholly unwarranted claims and disputes. To help prevent such problems, geoenvironmental professionals have developed a number of report provisions and contract terms that explain who is responsible for what, and how risks are to be allocated. Some people mistake these for "exculpatory clauses," that is, provisions whose purpose is to transfer one party's rightful responsibilities and liabilities to someone else. Read the responsibility provisions included in a report and in the contract you and your geoenvironmental professional agreed to. *Responsibility provisions are not "boilerplate."* They are important.

Rely on Your Geoenvironmental Professional for Additional Assistance

Membership in ASFE exposes geoenvironmental professionals to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a geoenvironmental project. Confer with your ASFE-member geoenvironmental professional for more information.

ASFE
THE BEST PEOPLE ON EARTH

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APPENDIX B

General Notes and Records of Subsurface Exploration

GENERAL NOTES

SAMPLE IDENTIFICATION

All samples are visually classified in general accordance with the Unified Soil Classification System (ASTM D-2487-75 or D-2488-75)

DESCRIPTIVE TERM (% BY DRY WEIGHT)

Trace:	1-10%
Little:	11-20%
Some:	21-35%
And/Adjective	36-50%

PARTICLE SIZE (DIAMETER)

Boulders:	8 inch and larger
Cobbles:	3 inch to 8 inch
Gravel:	coarse - ¾ to 3 inch
	fine – No. 4 (4.76 mm) to ¾ inch
Sand:	coarse – No. 4 (4.76 mm) to No. 10 (2.0 mm)
	medium – No. 10 (2.0 mm) to No. 40 (0.42 mm)
	fine – No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt:	No. 200 (0.074 mm) and smaller (non-plastic)
Clay:	No 200 (0.074 mm) and smaller (plastic)

SOIL PROPERTY SYMBOLS

Dd:	Dry Density (pcf)
LL:	Liquid Limit, percent
PL:	Plastic Limit, percent
PI:	Plasticity Index (LL-PL)
LOI:	Loss on Ignition, percent
Gs:	Specific Gravity
K:	Coefficient of Permeability
w:	Moisture content, percent
qp:	Calibrated Penetrometer Resistance, tsf
qs:	Vane-Shear Strength, tsf
qu:	Unconfined Compressive Strength, tsf
qc:	Static Cone Penetrometer Resistance (correlated to Unconfined Compressive Strength, tsf)
PID:	Results of vapor analysis conducted on representative samples utilizing a Photoionization Detector calibrated to a benzene standard. Results expressed in HNU-Units. (BDL=Below Detection Limit)

DRILLING AND SAMPLING SYMBOLS

SS:	Split-Spoon
ST:	Shelby Tube – 3 inch O.D. (except where noted)
CS:	3 inch O.D. California Ring Sampler
DC:	Dynamic Cone Penetrometer per ASTM Special Technical Publication No. 399
AU:	Auger Sample
DB:	Diamond Bit
CB:	Carbide Bit
WS:	Wash Sample
RB:	Rock-Roller Bit
BS:	Bulk Sample
Note:	Depth intervals for sampling shown on Record of Subsurface Exploration are not indicative of sample recovery, but position where sampling initiated

N: Penetration Resistance per 12 inch interval, or fraction thereof, for a standard 2 inch O.D. (1⅜ inch I.D.) split spoon sampler driven with a 140 pound weight free-falling 30 inches. Performed in general accordance with Standard Penetration Test Specifications (ASTM D-1586). N in blows per foot equals sum of N-Values where plus sign (+) is shown.

Nc: Penetration Resistance per 1¾ inches of Dynamic Cone Penetrometer. Approximately equivalent to Standard Penetration Test N-Value in blows per foot.

Nr: Penetration Resistance per 12 inch interval, or fraction thereof, for California Ring Sampler driven with a 140 pound weight free-falling 30 inches per ASTM D-3550. Not equivalent to Standard Penetration Test N-Value.

SOIL STRENGTH CHARACTERISTICS

COHESIVE (CLAYEY) SOILS

COMPARATIVE CONSISTENCY	BLOWS PER FOOT (N)	UNCONFINED COMPRESSIVE STRENGTH (TSF)
Very Soft	0 - 2	0 - 0.25
Soft	3 - 4	0.25 - 0.50
Medium Stiff	5 – 8	0.50 - 1.00
Stiff	9 – 15	1.00 - 2.00
Very Stiff	16 – 30	2.00 - 4.00
Hard	31+	4.00+

NON-COHESIVE (GRANULAR) SOILS

RELATIVE DENSITY	BLOWS PER FOOT (N)
Very Loose	0 - 4
Loose	5 - 10
Firm	11 - 30
Dense	31 - 50
Very Dense	51+

DEGREE OF PLASTICITY	PI
None to Slight	0 - 4
Slight	5 - 10
Medium	11 - 30
High to Very High	31+

DEGREE OF EXPANSIVE POTENTIAL	PI
Low	0 - 15
Medium	15 - 25
High	25+

BORING NO. & LOCATION: VP-1	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION:	PROPOSED STARBUCKS - BUILDING 3	
COMPLETION DATE: 09/09/19	NWC 190TH STREET & WESTERN AVENUE TORRANCE, CA	
FIELD REP: CADE KLOCK	PROJECT NO: 2E-1908009	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
Light Brown Sandy Gravel, no odor (Dry)										
Red fine Sand with trace fine Gravel, no odor (Moist)			1-DP						BDL	
Dark Brown Silty Clay with trace fine Sand, no odor (Moist)	2.5									
Dark Brown Silty Clay, no odor (Moist)			2-DP						BDL	a)
	5.0									

PID: Results of volatile vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with an 10.6 eV lamp calibrated to an Isobutylene standard. Results expressed in instrument-units. BDL = Below Detection Limit

Temporary Vapor Probe removed and boring abandoned after sampling completed using Bentonite chips.

A temporary vapor probe was installed in the open borehole. The vapor probe was constructed using an 8 foot length of new teflon tubing with filter on the lower end, surrounded by a foot of sand, and a hydrated bentonite seal to the surface. Temporary vapor probe was allowed to acclimate for approximately 30 minutes and removed after sampling was complete.
Boring Terminated at about 6 feet

Water Observation Data	Remarks:
Water Encountered During Drilling: None	Driller: J&H Drilling Company, Inc.
Water Level At End of Drilling:	(a) Soil sample submitted for VOC, SVOC, RCRA Metals and Chromium (III) and (VI) analyses.
Cave Depth At End of Drilling:	
Water Level After Drilling:	DP = Direct Push Sample
Cave Depth After Drilling:	

GILES LOG REPORT 2E-1908009.GPJ GILES.GDT 9/18/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: VP-2	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION:	PROPOSED STARBUCKS - BUILDING 3	
COMPLETION DATE: 09/09/19	NWC 190TH STREET & WESTERN AVENUE TORRANCE, CA	
FIELD REP: CADE KLOCK	PROJECT NO: 2E-1908009	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
Light Brown fine Sandy Gravel, no odor (Dry)										
Dark Brown fine Sand with trace fine Gravel, no odor (Moist)			1-DP						BDL	a)
	2.5									
Dark Reddish Brown Silty, fine Sandy Clay, no odor (Moist)			2-DP						BDL	
	5.0									

PID: Results of volatile vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with an 10.6 eV lamp calibrated to an Isobutylene standard. Results expressed in instrument-units. BDL = Below Detection Limit

Temporary Vapor Probe removed and boring abandoned after sampling completed using Bentonite chips.

A temporary vapor probe was installed in the open borehole. The vapor probe was constructed using an 8 foot length of new teflon tubing with filter on the lower end, surrounded by a foot of sand, and a hydrated bentonite seal to the surface. Temporary vapor probe was allowed to acclimate for approximately 30 minutes and removed after sampling was complete.
Boring Terminated at about 6 feet

Water Observation Data	Remarks:
Water Encountered During Drilling: None	Driller: J&H Drilling Company, Inc.
Water Level At End of Drilling:	(a) Soil sample submitted for VOC, SVOC, RCRA Metals and Chromium (III) and (VI) analyses.
Cave Depth At End of Drilling:	
Water Level After Drilling:	DP = Direct Push Sample
Cave Depth After Drilling:	

GILES LOG REPORT 2E-1908009.GPJ GILES.GDT 9/18/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: VP-3	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION:	PROPOSED STARBUCKS - BUILDING 3	
COMPLETION DATE: 09/09/19	NWC 190TH STREET & WESTERN AVENUE TORRANCE, CA	
FIELD REP: CADE KLOCK	PROJECT NO: 2E-1908009	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
Dark Brown Gravelly fine Sand with trace Silt, no odor (Moist)										
Reddish Brown Silty fine Sand with trace fine Gravel, no odor (Moist)			1-DP						BDL	
Dark Brown Silty Clay, dense, no odor (Moist)	2.5									
Dark Brown Silty Clay with trace fine Sand, no odor (Moist)										
Dark Yellow Brown Silty fine Sand, no odor (Moist)			2-DP						BDL	a)
	5.0									

PID: Results of volatile vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with an 10.6 eV lamp calibrated to an Isobutylene standard. Results expressed in instrument-units. BDL = Below Detection Limit

Temporary Vapor Probe removed and boring abandoned after sampling completed using Bentonite chips.

A temporary vapor probe was installed in the open borehole. The vapor probe was constructed using an 8 foot length of new teflon tubing with filter on the lower end, surrounded by a foot of sand, and a hydrated bentonite seal to the surface. Temporary vapor probe was allowed to acclimate for approximately 30 minutes and removed after sampling was complete.
Boring Terminated at about 6 feet

Water Observation Data	Remarks:
Water Encountered During Drilling: None	Driller: J&H Drilling Company, Inc.
Water Level At End of Drilling:	(a) Soil sample submitted for VOC, SVOC, RCRA Metals and Chromium (III) and (VI) analyses.
Cave Depth At End of Drilling:	
Water Level After Drilling:	DP = Direct Push Sample
Cave Depth After Drilling:	

GILES LOG REPORT 2E-1908009.GPJ GILES.GDT 9/18/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: VP-4	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION:	PROPOSED STARBUCKS - BUILDING 3	
COMPLETION DATE: 09/09/19	NWC 190TH STREET & WESTERN AVENUE TORRANCE, CA	
FIELD REP: CADE KLOCK	PROJECT NO: 2E-1908009	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
Dark Brown Silty fine Sand with trace fine Gravel, no odor (Moist)										
Dark Brown Silty fine Sand, no odor (Moist)			1-DP						BDL	a)
	2.5									
Dark Yellow Brown Silty fine Sand, no odor (Moist)			2-DP						BDL	
	5.0									

PID: Results of volatile vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with an 10.6 eV lamp calibrated to an Isobutylene standard. Results expressed in instrument-units. BDL = Below Detection Limit

Temporary Vapor Probe removed and boring abandoned after sampling completed using Bentonite chips.

A temporary vapor probe was installed in the open borehole. The vapor probe was constructed using an 8 foot length of new teflon tubing with filter on the lower end, surrounded by a foot of sand, and a hydrated bentonite seal to the surface. Temporary vapor probe was allowed to acclimate for approximately 30 minutes and removed after sampling was complete.
Boring Terminated at about 6 feet

	Water Observation Data	Remarks:
▽	Water Encountered During Drilling: None	Driller: J&H Drilling Company, Inc.
▼	Water Level At End of Drilling:	(a) Soil sample submitted for VOC, SVOC, RCRA Metals and Chromium (III) and (VI) analyses.
	Cave Depth At End of Drilling:	
▼	Water Level After Drilling:	DP = Direct Push Sample
	Cave Depth After Drilling:	

GILES LOG REPORT 2E-1908009.GPJ GILES.GDT 9/18/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: B-1	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION:	PROPOSED STARBUCKS - BUILDING 3	
COMPLETION DATE: 09/09/19	NWC 190TH STREET & WESTERN AVENUE TORRANCE, CA	
FIELD REP: CADE KLOCK	PROJECT NO: 2E-1908009	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
Dark Brown Sandy Gravel, no odor (Dry) Light Brown Silty fine Sand, no odor (Moist) Dark Brown Silty Clay, no odor (Moist)			1-DP						BDL	
	5		2-DP						BDL	
Dark Brown Silty fine Sand, no odor (Moist)										
	10		3-DP						BDL	
Light Brown fine Sand with trace Silt, no odor (Moist)										
	15		4-DP						BDL	a)
Dark Yellow Brown Clayey fine Sand, no odor (Moist)										
	20									

PID: Results of vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with an 10.6 eV lamp calibrated to an Isobutylene standard. Results expressed in instrument-units. BDL = Below Detection Limit

Boring abandoned after sampling completed using Bentonite chips
Boring Terminated at about 20 feet

Water Observation Data	Remarks:
Water Encountered During Drilling: None	Driller: J&H Drilling Company, Inc.
Water Level At End of Drilling:	(a) Soil sample submitted for VOC, SVOC, RCRA Metals and Chromium (III) and (VI) analyses.
Cave Depth At End of Drilling:	
Water Level After Drilling:	DP = Direct Push Sample
Cave Depth After Drilling:	

GILES LOG REPORT 2E-1908009.GPJ GILES.GDT 9/18/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: B-2	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION:	PROPOSED STARBUCKS - BUILDING 3	
COMPLETION DATE: 09/09/19	NWC 190TH STREET & WESTERN AVENUE TORRANCE, CA	
FIELD REP: CADE KLOCK	PROJECT NO: 2E-1908009	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
Dark Brown Sandy Gravel, no odor (Dry)										
Light Brown Silty fine Sand with trace fine Gravel, no odor (Moist)			1-DP						BDL	
Light Brown fine Sand, no odor (Moist)										
Dark Brown fine Sandy Clay, no odor (Moist)	5		2-DP						BDL	
Dark Brown Clayey fine Sand, no odor (Moist)										
Dark Brown fine Sandy Clay, no odor (Moist)	10		3-DP						BDL	
Dark Greenish Gray Silty fine Sand with trace Clay, no odor (Moist)	15		4-DP						BDL	a)
	20									

PID: Results of vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with an 10.6 eV lamp calibrated to an Isobutylene standard. Results expressed in instrument-units. BDL = Below Detection Limit

Boring abandoned after sampling completed using Bentonite chips
Boring Terminated at about 20 feet

Water Observation Data	Remarks:
Water Encountered During Drilling: None	Driller: J&H Drilling Company, Inc.
Water Level At End of Drilling:	(a) Soil sample submitted for VOC, SVOC, RCRA Metals and Chromium (III) and (VI) analyses.
Cave Depth At End of Drilling:	
Water Level After Drilling:	DP = Direct Push Sample
Cave Depth After Drilling:	

GILES LOG REPORT 2E-1908009.GPJ GILES.GDT 9/18/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: B-3	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION:	PROPOSED STARBUCKS - BUILDING 3	
COMPLETION DATE: 09/09/19	NWC 190TH STREET & WESTERN AVENUE TORRANCE, CA	
FIELD REP: CADE KLOCK	PROJECT NO: 2E-1908009	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
Dark Brown Sandy Gravel, no odor (Dry)										
Reddish Brown fine Sand with trace fine Gravel, no odor (Moist)			1-DP						BDL	
Reddish Brown Silty fine Sand, no odor (Moist)	5									
Dark Brown Silty, fine Sandy Clay, no odor (Moist)			2-DP						BDL	
Dark Yellow Brown Silty fine Sand, no odor (Moist)	10									
Dark Greenish Gray Silty fine Sand, no odor (Moist)			3-DP						BDL	a)
Dark Yellow Brown fine Sandy Silt with trace Clay, no odor (Moist)	15		4-DP						BDL	
Dark Greenish Gray Silty Clay, dense, no odor (Moist)	20									

PID: Results of vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with an 10.6 eV lamp calibrated to an Isobutylene standard. Results expressed in instrument-units. BDL = Below Detection Limit

Boring abandoned after sampling completed using Bentonite chips
Boring Terminated at about 20 feet

Water Observation Data	Remarks:
Water Encountered During Drilling: None	Driller: J&H Drilling Company, Inc.
Water Level At End of Drilling:	(a) Soil sample submitted for VOC, SVOC, RCRA Metals and Chromium (III) and (VI) analyses.
Cave Depth At End of Drilling:	
Water Level After Drilling:	DP = Direct Push Sample
Cave Depth After Drilling:	

GILES LOG REPORT 2E-1908009.GPJ GILES.GDT 9/18/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

BORING NO. & LOCATION: B-4	TEST BORING LOG	GILES ENGINEERING ASSOCIATES, INC.
SURFACE ELEVATION:	PROPOSED STARBUCKS - BUILDING 3	
COMPLETION DATE: 09/09/19	NWC 190TH STREET & WESTERN AVENUE TORRANCE, CA	
FIELD REP: CADE KLOCK	PROJECT NO: 2E-1908009	

MATERIAL DESCRIPTION	Depth (ft)	Elevation	Sample No. & Type	N	Q_u (tsf)	Q_p (tsf)	Q_s (tsf)	W (%)	PID	NOTES
Dark Brown Sandy Gravel, no odor (Dry)										
Dark Brown Silty fine Sand with trace fine Gravel, no odor (Moist)			1-DP						BDL	
Dark Reddish Brown Silty fine Sand with trace Clay, no odor (Moist)	5									
Dark Yellow Brown Silty fine Sand, no odor (Moist)			2-DP						BDL	a)
Dark Greenish Gray fine Sand with trace Silt, no odor (Moist)	10									
Dark Brown fine Sand with trace Clay, no odor (Moist)			3-DP						BDL	
Dark Yellow Brown Silty fine Sand with trace Clay, no odor (Moist)	15									
Dark Brown Silty Clay, dense, no odor (Moist)			4-DP						BDL	
	20									

PID: Results of vapor scan conducted on collected soil samples utilizing a Photoionization Detector (PID) equipped with an 10.6 eV lamp calibrated to an Isobutylene standard. Results expressed in instrument-units. BDL = Below Detection Limit

Boring abandoned after sampling completed using Bentonite chips
Boring Terminated at about 20 feet

Water Observation Data	Remarks:
Water Encountered During Drilling: None	Driller: J&H Drilling Company, Inc.
Water Level At End of Drilling:	(a) Soil sample submitted for VOC, SVOC, RCRA Metals and Chromium (III) and (VI) analyses.
Cave Depth At End of Drilling:	
Water Level After Drilling:	DP = Direct Push Sample
Cave Depth After Drilling:	

GILES LOG REPORT 2E-1908009.GPJ GILES.GDT 9/18/19

Changes in strata indicated by the lines are approximate boundary between soil types. The actual transition may be gradual and may vary considerably between test borings. Location of test boring is shown on the Boring Location Plan.

APPENDIX C

Soil Analytical Laboratory Reports and Chain-of-Custody

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: 440-249756-1
Client Project/Site: Starbucks/Torrance, CA /2E-1908009

For:
Giles Engineering Associates
2626 Lombardy Lane
Suite 105
Dallas, Texas 75220

Attn: Mr. Mike Pisarik

Authorized for release by:
9/19/2019 9:48:46 AM

Jamie McKinney, Senior Project Manager
(865)291-3000
jamie.mckinney@testamericainc.com

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Table of Contents

Sample Summary

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-249756-1	B-1, 15-20	Solid	09/09/19 08:25	09/10/19 10:30	
440-249756-2	B-2, 15-20	Solid	09/09/19 09:00	09/10/19 10:30	
440-249756-3	B-3, 10-15	Solid	09/09/19 09:16	09/10/19 10:30	
440-249756-4	B-4, 5-10	Solid	09/09/19 10:04	09/10/19 10:30	
440-249756-5	VP-1, 3-6	Solid	09/09/19 08:35	09/10/19 10:30	
440-249756-6	VP-2, 0-3	Solid	09/09/19 09:25	09/10/19 10:30	
440-249756-7	VP-3, 3-6	Solid	09/09/19 09:38	09/10/19 10:30	
440-249756-8	VP-4, 0-3	Solid	09/09/19 09:50	09/10/19 10:30	
440-249756-9	TRIP BLANK	Water	09/09/19 00:01	09/10/19 10:30	

Job ID: 440-249756-1

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-249756-1

Comments
No additional comments.

Receipt
The samples were received on 9/10/2019 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7º C.

Receipt Exceptions

One jar for sample VP-4, 0-3 (440-249756-8) was accidentally broken when it was transferred to the refrigerator.

GC/MS VOA
Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 440-568334 recovered above the upper control limit for Vinyl acetate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TRIP BLANK (440-249756-9) and (CCVIS 440-568334/2).

Method(s) 8260B: The method blank for analytical batch 440-568334 contained Methylene Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8260B: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch analytical batch 440-568539 recovered outside control limits for the following analytes: 2-Methyl-2-propanol and Methyl acetate. Laboratory control sample / laboratory control sample duplicate (LCS/LCSD) percent recovery is in control for affected analytes.

Method(s) 8260B: The following volatile sample was received and analyzed with significant headspace in the sample container(s): TRIP BLANK (440-249756-9). Significant headspace is defined as a bubble greater than 6 mm in diameter.

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

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

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

Detection Summary

Client: Giles Engineering Associates
Job ID: 440-249756-1
Project/Site: Starbucks/Torrance, CA /2E-1908009

Client Sample ID: B-1, 15-20 — Lab Sample ID: 440-249756-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	270		20	8.0	ug/Kg	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	26	J ID	100	10	ug/Kg	1		8260B	Total/NA
Lead	7.8		2.0	0.99	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-2, 15-20 — Lab Sample ID: 440-249756-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	180		23	9.1	ug/Kg	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	30	J ID	110	11	ug/Kg	1		8260B	Total/NA
Lead	6.9		2.0	0.99	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-3, 10-15 — Lab Sample ID: 440-249756-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	310		17	6.9	ug/Kg	1		8260B	Total/NA
tert-Butyl alcohol (TBA)	38	J	86	8.6	ug/Kg	1		8260B	Total/NA
Lead	5.7		2.0	0.99	mg/Kg	5		6010B	Total/NA

Client Sample ID: B-4, 5-10 — Lab Sample ID: 440-249756-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	6.2		2.0	0.98	mg/Kg	5		6010B	Total/NA

Client Sample ID: VP-1, 3-6 — Lab Sample ID: 440-249756-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
tert-Butyl alcohol (TBA)	9.1	J	86	8.6	ug/Kg	1		8260B	Total/NA
Lead	5.6		2.0	0.99	mg/Kg	5		6010B	Total/NA

Client Sample ID: VP-2, 0-3 — Lab Sample ID: 440-249756-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
tert-Butyl alcohol (TBA)	20	J	120	12	ug/Kg	1		8260B	Total/NA
Lead	22		2.0	1.0	mg/Kg	5		6010B	Total/NA

Client Sample ID: VP-3, 3-6 — Lab Sample ID: 440-249756-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
tert-Butyl alcohol (TBA)	7.2	J	65	6.5	ug/Kg	1		8260B	Total/NA
Lead	6.9		2.0	0.98	mg/Kg	5		6010B	Total/NA

Client Sample ID: VP-4, 0-3 — Lab Sample ID: 440-249756-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
tert-Butyl alcohol (TBA)	20	J	100	10	ug/Kg	1		8260B	Total/NA
Lead	17		2.0	0.99	mg/Kg	5		6010B	Total/NA

Client Sample ID: TRIP BLANK — Lab Sample ID: 440-249756-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12	J	20	10	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: B-1, 15-20
Date Collected: 09/09/19 08:25
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Styrene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
n-Propylbenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
n-Butylbenzene	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
4-Chlorotoluene	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,2-Dibromoethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Vinyl acetate	ND		8.0	4.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
4-Methyl-2-pentanone	ND		5.0	2.5	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Diisopropyl ether	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Bromobenzene	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Methylcyclohexane	ND		1.0	0.0010	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Toluene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Chlorobenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Tetrahydrofuran	ND		20	5.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Cyclohexane	ND		4.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Xylenes, Total	ND		4.0	2.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
sec-Butylbenzene	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
m&p-Xylene	ND		4.0	2.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Methyl t-butyl ether	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,2-Dichloroethene, Total	ND		2.0	0.50	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Carbon tetrachloride	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
2-Hexanone	ND		25	5.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,1,1,2-Tetrachloroethane	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Ethyl tert-butyl ether	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Acetone	**270**		20	8.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Chloroform	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Benzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Bromomethane	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Chloromethane	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Methyl iodide	ND		5.0	2.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Dibromomethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Bromochloromethane	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Chloroethane	ND		5.0	2.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Vinyl chloride	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1

Client Sample ID: B-1, 15-20
Lab Sample ID: 440-249756-1
Date Collected: 09/09/19 08:25
Matrix: Solid
Date Received: 09/10/19 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		20	5.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Carbon disulfide	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Bromoform	ND		5.0	2.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,1-Dichloroethene	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
tert-Butyl alcohol (TBA)	**26**	**J ID**	100	10	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Freon TF	ND		10	5.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Isobutyl alcohol	ND		50	25	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
2-Butanone	ND		10	5.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Trichloroethene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Methyl acetate	ND		5.0	0.0010	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,2,3-Trichlorobenzene	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Hexachlorobutadiene	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Naphthalene	ND		5.0	2.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
o-Xylene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
2-Chlorotoluene	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
tert-Butylbenzene	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
Tert-amyl methyl ether	ND		5.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1
4-Isopropyltoluene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/11/19 18:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*84*		*79 - 123*	*09/10/19 13:10*	*09/11/19 18:20*	*1*
1,2-Dichloroethane-d4	*121*		*70 - 130*	*09/10/19 13:10*	*09/11/19 18:20*	*1*
4-Bromofluorobenzene (Surr)	*82*		*79 - 120*	*09/10/19 13:10*	*09/11/19 18:20*	*1*
Dibromofluoromethane (Surr)	*113*		*60 - 120*	*09/10/19 13:10*	*09/11/19 18:20*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**7.8**		2.0	0.99	mg/Kg		09/13/19 10:52	09/17/19 16:54	5

Client Sample ID: B-2, 15-20
Lab Sample ID: 440-249756-2
Date Collected: 09/09/19 09:00
Matrix: Solid
Date Received: 09/10/19 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Styrene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
cis-1,3-Dichloropropene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: B-2, 15-20
Date Collected: 09/09/19 09:00
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
n-Propylbenzene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
n-Butylbenzene	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
4-Chlorotoluene	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,4-Dichlorobenzene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,2-Dibromoethane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,2-Dichloroethane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Vinyl acetate	ND		9.1	4.6	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
4-Methyl-2-pentanone	ND		5.7	2.8	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Diisopropyl ether	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,3,5-Trimethylbenzene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Bromobenzene	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Methylcyclohexane	ND		1.1	0.0011	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Toluene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Chlorobenzene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Tetrahydrofuran	ND		23	5.7	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Cyclohexane	ND		4.6	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,2,4-Trichlorobenzene	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Dibromochloromethane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Tetrachloroethene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Xylenes, Total	ND		4.6	2.3	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
sec-Butylbenzene	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
m&p-Xylene	ND		4.6	2.3	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,3-Dichloropropane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
cis-1,2-Dichloroethene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
trans-1,2-Dichloroethene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Methyl t-butyl ether	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,2-Dichloroethene, Total	ND		2.3	0.57	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,3-Dichlorobenzene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Carbon tetrachloride	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,1-Dichloropropene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
2-Hexanone	ND		28	5.7	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
2,2-Dichloropropane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,1,1,2-Tetrachloroethane	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Ethyl tert-butyl ether	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Acetone	**180**		23	9.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Chloroform	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Benzene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,1,1-Trichloroethane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Bromomethane	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Chloromethane	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Methyl iodide	ND		5.7	2.3	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Dibromomethane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Bromochloromethane	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Chloroethane	ND		5.7	2.3	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Vinyl chloride	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Methylene Chloride	ND		23	5.7	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Carbon disulfide	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Bromoform	ND		5.7	2.3	ug/Kg		09/10/19 13:10	09/11/19 18:45	1

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: B-2, 15-20

Date Collected: 09/09/19 09:00
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-2

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,1-Dichloroethane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,1-Dichloroethene	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
tert-Butyl alcohol (TBA)	**30**	**J ID**	110	11	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Trichlorofluoromethane	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Dichlorodifluoromethane	ND		5.7	2.3	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Freon TF	ND		11	5.7	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Isobutyl alcohol	ND		57	28	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,2-Dichloropropane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
2-Butanone	ND		11	5.7	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,1,2-Trichloroethane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Trichloroethene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Methyl acetate	ND		5.7	0.0011	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,1,2,2-Tetrachloroethane	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,2,3-Trichlorobenzene	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Hexachlorobutadiene	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Naphthalene	ND		5.7	2.3	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
o-Xylene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
2-Chlorotoluene	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,2-Dichlorobenzene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,2,4-Trimethylbenzene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,2-Dibromo-3-Chloropropane	ND		5.7	2.3	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
1,2,3-Trichloropropane	ND		11	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
tert-Butylbenzene	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Isopropylbenzene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
Tert-amyl methyl ether	ND		5.7	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1
4-Isopropyltoluene	ND		2.3	1.1	ug/Kg		09/10/19 13:10	09/11/19 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*87*		*79 - 123*	*09/10/19 13:10*	*09/11/19 18:45*	*1*
1,2-Dichloroethane-d4	*126*		*70 - 130*	*09/10/19 13:10*	*09/11/19 18:45*	*1*
4-Bromofluorobenzene (Surr)	*82*		*79 - 120*	*09/10/19 13:10*	*09/11/19 18:45*	*1*
Dibromofluoromethane (Surr)	*113*		*60 - 120*	*09/10/19 13:10*	*09/11/19 18:45*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**6.9**		2.0	0.99	mg/Kg		09/13/19 10:52	09/17/19 17:01	5

Client Sample ID: B-3, 10-15

Date Collected: 09/09/19 09:16
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Styrene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
cis-1,3-Dichloropropene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
trans-1,3-Dichloropropene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
n-Propylbenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
n-Butylbenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: B-3, 10-15
Date Collected: 09/09/19 09:16
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,4-Dichlorobenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,2-Dibromoethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,2-Dichloroethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Vinyl acetate	ND		6.9	3.4	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
4-Methyl-2-pentanone	ND		4.3	2.2	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Diisopropyl ether	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,3,5-Trimethylbenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Bromobenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Methylcyclohexane	ND		0.86	0.00086	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Toluene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Chlorobenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Tetrahydrofuran	ND		17	4.3	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Cyclohexane	ND		3.4	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,2,4-Trichlorobenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Dibromochloromethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Tetrachloroethene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Xylenes, Total	ND		3.4	1.7	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
sec-Butylbenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
m&p-Xylene	ND		3.4	1.7	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,3-Dichloropropane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
cis-1,2-Dichloroethene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
trans-1,2-Dichloroethene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Methyl t-butyl ether	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,2-Dichloroethene, Total	ND		1.7	0.43	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,3-Dichlorobenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Carbon tetrachloride	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,1-Dichloropropene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
2-Hexanone	ND		22	4.3	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
2,2-Dichloropropane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,1,1,2-Tetrachloroethane	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Ethyl tert-butyl ether	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Acetone	**310**		17	6.9	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Chloroform	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Benzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,1,1-Trichloroethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Bromomethane	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Chloromethane	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Methyl iodide	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Dibromomethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Bromochloromethane	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Chloroethane	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Vinyl chloride	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Methylene Chloride	ND		17	4.3	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Carbon disulfide	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Bromoform	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Bromodichloromethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,1-Dichloroethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,1-Dichloroethene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1

Client Sample ID: B-3, 10-15

Lab Sample ID: 440-249756-3

Date Collected: 09/09/19 09:16

Matrix: Solid

Date Received: 09/10/19 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol (TBA)	**38**	**J**	86	8.6	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Trichlorofluoromethane	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Dichlorodifluoromethane	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Freon TF	ND		8.6	4.3	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Isobutyl alcohol	ND		43	22	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,2-Dichloropropane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
2-Butanone	ND		8.6	4.3	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,1,2-Trichloroethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Trichloroethene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Methyl acetate	ND		4.3	0.00086	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,1,2,2-Tetrachloroethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,2,3-Trichlorobenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Hexachlorobutadiene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Naphthalene	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
o-Xylene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
2-Chlorotoluene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,2-Dichlorobenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,2,4-Trimethylbenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,2-Dibromo-3-Chloropropane	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
1,2,3-Trichloropropane	ND		8.6	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
tert-Butylbenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Isopropylbenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
Tert-amyl methyl ether	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1
4-Isopropyltoluene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/11/19 19:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*87*		*79 - 123*	*09/10/19 13:10*	*09/11/19 19:11*	*1*
1,2-Dichloroethane-d4	*121*		*70 - 130*	*09/10/19 13:10*	*09/11/19 19:11*	*1*
4-Bromofluorobenzene (Surr)	*82*		*79 - 120*	*09/10/19 13:10*	*09/11/19 19:11*	*1*
Dibromofluoromethane (Surr)	*114*		*60 - 120*	*09/10/19 13:10*	*09/11/19 19:11*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.7**		2.0	0.99	mg/Kg		09/13/19 10:52	09/17/19 17:03	5

Client Sample ID: B-4, 5-10

Lab Sample ID: 440-249756-4

Date Collected: 09/09/19 10:04

Matrix: Solid

Date Received: 09/10/19 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Styrene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
cis-1,3-Dichloropropene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
trans-1,3-Dichloropropene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
n-Propylbenzene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
n-Butylbenzene	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
4-Chlorotoluene	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,4-Dichlorobenzene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,2-Dibromoethane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: B-4, 5-10
Date Collected: 09/09/19 10:04
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-4
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Vinyl acetate	ND		6.0	3.0	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
4-Methyl-2-pentanone	ND		3.8	1.9	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Diisopropyl ether	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,3,5-Trimethylbenzene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Bromobenzene	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Methylcyclohexane	ND		0.75	0.00075	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Toluene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Chlorobenzene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Tetrahydrofuran	ND		15	3.8	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Cyclohexane	ND		3.0	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,2,4-Trichlorobenzene	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Dibromochloromethane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Tetrachloroethene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Xylenes, Total	ND		3.0	1.5	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
sec-Butylbenzene	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
m&p-Xylene	ND		3.0	1.5	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,3-Dichloropropane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
cis-1,2-Dichloroethene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
trans-1,2-Dichloroethene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Methyl t-butyl ether	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,2-Dichloroethene, Total	ND		1.5	0.38	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,3-Dichlorobenzene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Carbon tetrachloride	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,1-Dichloropropene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
2-Hexanone	ND		19	3.8	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
2,2-Dichloropropane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,1,1,2-Tetrachloroethane	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Ethyl tert-butyl ether	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Acetone	ND		15	6.0	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Chloroform	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Benzene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,1,1-Trichloroethane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Bromomethane	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Chloromethane	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Methyl iodide	ND		3.8	1.5	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Dibromomethane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Bromochloromethane	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Chloroethane	ND		3.8	1.5	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Vinyl chloride	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Methylene Chloride	ND		15	3.8	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Carbon disulfide	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Bromoform	ND		3.8	1.5	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Bromodichloromethane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,1-Dichloroethane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,1-Dichloroethene	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Trichlorofluoromethane	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Dichlorodifluoromethane	ND		3.8	1.5	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Freon TF	ND		7.5	3.8	ug/Kg		09/10/19 11:00	09/12/19 14:22	1

Client Sample ID: B-4, 5-10

Date Collected: 09/09/19 10:04
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
2-Butanone	ND		7.5	3.8	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,1,2-Trichloroethane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Trichloroethene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,1,2,2-Tetrachloroethane	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,2,3-Trichlorobenzene	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Hexachlorobutadiene	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Naphthalene	ND		3.8	1.5	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
o-Xylene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
2-Chlorotoluene	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,2-Dichlorobenzene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,2,4-Trimethylbenzene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,2-Dibromo-3-Chloropropane	ND		3.8	1.5	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
1,2,3-Trichloropropane	ND		7.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
tert-Butylbenzene	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Isopropylbenzene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
Tert-amyl methyl ether	ND		3.8	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1
4-Isopropyltoluene	ND		1.5	0.75	ug/Kg		09/10/19 11:00	09/12/19 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*102*		*79 - 123*	*09/10/19 11:00*	*09/12/19 14:22*	*1*
1,2-Dichloroethane-d4	*134*	*X*	*70 - 130*	*09/10/19 11:00*	*09/12/19 14:22*	*1*
4-Bromofluorobenzene (Surr)	*104*		*79 - 120*	*09/10/19 11:00*	*09/12/19 14:22*	*1*
Dibromofluoromethane (Surr)	*112*		*60 - 120*	*09/10/19 11:00*	*09/12/19 14:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butyl alcohol (TBA)	ND	*	79	7.9	ug/Kg		09/10/19 11:00	09/13/19 12:42	1
Isobutyl alcohol	ND		40	20	ug/Kg		09/10/19 11:00	09/13/19 12:42	1
Methyl acetate	ND	*	4.0	0.00079	ug/Kg		09/10/19 11:00	09/13/19 12:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*101*		*79 - 123*	*09/10/19 11:00*	*09/13/19 12:42*	*1*
1,2-Dichloroethane-d4	*131*	*X*	*70 - 130*	*09/10/19 11:00*	*09/13/19 12:42*	*1*
4-Bromofluorobenzene (Surr)	*105*		*79 - 120*	*09/10/19 11:00*	*09/13/19 12:42*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 120*	*09/10/19 11:00*	*09/13/19 12:42*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**6.2**		2.0	0.98	mg/Kg		09/13/19 10:52	09/17/19 17:05	5

Client Sample ID: VP-1, 3-6

Date Collected: 09/09/19 08:35
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-5

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Styrene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
cis-1,3-Dichloropropene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
trans-1,3-Dichloropropene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: VP-1, 3-6
Date Collected: 09/09/19 08:35
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
n-Butylbenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
4-Chlorotoluene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,4-Dichlorobenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,2-Dibromoethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,2-Dichloroethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Vinyl acetate	ND		6.9	3.4	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
4-Methyl-2-pentanone	ND		4.3	2.1	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Diisopropyl ether	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,3,5-Trimethylbenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Bromobenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Methylcyclohexane	ND		0.86	0.00086	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Toluene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Chlorobenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Tetrahydrofuran	ND		17	4.3	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Cyclohexane	ND		3.4	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,2,4-Trichlorobenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Dibromochloromethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Tetrachloroethene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Xylenes, Total	ND		3.4	1.7	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
sec-Butylbenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
m&p-Xylene	ND		3.4	1.7	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,3-Dichloropropane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
cis-1,2-Dichloroethene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
trans-1,2-Dichloroethene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Methyl t-butyl ether	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,2-Dichloroethene, Total	ND		1.7	0.43	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,3-Dichlorobenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Carbon tetrachloride	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,1-Dichloropropene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
2-Hexanone	ND		21	4.3	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
2,2-Dichloropropane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,1,1,2-Tetrachloroethane	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Ethyl tert-butyl ether	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Acetone	ND		17	6.9	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Chloroform	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Benzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,1,1-Trichloroethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Bromomethane	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Chloromethane	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Methyl iodide	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Dibromomethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Bromochloromethane	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Chloroethane	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Vinyl chloride	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Methylene Chloride	ND		17	4.3	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Carbon disulfide	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Bromoform	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Bromodichloromethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: VP-1, 3-6
Date Collected: 09/09/19 08:35
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-5
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,1-Dichloroethene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
tert-Butyl alcohol (TBA)	**9.1**	**J**	86	8.6	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Trichlorofluoromethane	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Dichlorodifluoromethane	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Freon TF	ND		8.6	4.3	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Isobutyl alcohol	ND		43	21	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,2-Dichloropropane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
2-Butanone	ND		8.6	4.3	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,1,2-Trichloroethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Trichloroethene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,1,2,2-Tetrachloroethane	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,2,3-Trichlorobenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Hexachlorobutadiene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Naphthalene	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
o-Xylene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
2-Chlorotoluene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,2-Dichlorobenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,2,4-Trimethylbenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,2-Dibromo-3-Chloropropane	ND		4.3	1.7	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
1,2,3-Trichloropropane	ND		8.6	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
tert-Butylbenzene	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Isopropylbenzene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
Tert-amyl methyl ether	ND		4.3	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1
4-Isopropyltoluene	ND		1.7	0.86	ug/Kg		09/10/19 13:10	09/12/19 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*100*		*79 - 123*	*09/10/19 13:10*	*09/12/19 12:26*	*1*
1,2-Dichloroethane-d4	*129*		*70 - 130*	*09/10/19 13:10*	*09/12/19 12:26*	*1*
4-Bromofluorobenzene (Surr)	*101*		*79 - 120*	*09/10/19 13:10*	*09/12/19 12:26*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 120*	*09/10/19 13:10*	*09/12/19 12:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND	*	3.6	0.00073	ug/Kg		09/10/19 11:00	09/13/19 13:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*103*		*79 - 123*	*09/10/19 11:00*	*09/13/19 13:12*	*1*
1,2-Dichloroethane-d4	*133*	*X*	*70 - 130*	*09/10/19 11:00*	*09/13/19 13:12*	*1*
4-Bromofluorobenzene (Surr)	*108*		*79 - 120*	*09/10/19 11:00*	*09/13/19 13:12*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 120*	*09/10/19 11:00*	*09/13/19 13:12*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**5.6**		2.0	0.99	mg/Kg		09/13/19 10:52	09/17/19 17:07	5

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: VP-2, 0-3
Date Collected: 09/09/19 09:25
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Styrene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
cis-1,3-Dichloropropene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
trans-1,3-Dichloropropene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
n-Propylbenzene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
n-Butylbenzene	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
4-Chlorotoluene	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,4-Dichlorobenzene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,2-Dibromoethane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,2-Dichloroethane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Vinyl acetate	ND		9.6	4.8	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
4-Methyl-2-pentanone	ND		6.0	3.0	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Diisopropyl ether	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,3,5-Trimethylbenzene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Bromobenzene	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Methylcyclohexane	ND		1.2	0.0012	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Toluene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Chlorobenzene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Tetrahydrofuran	ND		24	6.0	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Cyclohexane	ND		4.8	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,2,4-Trichlorobenzene	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Dibromochloromethane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Tetrachloroethene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Xylenes, Total	ND		4.8	2.4	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
sec-Butylbenzene	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
m&p-Xylene	ND		4.8	2.4	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,3-Dichloropropane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
cis-1,2-Dichloroethene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
trans-1,2-Dichloroethene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Methyl t-butyl ether	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,2-Dichloroethene, Total	ND		2.4	0.60	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,3-Dichlorobenzene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Carbon tetrachloride	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,1-Dichloropropene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
2-Hexanone	ND		30	6.0	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
2,2-Dichloropropane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,1,1,2-Tetrachloroethane	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Ethyl tert-butyl ether	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Acetone	ND		24	9.6	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Chloroform	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Benzene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,1,1-Trichloroethane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Bromomethane	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Chloromethane	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Methyl iodide	ND		6.0	2.4	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Dibromomethane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Bromochloromethane	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Chloroethane	ND		6.0	2.4	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Vinyl chloride	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1

Client Sample ID: VP-2, 0-3
Date Collected: 09/09/19 09:25
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-6
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		24	6.0	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Carbon disulfide	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Bromoform	ND		6.0	2.4	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Bromodichloromethane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,1-Dichloroethane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,1-Dichloroethene	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
tert-Butyl alcohol (TBA)	**20**	**J**	120	12	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Trichlorofluoromethane	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Dichlorodifluoromethane	ND		6.0	2.4	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Freon TF	ND		12	6.0	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Isobutyl alcohol	ND		60	30	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,2-Dichloropropane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
2-Butanone	ND		12	6.0	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,1,2-Trichloroethane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Trichloroethene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,1,2,2-Tetrachloroethane	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,2,3-Trichlorobenzene	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Hexachlorobutadiene	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Naphthalene	ND		6.0	2.4	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
o-Xylene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
2-Chlorotoluene	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,2-Dichlorobenzene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,2,4-Trimethylbenzene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,2-Dibromo-3-Chloropropane	ND		6.0	2.4	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
1,2,3-Trichloropropane	ND		12	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
tert-Butylbenzene	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Isopropylbenzene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
Tert-amyl methyl ether	ND		6.0	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1
4-Isopropyltoluene	ND		2.4	1.2	ug/Kg		09/10/19 13:10	09/12/19 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*101*		*79 - 123*	*09/10/19 13:10*	*09/12/19 12:55*	*1*
1,2-Dichloroethane-d4	*127*		*70 - 130*	*09/10/19 13:10*	*09/12/19 12:55*	*1*
4-Bromofluorobenzene (Surr)	*100*		*79 - 120*	*09/10/19 13:10*	*09/12/19 12:55*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 120*	*09/10/19 13:10*	*09/12/19 12:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND	*	4.3	0.00086	ug/Kg		09/10/19 11:00	09/13/19 13:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*106*		*79 - 123*	*09/10/19 11:00*	*09/13/19 13:42*	*1*
1,2-Dichloroethane-d4	*134*	*X*	*70 - 130*	*09/10/19 11:00*	*09/13/19 13:42*	*1*
4-Bromofluorobenzene (Surr)	*108*		*79 - 120*	*09/10/19 11:00*	*09/13/19 13:42*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 120*	*09/10/19 11:00*	*09/13/19 13:42*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**22**		2.0	1.0	mg/Kg		09/13/19 10:52	09/17/19 17:10	5

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: VP-3, 3-6

Date Collected: 09/09/19 09:38
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-7

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Styrene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
cis-1,3-Dichloropropene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
trans-1,3-Dichloropropene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
n-Propylbenzene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
n-Butylbenzene	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
4-Chlorotoluene	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,4-Dichlorobenzene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,2-Dibromoethane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,2-Dichloroethane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Vinyl acetate	ND		5.2	2.6	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
4-Methyl-2-pentanone	ND		3.3	1.6	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Diisopropyl ether	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,3,5-Trimethylbenzene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Bromobenzene	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Methylcyclohexane	ND		0.65	0.00065	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Toluene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Chlorobenzene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Tetrahydrofuran	ND		13	3.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Cyclohexane	ND		2.6	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,2,4-Trichlorobenzene	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Dibromochloromethane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Tetrachloroethene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Xylenes, Total	ND		2.6	1.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
sec-Butylbenzene	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
m&p-Xylene	ND		2.6	1.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,3-Dichloropropane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
cis-1,2-Dichloroethene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
trans-1,2-Dichloroethene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Methyl t-butyl ether	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,2-Dichloroethene, Total	ND		1.3	0.33	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,3-Dichlorobenzene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Carbon tetrachloride	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,1-Dichloropropene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
2-Hexanone	ND		16	3.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
2,2-Dichloropropane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,1,1,2-Tetrachloroethane	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Ethyl tert-butyl ether	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Acetone	ND		13	5.2	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Chloroform	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Benzene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,1,1-Trichloroethane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Bromomethane	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Chloromethane	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Methyl iodide	ND		3.3	1.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Dibromomethane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Bromochloromethane	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Chloroethane	ND		3.3	1.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Vinyl chloride	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: VP-3, 3-6
Date Collected: 09/09/19 09:38
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-7
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		13	3.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Carbon disulfide	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Bromoform	ND		3.3	1.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Bromodichloromethane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,1-Dichloroethane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,1-Dichloroethene	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
tert-Butyl alcohol (TBA)	**7.2**	**J**	65	6.5	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Trichlorofluoromethane	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Dichlorodifluoromethane	ND		3.3	1.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Freon TF	ND		6.5	3.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Isobutyl alcohol	ND		33	16	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,2-Dichloropropane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
2-Butanone	ND		6.5	3.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,1,2-Trichloroethane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Trichloroethene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,1,2,2-Tetrachloroethane	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,2,3-Trichlorobenzene	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Hexachlorobutadiene	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Naphthalene	ND		3.3	1.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
o-Xylene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
2-Chlorotoluene	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,2-Dichlorobenzene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,2,4-Trimethylbenzene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,2-Dibromo-3-Chloropropane	ND		3.3	1.3	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
1,2,3-Trichloropropane	ND		6.5	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
tert-Butylbenzene	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Isopropylbenzene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
Tert-amyl methyl ether	ND		3.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1
4-Isopropyltoluene	ND		1.3	0.65	ug/Kg		09/10/19 13:10	09/12/19 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*101*		*79 - 123*	*09/10/19 13:10*	*09/12/19 13:53*	*1*
1,2-Dichloroethane-d4	*130*		*70 - 130*	*09/10/19 13:10*	*09/12/19 13:53*	*1*
4-Bromofluorobenzene (Surr)	*102*		*79 - 120*	*09/10/19 13:10*	*09/12/19 13:53*	*1*
Dibromofluoromethane (Surr)	*111*		*60 - 120*	*09/10/19 13:10*	*09/12/19 13:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND	*	4.2	0.00084	ug/Kg		09/10/19 11:00	09/13/19 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*103*		*79 - 123*	*09/10/19 11:00*	*09/13/19 14:12*	*1*
1,2-Dichloroethane-d4	*134*	*X*	*70 - 130*	*09/10/19 11:00*	*09/13/19 14:12*	*1*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*	*09/10/19 11:00*	*09/13/19 14:12*	*1*
Dibromofluoromethane (Surr)	*109*		*60 - 120*	*09/10/19 11:00*	*09/13/19 14:12*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**6.9**		2.0	0.98	mg/Kg		09/13/19 10:52	09/17/19 17:12	5

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: VP-4, 0-3

Date Collected: 09/09/19 09:50
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-8

Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Styrene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
n-Propylbenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
n-Butylbenzene	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
4-Chlorotoluene	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,2-Dibromoethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Vinyl acetate	ND		8.2	4.1	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
4-Methyl-2-pentanone	ND		5.1	2.6	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Diisopropyl ether	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Bromobenzene	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Methylcyclohexane	ND		1.0	0.0010	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Toluene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Chlorobenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Tetrahydrofuran	ND		20	5.1	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Cyclohexane	ND		4.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,2,4-Trichlorobenzene	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Xylenes, Total	ND		4.1	2.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
sec-Butylbenzene	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
m&p-Xylene	ND		4.1	2.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Methyl t-butyl ether	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,2-Dichloroethene, Total	ND		2.0	0.51	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Carbon tetrachloride	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
2-Hexanone	ND		26	5.1	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,1,1,2-Tetrachloroethane	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Ethyl tert-butyl ether	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Acetone	ND		20	8.2	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Chloroform	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Benzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Bromomethane	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Chloromethane	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Methyl iodide	ND		5.1	2.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Dibromomethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Bromochloromethane	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Chloroethane	ND		5.1	2.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Vinyl chloride	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1

Client Sample ID: VP-4, 0-3
Date Collected: 09/09/19 09:50
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-8
Matrix: Solid

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		20	5.1	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Carbon disulfide	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Bromoform	ND		5.1	2.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,1-Dichloroethene	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
tert-Butyl alcohol (TBA)	**20**	**J**	100	10	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Trichlorofluoromethane	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Dichlorodifluoromethane	ND		5.1	2.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Freon TF	ND		10	5.1	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Isobutyl alcohol	ND		51	26	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
2-Butanone	ND		10	5.1	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Trichloroethene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,2,3-Trichlorobenzene	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Hexachlorobutadiene	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Naphthalene	ND		5.1	2.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
o-Xylene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
2-Chlorotoluene	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,2-Dibromo-3-Chloropropane	ND		5.1	2.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
tert-Butylbenzene	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
Tert-amyl methyl ether	ND		5.1	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1
4-Isopropyltoluene	ND		2.0	1.0	ug/Kg		09/10/19 13:10	09/12/19 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*98*		*79 - 123*	*09/10/19 13:10*	*09/12/19 13:24*	*1*
1,2-Dichloroethane-d4	*125*		*70 - 130*	*09/10/19 13:10*	*09/12/19 13:24*	*1*
4-Bromofluorobenzene (Surr)	*103*		*79 - 120*	*09/10/19 13:10*	*09/12/19 13:24*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 120*	*09/10/19 13:10*	*09/12/19 13:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND	*	5.5	0.0011	ug/Kg		09/10/19 11:00	09/13/19 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*104*		*79 - 123*	*09/10/19 11:00*	*09/13/19 14:42*	*1*
1,2-Dichloroethane-d4	*136*	*X*	*70 - 130*	*09/10/19 11:00*	*09/13/19 14:42*	*1*
4-Bromofluorobenzene (Surr)	*103*		*79 - 120*	*09/10/19 11:00*	*09/13/19 14:42*	*1*
Dibromofluoromethane (Surr)	*113*		*60 - 120*	*09/10/19 11:00*	*09/13/19 14:42*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**17**		2.0	0.99	mg/Kg		09/13/19 10:52	09/17/19 17:14	5

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: TRIP BLANK

Date Collected: 09/09/19 00:01
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		5.0	0.25	ug/L			09/12/19 21:01	1
1,1,1-Trichloroethane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,1,2-Trichloroethane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,1-Dichloroethane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,1-Dichloroethene	ND		5.0	0.25	ug/L			09/12/19 21:01	1
1,1-Dichloropropene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,2,3-Trichlorobenzene	ND		5.0	0.40	ug/L			09/12/19 21:01	1
1,2,3-Trichloropropane	ND		10	0.25	ug/L			09/12/19 21:01	1
1,2,4-Trichlorobenzene	ND		5.0	0.40	ug/L			09/12/19 21:01	1
1,2,4-Trimethylbenzene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/12/19 21:01	1
1,2-Dibromoethane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,2-Dichlorobenzene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,2-Dichloroethane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,2-Dichloroethene, Total	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,2-Dichloropropane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,3,5-Trimethylbenzene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,3-Dichloropropane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
1,4-Dichlorobenzene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
2,2-Dichloropropane	ND		2.0	0.40	ug/L			09/12/19 21:01	1
2-Butanone	ND		10	2.5	ug/L			09/12/19 21:01	1
2-Chlorotoluene	ND		5.0	0.25	ug/L			09/12/19 21:01	1
2-Hexanone	ND		10	2.5	ug/L			09/12/19 21:01	1
4-Chlorotoluene	ND		5.0	0.25	ug/L			09/12/19 21:01	1
4-Isopropyltoluene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
4-Methyl-2-pentanone	ND		10	2.5	ug/L			09/12/19 21:01	1
Acetone	**12**	**J**	20	10	ug/L			09/12/19 21:01	1
Benzene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Bromobenzene	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Bromochloromethane	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Bromodichloromethane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Bromoform	ND		5.0	0.40	ug/L			09/12/19 21:01	1
Bromomethane	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Carbon disulfide	ND		5.0	0.50	ug/L			09/12/19 21:01	1
Carbon tetrachloride	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Chlorobenzene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Chloroethane	ND		5.0	0.40	ug/L			09/12/19 21:01	1
Chloroform	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Chloromethane	ND		5.0	0.25	ug/L			09/12/19 21:01	1
cis-1,2-Dichloroethene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
cis-1,3-Dichloropropene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Cyclohexane	ND		3.0	1.0	ug/L			09/12/19 21:01	1
Dibromochloromethane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Dibromomethane	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Dichlorodifluoromethane	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Diisopropyl ether	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Ethyl tert-butyl ether	ND		5.0	0.25	ug/L			09/12/19 21:01	1

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: TRIP BLANK

Date Collected: 09/09/19 00:01
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-9

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Freon TF	ND		5.0	0.50	ug/L			09/12/19 21:01	1
Hexachlorobutadiene	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Isobutyl alcohol	ND		25	13	ug/L			09/12/19 21:01	1
Isopropylbenzene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
m&p-Xylene	ND		2.0	0.50	ug/L			09/12/19 21:01	1
Methyl iodide	ND		2.0	1.0	ug/L			09/12/19 21:01	1
Methyl t-butyl ether	ND		1.0	0.25	ug/L			09/12/19 21:01	1
Methylcyclohexane	ND		0.50	0.0010	ug/L			09/12/19 21:01	1
Methylene Chloride	ND		5.0	1.1	ug/L			09/12/19 21:01	1
Naphthalene	ND		5.0	0.40	ug/L			09/12/19 21:01	1
n-Butylbenzene	ND		5.0	0.40	ug/L			09/12/19 21:01	1
n-Propylbenzene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
o-Xylene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
sec-Butylbenzene	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Styrene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Tert-amyl methyl ether	ND		5.0	0.25	ug/L			09/12/19 21:01	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			09/12/19 21:01	1
tert-Butylbenzene	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Tetrachloroethene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Tetrahydrofuran	ND		10	5.0	ug/L			09/12/19 21:01	1
Toluene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
trans-1,2-Dichloroethene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
trans-1,3-Dichloropropene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Trichloroethene	ND		2.0	0.25	ug/L			09/12/19 21:01	1
Trichlorofluoromethane	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Vinyl acetate	ND		5.0	2.0	ug/L			09/12/19 21:01	1
Vinyl chloride	ND		5.0	0.25	ug/L			09/12/19 21:01	1
Xylenes, Total	ND		2.0	0.25	ug/L			09/12/19 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*102*		*70 - 130*		*09/12/19 21:01*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*09/12/19 21:01*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*09/12/19 21:01*	*1*
Toluene-d8	*101*		*80 - 128*		*09/12/19 21:01*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND		2.5	0.0010	ug/L			09/16/19 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4	*92*		*70 - 130*		*09/16/19 14:07*	*1*
4-Bromofluorobenzene (Surr)	*84*		*80 - 120*		*09/16/19 14:07*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*09/16/19 14:07*	*1*
Toluene-d8	*92*		*80 - 128*		*09/16/19 14:07*	*1*

Method Summary

Client: Giles Engineering Associates
Job ID: 440-249756-1
Project/Site: Starbucks/Torrance, CA /2E-1908009

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
3050B	Preparation, Metals	SW846	TAL IRV
5030B	Purge and Trap	SW846	TAL IRV
5035	Closed System 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

Lab Chronicle

Client: Giles Engineering Associates
Job ID: 440-249756-1
Project/Site: Starbucks/Torrance, CA /2E-1908009

Client Sample ID: B-1, 15-20
Lab Sample ID: 440-249756-1
Date Collected: 09/09/19 08:25
Matrix: Solid
Date Received: 09/10/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.995 g	10 mL	568174	09/10/19 13:10	AYL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	568061	09/11/19 18:20	AYL	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	568616	09/13/19 10:52	DT	TAL IRV
Total/NA	Analysis	6010B		5			569266	09/17/19 16:54	TQN	TAL IRV

Client Sample ID: B-2, 15-20
Lab Sample ID: 440-249756-2
Date Collected: 09/09/19 09:00
Matrix: Solid
Date Received: 09/10/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.39 g	10 mL	568174	09/10/19 13:10	AYL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	568061	09/11/19 18:45	AYL	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	568616	09/13/19 10:52	DT	TAL IRV
Total/NA	Analysis	6010B		5			569266	09/17/19 17:01	TQN	TAL IRV

Client Sample ID: B-3, 10-15
Lab Sample ID: 440-249756-3
Date Collected: 09/09/19 09:16
Matrix: Solid
Date Received: 09/10/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.802 g	10 mL	568174	09/10/19 13:10	AYL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	568061	09/11/19 19:11	AYL	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	568616	09/13/19 10:52	DT	TAL IRV
Total/NA	Analysis	6010B		5			569266	09/17/19 17:03	TQN	TAL IRV

Client Sample ID: B-4, 5-10
Lab Sample ID: 440-249756-4
Date Collected: 09/09/19 10:04
Matrix: Solid
Date Received: 09/10/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	RA		6.308 g	10 mL	568590	09/10/19 11:00	HR	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	568539	09/13/19 12:42	HR	TAL IRV
Total/NA	Prep	5035			6.624 g	10 mL	568355	09/10/19 11:00	HR	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	568302	09/12/19 14:22	HR	TAL IRV
Total/NA	Prep	3050B			2.04 g	50 mL	568616	09/13/19 10:52	DT	TAL IRV
Total/NA	Analysis	6010B		5			569266	09/17/19 17:05	TQN	TAL IRV

Client Sample ID: VP-1, 3-6
Lab Sample ID: 440-249756-5
Date Collected: 09/09/19 08:35
Matrix: Solid
Date Received: 09/10/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	RA		6.868 g	10 mL	568590	09/10/19 11:00	HR	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	568539	09/13/19 13:12	HR	TAL IRV
Total/NA	Prep	5035			5.824 g	10 mL	568174	09/10/19 13:10	AYL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	568302	09/12/19 12:26	HR	TAL IRV

Lab Chronicle

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Client Sample ID: VP-1, 3-6

Date Collected: 09/09/19 08:35
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-5

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	3050B			2.02 g	50 mL	568616	09/13/19 10:52	DT	TAL IRV
Total/NA	Analysis	6010B		5			569266	09/17/19 17:07	TQN	TAL IRV

Client Sample ID: VP-2, 0-3

Date Collected: 09/09/19 09:25
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	RA		5.827 g	10 mL	568590	09/10/19 11:00	HR	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	568539	09/13/19 13:42	HR	TAL IRV
Total/NA	Prep	5035			4.163 g	10 mL	568174	09/10/19 13:10	AYL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	568302	09/12/19 12:55	HR	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	568616	09/13/19 10:52	DT	TAL IRV
Total/NA	Analysis	6010B		5			569266	09/17/19 17:10	TQN	TAL IRV

Client Sample ID: VP-3, 3-6

Date Collected: 09/09/19 09:38
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-7

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	5035	RA		5.979 g	10 mL	568590	09/10/19 11:00	HR	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	568539	09/13/19 14:12	HR	TAL IRV
Total/NA	Prep	5035			7.649 g	10 mL	568174	09/10/19 13:10	AYL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	568302	09/12/19 13:53	HR	TAL IRV
Total/NA	Prep	3050B			2.04 g	50 mL	568616	09/13/19 10:52	DT	TAL IRV
Total/NA	Analysis	6010B		5			569266	09/17/19 17:12	TQN	TAL IRV

Client Sample ID: VP-4, 0-3

Date Collected: 09/09/19 09:50
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	RA		4.535 g	10 mL	568590	09/10/19 11:00	HR	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	568539	09/13/19 14:42	HR	TAL IRV
Total/NA	Prep	5035			4.888 g	10 mL	568174	09/10/19 13:10	AYL	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	568302	09/12/19 13:24	HR	TAL IRV
Total/NA	Prep	3050B			2.03 g	50 mL	568616	09/13/19 10:52	DT	TAL IRV
Total/NA	Analysis	6010B		5			569266	09/17/19 17:14	TQN	TAL IRV

Client Sample ID: TRIP BLANK

Date Collected: 09/09/19 00:01
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-9

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	RA	1	10 mL	10 mL	568854	09/16/19 14:07	HR	TAL IRV
Total/NA	Analysis	8260B		1	10 mL	10 mL	568334	09/12/19 21:01	RM	TAL IRV

Lab Chronicle

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

Laboratory References:

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

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-1

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

Lab Sample ID: MB 440-568061/4
Matrix: Solid
Analysis Batch: 568061

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
4-Chlorotoluene	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
4-Methyl-2-pentanone	ND		5.0	2.5	ug/Kg			09/11/19 10:34	1
1,2-Dichloroethene, Total	ND		2.0	0.50	ug/Kg			09/11/19 10:34	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Bromobenzene	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
2-Hexanone	ND		25	5.0	ug/Kg			09/11/19 10:34	1
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
1,1,1,2-Tetrachloroethane	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Acetone	ND		20	8.0	ug/Kg			09/11/19 10:34	1
Carbon tetrachloride	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Chlorobenzene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Benzene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Bromomethane	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Chloroform	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Chloromethane	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Bromochloromethane	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Cyclohexane	ND		4.0	1.0	ug/Kg			09/11/19 10:34	1
Chloroethane	ND		5.0	2.0	ug/Kg			09/11/19 10:34	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Dibromomethane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Carbon disulfide	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Bromoform	ND		5.0	2.0	ug/Kg			09/11/19 10:34	1
Diisopropyl ether	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Ethyl tert-butyl ether	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
1,1-Dichloroethene	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			09/11/19 10:34	1
Freon TF	ND		10	5.0	ug/Kg			09/11/19 10:34	1
m&p-Xylene	ND		4.0	2.0	ug/Kg			09/11/19 10:34	1
Isobutyl alcohol	ND		50	25	ug/Kg			09/11/19 10:34	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Methyl iodide	ND		5.0	2.0	ug/Kg			09/11/19 10:34	1
2-Butanone	ND		10	5.0	ug/Kg			09/11/19 10:34	1
Methyl t-butyl ether	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Methylcyclohexane	ND		1.0	0.0010	ug/Kg			09/11/19 10:34	1

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

Lab Sample ID: MB 440-568061/4
Matrix: Solid
Analysis Batch: 568061

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		20	5.0	ug/Kg			09/11/19 10:34	1
Methyl acetate	ND		5.0	0.0010	ug/Kg			09/11/19 10:34	1
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
n-Butylbenzene	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
1,2,3-Trichlorobenzene	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
n-Propylbenzene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Hexachlorobutadiene	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Naphthalene	ND		5.0	2.0	ug/Kg			09/11/19 10:34	1
sec-Butylbenzene	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
o-Xylene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Styrene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
2-Chlorotoluene	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
tert-Butyl alcohol (TBA)	ND		100	10	ug/Kg			09/11/19 10:34	1
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			09/11/19 10:34	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg			09/11/19 10:34	1
Tetrahydrofuran	ND		20	5.0	ug/Kg			09/11/19 10:34	1
tert-Butylbenzene	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Toluene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Tert-amyl methyl ether	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
4-Isopropyltoluene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Trichloroethene	ND		2.0	1.0	ug/Kg			09/11/19 10:34	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Vinyl acetate	ND		8.0	4.0	ug/Kg			09/11/19 10:34	1
Vinyl chloride	ND		5.0	1.0	ug/Kg			09/11/19 10:34	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			09/11/19 10:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*82*		*79 - 123*		*09/11/19 10:34*	*1*
1,2-Dichloroethane-d4	*98*		*70 - 130*		*09/11/19 10:34*	*1*
4-Bromofluorobenzene (Surr)	*83*		*79 - 120*		*09/11/19 10:34*	*1*
Dibromofluoromethane (Surr)	*116*		*60 - 120*		*09/11/19 10:34*	*1*

Lab Sample ID: LCS 440-568061/5
Matrix: Solid
Analysis Batch: 568061

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	20.0	17.4		ug/Kg		87	70 - 130
1,2-Dichloroethane	20.0	20.8		ug/Kg		104	60 - 140
1,3,5-Trimethylbenzene	20.0	18.8		ug/Kg		94	70 - 125
1,2,4-Trichlorobenzene	20.0	17.7		ug/Kg		89	70 - 135
1,4-Dichlorobenzene	20.0	17.8		ug/Kg		89	75 - 120

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

Lab Sample ID: LCS 440-568061/5
Matrix: Solid
Analysis Batch: 568061

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichloropropane	20.0	17.2		ug/Kg		86	70 - 125
4-Chlorotoluene	20.0	18.9		ug/Kg		94	75 - 125
4-Methyl-2-pentanone	100	80.0		ug/Kg		80	40 - 145
1,3-Dichlorobenzene	20.0	18.1		ug/Kg		91	75 - 125
Bromobenzene	20.0	19.6		ug/Kg		98	75 - 120
1,1-Dichloropropene	20.0	19.6		ug/Kg		98	70 - 130
2-Hexanone	100	79.3		ug/Kg		79	40 - 150
2,2-Dichloropropane	20.0	22.4		ug/Kg		112	60 - 145
1,1,1,2-Tetrachloroethane	20.0	20.0		ug/Kg		100	70 - 130
Acetone	100	79.3		ug/Kg		79	25 - 145
Carbon tetrachloride	20.0	21.6		ug/Kg		108	65 - 140
Chlorobenzene	20.0	19.3		ug/Kg		96	75 - 120
Benzene	20.0	18.5		ug/Kg		93	65 - 120
1,1,1-Trichloroethane	20.0	21.6		ug/Kg		108	65 - 135
Bromomethane	20.0	16.4		ug/Kg		82	60 - 145
Chloroform	20.0	21.1		ug/Kg		106	70 - 130
Chloromethane	20.0	22.2		ug/Kg		111	45 - 145
cis-1,2-Dichloroethene	20.0	18.6		ug/Kg		93	70 - 125
cis-1,3-Dichloropropene	20.0	17.5		ug/Kg		87	75 - 125
Bromochloromethane	20.0	19.6		ug/Kg		98	70 - 135
Cyclohexane	20.0	16.4		ug/Kg		82	60 - 140
Chloroethane	20.0	15.9		ug/Kg		79	60 - 140
Dibromochloromethane	20.0	19.5		ug/Kg		98	65 - 140
Dibromomethane	20.0	17.0		ug/Kg		85	70 - 130
Carbon disulfide	20.0	18.6		ug/Kg		93	50 - 130
Bromoform	20.0	22.2		ug/Kg		111	55 - 135
Diisopropyl ether	20.0	19.5		ug/Kg		98	60 - 140
Bromodichloromethane	20.0	19.1		ug/Kg		96	70 - 135
Ethyl tert-butyl ether	20.0	15.8		ug/Kg		79	60 - 140
1,1-Dichloroethane	20.0	19.5		ug/Kg		98	70 - 130
Ethylbenzene	20.0	20.0		ug/Kg		100	70 - 125
1,1-Dichloroethene	20.0	19.4		ug/Kg		97	70 - 125
Dichlorodifluoromethane	20.0	18.3		ug/Kg		92	35 - 160
Freon TF	20.0	19.3		ug/Kg		97	60 - 140
m&p-Xylene	20.0	19.8		ug/Kg		99	70 - 125
Isobutyl alcohol	500	366		ug/Kg		73	60 - 140
1,2-Dichloropropane	20.0	15.9		ug/Kg		80	70 - 130
Methyl iodide	20.0	19.9		ug/Kg		99	60 - 140
2-Butanone	100	94.7		ug/Kg		95	40 - 145
Methyl t-butyl ether	20.0	17.4		ug/Kg		87	60 - 140
1,1,2-Trichloroethane	20.0	16.6		ug/Kg		83	65 - 135
Methylcyclohexane	20.0	18.4		ug/Kg		92	60 - 140
Methylene Chloride	20.0	18.1	J	ug/Kg		91	55 - 135
Methyl acetate	40.0	30.9		ug/Kg		77	60 - 140
1,1,2,2-Tetrachloroethane	20.0	16.1		ug/Kg		81	55 - 140
n-Butylbenzene	20.0	17.6		ug/Kg		88	70 - 130
1,2,3-Trichlorobenzene	20.0	17.0		ug/Kg		85	60 - 130
n-Propylbenzene	20.0	18.7		ug/Kg		93	70 - 130
Hexachlorobutadiene	20.0	22.9		ug/Kg		115	60 - 135

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

Lab Sample ID: LCS 440-568061/5
Matrix: Solid
Analysis Batch: 568061

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	20.0	13.8		ug/Kg		69	55 - 135
sec-Butylbenzene	20.0	18.1		ug/Kg		90	70 - 125
o-Xylene	20.0	19.9		ug/Kg		99	70 - 125
Styrene	20.0	18.3		ug/Kg		92	75 - 130
2-Chlorotoluene	20.0	18.3		ug/Kg		92	70 - 125
1,2-Dichlorobenzene	20.0	16.7		ug/Kg		84	75 - 120
tert-Butyl alcohol (TBA)	200	217		ug/Kg		109	70 - 135
1,2,4-Trimethylbenzene	20.0	18.3		ug/Kg		92	70 - 125
1,2-Dibromo-3-Chloropropane	20.0	16.6		ug/Kg		83	50 - 135
Tetrachloroethene	20.0	20.3		ug/Kg		101	70 - 125
1,2,3-Trichloropropane	20.0	17.9		ug/Kg		90	60 - 135
Tetrahydrofuran	40.0	32.3		ug/Kg		81	60 - 140
tert-Butylbenzene	20.0	18.6		ug/Kg		93	70 - 125
Toluene	20.0	18.1		ug/Kg		91	70 - 125
Isopropylbenzene	20.0	20.2		ug/Kg		101	75 - 130
Tert-amyl methyl ether	20.0	14.1		ug/Kg		70	60 - 145
trans-1,2-Dichloroethene	20.0	17.8		ug/Kg		89	70 - 125
4-Isopropyltoluene	20.0	18.5		ug/Kg		93	75 - 125
trans-1,3-Dichloropropene	20.0	20.5		ug/Kg		103	70 - 135
Trichloroethene	20.0	18.9		ug/Kg		94	70 - 125
Trichlorofluoromethane	20.0	21.2		ug/Kg		106	60 - 145
Vinyl acetate	20.0	18.0		ug/Kg		90	45 - 145
Vinyl chloride	20.0	24.8		ug/Kg		124	55 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8	*88*		*79 - 123*
1,2-Dichloroethane-d4	*101*		*70 - 130*
4-Bromofluorobenzene (Surr)	*82*		*79 - 120*
Dibromofluoromethane (Surr)	*110*		*60 - 120*

Lab Sample ID: MB 440-568302/4
Matrix: Solid
Analysis Batch: 568302

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
1,2-Dichloroethane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
1,3,5-Trimethylbenzene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
1,2,4-Trichlorobenzene	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
1,4-Dichlorobenzene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
1,3-Dichloropropane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
4-Chlorotoluene	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
4-Methyl-2-pentanone	ND		5.0	2.5	ug/Kg			09/12/19 08:30	1
1,2-Dichloroethene, Total	ND		2.0	0.50	ug/Kg			09/12/19 08:30	1
1,3-Dichlorobenzene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Bromobenzene	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
1,1-Dichloropropene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
2-Hexanone	ND		25	5.0	ug/Kg			09/12/19 08:30	1

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

Lab Sample ID: MB 440-568302/4
Matrix: Solid
Analysis Batch: 568302

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
1,1,1,2-Tetrachloroethane	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Acetone	ND		20	8.0	ug/Kg			09/12/19 08:30	1
Carbon tetrachloride	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Chlorobenzene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Benzene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
1,1,1-Trichloroethane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Bromomethane	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Chloroform	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Chloromethane	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
cis-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Bromochloromethane	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Cyclohexane	ND		4.0	1.0	ug/Kg			09/12/19 08:30	1
Chloroethane	ND		5.0	2.0	ug/Kg			09/12/19 08:30	1
Dibromochloromethane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Dibromomethane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Carbon disulfide	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Bromoform	ND		5.0	2.0	ug/Kg			09/12/19 08:30	1
Diisopropyl ether	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Bromodichloromethane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Ethyl tert-butyl ether	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
1,1-Dichloroethane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Ethylbenzene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
1,1-Dichloroethene	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Dichlorodifluoromethane	ND		5.0	2.0	ug/Kg			09/12/19 08:30	1
Freon TF	ND		10	5.0	ug/Kg			09/12/19 08:30	1
m&p-Xylene	ND		4.0	2.0	ug/Kg			09/12/19 08:30	1
Isobutyl alcohol	ND		50	25	ug/Kg			09/12/19 08:30	1
1,2-Dichloropropane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Methyl iodide	ND		5.0	2.0	ug/Kg			09/12/19 08:30	1
2-Butanone	ND		10	5.0	ug/Kg			09/12/19 08:30	1
Methyl t-butyl ether	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
1,1,2-Trichloroethane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Methylcyclohexane	ND		1.0	0.0010	ug/Kg			09/12/19 08:30	1
Methylene Chloride	ND		20	5.0	ug/Kg			09/12/19 08:30	1
Methyl acetate	ND		5.0	0.0010	ug/Kg			09/12/19 08:30	1
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
n-Butylbenzene	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
1,2,3-Trichlorobenzene	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
n-Propylbenzene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Hexachlorobutadiene	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Naphthalene	ND		5.0	2.0	ug/Kg			09/12/19 08:30	1
sec-Butylbenzene	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
o-Xylene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Styrene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
2-Chlorotoluene	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
1,2-Dichlorobenzene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
tert-Butyl alcohol (TBA)	ND		100	10	ug/Kg			09/12/19 08:30	1

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

Lab Sample ID: MB 440-568302/4
Matrix: Solid
Analysis Batch: 568302

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/Kg			09/12/19 08:30	1
Tetrachloroethene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
1,2,3-Trichloropropane	ND		10	1.0	ug/Kg			09/12/19 08:30	1
Tetrahydrofuran	ND		20	5.0	ug/Kg			09/12/19 08:30	1
tert-Butylbenzene	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Toluene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Isopropylbenzene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Tert-amyl methyl ether	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
4-Isopropyltoluene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
trans-1,3-Dichloropropene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Trichloroethene	ND		2.0	1.0	ug/Kg			09/12/19 08:30	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Vinyl acetate	ND		8.0	4.0	ug/Kg			09/12/19 08:30	1
Vinyl chloride	ND		5.0	1.0	ug/Kg			09/12/19 08:30	1
Xylenes, Total	ND		4.0	2.0	ug/Kg			09/12/19 08:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*103*		*79 - 123*		*09/12/19 08:30*	*1*
1,2-Dichloroethane-d4	*102*		*70 - 130*		*09/12/19 08:30*	*1*
4-Bromofluorobenzene (Surr)	*102*		*79 - 120*		*09/12/19 08:30*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 120*		*09/12/19 08:30*	*1*

Lab Sample ID: LCS 440-568302/5
Matrix: Solid
Analysis Batch: 568302

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	20.0	19.7		ug/Kg		98	70 - 130
1,2-Dichloroethane	20.0	17.3		ug/Kg		87	60 - 140
1,3,5-Trimethylbenzene	20.0	19.3		ug/Kg		96	70 - 125
1,2,4-Trichlorobenzene	20.0	21.3		ug/Kg		107	70 - 135
1,4-Dichlorobenzene	20.0	19.3		ug/Kg		97	75 - 120
1,3-Dichloropropane	20.0	18.8		ug/Kg		94	70 - 125
4-Chlorotoluene	20.0	20.8		ug/Kg		104	75 - 125
4-Methyl-2-pentanone	100	92.8		ug/Kg		93	40 - 145
1,3-Dichlorobenzene	20.0	19.9		ug/Kg		100	75 - 125
Bromobenzene	20.0	19.2		ug/Kg		96	75 - 120
1,1-Dichloropropene	20.0	18.9		ug/Kg		94	70 - 130
2-Hexanone	100	99.7		ug/Kg		100	40 - 150
2,2-Dichloropropane	20.0	19.1		ug/Kg		96	60 - 145
1,1,1,2-Tetrachloroethane	20.0	18.5		ug/Kg		92	70 - 130
Acetone	100	103		ug/Kg		103	25 - 145
Carbon tetrachloride	20.0	17.6		ug/Kg		88	65 - 140
Chlorobenzene	20.0	18.1		ug/Kg		91	75 - 120
Benzene	20.0	17.7		ug/Kg		88	65 - 120
1,1,1-Trichloroethane	20.0	18.5		ug/Kg		93	65 - 135

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

Lab Sample ID: LCS 440-568302/5
Matrix: Solid
Analysis Batch: 568302

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	17.0		ug/Kg		85	60 - 145
Chloroform	20.0	18.6		ug/Kg		93	70 - 130
Chloromethane	20.0	15.0		ug/Kg		75	45 - 145
cis-1,2-Dichloroethene	20.0	19.3		ug/Kg		96	70 - 125
cis-1,3-Dichloropropene	20.0	19.5		ug/Kg		97	75 - 125
Bromochloromethane	20.0	18.8		ug/Kg		94	70 - 135
Cyclohexane	20.0	18.1		ug/Kg		90	60 - 140
Chloroethane	20.0	16.5		ug/Kg		82	60 - 140
Dibromochloromethane	20.0	18.8		ug/Kg		94	65 - 140
Dibromomethane	20.0	18.3		ug/Kg		91	70 - 130
Carbon disulfide	20.0	16.9		ug/Kg		84	50 - 130
Bromoform	20.0	19.0		ug/Kg		95	55 - 135
Diisopropyl ether	20.0	18.7		ug/Kg		93	60 - 140
Bromodichloromethane	20.0	18.8		ug/Kg		94	70 - 135
Ethyl tert-butyl ether	20.0	18.5		ug/Kg		92	60 - 140
1,1-Dichloroethane	20.0	18.0		ug/Kg		90	70 - 130
Ethylbenzene	20.0	19.4		ug/Kg		97	70 - 125
1,1-Dichloroethene	20.0	17.1		ug/Kg		85	70 - 125
Dichlorodifluoromethane	20.0	14.8		ug/Kg		74	35 - 160
Freon TF	20.0	18.2		ug/Kg		91	60 - 140
m&p-Xylene	20.0	20.1		ug/Kg		100	70 - 125
Isobutyl alcohol	500	445		ug/Kg		89	60 - 140
1,2-Dichloropropane	20.0	17.7		ug/Kg		89	70 - 130
Methyl iodide	20.0	17.7		ug/Kg		88	60 - 140
2-Butanone	100	87.8		ug/Kg		88	40 - 145
Methyl t-butyl ether	20.0	19.1		ug/Kg		95	60 - 140
1,1,2-Trichloroethane	20.0	19.2		ug/Kg		96	65 - 135
Methylcyclohexane	20.0	19.2		ug/Kg		96	60 - 140
Methylene Chloride	20.0	17.5	J	ug/Kg		88	55 - 135
Methyl acetate	40.0	35.8		ug/Kg		90	60 - 140
1,1,2,2-Tetrachloroethane	20.0	19.6		ug/Kg		98	55 - 140
n-Butylbenzene	20.0	20.5		ug/Kg		102	70 - 130
1,2,3-Trichlorobenzene	20.0	20.8		ug/Kg		104	60 - 130
n-Propylbenzene	20.0	21.0		ug/Kg		105	70 - 130
Hexachlorobutadiene	20.0	20.3		ug/Kg		101	60 - 135
Naphthalene	20.0	19.2		ug/Kg		96	55 - 135
sec-Butylbenzene	20.0	21.4		ug/Kg		107	70 - 125
o-Xylene	20.0	20.6		ug/Kg		103	70 - 125
Styrene	20.0	19.6		ug/Kg		98	75 - 130
2-Chlorotoluene	20.0	19.2		ug/Kg		96	70 - 125
1,2-Dichlorobenzene	20.0	20.2		ug/Kg		101	75 - 120
tert-Butyl alcohol (TBA)	200	183		ug/Kg		91	70 - 135
1,2,4-Trimethylbenzene	20.0	19.6		ug/Kg		98	70 - 125
1,2-Dibromo-3-Chloropropane	20.0	17.7		ug/Kg		88	50 - 135
Tetrachloroethene	20.0	20.4		ug/Kg		102	70 - 125
1,2,3-Trichloropropane	20.0	19.2		ug/Kg		96	60 - 135
Tetrahydrofuran	40.0	33.7		ug/Kg		84	60 - 140
tert-Butylbenzene	20.0	19.6		ug/Kg		98	70 - 125
Toluene	20.0	18.7		ug/Kg		94	70 - 125

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

Lab Sample ID: LCS 440-568302/5
Matrix: Solid
Analysis Batch: 568302

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	20.0	20.0		ug/Kg		100	75 - 130
Tert-amyl methyl ether	20.0	18.4		ug/Kg		92	60 - 145
trans-1,2-Dichloroethene	20.0	18.2		ug/Kg		91	70 - 125
4-Isopropyltoluene	20.0	21.0		ug/Kg		105	75 - 125
trans-1,3-Dichloropropene	20.0	19.5		ug/Kg		98	70 - 135
Trichloroethene	20.0	19.4		ug/Kg		97	70 - 125
Trichlorofluoromethane	20.0	17.6		ug/Kg		88	60 - 145
Vinyl acetate	20.0	17.0		ug/Kg		85	45 - 145
Vinyl chloride	20.0	16.3		ug/Kg		82	55 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8	*100*		*79 - 123*
1,2-Dichloroethane-d4	*101*		*70 - 130*
4-Bromofluorobenzene (Surr)	*104*		*79 - 120*
Dibromofluoromethane (Surr)	*96*		*60 - 120*

Lab Sample ID: MB 440-568334/4
Matrix: Water
Analysis Batch: 568334

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
1,2-Dichloroethane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
1,3,5-Trimethylbenzene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
1,2,4-Trichlorobenzene	ND		5.0	0.40	ug/L			09/12/19 11:07	1
1,4-Dichlorobenzene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
1,3-Dichloropropane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
4-Chlorotoluene	ND		5.0	0.25	ug/L			09/12/19 11:07	1
4-Methyl-2-pentanone	ND		10	2.5	ug/L			09/12/19 11:07	1
1,2-Dichloroethene, Total	ND		2.0	0.25	ug/L			09/12/19 11:07	1
1,3-Dichlorobenzene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Bromobenzene	ND		5.0	0.25	ug/L			09/12/19 11:07	1
1,1-Dichloropropene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
2-Hexanone	ND		10	2.5	ug/L			09/12/19 11:07	1
2,2-Dichloropropane	ND		2.0	0.40	ug/L			09/12/19 11:07	1
1,1,1,2-Tetrachloroethane	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Acetone	ND		20	10	ug/L			09/12/19 11:07	1
Carbon tetrachloride	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Chlorobenzene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Benzene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
1,1,1-Trichloroethane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Bromomethane	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Chloroform	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Chloromethane	ND		5.0	0.25	ug/L			09/12/19 11:07	1
cis-1,2-Dichloroethene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
cis-1,3-Dichloropropene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Bromochloromethane	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Cyclohexane	ND		3.0	1.0	ug/L			09/12/19 11:07	1

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

Lab Sample ID: MB 440-568334/4
Matrix: Water
Analysis Batch: 568334

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	ND		5.0	0.40	ug/L			09/12/19 11:07	1
Dibromochloromethane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Dibromomethane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Carbon disulfide	ND		5.0	0.50	ug/L			09/12/19 11:07	1
Bromoform	ND		5.0	0.40	ug/L			09/12/19 11:07	1
Diisopropyl ether	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Bromodichloromethane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Ethyl tert-butyl ether	ND		5.0	0.25	ug/L			09/12/19 11:07	1
1,1-Dichloroethane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Ethylbenzene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
1,1-Dichloroethene	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Dichlorodifluoromethane	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Freon TF	ND		5.0	0.50	ug/L			09/12/19 11:07	1
m&p-Xylene	ND		2.0	0.50	ug/L			09/12/19 11:07	1
Isobutyl alcohol	ND		25	13	ug/L			09/12/19 11:07	1
1,2-Dichloropropane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Methyl iodide	ND		2.0	1.0	ug/L			09/12/19 11:07	1
2-Butanone	ND		10	2.5	ug/L			09/12/19 11:07	1
Methyl t-butyl ether	ND		1.0	0.25	ug/L			09/12/19 11:07	1
1,1,2-Trichloroethane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Methylcyclohexane	ND		0.50	0.0010	ug/L			09/12/19 11:07	1
Methylene Chloride	1.47	J	5.0	1.1	ug/L			09/12/19 11:07	1
1,1,2,2-Tetrachloroethane	ND		2.0	0.25	ug/L			09/12/19 11:07	1
n-Butylbenzene	ND		5.0	0.40	ug/L			09/12/19 11:07	1
1,2,3-Trichlorobenzene	ND		5.0	0.40	ug/L			09/12/19 11:07	1
n-Propylbenzene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Hexachlorobutadiene	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Naphthalene	ND		5.0	0.40	ug/L			09/12/19 11:07	1
sec-Butylbenzene	ND		5.0	0.25	ug/L			09/12/19 11:07	1
o-Xylene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Styrene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
2-Chlorotoluene	ND		5.0	0.25	ug/L			09/12/19 11:07	1
1,2-Dichlorobenzene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			09/12/19 11:07	1
1,2,4-Trimethylbenzene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.50	ug/L			09/12/19 11:07	1
Tetrachloroethene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
1,2,3-Trichloropropane	ND		10	0.25	ug/L			09/12/19 11:07	1
Tetrahydrofuran	ND		10	5.0	ug/L			09/12/19 11:07	1
tert-Butylbenzene	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Toluene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Isopropylbenzene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Tert-amyl methyl ether	ND		5.0	0.25	ug/L			09/12/19 11:07	1
trans-1,2-Dichloroethene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
4-Isopropyltoluene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
trans-1,3-Dichloropropene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Trichloroethene	ND		2.0	0.25	ug/L			09/12/19 11:07	1
Trichlorofluoromethane	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Vinyl acetate	ND		5.0	2.0	ug/L			09/12/19 11:07	1

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

Lab Sample ID: MB 440-568334/4
Matrix: Water
Analysis Batch: 568334

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		5.0	0.25	ug/L			09/12/19 11:07	1
Xylenes, Total	ND		2.0	0.25	ug/L			09/12/19 11:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*104*		*80 - 128*		*09/12/19 11:07*	*1*
1,2-Dichloroethane-d4	*102*		*70 - 130*		*09/12/19 11:07*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*09/12/19 11:07*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*09/12/19 11:07*	*1*

Lab Sample ID: LCS 440-568334/5
Matrix: Water
Analysis Batch: 568334

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane	10.0	10.7		ug/L		107	70 - 130
1,2-Dichloroethane	10.0	10.3		ug/L		103	57 - 138
1,3,5-Trimethylbenzene	10.0	11.1		ug/L		111	70 - 136
1,2,4-Trichlorobenzene	10.0	10.8		ug/L		108	60 - 140
1,4-Dichlorobenzene	10.0	10.2		ug/L		102	70 - 130
1,3-Dichloropropane	10.0	10.8		ug/L		108	70 - 130
4-Chlorotoluene	10.0	11.1		ug/L		111	70 - 130
4-Methyl-2-pentanone	50.0	56.0		ug/L		112	59 - 149
1,3-Dichlorobenzene	10.0	10.1		ug/L		101	70 - 130
Bromobenzene	10.0	10.0		ug/L		100	70 - 130
1,1-Dichloropropene	10.0	10.7		ug/L		107	70 - 130
2-Hexanone	50.0	56.4		ug/L		113	10 - 150
2,2-Dichloropropane	10.0	10.7		ug/L		107	68 - 141
1,1,1,2-Tetrachloroethane	10.0	10.5		ug/L		105	60 - 141
Acetone	50.0	51.2		ug/L		102	10 - 150
Carbon tetrachloride	10.0	10.2		ug/L		102	60 - 150
Chlorobenzene	10.0	10.3		ug/L		103	70 - 130
Benzene	10.0	10.3		ug/L		103	68 - 130
1,1,1-Trichloroethane	10.0	10.4		ug/L		104	70 - 130
Bromomethane	10.0	9.37		ug/L		94	64 - 139
Chloroform	10.0	10.1		ug/L		101	70 - 130
Chloromethane	10.0	8.04		ug/L		80	47 - 140
cis-1,2-Dichloroethene	10.0	10.9		ug/L		109	70 - 133
cis-1,3-Dichloropropene	10.0	11.2		ug/L		112	70 - 133
Bromochloromethane	10.0	10.7		ug/L		107	70 - 130
Cyclohexane	10.0	10.8		ug/L		108	70 - 130
Chloroethane	10.0	9.12		ug/L		91	64 - 135
Dibromochloromethane	10.0	11.1		ug/L		111	69 - 145
Dibromomethane	10.0	10.8		ug/L		108	70 - 130
Carbon disulfide	10.0	9.83		ug/L		98	52 - 136
Bromoform	10.0	10.7		ug/L		107	60 - 148
Diisopropyl ether	10.0	10.5		ug/L		105	58 - 139
Bromodichloromethane	10.0	10.3		ug/L		103	70 - 132
Ethyl tert-butyl ether	10.0	10.6		ug/L		106	60 - 136

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

Lab Sample ID: LCS 440-568334/5
Matrix: Water
Analysis Batch: 568334

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	10.0	10.7		ug/L		107	64 - 130
Ethylbenzene	10.0	11.2		ug/L		112	70 - 130
1,1-Dichloroethene	10.0	9.76		ug/L		98	70 - 130
Dichlorodifluoromethane	10.0	7.95		ug/L		79	29 - 150
Freon TF	10.0	10.3		ug/L		103	60 - 140
m&p-Xylene	10.0	11.4		ug/L		114	70 - 130
Isobutyl alcohol	250	266		ug/L		106	56 - 140
1,2-Dichloropropane	10.0	10.1		ug/L		101	67 - 130
Methyl iodide	10.0	10.0		ug/L		100	60 - 140
2-Butanone	50.0	52.3		ug/L		105	44 - 150
Methyl t-butyl ether	10.0	10.3		ug/L		103	63 - 131
1,1,2-Trichloroethane	10.0	10.8		ug/L		108	70 - 130
Methylcyclohexane	10.0	10.9		ug/L		109	60 - 140
Methylene Chloride	10.0	10.8		ug/L		108	52 - 130
1,1,2,2-Tetrachloroethane	10.0	10.8		ug/L		108	63 - 130
n-Butylbenzene	10.0	11.4		ug/L		114	65 - 150
1,2,3-Trichlorobenzene	10.0	10.9		ug/L		109	60 - 140
n-Propylbenzene	10.0	10.8		ug/L		108	67 - 139
Hexachlorobutadiene	10.0	10.8		ug/L		108	10 - 150
Naphthalene	10.0	10.9		ug/L		109	60 - 140
sec-Butylbenzene	10.0	11.1		ug/L		111	70 - 138
o-Xylene	10.0	11.6		ug/L		116	70 - 130
Styrene	10.0	10.8		ug/L		108	70 - 134
2-Chlorotoluene	10.0	10.8		ug/L		108	70 - 130
1,2-Dichlorobenzene	10.0	10.5		ug/L		105	70 - 130
tert-Butyl alcohol (TBA)	100	97.2		ug/L		97	70 - 130
1,2,4-Trimethylbenzene	10.0	11.4		ug/L		114	70 - 135
1,2-Dibromo-3-Chloropropane	10.0	11.3		ug/L		113	52 - 140
Tetrachloroethene	10.0	10.7		ug/L		107	70 - 130
1,2,3-Trichloropropane	10.0	11.1		ug/L		111	63 - 130
Tetrahydrofuran	20.0	19.8		ug/L		99	36 - 147
tert-Butylbenzene	10.0	11.1		ug/L		111	70 - 130
Toluene	10.0	10.5		ug/L		105	70 - 130
Isopropylbenzene	10.0	11.4		ug/L		114	70 - 136
Tert-amyl methyl ether	10.0	9.79		ug/L		98	57 - 139
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	70 - 130
4-Isopropyltoluene	10.0	10.9		ug/L		109	70 - 132
trans-1,3-Dichloropropene	10.0	11.4		ug/L		114	70 - 132
Trichloroethene	10.0	10.1		ug/L		101	70 - 130
Trichlorofluoromethane	10.0	10.1		ug/L		101	60 - 150
Vinyl acetate	10.0	12.4		ug/L		124	48 - 140
Vinyl chloride	10.0	8.97		ug/L		90	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8	*102*		*80 - 128*
1,2-Dichloroethane-d4	*99*		*70 - 130*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*76 - 132*

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

Lab Sample ID: MB 440-568539/4
Matrix: Solid
Analysis Batch: 568539

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isobutyl alcohol	ND		50	25	ug/Kg			09/13/19 08:39	1
Methyl acetate	ND		5.0	0.0010	ug/Kg			09/13/19 08:39	1
tert-Butyl alcohol (TBA)	ND		100	10	ug/Kg			09/13/19 08:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8	*104*		*79 - 123*		*09/13/19 08:39*	*1*
1,2-Dichloroethane-d4	*111*		*70 - 130*		*09/13/19 08:39*	*1*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*		*09/13/19 08:39*	*1*
Dibromofluoromethane (Surr)	*105*		*60 - 120*		*09/13/19 08:39*	*1*

Lab Sample ID: LCS 440-568539/5
Matrix: Solid
Analysis Batch: 568539

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Isobutyl alcohol			500	440		ug/Kg		88	60 - 140		
Methyl acetate			40.0	38.6		ug/Kg		97	60 - 140		
tert-Butyl alcohol (TBA)			200	207		ug/Kg		104	70 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8	*99*		*79 - 123*
1,2-Dichloroethane-d4	*102*		*70 - 130*
4-Bromofluorobenzene (Surr)	*101*		*79 - 120*
Dibromofluoromethane (Surr)	*104*		*60 - 120*

Lab Sample ID: LCSD 440-568539/6
Matrix: Solid
Analysis Batch: 568539

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
Isobutyl alcohol			500	408		ug/Kg		82	60 - 140	7	40
Methyl acetate			40.0	52.3	*	ug/Kg		131	60 - 140	30	20
tert-Butyl alcohol (TBA)			200	168	*	ug/Kg		84	70 - 135	21	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8	*102*		*79 - 123*
1,2-Dichloroethane-d4	*110*		*70 - 130*
4-Bromofluorobenzene (Surr)	*99*		*79 - 120*
Dibromofluoromethane (Surr)	*104*		*60 - 120*

Lab Sample ID: MB 440-568854/29
Matrix: Water
Analysis Batch: 568854

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl acetate	ND		2.5	0.0010	ug/L			09/16/19 11:32	1

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

Lab Sample ID: MB 440-568854/29
Matrix: Water
Analysis Batch: 568854

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8	*93*		*80 - 128*		*09/16/19 11:32*	*1*
1,2-Dichloroethane-d4	*91*		*70 - 130*		*09/16/19 11:32*	*1*
4-Bromofluorobenzene (Surr)	*86*		*80 - 120*		*09/16/19 11:32*	*1*
Dibromofluoromethane (Surr)	*102*		*76 - 132*		*09/16/19 11:32*	*1*

Lab Sample ID: LCS 440-568854/5
Matrix: Water
Analysis Batch: 568854

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methyl acetate			20.0	15.7		ug/L		78	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8	*90*		*80 - 128*
1,2-Dichloroethane-d4	*96*		*70 - 130*
4-Bromofluorobenzene (Surr)	*83*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*76 - 132*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-568616/1-A ^5
Matrix: Solid
Analysis Batch: 569266

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		2.0	1.0	mg/Kg		09/13/19 10:52	09/17/19 16:11	5

Lab Sample ID: LCS 440-568616/2-A ^5
Matrix: Solid
Analysis Batch: 569266

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568616

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			24.9	24.1		mg/Kg		97	80 - 120		

GC/MS VOA

Analysis Batch: 568061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-1	B-1, 15-20	Total/NA	Solid	8260B	568174
440-249756-2	B-2, 15-20	Total/NA	Solid	8260B	568174
440-249756-3	B-3, 10-15	Total/NA	Solid	8260B	568174
MB 440-568061/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-568061/5	Lab Control Sample	Total/NA	Solid	8260B	

Prep Batch: 568174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-1	B-1, 15-20	Total/NA	Solid	5035	
440-249756-2	B-2, 15-20	Total/NA	Solid	5035	
440-249756-3	B-3, 10-15	Total/NA	Solid	5035	
440-249756-5	VP-1, 3-6	Total/NA	Solid	5035	
440-249756-6	VP-2, 0-3	Total/NA	Solid	5035	
440-249756-7	VP-3, 3-6	Total/NA	Solid	5035	
440-249756-8	VP-4, 0-3	Total/NA	Solid	5035	

Analysis Batch: 568302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-4	B-4, 5-10	Total/NA	Solid	8260B	568355
440-249756-5	VP-1, 3-6	Total/NA	Solid	8260B	568174
440-249756-6	VP-2, 0-3	Total/NA	Solid	8260B	568174
440-249756-7	VP-3, 3-6	Total/NA	Solid	8260B	568174
440-249756-8	VP-4, 0-3	Total/NA	Solid	8260B	568174
MB 440-568302/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-568302/5	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 568334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-9	TRIP BLANK	Total/NA	Water	8260B	
MB 440-568334/4	Method Blank	Total/NA	Water	8260B	
LCS 440-568334/5	Lab Control Sample	Total/NA	Water	8260B	

Prep Batch: 568355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-4	B-4, 5-10	Total/NA	Solid	5035	

Analysis Batch: 568539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-4 - RA	B-4, 5-10	Total/NA	Solid	8260B	568590
440-249756-5 - RA	VP-1, 3-6	Total/NA	Solid	8260B	568590
440-249756-6 - RA	VP-2, 0-3	Total/NA	Solid	8260B	568590
440-249756-7 - RA	VP-3, 3-6	Total/NA	Solid	8260B	568590
440-249756-8 - RA	VP-4, 0-3	Total/NA	Solid	8260B	568590
MB 440-568539/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-568539/5	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 440-568539/6	Lab Control Sample Dup	Total/NA	Solid	8260B	

Prep Batch: 568590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-4 - RA	B-4, 5-10	Total/NA	Solid	5035	
440-249756-5 - RA	VP-1, 3-6	Total/NA	Solid	5035	

GC/MS VOA (Continued)

Prep Batch: 568590 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-6 - RA	VP-2, 0-3	Total/NA	Solid	5035	
440-249756-7 - RA	VP-3, 3-6	Total/NA	Solid	5035	
440-249756-8 - RA	VP-4, 0-3	Total/NA	Solid	5035	

Analysis Batch: 568854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-9 - RA	TRIP BLANK	Total/NA	Water	8260B	
MB 440-568854/29	Method Blank	Total/NA	Water	8260B	
LCS 440-568854/5	Lab Control Sample	Total/NA	Water	8260B	

Metals

Prep Batch: 568616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-1	B-1, 15-20	Total/NA	Solid	3050B	
440-249756-2	B-2, 15-20	Total/NA	Solid	3050B	
440-249756-3	B-3, 10-15	Total/NA	Solid	3050B	
440-249756-4	B-4, 5-10	Total/NA	Solid	3050B	
440-249756-5	VP-1, 3-6	Total/NA	Solid	3050B	
440-249756-6	VP-2, 0-3	Total/NA	Solid	3050B	
440-249756-7	VP-3, 3-6	Total/NA	Solid	3050B	
440-249756-8	VP-4, 0-3	Total/NA	Solid	3050B	
MB 440-568616/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 440-568616/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 569266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-1	B-1, 15-20	Total/NA	Solid	6010B	568616
440-249756-2	B-2, 15-20	Total/NA	Solid	6010B	568616
440-249756-3	B-3, 10-15	Total/NA	Solid	6010B	568616
440-249756-4	B-4, 5-10	Total/NA	Solid	6010B	568616
440-249756-5	VP-1, 3-6	Total/NA	Solid	6010B	568616
440-249756-6	VP-2, 0-3	Total/NA	Solid	6010B	568616
440-249756-7	VP-3, 3-6	Total/NA	Solid	6010B	568616
440-249756-8	VP-4, 0-3	Total/NA	Solid	6010B	568616
MB 440-568616/1-A ^5	Method Blank	Total/NA	Solid	6010B	568616
LCS 440-568616/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	568616

Definitions/Glossary

Client: Giles Engineering Associates
Job ID: 440-249756-1
Project/Site: Starbucks/Torrance, CA /2E-1908009

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
ID	Analyte identified by RT & presence of single mass ion
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control 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)

Accreditation/Certification Summary

Client: Giles Engineering Associates
Job ID: 440-249756-1
Project/Site: Starbucks/Torrance, CA /2E-1908009

Laboratory: Eurofins TestAmerica, Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State Program	CA ELAP 2706	06-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260B		Water	Cyclohexane
8260B		Water	Diisopropyl ether
8260B		Water	Ethyl tert-butyl ether
8260B		Water	Freon TF
8260B		Water	Methyl acetate
8260B		Water	Methylcyclohexane
8260B		Water	Tert-amyl methyl ether
8260B		Water	Tetrahydrofuran
8260B	5035	Solid	1,2-Dichloroethene, Total
8260B	5035	Solid	Cyclohexane
8260B	5035	Solid	Diisopropyl ether
8260B	5035	Solid	Ethyl tert-butyl ether
8260B	5035	Solid	Freon TF
8260B	5035	Solid	m&p-Xylene
8260B	5035	Solid	Methyl acetate
8260B	5035	Solid	Methylcyclohexane
8260B	5035	Solid	Tert-amyl methyl ether
8260B	5035	Solid	Tetrahydrofuran
8260B	5035	Solid	Xylenes, Total

Eurofins TestAmerica, Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Dallas/Ft. Worth #238

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler:	Lab PM: McKinney, Jamie A	Carrier Tracking No(s): 6025 5779 5200	COC No: 440-169680-31111.1
Client Contact: Cade Klock	Phone:	E-Mail: jamie.mckinney@testamericainc.com		Page: Page 1 of 1
Company: Giles Engineering Associates				Job #:
Address: 1965 N Main Street	Due Date Requested:			
City: Orange	TAT Requested (days): 7-day			
State, Zip: CA, 92865				
Phone: 214-358-5885(Tel) 214-358-5884(Fax)	PO #: 2E-1908009			
Email: CKlock@gilesengr.com	WO #:			
Project Name: Starbucks/Torrance, CA/2E-1908009	Project #: 44010640			
Site:	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 - Na2S2O3
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)	6010B, 8015B_GRO, 8270C, Moisture	8260B - (MOD) Routine 8260	8260B - (MOD) Routine 8260 + oxygenates	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	A		
B-1, 15-20	9-9-19	8:25	G	Solid	N		X	X	X		
B 2, 15-20		9:00		Solid			X	X	X		
B-3, 10-15		9:16		Solid			X	X	X		
B-4, 5-10		10:04		Solid			X	X	X		
VP-1, 3-6		8:35		Solid			X	X	X		
VP-2, 0-3		9:25		Solid			X	X	X		
VP-3, 3-6		9:38		Solid			X	X	X		
VP-4, 0-3		9:50		Solid			X	X	X		
				Solid							
TRIP Blank				Water				X			
				Water							

440-249756 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	9-9-19 / 15:00	GILES			
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by: Olga Orelus	9/10/19 1030	FBInc

Custody Seals Intact: ☒ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.3/1.7 IR-89

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Giles Engineering Associates

Job Number: 440-249756-1

Login Number: 249756
List Number: 1
Creator: Dolidze, Lado

List Source: Eurofins TestAmerica, Irvine

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.	True	
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	

Default Detection Limits

Client: Giles Engineering Associates
Job ID: 440-249756-1
Project/Site: Starbucks/Torrance, CA /2E-1908009

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

Analyte	RL	MDL	Units
1,1,1,2-Tetrachloroethane	5.0	0.25	ug/L
1,1,1-Trichloroethane	2.0	0.25	ug/L
1,1,2,2-Tetrachloroethane	2.0	0.25	ug/L
1,1,2-Trichloroethane	2.0	0.25	ug/L
1,1-Dichloroethane	2.0	0.25	ug/L
1,1-Dichloroethene	5.0	0.25	ug/L
1,1-Dichloropropene	2.0	0.25	ug/L
1,2,3-Trichlorobenzene	5.0	0.40	ug/L
1,2,3-Trichloropropane	10	0.25	ug/L
1,2,4-Trichlorobenzene	5.0	0.40	ug/L
1,2,4-Trimethylbenzene	2.0	0.25	ug/L
1,2-Dibromo-3-Chloropropane	5.0	0.50	ug/L
1,2-Dibromoethane	2.0	0.25	ug/L
1,2-Dichlorobenzene	2.0	0.25	ug/L
1,2-Dichloroethane	2.0	0.25	ug/L
1,2-Dichloroethene, Total	2.0	0.25	ug/L
1,2-Dichloropropane	2.0	0.25	ug/L
1,3,5-Trimethylbenzene	2.0	0.25	ug/L
1,3-Dichlorobenzene	2.0	0.25	ug/L
1,3-Dichloropropane	2.0	0.25	ug/L
1,4-Dichlorobenzene	2.0	0.25	ug/L
2,2-Dichloropropane	2.0	0.40	ug/L
2-Butanone	10	2.5	ug/L
2-Chlorotoluene	5.0	0.25	ug/L
2-Hexanone	10	2.5	ug/L
4-Chlorotoluene	5.0	0.25	ug/L
4-Isopropyltoluene	2.0	0.25	ug/L
4-Methyl-2-pentanone	10	2.5	ug/L
Acetone	20	10	ug/L
Benzene	2.0	0.25	ug/L
Bromobenzene	5.0	0.25	ug/L
Bromochloromethane	5.0	0.25	ug/L
Bromodichloromethane	2.0	0.25	ug/L
Bromoform	5.0	0.40	ug/L
Bromomethane	5.0	0.25	ug/L
Carbon disulfide	5.0	0.50	ug/L
Carbon tetrachloride	5.0	0.25	ug/L
Chlorobenzene	2.0	0.25	ug/L
Chloroethane	5.0	0.40	ug/L
Chloroform	2.0	0.25	ug/L
Chloromethane	5.0	0.25	ug/L
cis-1,2-Dichloroethene	2.0	0.25	ug/L
cis-1,3-Dichloropropene	2.0	0.25	ug/L
Cyclohexane	3.0	1.0	ug/L
Dibromochloromethane	2.0	0.25	ug/L
Dibromomethane	2.0	0.25	ug/L
Dichlorodifluoromethane	5.0	0.25	ug/L
Diisopropyl ether	5.0	0.25	ug/L
Ethyl tert-butyl ether	5.0	0.25	ug/L
Ethylbenzene	2.0	0.25	ug/L
Freon TF	5.0	0.50	ug/L
Hexachlorobutadiene	5.0	0.25	ug/L
Isobutyl alcohol	25	13	ug/L

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

Analyte	RL	MDL	Units
Isopropylbenzene	2.0	0.25	ug/L
m&p-Xylene	2.0	0.50	ug/L
Methyl acetate	2.5	0.0010	ug/L
Methyl iodide	2.0	1.0	ug/L
Methyl t-butyl ether	1.0	0.25	ug/L
Methylcyclohexane	0.50	0.0010	ug/L
Methylene Chloride	5.0	1.1	ug/L
Naphthalene	5.0	0.40	ug/L
n-Butylbenzene	5.0	0.40	ug/L
n-Propylbenzene	2.0	0.25	ug/L
o-Xylene	2.0	0.25	ug/L
sec-Butylbenzene	5.0	0.25	ug/L
Styrene	2.0	0.25	ug/L
Tert-amyl methyl ether	5.0	0.25	ug/L
tert-Butyl alcohol (TBA)	10	5.0	ug/L
tert-Butylbenzene	5.0	0.25	ug/L
Tetrachloroethene	2.0	0.25	ug/L
Tetrahydrofuran	10	5.0	ug/L
Toluene	2.0	0.25	ug/L
trans-1,2-Dichloroethene	2.0	0.25	ug/L
trans-1,3-Dichloropropene	2.0	0.25	ug/L
Trichloroethene	2.0	0.25	ug/L
Trichlorofluoromethane	5.0	0.25	ug/L
Vinyl acetate	5.0	2.0	ug/L
Vinyl chloride	5.0	0.25	ug/L
Xylenes, Total	2.0	0.25	ug/L

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

Prep: 5035

Analyte	RL	MDL	Units
1,1,1,2-Tetrachloroethane	5.0	1.0	ug/Kg
1,1,1-Trichloroethane	2.0	1.0	ug/Kg
1,1,2,2-Tetrachloroethane	2.0	1.0	ug/Kg
1,1,2-Trichloroethane	2.0	1.0	ug/Kg
1,1-Dichloroethane	2.0	1.0	ug/Kg
1,1-Dichloroethene	5.0	1.0	ug/Kg
1,1-Dichloropropene	2.0	1.0	ug/Kg
1,2,3-Trichlorobenzene	5.0	1.0	ug/Kg
1,2,3-Trichloropropane	10	1.0	ug/Kg
1,2,4-Trichlorobenzene	5.0	1.0	ug/Kg
1,2,4-Trimethylbenzene	2.0	1.0	ug/Kg
1,2-Dibromo-3-Chloropropane	5.0	2.0	ug/Kg
1,2-Dibromoethane	2.0	1.0	ug/Kg
1,2-Dichlorobenzene	2.0	1.0	ug/Kg
1,2-Dichloroethane	2.0	1.0	ug/Kg
1,2-Dichloroethene, Total	2.0	0.50	ug/Kg
1,2-Dichloropropane	2.0	1.0	ug/Kg
1,3,5-Trimethylbenzene	2.0	1.0	ug/Kg
1,3-Dichlorobenzene	2.0	1.0	ug/Kg
1,3-Dichloropropane	2.0	1.0	ug/Kg
1,4-Dichlorobenzene	2.0	1.0	ug/Kg
2,2-Dichloropropane	2.0	1.0	ug/Kg

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

Prep: 5035

Analyte	RL	MDL	Units
2-Butanone	10	5.0	ug/Kg
2-Chlorotoluene	5.0	1.0	ug/Kg
2-Hexanone	25	5.0	ug/Kg
4-Chlorotoluene	5.0	1.0	ug/Kg
4-Isopropyltoluene	2.0	1.0	ug/Kg
4-Methyl-2-pentanone	5.0	2.5	ug/Kg
Acetone	20	8.0	ug/Kg
Benzene	2.0	1.0	ug/Kg
Bromobenzene	5.0	1.0	ug/Kg
Bromochloromethane	5.0	1.0	ug/Kg
Bromodichloromethane	2.0	1.0	ug/Kg
Bromoform	5.0	2.0	ug/Kg
Bromomethane	5.0	1.0	ug/Kg
Carbon disulfide	5.0	1.0	ug/Kg
Carbon tetrachloride	5.0	1.0	ug/Kg
Chlorobenzene	2.0	1.0	ug/Kg
Chloroethane	5.0	2.0	ug/Kg
Chloroform	2.0	1.0	ug/Kg
Chloromethane	5.0	1.0	ug/Kg
cis-1,2-Dichloroethene	2.0	1.0	ug/Kg
cis-1,3-Dichloropropene	2.0	1.0	ug/Kg
Cyclohexane	4.0	1.0	ug/Kg
Dibromochloromethane	2.0	1.0	ug/Kg
Dibromomethane	2.0	1.0	ug/Kg
Dichlorodifluoromethane	5.0	2.0	ug/Kg
Diisopropyl ether	5.0	1.0	ug/Kg
Ethyl tert-butyl ether	5.0	1.0	ug/Kg
Ethylbenzene	2.0	1.0	ug/Kg
Freon TF	10	5.0	ug/Kg
Hexachlorobutadiene	5.0	1.0	ug/Kg
Isobutyl alcohol	50	25	ug/Kg
Isopropylbenzene	2.0	1.0	ug/Kg
m&p-Xylene	4.0	2.0	ug/Kg
Methyl acetate	5.0	0.0010	ug/Kg
Methyl iodide	5.0	2.0	ug/Kg
Methyl t-butyl ether	5.0	1.0	ug/Kg
Methylcyclohexane	1.0	0.0010	ug/Kg
Methylene Chloride	20	5.0	ug/Kg
Naphthalene	5.0	2.0	ug/Kg
n-Butylbenzene	5.0	1.0	ug/Kg
n-Propylbenzene	2.0	1.0	ug/Kg
o-Xylene	2.0	1.0	ug/Kg
sec-Butylbenzene	5.0	1.0	ug/Kg
Styrene	2.0	1.0	ug/Kg
Tert-amyl methyl ether	5.0	1.0	ug/Kg
tert-Butyl alcohol (TBA)	100	10	ug/Kg
tert-Butylbenzene	5.0	1.0	ug/Kg
Tetrachloroethene	2.0	1.0	ug/Kg
Tetrahydrofuran	20	5.0	ug/Kg
Toluene	2.0	1.0	ug/Kg
trans-1,2-Dichloroethene	2.0	1.0	ug/Kg
trans-1,3-Dichloropropene	2.0	1.0	ug/Kg

Default Detection Limits

Client: Giles Engineering Associates
Job ID: 440-249756-1
Project/Site: Starbucks/Torrance, CA /2E-1908009

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

Prep: 5035

Analyte	RL	MDL	Units
Trichloroethene	2.0	1.0	ug/Kg
Trichlorofluoromethane	5.0	1.0	ug/Kg
Vinyl acetate	8.0	4.0	ug/Kg
Vinyl chloride	5.0	1.0	ug/Kg
Xylenes, Total	4.0	2.0	ug/Kg

Method: 6010B - Metals (ICP)

Prep: 3050B

Analyte	RL	MDL	Units
Lead	2.0	1.0	mg/Kg

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ANALYTICAL REPORT

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Irvine, CA 92614-5817
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Laboratory Job ID: 440-249756-3
Client Project/Site: Starbucks/Torrance, CA /2E-1908009

For:
Giles Engineering Associates
2626 Lombardy Lane
Suite 105
Dallas, Texas 75220

Attn: Mr. Mike Pisarik

Authorized for release by:
9/13/2019 9:39:24 AM

Jamie McKinney, Senior Project Manager
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Table of Contents

Sample Summary

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-249756-1	B-1, 15-20	Solid	09/09/19 08:25	09/10/19 10:30	
440-249756-2	B-2, 15-20	Solid	09/09/19 09:00	09/10/19 10:30	
440-249756-3	B-3, 10-15	Solid	09/09/19 09:16	09/10/19 10:30	
440-249756-4	B-4, 5-10	Solid	09/09/19 10:04	09/10/19 10:30	
440-249756-5	VP-1, 3-6	Solid	09/09/19 08:35	09/10/19 10:30	
440-249756-6	VP-2, 0-3	Solid	09/09/19 09:25	09/10/19 10:30	
440-249756-7	VP-3, 3-6	Solid	09/09/19 09:38	09/10/19 10:30	
440-249756-8	VP-4, 0-3	Solid	09/09/19 09:50	09/10/19 10:30	

Case Narrative

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-3

Job ID: 440-249756-3

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-249756-3

Comments
No additional comments.

Receipt
The samples were received on 9/10/2019 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7º C.

Receipt Exceptions

One jar for sample VP-4, 0-3 (440-249756-8) was accidentally broken when it was transferred to the refrigerator.

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

GC Semi VOA
Method(s) 8015B: The 8015-DRO method blank for preparation batch 440-568048 and analytical batch 440-568181 contained C10-C40 and C25-C40 above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

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

Organic Prep
Method(s) 3546: Due to the matrix, the following samples could not be concentrated to the final method required volume: VP-2, 0-3 (440-249756-6). The reporting limits (RLs) are elevated proportionately.440-568048 3546 8015B

Method(s) 3546: The following samples were diluted due to the nature of the sample matrix: B-4, 5-10 (440-249756-4), VP-1, 3-6 (440-249756-5) and VP-4, 0-3 (440-249756-8). Elevated reporting limits (RLs) are provided.440-568048 3546B

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.

Detection Summary

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-3

Client Sample ID: B-1, 15-20 — Lab Sample ID: 440-249756-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
ORO (C25-C40)	3.6	J B	4.9	2.4	mg/Kg	1		8015B	Total/NA
C10-C40	5.4	B	4.9	2.4	mg/Kg	1		8015B	Total/NA

Client Sample ID: B-2, 15-20 — Lab Sample ID: 440-249756-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
ORO (C25-C40)	3.6	J B	4.9	2.5	mg/Kg	1		8015B	Total/NA
C10-C40	5.6	B	4.9	2.5	mg/Kg	1		8015B	Total/NA

Client Sample ID: B-3, 10-15 — Lab Sample ID: 440-249756-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
ORO (C25-C40)	3.9	J B	5.0	2.5	mg/Kg	1		8015B	Total/NA
C10-C40	5.8	B	5.0	2.5	mg/Kg	1		8015B	Total/NA

Client Sample ID: B-4, 5-10 — Lab Sample ID: 440-249756-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
ORO (C25-C40)	6.5	J B	9.6	4.8	mg/Kg	1		8015B	Total/NA
C10-C40	9.3	J B	9.6	4.8	mg/Kg	1		8015B	Total/NA

Client Sample ID: VP-1, 3-6 — Lab Sample ID: 440-249756-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
ORO (C25-C40)	7.8	J B	9.8	4.9	mg/Kg	1		8015B	Total/NA
C10-C40	11	B	9.8	4.9	mg/Kg	1		8015B	Total/NA

Client Sample ID: VP-2, 0-3 — Lab Sample ID: 440-249756-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C24)	25		9.9	5.0	mg/Kg	1		8015B	Total/NA
ORO (C25-C40)	210	B	9.9	5.0	mg/Kg	1		8015B	Total/NA
C10-C40	240	B	9.9	5.0	mg/Kg	1		8015B	Total/NA

Client Sample ID: VP-3, 3-6 — Lab Sample ID: 440-249756-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
ORO (C25-C40)	4.7	J B	4.9	2.5	mg/Kg	1		8015B	Total/NA
C10-C40	6.5	B	4.9	2.5	mg/Kg	1		8015B	Total/NA

Client Sample ID: VP-4, 0-3 — Lab Sample ID: 440-249756-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
DRO (C10-C24)	17		9.7	4.8	mg/Kg	1		8015B	Total/NA
ORO (C25-C40)	120	B	9.7	4.8	mg/Kg	1		8015B	Total/NA
C10-C40	140	B	9.7	4.8	mg/Kg	1		8015B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B-1, 15-20
Lab Sample ID: 440-249756-1
Date Collected: 09/09/19 08:25
Matrix: Solid
Date Received: 09/10/19 10:30

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C24)	ND		4.9	2.4	mg/Kg		09/11/19 06:11	09/11/19 17:07	1
ORO (C25-C40)	**3.6**	**J B**	4.9	2.4	mg/Kg		09/11/19 06:11	09/11/19 17:07	1
C10-C40	**5.4**	**B**	4.9	2.4	mg/Kg		09/11/19 06:11	09/11/19 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*86*		*40 - 140*	*09/11/19 06:11*	*09/11/19 17:07*	*1*

Client Sample ID: B-1, 15-20
Lab Sample ID: 440-249756-1
Date Collected: 09/09/19 08:25
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 76.6

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		0.52	0.20	mg/Kg	☼		09/11/19 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*65 - 140*		*09/11/19 21:25*	*1*

Client Sample ID: B-2, 15-20
Lab Sample ID: 440-249756-2
Date Collected: 09/09/19 09:00
Matrix: Solid
Date Received: 09/10/19 10:30

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C24)	ND		4.9	2.5	mg/Kg		09/11/19 06:11	09/11/19 17:28	1
ORO (C25-C40)	**3.6**	**J B**	4.9	2.5	mg/Kg		09/11/19 06:11	09/11/19 17:28	1
C10-C40	**5.6**	**B**	4.9	2.5	mg/Kg		09/11/19 06:11	09/11/19 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*79*		*40 - 140*	*09/11/19 06:11*	*09/11/19 17:28*	*1*

Client Sample ID: B-2, 15-20
Lab Sample ID: 440-249756-2
Date Collected: 09/09/19 09:00
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 80.0

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		0.50	0.19	mg/Kg	☼		09/11/19 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*65 - 140*		*09/11/19 21:52*	*1*

Client Sample ID: B-3, 10-15
Lab Sample ID: 440-249756-3
Date Collected: 09/09/19 09:16
Matrix: Solid
Date Received: 09/10/19 10:30

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C24)	ND		5.0	2.5	mg/Kg		09/11/19 06:11	09/11/19 17:49	1
ORO (C25-C40)	**3.9**	**J B**	5.0	2.5	mg/Kg		09/11/19 06:11	09/11/19 17:49	1
C10-C40	**5.8**	**B**	5.0	2.5	mg/Kg		09/11/19 06:11	09/11/19 17:49	1

Client Sample ID: B-3, 10-15
Lab Sample ID: 440-249756-3
Date Collected: 09/09/19 09:16
Matrix: Solid
Date Received: 09/10/19 10:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	78		40 - 140	09/11/19 06:11	09/11/19 17:49	1

Client Sample ID: B-3, 10-15
Lab Sample ID: 440-249756-3
Date Collected: 09/09/19 09:16
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 84.1

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		0.47	0.18	mg/Kg	☼		09/11/19 22:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		65 - 140		09/11/19 22:19	1

Client Sample ID: B-4, 5-10
Lab Sample ID: 440-249756-4
Date Collected: 09/09/19 10:04
Matrix: Solid
Date Received: 09/10/19 10:30

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C24)	ND		9.6	4.8	mg/Kg		09/11/19 06:11	09/11/19 18:10	1
ORO (C25-C40)	**6.5**	**J B**	9.6	4.8	mg/Kg		09/11/19 06:11	09/11/19 18:10	1
C10-C40	**9.3**	**J B**	9.6	4.8	mg/Kg		09/11/19 06:11	09/11/19 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	91		40 - 140	09/11/19 06:11	09/11/19 18:10	1

Client Sample ID: B-4, 5-10
Lab Sample ID: 440-249756-4
Date Collected: 09/09/19 10:04
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 82.3

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		0.48	0.18	mg/Kg	☼		09/11/19 22:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	76		65 - 140		09/11/19 22:46	1

Client Sample ID: VP-1, 3-6
Lab Sample ID: 440-249756-5
Date Collected: 09/09/19 08:35
Matrix: Solid
Date Received: 09/10/19 10:30

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C24)	ND		9.8	4.9	mg/Kg		09/11/19 06:11	09/11/19 18:31	1
ORO (C25-C40)	**7.8**	**J B**	9.8	4.9	mg/Kg		09/11/19 06:11	09/11/19 18:31	1
C10-C40	**11**	**B**	9.8	4.9	mg/Kg		09/11/19 06:11	09/11/19 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	96		40 - 140	09/11/19 06:11	09/11/19 18:31	1

Client: Giles Engineering Associates
Job ID: 440-249756-3
Project/Site: Starbucks/Torrance, CA /2E-1908009

Client Sample ID: VP-1, 3-6
Lab Sample ID: 440-249756-5
Date Collected: 09/09/19 08:35
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 78.0

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		0.51	0.19	mg/Kg	☼		09/11/19 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*74*		*65 - 140*		*09/11/19 23:13*	*1*

Client Sample ID: VP-2, 0-3
Lab Sample ID: 440-249756-6
Date Collected: 09/09/19 09:25
Matrix: Solid
Date Received: 09/10/19 10:30

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C24)	**25**		9.9	5.0	mg/Kg		09/11/19 06:11	09/11/19 18:52	1
ORO (C25-C40)	**210**	**B**	9.9	5.0	mg/Kg		09/11/19 06:11	09/11/19 18:52	1
C10-C40	**240**	**B**	9.9	5.0	mg/Kg		09/11/19 06:11	09/11/19 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*91*		*40 - 140*	*09/11/19 06:11*	*09/11/19 18:52*	*1*

Client Sample ID: VP-2, 0-3
Lab Sample ID: 440-249756-6
Date Collected: 09/09/19 09:25
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 86.3

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		0.46	0.17	mg/Kg	☼		09/11/19 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*		*65 - 140*		*09/11/19 23:40*	*1*

Client Sample ID: VP-3, 3-6
Lab Sample ID: 440-249756-7
Date Collected: 09/09/19 09:38
Matrix: Solid
Date Received: 09/10/19 10:30

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C24)	ND		4.9	2.5	mg/Kg		09/11/19 06:11	09/11/19 20:15	1
ORO (C25-C40)	**4.7**	**J B**	4.9	2.5	mg/Kg		09/11/19 06:11	09/11/19 20:15	1
C10-C40	**6.5**	**B**	4.9	2.5	mg/Kg		09/11/19 06:11	09/11/19 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*76*		*40 - 140*	*09/11/19 06:11*	*09/11/19 20:15*	*1*

Client Sample ID: VP-3, 3-6
Lab Sample ID: 440-249756-7
Date Collected: 09/09/19 09:38
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 84.7

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		0.46	0.17	mg/Kg	☼		09/12/19 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*65 - 140*		*09/12/19 00:07*	*1*

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-3

Client Sample ID: VP-4, 0-3

Lab Sample ID: 440-249756-8

Date Collected: 09/09/19 09:50

Matrix: Solid

Date Received: 09/10/19 10:30

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C24)	17		9.7	4.8	mg/Kg		09/11/19 06:11	09/11/19 19:33	1
ORO (C25-C40)	120	B	9.7	4.8	mg/Kg		09/11/19 06:11	09/11/19 19:33	1
C10-C40	140	B	9.7	4.8	mg/Kg		09/11/19 06:11	09/11/19 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*92*		*40 - 140*	*09/11/19 06:11*	*09/11/19 19:33*	*1*

Client Sample ID: VP-4, 0-3

Lab Sample ID: 440-249756-8

Date Collected: 09/09/19 09:50

Matrix: Solid

Date Received: 09/10/19 10:30

Percent Solids: 86.6

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		0.46	0.17	mg/Kg	☼		09/12/19 00:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*67*		*65 - 140*		*09/12/19 00:34*	*1*

Method Summary

Client: Giles Engineering Associates
Job ID: 440-249756-3
Project/Site: Starbucks/Torrance, CA /2E-1908009

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
Moisture	Percent Moisture	EPA	TAL IRV
3546	Microwave Extraction	SW846	TAL IRV
5030B	Purge and Trap	SW846	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency

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

Lab Chronicle

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-3

Client Sample ID: B-1, 15-20
Date Collected: 09/09/19 08:25
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-1
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	3546			15.36 g	1 mL	568048	09/11/19 06:11	L1A	TAL IRV
Total/NA	Analysis	8015B		1			568181	09/11/19 17:07	A1W	TAL IRV
Total/NA	Analysis	Moisture		1			567996	09/10/19 17:23	HTL	TAL IRV

Client Sample ID: B-1, 15-20
Date Collected: 09/09/19 08:25
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-1
Matrix: Solid
Percent Solids: 76.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.02 g	10 mL	568091	09/11/19 21:25	HKC	TAL IRV

Client Sample ID: B-2, 15-20
Date Collected: 09/09/19 09:00
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-2
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	3546			15.19 g	1 mL	568048	09/11/19 06:11	L1A	TAL IRV
Total/NA	Analysis	8015B		1			568181	09/11/19 17:28	A1W	TAL IRV
Total/NA	Analysis	Moisture		1			567996	09/10/19 17:23	HTL	TAL IRV

Client Sample ID: B-2, 15-20
Date Collected: 09/09/19 09:00
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-2
Matrix: Solid
Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.03 g	10 mL	568091	09/11/19 21:52	HKC	TAL IRV

Client Sample ID: B-3, 10-15
Date Collected: 09/09/19 09:16
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.10 g	1 mL	568048	09/11/19 06:11	L1A	TAL IRV
Total/NA	Analysis	8015B		1			568181	09/11/19 17:49	A1W	TAL IRV
Total/NA	Analysis	Moisture		1			567996	09/10/19 17:23	HTL	TAL IRV

Client Sample ID: B-3, 10-15
Date Collected: 09/09/19 09:16
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-3
Matrix: Solid
Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.03 g	10 mL	568091	09/11/19 22:19	HKC	TAL IRV

Lab Chronicle

Client: Giles Engineering Associates
Job ID: 440-249756-3
Project/Site: Starbucks/Torrance, CA /2E-1908009

Client Sample ID: B-4, 5-10
Lab Sample ID: 440-249756-4
Date Collected: 09/09/19 10:04
Matrix: Solid
Date Received: 09/10/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			7.80 g	1 mL	568048	09/11/19 06:11	L1A	TAL IRV
Total/NA	Analysis	8015B		1			568181	09/11/19 18:10	A1W	TAL IRV
Total/NA	Analysis	Moisture		1			567996	09/10/19 17:23	HTL	TAL IRV

Client Sample ID: B-4, 5-10
Lab Sample ID: 440-249756-4
Date Collected: 09/09/19 10:04
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.07 g	10 mL	568091	09/11/19 22:46	HKC	TAL IRV

Client Sample ID: VP-1, 3-6
Lab Sample ID: 440-249756-5
Date Collected: 09/09/19 08:35
Matrix: Solid
Date Received: 09/10/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			7.63 g	1 mL	568048	09/11/19 06:11	L1A	TAL IRV
Total/NA	Analysis	8015B		1			568181	09/11/19 18:31	A1W	TAL IRV
Total/NA	Analysis	Moisture		1			567996	09/10/19 17:23	HTL	TAL IRV

Client Sample ID: VP-1, 3-6
Lab Sample ID: 440-249756-5
Date Collected: 09/09/19 08:35
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 78.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.01 g	10 mL	568091	09/11/19 23:13	HKC	TAL IRV

Client Sample ID: VP-2, 0-3
Lab Sample ID: 440-249756-6
Date Collected: 09/09/19 09:25
Matrix: Solid
Date Received: 09/10/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.15 g	2 mL	568048	09/11/19 06:11	L1A	TAL IRV
Total/NA	Analysis	8015B		1			568181	09/11/19 18:52	A1W	TAL IRV
Total/NA	Analysis	Moisture		1			567996	09/10/19 17:23	HTL	TAL IRV

Client Sample ID: VP-2, 0-3
Lab Sample ID: 440-249756-6
Date Collected: 09/09/19 09:25
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.02 g	10 mL	568091	09/11/19 23:40	HKC	TAL IRV

Lab Chronicle

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-3

Client Sample ID: VP-3, 3-6

Lab Sample ID: 440-249756-7
Date Collected: 09/09/19 09:38
Matrix: Solid
Date Received: 09/10/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.18 g	1 mL	568048	09/11/19 06:11	L1A	TAL IRV
Total/NA	Analysis	8015B		1			568181	09/11/19 20:15	A1W	TAL IRV
Total/NA	Analysis	Moisture		1			567996	09/10/19 17:23	HTL	TAL IRV

Client Sample ID: VP-3, 3-6

Lab Sample ID: 440-249756-7
Date Collected: 09/09/19 09:38
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.08 g	10 mL	568091	09/12/19 00:07	HKC	TAL IRV

Client Sample ID: VP-4, 0-3

Lab Sample ID: 440-249756-8
Date Collected: 09/09/19 09:50
Matrix: Solid
Date Received: 09/10/19 10:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			7.77 g	1 mL	568048	09/11/19 06:11	L1A	TAL IRV
Total/NA	Analysis	8015B		1			568181	09/11/19 19:33	A1W	TAL IRV
Total/NA	Analysis	Moisture		1			567996	09/10/19 17:23	HTL	TAL IRV

Client Sample ID: VP-4, 0-3

Lab Sample ID: 440-249756-8
Date Collected: 09/09/19 09:50
Matrix: Solid
Date Received: 09/10/19 10:30
Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.05 g	10 mL	568091	09/12/19 00:34	HKC	TAL IRV

Laboratory References:

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

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-568091/5
Matrix: Solid
Analysis Batch: 568091

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C4-C12	ND		0.40	0.15	mg/Kg			09/11/19 11:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*65 - 140*		*09/11/19 11:00*	*1*

Lab Sample ID: LCS 440-568091/3
Matrix: Solid
Analysis Batch: 568091

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C4-C12			1.60	1.32		mg/Kg		82	70 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*73*		*65 - 140*

Lab Sample ID: LCSD 440-568091/4
Matrix: Solid
Analysis Batch: 568091

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
C4-C12			1.60	1.37		mg/Kg		85	70 - 135	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*65 - 140*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-568048/1-A
Matrix: Solid
Analysis Batch: 568181

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (C10-C24)	ND		5.0	2.5	mg/Kg		09/11/19 06:11	09/11/19 15:04	1
ORO (C25-C40)	2.94	J	5.0	2.5	mg/Kg		09/11/19 06:11	09/11/19 15:04	1
C10-C40	4.28	J	5.0	2.5	mg/Kg		09/11/19 06:11	09/11/19 15:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*89*		*40 - 140*	*09/11/19 06:11*	*09/11/19 15:04*	*1*

Lab Sample ID: LCS 440-568048/2-A
Matrix: Solid
Analysis Batch: 568181

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568048

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
EFH (C10-C28)			66.7	63.8		mg/Kg		96	45 - 115		

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 440-568048/2-A
Matrix: Solid
Analysis Batch: 568181

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568048

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane	96		40 - 140

Lab Sample ID: 440-249756-1 MS
Matrix: Solid
Analysis Batch: 568181

Client Sample ID: B-1, 15-20
Prep Type: Total/NA
Prep Batch: 568048

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
EFH (C10-C28)	3.0	J	66.2	56.3		mg/Kg		81	40 - 120		

Surrogate	MS %Recovery	MS Qualifier	Limits
n-Octacosane	83		40 - 140

Lab Sample ID: 440-249756-1 MSD
Matrix: Solid
Analysis Batch: 568181

Client Sample ID: B-1, 15-20
Prep Type: Total/NA
Prep Batch: 568048

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EFH (C10-C28)	3.0	J	64.9	58.6		mg/Kg		86	40 - 120	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
n-Octacosane	90		40 - 140

QC Association Summary

Client: Giles Engineering Associates
Job ID: 440-249756-3
Project/Site: Starbucks/Torrance, CA /2E-1908009

GC VOA

Analysis Batch: 568091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-1	B-1, 15-20	Total/NA	Solid	8015B	
440-249756-2	B-2, 15-20	Total/NA	Solid	8015B	
440-249756-3	B-3, 10-15	Total/NA	Solid	8015B	
440-249756-4	B-4, 5-10	Total/NA	Solid	8015B	
440-249756-5	VP-1, 3-6	Total/NA	Solid	8015B	
440-249756-6	VP-2, 0-3	Total/NA	Solid	8015B	
440-249756-7	VP-3, 3-6	Total/NA	Solid	8015B	
440-249756-8	VP-4, 0-3	Total/NA	Solid	8015B	
MB 440-568091/5	Method Blank	Total/NA	Solid	8015B	
LCS 440-568091/3	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-568091/4	Lab Control Sample Dup	Total/NA	Solid	8015B	

GC Semi VOA

Prep Batch: 568048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-1	B-1, 15-20	Total/NA	Solid	3546	
440-249756-2	B-2, 15-20	Total/NA	Solid	3546	
440-249756-3	B-3, 10-15	Total/NA	Solid	3546	
440-249756-4	B-4, 5-10	Total/NA	Solid	3546	
440-249756-5	VP-1, 3-6	Total/NA	Solid	3546	
440-249756-6	VP-2, 0-3	Total/NA	Solid	3546	
440-249756-7	VP-3, 3-6	Total/NA	Solid	3546	
440-249756-8	VP-4, 0-3	Total/NA	Solid	3546	
MB 440-568048/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-568048/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-249756-1 MS	B-1, 15-20	Total/NA	Solid	3546	
440-249756-1 MSD	B-1, 15-20	Total/NA	Solid	3546	

Analysis Batch: 568181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-1	B-1, 15-20	Total/NA	Solid	8015B	568048
440-249756-2	B-2, 15-20	Total/NA	Solid	8015B	568048
440-249756-3	B-3, 10-15	Total/NA	Solid	8015B	568048
440-249756-4	B-4, 5-10	Total/NA	Solid	8015B	568048
440-249756-5	VP-1, 3-6	Total/NA	Solid	8015B	568048
440-249756-6	VP-2, 0-3	Total/NA	Solid	8015B	568048
440-249756-7	VP-3, 3-6	Total/NA	Solid	8015B	568048
440-249756-8	VP-4, 0-3	Total/NA	Solid	8015B	568048
MB 440-568048/1-A	Method Blank	Total/NA	Solid	8015B	568048
LCS 440-568048/2-A	Lab Control Sample	Total/NA	Solid	8015B	568048
440-249756-1 MS	B-1, 15-20	Total/NA	Solid	8015B	568048
440-249756-1 MSD	B-1, 15-20	Total/NA	Solid	8015B	568048

General Chemistry

Analysis Batch: 567996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-1	B-1, 15-20	Total/NA	Solid	Moisture	
440-249756-2	B-2, 15-20	Total/NA	Solid	Moisture	
440-249756-3	B-3, 10-15	Total/NA	Solid	Moisture	
440-249756-4	B-4, 5-10	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 567996 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-5	VP-1, 3-6	Total/NA	Solid	Moisture	
440-249756-6	VP-2, 0-3	Total/NA	Solid	Moisture	
440-249756-7	VP-3, 3-6	Total/NA	Solid	Moisture	
440-249756-8	VP-4, 0-3	Total/NA	Solid	Moisture	
440-249756-1 DU	B-1, 15-20	Total/NA	Solid	Moisture	

Definitions/Glossary

Client: Giles Engineering Associates
Job ID: 440-249756-3
Project/Site: Starbucks/Torrance, CA /2E-1908009

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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)

Accreditation/Certification Summary

Client: Giles Engineering Associates
Job ID: 440-249756-3
Project/Site: Starbucks/Torrance, CA /2E-1908009

Laboratory: Eurofins TestAmerica, Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State Program	CA ELAP 2706	06-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015B		Solid	C4-C12
8015B	3546	Solid	C10-C40
8015B	3546	Solid	DRO (C10-C24)
8015B	3546	Solid	ORO (C25-C40)
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Eurofins TestAmerica, Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Dallas/Ft. Worth #238

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler:	Lab PM: McKinney, Jamie A	Carrier Tracking No(s): 6025 5779 5200	COC No: 440-169680-31111.1
Client Contact: Cade Klock	Phone:	E-Mail: jamie.mckinney@testamericainc.com		Page: Page 1 of 1
Company: Giles Engineering Associates				Job #:
Address: 1965 N Main Street	Due Date Requested:			
City: Orange	TAT Requested (days): 7-day			
State, Zip: CA, 92865				
Phone: 214-358-5885(Tel) 214-358-5884(Fax)	PO #: 2E-1908009			
Email: CKlock@gilesengr.com	WO #:			
Project Name: Starbucks/Torrance, CA/2E-1908009	Project #: 44010640			
Site:	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 - Na2S2O3
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)	6010B, 8015B_GRO, 8270C, Moisture	8260B - (MOD) Routine 8260	8260B - (MOD) Routine 8260 + oxygenates	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	A		
B-1, 15-20	9-9-19	8:25	G	Solid		N	X	X	X		
B 2, 15-20		9:00		Solid			X	X	X		
B-3, 10-15		9:16		Solid			X	X	X		
B-4, 5-10		10:04		Solid			X	X	X		
VP-1, 3-6		8:35		Solid			X	X	X		
VP-2, 0-3		9:25		Solid			X	X	X		
VP-3, 3-6		9:38		Solid			X	X	X		
VP-4, 0-3		9:50		Solid			X	X	X		
				Solid							
TRIP Blank				Water				X			
				Water							

440-249756 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	9-9-19 / 15:00	GILES			
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by: Olga Orlenko	9/10/19 1030	TBINC

Custody Seals Intact: ☒ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.3/1.7 IR-89

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Giles Engineering Associates

Job Number: 440-249756-3

Login Number: 249756
List Number: 1
Creator: Dolidze, Lado

List Source: Eurofins TestAmerica, Irvine

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.	True	
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	

Default Detection Limits

Client: Giles Engineering Associates
Job ID: 440-249756-3
Project/Site: Starbucks/Torrance, CA /2E-1908009

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	RL	MDL	Units
C4-C12	0.40	0.15	mg/Kg

Method: 8015B - Diesel Range Organics (DRO) (GC)

Prep: 3546

Analyte	RL	MDL	Units
C10-C40	5.0	2.5	mg/Kg
DRO (C10-C24)	5.0	2.5	mg/Kg
ORO (C25-C40)	5.0	2.5	mg/Kg

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: 440-249756-2
Client Project/Site: Starbucks/Torrance, CA /2E-1908009

For:
Giles Engineering Associates
2626 Lombardy Lane
Suite 105
Dallas, Texas 75220

Attn: Mr. Mike Pisarik

Authorized for release by:
9/18/2019 5:22:24 PM

Jamie McKinney, Senior Project Manager
(865)291-3000
jamie.mckinney@testamericainc.com

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Table of Contents

Sample Summary

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-249756-6	VP-2, 0-3	Solid	09/09/19 09:25	09/10/19 10:30	

Case Narrative

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-2

Job ID: 440-249756-2

Laboratory: Eurofins TestAmerica, Irvine

Narrative

Job Narrative
440-249756-2

Comments
No additional comments.

Receipt
The samples were received on 9/10/2019 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7º C.

Receipt Exceptions

One jar for sample VP-4, 0-3 (440-249756-8) was accidentally broken when it was transferred to the refrigerator.

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

Organic Prep
Method(s) 3546: Due to the matrix, the following sample could not be concentrated to the final method required volume: VP-2, 0-3 (440-249756-6). The reporting limits (RLs) are elevated proportionately.440-568050 3546 8270C

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

Detection Summary

Client: Giles Engineering Associates
Job ID: 440-249756-2
Project/Site: Starbucks/Torrance, CA /2E-1908009

Client Sample ID: VP-2, 0-3 **Lab Sample ID: 440-249756-6**

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-2

Client Sample ID: VP-2, 0-3
Date Collected: 09/09/19 09:25
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-6
Matrix: Solid

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		0.49	0.22	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
1,2,4-Trichlorobenzene	ND		0.49	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
1,2-Dichlorobenzene	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
1,3-Dichlorobenzene	ND		0.49	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
1,4-Dichlorobenzene	ND		0.49	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
1-Methylnaphthalene	ND		0.49	0.22	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2,2'-oxybis[1-chloropropane]	ND		0.49	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2,3,4,6-Tetrachlorophenol	ND		0.98	0.33	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2,4,5-Trichlorophenol	ND		0.98	0.39	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2,4,6-Trichlorophenol	ND		0.98	0.31	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2,4-Dichlorophenol	ND		0.49	0.098	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2,4-Dimethylphenol	ND		0.49	0.19	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2,4-Dinitrophenol	ND		2.0	1.5	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2,4-Dinitrotoluene	ND		0.49	0.12	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2,6-Dinitrotoluene	ND		0.49	0.14	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2-Chloronaphthalene	ND		0.49	0.098	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2-Chlorophenol	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2-Methylnaphthalene	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2-Methylphenol	ND		0.49	0.12	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2-Nitroaniline	ND		0.49	0.33	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
2-Nitrophenol	ND		0.49	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
3,3'-Dichlorobenzidine	ND		0.98	0.22	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
3-Nitroaniline	ND		0.49	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
4,6-Dinitro-2-methylphenol	ND		0.82	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
4-Bromophenyl phenyl ether	ND		0.49	0.11	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
4-Chloro-3-methylphenol	ND		0.78	0.29	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
4-Chloroaniline	ND		0.98	0.29	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
4-Chlorophenyl phenyl ether	ND		0.98	0.39	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
4-Nitroaniline	ND		0.98	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
4-Nitrophenol	ND		2.0	0.98	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Acenaphthene	ND		0.49	0.25	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Acenaphthylene	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Acetophenone	ND		0.98	0.27	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Aniline	ND		0.98	0.27	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Anthracene	ND		0.49	0.12	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Benzo[a]anthracene	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Benzo[a]pyrene	ND		0.49	0.098	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Benzo[b]fluoranthene	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Benzo[g,h,i]perylene	ND		0.49	0.16	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Benzo[k]fluoranthene	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Benzoic acid	ND		1.5	0.70	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Benzyl alcohol	ND		2.5	0.80	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Bis(2-chloroethoxy)methane	ND		0.49	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Bis(2-chloroethyl)ether	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Bis(2-ethylhexyl) phthalate	ND		0.49	0.13	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Butyl benzyl phthalate	ND		0.49	0.12	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Carbazole	ND		0.49	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Chrysene	ND		0.49	0.11	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Dibenz(a,h)anthracene	ND		0.49	0.15	mg/Kg		09/11/19 06:13	09/14/19 13:26	1

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-2

Client Sample ID: VP-2, 0-3
Date Collected: 09/09/19 09:25
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-6
Matrix: Solid

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND		0.49	0.27	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Diethyl phthalate	ND		0.49	0.14	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Dimethyl phthalate	ND		0.49	0.098	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Di-n-butyl phthalate	ND		0.49	0.13	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Di-n-octyl phthalate	ND		0.49	0.13	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Fluoranthene	ND		0.65	0.31	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Fluorene	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Hexachlorobenzene	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Hexachlorobutadiene	ND		0.49	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Hexachlorocyclopentadiene	ND		1.5	0.61	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Hexachloroethane	ND		0.49	0.14	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Indeno[1,2,3-cd]pyrene	ND		0.49	0.19	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Isophorone	ND		0.49	0.098	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Naphthalene	ND		0.49	0.098	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Nitrobenzene	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
N-Nitrosodimethylamine	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
N-Nitrosodi-n-propylamine	ND		0.49	0.10	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
N-Nitrosodiphenylamine	ND		0.98	0.31	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Pentachlorophenol	ND		0.98	0.51	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Phenanthrene	ND		0.65	0.29	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Phenol	ND		0.49	0.13	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Pyrene	ND		0.49	0.20	mg/Kg		09/11/19 06:13	09/14/19 13:26	1
Pyridine	ND		0.67	0.22	mg/Kg		09/11/19 06:13	09/14/19 13:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*83*		*10 - 147*	*09/11/19 06:13*	*09/14/19 13:26*	*1*
2-Fluorophenol (Surr)	*71*		*18 - 138*	*09/11/19 06:13*	*09/14/19 13:26*	*1*
Nitrobenzene-d5 (Surr)	*70*		*39 - 104*	*09/11/19 06:13*	*09/14/19 13:26*	*1*
Terphenyl-d14 (Surr)	*80*		*43 - 125*	*09/11/19 06:13*	*09/14/19 13:26*	*1*
Phenol-d6 (Surr)	*70*		*37 - 125*	*09/11/19 06:13*	*09/14/19 13:26*	*1*
2-Fluorobiphenyl	*75*		*42 - 113*	*09/11/19 06:13*	*09/14/19 13:26*	*1*

Method Summary

Client: Giles Engineering Associates
Job ID: 440-249756-2
Project/Site: Starbucks/Torrance, CA /2E-1908009

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
3546	Microwave Extraction	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

Lab Chronicle

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-2

Client Sample ID: VP-2, 0-3

Date Collected: 09/09/19 09:25
Date Received: 09/10/19 10:30

Lab Sample ID: 440-249756-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			20.45 g	2 mL	568050	09/11/19 06:13	L1A	TAL IRV
Total/NA	Analysis	8270C		1			568778	09/14/19 13:26	HN	TAL IRV

Laboratory References:

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

Client: Giles Engineering Associates
Project/Site: Starbucks/Torrance, CA /2E-1908009

Job ID: 440-249756-2

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-568050/1-A
Matrix: Solid
Analysis Batch: 568096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568050

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	ND		0.25	0.11	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
1,2,4-Trichlorobenzene	ND		0.25	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
1,2-Dichlorobenzene	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
1,3-Dichlorobenzene	ND		0.25	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
1,4-Dichlorobenzene	ND		0.25	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
1-Methylnaphthalene	ND		0.25	0.11	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2,2'-oxybis[1-chloropropane]	ND		0.25	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2,3,4,6-Tetrachlorophenol	ND		0.50	0.17	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2,4,5-Trichlorophenol	ND		0.50	0.20	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2,4,6-Trichlorophenol	ND		0.50	0.16	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2,4-Dichlorophenol	ND		0.25	0.050	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2,4-Dimethylphenol	ND		0.25	0.098	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2,4-Dinitrophenol	ND		1.0	0.75	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2,4-Dinitrotoluene	ND		0.25	0.060	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2,6-Dinitrotoluene	ND		0.25	0.071	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2-Chloronaphthalene	ND		0.25	0.050	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2-Chlorophenol	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2-Methylnaphthalene	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2-Methylphenol	ND		0.25	0.060	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2-Nitroaniline	ND		0.25	0.17	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
2-Nitrophenol	ND		0.25	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
3,3'-Dichlorobenzidine	ND		0.50	0.11	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
3-Nitroaniline	ND		0.25	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
4,6-Dinitro-2-methylphenol	ND		0.42	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
4-Bromophenyl phenyl ether	ND		0.25	0.056	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
4-Chloro-3-methylphenol	ND		0.40	0.15	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
4-Chloroaniline	ND		0.50	0.15	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
4-Chlorophenyl phenyl ether	ND		0.50	0.20	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
4-Nitroaniline	ND		0.50	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
4-Nitrophenol	ND		1.0	0.50	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Acenaphthene	ND		0.25	0.13	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Acenaphthylene	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Acetophenone	ND		0.50	0.14	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Aniline	ND		0.50	0.14	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Anthracene	ND		0.25	0.060	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Benzo[a]anthracene	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Benzo[a]pyrene	ND		0.25	0.050	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Benzo[b]fluoranthene	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Benzo[g,h,i]perylene	ND		0.25	0.082	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Benzo[k]fluoranthene	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Benzoic acid	ND		0.75	0.36	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Benzyl alcohol	ND		1.3	0.41	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Bis(2-chloroethoxy)methane	ND		0.25	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Bis(2-chloroethyl)ether	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Bis(2-ethylhexyl) phthalate	ND		0.25	0.068	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Butyl benzyl phthalate	ND		0.25	0.060	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Carbazole	ND		0.25	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Chrysene	ND		0.25	0.056	mg/Kg		09/11/19 06:13	09/11/19 13:29	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-568050/1-A
Matrix: Solid
Analysis Batch: 568096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568050

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.25	0.075	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Dibenzofuran	ND		0.25	0.14	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Diethyl phthalate	ND		0.25	0.071	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Dimethyl phthalate	ND		0.25	0.050	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Di-n-butyl phthalate	ND		0.25	0.068	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Di-n-octyl phthalate	ND		0.25	0.068	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Fluoranthene	ND		0.33	0.16	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Fluorene	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Hexachlorobenzene	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Hexachlorobutadiene	ND		0.25	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Hexachlorocyclopentadiene	ND		0.75	0.31	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Hexachloroethane	ND		0.25	0.070	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Indeno[1,2,3-cd]pyrene	ND		0.25	0.098	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Isophorone	ND		0.25	0.050	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Naphthalene	ND		0.25	0.050	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Nitrobenzene	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
N-Nitrosodimethylamine	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
N-Nitrosodi-n-propylamine	ND		0.25	0.052	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
N-Nitrosodiphenylamine	ND		0.50	0.16	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Pentachlorophenol	ND		0.50	0.26	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Phenanthrene	ND		0.33	0.15	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Phenol	ND		0.25	0.068	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Pyrene	ND		0.25	0.10	mg/Kg		09/11/19 06:13	09/11/19 13:29	1
Pyridine	ND		0.34	0.11	mg/Kg		09/11/19 06:13	09/11/19 13:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*82*		*10 - 147*	*09/11/19 06:13*	*09/11/19 13:29*	*1*
2-Fluorophenol (Surr)	*64*		*18 - 138*	*09/11/19 06:13*	*09/11/19 13:29*	*1*
Nitrobenzene-d5 (Surr)	*65*		*39 - 104*	*09/11/19 06:13*	*09/11/19 13:29*	*1*
Terphenyl-d14 (Surr)	*90*		*43 - 125*	*09/11/19 06:13*	*09/11/19 13:29*	*1*
Phenol-d6 (Surr)	*67*		*37 - 125*	*09/11/19 06:13*	*09/11/19 13:29*	*1*
2-Fluorobiphenyl	*72*		*42 - 113*	*09/11/19 06:13*	*09/11/19 13:29*	*1*

Lab Sample ID: LCS 440-568050/2-A
Matrix: Solid
Analysis Batch: 568096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568050

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4,5-Tetrachlorobenzene	2.50	1.69		mg/Kg		68	53 - 108
1,2,4-Trichlorobenzene	2.50	1.59		mg/Kg		64	42 - 111
1,2-Dichlorobenzene	2.50	1.42		mg/Kg		57	38 - 110
1,3-Dichlorobenzene	2.50	1.40		mg/Kg		56	37 - 106
1,4-Dichlorobenzene	2.50	1.42		mg/Kg		57	37 - 108
1-Methylnaphthalene	2.50	1.76		mg/Kg		70	48 - 130
2,2'-oxybis[1-chloropropane]	2.50	1.37		mg/Kg		55	25 - 116
2,3,4,6-Tetrachlorophenol	2.50	2.02		mg/Kg		81	60 - 115
2,4,5-Trichlorophenol	2.50	2.05		mg/Kg		82	51 - 125
2,4,6-Trichlorophenol	2.50	1.93		mg/Kg		77	48 - 126

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-568050/2-A
Matrix: Solid
Analysis Batch: 568096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568050

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dichlorophenol	2.50	1.90		mg/Kg		76	49 - 127
2,4-Dimethylphenol	2.50	1.82		mg/Kg		73	41 - 122
2,4-Dinitrophenol	5.00	3.52		mg/Kg		70	34 - 124
2,4-Dinitrotoluene	2.50	2.04		mg/Kg		82	46 - 126
2,6-Dinitrotoluene	2.50	1.95		mg/Kg		78	48 - 126
2-Chloronaphthalene	2.50	1.72		mg/Kg		69	43 - 120
2-Chlorophenol	2.50	1.54		mg/Kg		62	43 - 125
2-Methylnaphthalene	2.50	1.72		mg/Kg		69	44 - 119
2-Methylphenol	2.50	1.67		mg/Kg		67	42 - 130
2-Nitroaniline	2.50	1.83		mg/Kg		73	40 - 131
2-Nitrophenol	2.50	1.72		mg/Kg		69	44 - 124
3,3'-Dichlorobenzidine	2.50	1.80		mg/Kg		72	28 - 114
3-Nitroaniline	2.50	1.69		mg/Kg		68	39 - 129
4,6-Dinitro-2-methylphenol	5.00	3.96		mg/Kg		79	38 - 137
4-Bromophenyl phenyl ether	2.50	2.03		mg/Kg		81	52 - 126
4-Chloro-3-methylphenol	2.50	1.94		mg/Kg		78	45 - 128
4-Chloroaniline	2.50	1.45		mg/Kg		58	25 - 130
4-Chlorophenyl phenyl ether	2.50	1.77		mg/Kg		71	46 - 121
4-Nitroaniline	2.50	1.59		mg/Kg		63	40 - 126
4-Nitrophenol	5.00	3.92		mg/Kg		78	35 - 130
Acenaphthene	2.50	1.83		mg/Kg		73	40 - 118
Acenaphthylene	2.50	1.80		mg/Kg		72	47 - 125
Acetophenone	2.50	1.56		mg/Kg		62	49 - 109
Aniline	2.50	0.770		mg/Kg		31	23 - 105
Anthracene	2.50	1.80		mg/Kg		72	51 - 122
Benzo[a]anthracene	2.50	2.01		mg/Kg		80	50 - 123
Benzo[a]pyrene	2.50	1.97		mg/Kg		79	52 - 125
Benzo[b]fluoranthene	2.50	2.02		mg/Kg		81	52 - 125
Benzo[g,h,i]perylene	2.50	2.44		mg/Kg		98	38 - 149
Benzo[k]fluoranthene	2.50	1.89		mg/Kg		76	50 - 132
Benzoic acid	2.50	1.91		mg/Kg		76	28 - 120
Benzyl alcohol	2.50	1.62		mg/Kg		65	20 - 133
Bis(2-chloroethoxy)methane	2.50	1.68		mg/Kg		67	39 - 119
Bis(2-chloroethyl)ether	2.50	2.26		mg/Kg		90	32 - 114
Bis(2-ethylhexyl) phthalate	2.50	2.34		mg/Kg		94	49 - 127
Butyl benzyl phthalate	2.50	2.26		mg/Kg		90	48 - 130
Carbazole	2.50	1.86		mg/Kg		75	47 - 125
Chrysene	2.50	1.97		mg/Kg		79	51 - 127
Dibenz(a,h)anthracene	2.50	2.27		mg/Kg		91	45 - 136
Dibenzofuran	2.50	1.77		mg/Kg		71	47 - 120
Diethyl phthalate	2.50	1.98		mg/Kg		79	46 - 122
Dimethyl phthalate	2.50	1.96		mg/Kg		78	48 - 122
Di-n-butyl phthalate	2.50	2.03		mg/Kg		81	43 - 128
Di-n-octyl phthalate	2.50	2.13		mg/Kg		85	47 - 133
Fluoranthene	2.50	1.81		mg/Kg		73	44 - 123
Fluorene	2.50	1.76		mg/Kg		70	48 - 123
Hexachlorobenzene	2.50	2.05		mg/Kg		82	52 - 125
Hexachlorobutadiene	2.50	1.62		mg/Kg		65	40 - 114
Hexachlorocyclopentadiene	2.50	1.72		mg/Kg		69	17 - 119

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-568050/2-A
Matrix: Solid
Analysis Batch: 568096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568050

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachloroethane	2.50	1.33		mg/Kg		53	34 - 107
Indeno[1,2,3-cd]pyrene	2.50	2.11		mg/Kg		84	46 - 148
Isophorone	2.50	1.82		mg/Kg		73	38 - 119
Naphthalene	2.50	1.62		mg/Kg		65	42 - 115
Nitrobenzene	2.50	1.60		mg/Kg		64	38 - 116
N-Nitrosodimethylamine	2.50	1.31		mg/Kg		52	28 - 107
N-Nitrosodi-n-propylamine	2.50	1.64		mg/Kg		65	31 - 124
N-Nitrosodiphenylamine	2.50	1.91		mg/Kg		76	48 - 130
Pentachlorophenol	5.00	4.16		mg/Kg		83	40 - 121
Phenanthrene	2.50	1.81		mg/Kg		72	51 - 122
Phenol	2.50	1.67		mg/Kg		67	42 - 133
Pyrene	2.50	2.06		mg/Kg		82	54 - 127
Pyridine	5.00	1.79		mg/Kg		36	21 - 76

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*82*		*10 - 147*
2-Fluorophenol (Surr)	*63*		*18 - 138*
Nitrobenzene-d5 (Surr)	*63*		*39 - 104*
Terphenyl-d14 (Surr)	*83*		*43 - 125*
Phenol-d6 (Surr)	*62*		*37 - 125*
2-Fluorobiphenyl	*71*		*42 - 113*

QC Association Summary

Client: Giles Engineering Associates
Job ID: 440-249756-2
Project/Site: Starbucks/Torrance, CA /2E-1908009

GC/MS Semi VOA

Prep Batch: 568050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-6	VP-2, 0-3	Total/NA	Solid	3546	
MB 440-568050/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-568050/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 568096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-568050/1-A	Method Blank	Total/NA	Solid	8270C	568050
LCS 440-568050/2-A	Lab Control Sample	Total/NA	Solid	8270C	568050

Analysis Batch: 568778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-249756-6	VP-2, 0-3	Total/NA	Solid	8270C	568050

Definitions/Glossary

Client: Giles Engineering Associates
Job ID: 440-249756-2
Project/Site: Starbucks/Torrance, CA /2E-1908009

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)

Accreditation/Certification Summary

Client: Giles Engineering Associates
Job ID: 440-249756-2
Project/Site: Starbucks/Torrance, CA /2E-1908009

Laboratory: Eurofins TestAmerica, Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State Program	CA ELAP 2706	06-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8270C	3546	Solid	1,2,4,5-Tetrachlorobenzene
8270C	3546	Solid	1-Methylnaphthalene
8270C	3546	Solid	2,3,4,6-Tetrachlorophenol
8270C	3546	Solid	Acetophenone

Eurofins TestAmerica, Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Dallas/Ft. Worth #238

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler:	Lab PM: McKinney, Jamie A	Carrier Tracking No(s): 6025 5779 5200	COC No: 440-169680-31111.1
Client Contact: Cade Klock	Phone:	E-Mail: jamie.mckinney@testamericainc.com		Page: Page 1 of 1
Company: Giles Engineering Associates				Job #:
Address: 1965 N Main Street	Due Date Requested:			
City: Orange	TAT Requested (days): 7-day			
State, Zip: CA, 92865				
Phone: 214-358-5885(Tel) 214-358-5884(Fax)	PO #: 2E-1908009			
Email: CKlock@gilesengr.com	WO #:			
Project Name: Starbucks/Torrance, CA/2E-1908009	Project #: 44010640			
Site:	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 - Na2S2O3
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)	6010B, 8015B_GRO, 8270C, Moisture	8260B - (MOD) Routine 8260	8260B - (MOD) Routine 8260 + oxygenates	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	A		
B-1, 15-20	9-9-19	8:25	G	Solid		N	X	X	X		
B 2, 15-20		9:00		Solid			X	X	X		
B-3, 10-15		9:16		Solid			X	X	X		
B-4, 5-10		10:04		Solid			X	X	X		
VP-1, 3-6		8:35		Solid			X	X	X		
VP-2, 0-3		9:25		Solid			X	X	X		
VP-3, 3-6		9:38		Solid			X	X	X		
VP-4, 0-3		9:50		Solid			X	X	X		
				Solid							
TRIP Blank				Water				X			
				Water							

440-249756 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	9-9-19 / 15:00	GILES			
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by: Olga Orelus	9/10/19 1030	TBINC

Custody Seals Intact: ☒ Yes ☐ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 1.3/1.7 IR-89

Ver: 01/16/2019

McKinney, Jamie

From: Mike Pisarik <mpisarik@gilesengr.com>
Sent: Friday, September 13, 2019 11:04 AM
To: McKinney, Jamie; Cade Klock; Jonathan Lewis
Subject: RE: Eurofins TestAmerica EDD and report files from 440-249756-3 Starbucks/Torrance, CA /2E-1908009

-External Email-

Run the SVOC on VP-2, 0-3 feet Sample

Michael F. Pisarik, P.E.
Regional Director
Giles Engineering Associates, Inc.
2626 Lombardy Lane, Suite 105
Dallas, Texas 75220
P: (214) 358-5885
F: (214) 358-5884
Cell: (214) 906-4961
E-Mail: mpisarik@gilesengr.com
www.gilesengr.com

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From: Jamie McKinney <jamie.mckinney@testamericainc.com>
Sent: Friday, September 13, 2019 8:46 AM
To: Cade Klock <cklock@gilesengr.com>; Jonathan Lewis <jlewis@gilesengr.com>; Mike Pisarik <mpisarik@gilesengr.com>
Subject: Eurofins TestAmerica EDD and report files from 440-249756-3 Starbucks/Torrance, CA /2E-1908009

Hello,

Attached please find the EDD and report files for job 440-249756-3; Starbucks/Torrance, CA /2E-1908009

Please feel free to contact me if you have any questions.

Thank you.

Jamie A McKinney
Project Manager

Eurofins TestAmerica, Knoxville

Phone: 865-291-3000

E-mail: jamie.mckinney@testamericainc.com
www.eurofinsus.com | www.testamericainc.com

Reference: [140-038153]
Attachments: 2

Please let us know if we met your expectations by rating the service you received from Eurofins TestAmerica on this project by visiting our website at: Project Feedback

Login Sample Receipt Checklist

Client: Giles Engineering Associates

Job Number: 440-249756-2

Login Number: 249756
List Number: 1
Creator: Dolidze, Lado

List Source: Eurofins TestAmerica, Irvine

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.	True	
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	

Default Detection Limits

Client: Giles Engineering Associates
Job ID: 440-249756-2
Project/Site: Starbucks/Torrance, CA /2E-1908009

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Prep: 3546

Analyte	RL	MDL	Units
1,2,4,5-Tetrachlorobenzene	0.25	0.11	mg/Kg
1,2,4-Trichlorobenzene	0.25	0.10	mg/Kg
1,2-Dichlorobenzene	0.25	0.052	mg/Kg
1,3-Dichlorobenzene	0.25	0.10	mg/Kg
1,4-Dichlorobenzene	0.25	0.10	mg/Kg
1-Methylnaphthalene	0.25	0.11	mg/Kg
2,2'-oxybis[1-chloropropane]	0.25	0.10	mg/Kg
2,3,4,6-Tetrachlorophenol	0.50	0.17	mg/Kg
2,4,5-Trichlorophenol	0.50	0.20	mg/Kg
2,4,6-Trichlorophenol	0.50	0.16	mg/Kg
2,4-Dichlorophenol	0.25	0.050	mg/Kg
2,4-Dimethylphenol	0.25	0.098	mg/Kg
2,4-Dinitrophenol	1.0	0.75	mg/Kg
2,4-Dinitrotoluene	0.25	0.060	mg/Kg
2,6-Dinitrotoluene	0.25	0.071	mg/Kg
2-Chloronaphthalene	0.25	0.050	mg/Kg
2-Chlorophenol	0.25	0.052	mg/Kg
2-Methylnaphthalene	0.25	0.052	mg/Kg
2-Methylphenol	0.25	0.060	mg/Kg
2-Nitroaniline	0.25	0.17	mg/Kg
2-Nitrophenol	0.25	0.10	mg/Kg
3,3'-Dichlorobenzidine	0.50	0.11	mg/Kg
3-Nitroaniline	0.25	0.10	mg/Kg
4,6-Dinitro-2-methylphenol	0.42	0.10	mg/Kg
4-Bromophenyl phenyl ether	0.25	0.056	mg/Kg
4-Chloro-3-methylphenol	0.40	0.15	mg/Kg
4-Chloroaniline	0.50	0.15	mg/Kg
4-Chlorophenyl phenyl ether	0.50	0.20	mg/Kg
4-Nitroaniline	0.50	0.10	mg/Kg
4-Nitrophenol	1.0	0.50	mg/Kg
Acenaphthene	0.25	0.13	mg/Kg
Acenaphthylene	0.25	0.052	mg/Kg
Acetophenone	0.50	0.14	mg/Kg
Aniline	0.50	0.14	mg/Kg
Anthracene	0.25	0.060	mg/Kg
Benzo[a]anthracene	0.25	0.052	mg/Kg
Benzo[a]pyrene	0.25	0.050	mg/Kg
Benzo[b]fluoranthene	0.25	0.052	mg/Kg
Benzo[g,h,i]perylene	0.25	0.082	mg/Kg
Benzo[k]fluoranthene	0.25	0.052	mg/Kg
Benzoic acid	0.75	0.36	mg/Kg
Benzyl alcohol	1.3	0.41	mg/Kg
Bis(2-chloroethoxy)methane	0.25	0.10	mg/Kg
Bis(2-chloroethyl)ether	0.25	0.052	mg/Kg
Bis(2-ethylhexyl) phthalate	0.25	0.068	mg/Kg
Butyl benzyl phthalate	0.25	0.060	mg/Kg
Carbazole	0.25	0.10	mg/Kg
Chrysene	0.25	0.056	mg/Kg
Dibenz(a,h)anthracene	0.25	0.075	mg/Kg
Dibenzofuran	0.25	0.14	mg/Kg
Diethyl phthalate	0.25	0.071	mg/Kg
Dimethyl phthalate	0.25	0.050	mg/Kg

Default Detection Limits

Client: Giles Engineering Associates
Job ID: 440-249756-2
Project/Site: Starbucks/Torrance, CA /2E-1908009

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Prep: 3546

Analyte	RL	MDL	Units
Di-n-butyl phthalate	0.25	0.068	mg/Kg
Di-n-octyl phthalate	0.25	0.068	mg/Kg
Fluoranthene	0.33	0.16	mg/Kg
Fluorene	0.25	0.052	mg/Kg
Hexachlorobenzene	0.25	0.052	mg/Kg
Hexachlorobutadiene	0.25	0.10	mg/Kg
Hexachlorocyclopentadiene	0.75	0.31	mg/Kg
Hexachloroethane	0.25	0.070	mg/Kg
Indeno[1,2,3-cd]pyrene	0.25	0.098	mg/Kg
Isophorone	0.25	0.050	mg/Kg
Naphthalene	0.25	0.050	mg/Kg
Nitrobenzene	0.25	0.052	mg/Kg
N-Nitrosodimethylamine	0.25	0.052	mg/Kg
N-Nitrosodi-n-propylamine	0.25	0.052	mg/Kg
N-Nitrosodiphenylamine	0.50	0.16	mg/Kg
Pentachlorophenol	0.50	0.26	mg/Kg
Phenanthrene	0.33	0.15	mg/Kg
Phenol	0.25	0.068	mg/Kg
Pyrene	0.25	0.10	mg/Kg
Pyridine	0.34	0.11	mg/Kg

APPENDIX D

Soil Gas Analytical Laboratory Report and Chain-of-Custody

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

Eurofins TestAmerica, Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
Tel: (865)291-3000

Laboratory Job ID: 140-16595-1
Client Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

For:
Giles Engineering Associates
2626 Lombardy Lane
Suite 105
Dallas, Texas 75220

Attn: Mr. Mike Pisarik

Authorized for release by:
9/19/2019 10:12:07 AM

Jamie McKinney, Senior Project Manager
(865)291-3000
jamie.mckinney@testamericainc.com

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Table of Contents

Definitions/Glossary

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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: Giles Engineering Associates
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Job ID: 140-16595-1

Job ID: 140-16595-1

Laboratory: Eurofins TestAmerica, Knoxville

Narrative

Job Narrative
140-16595-1

Comments
No additional comments.

Receipt
The samples were received on 9/10/2019 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA
Method(s) TO 15 LL, TO-14A, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by Eurofins TestAmerica Knoxville.

Method(s) TO 15 LL, TO-15: The continuing calibration verification (CCV) associated with batch 140-33402 recovered above the upper control limit for 1,2-Dichloro-1,1,2,2-tetrafluoroethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method(s) TO 15 LL, TO-15: The laboratory control sample (LCS) for analytical batch 140-33402 recovered outside control limits for the following analyte: 1,2-Dichloro-1,1,2,2-tetrafluoroethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method(s) TO-14A, TO-15: The continuing calibration verification (CCV) associated with batch 140-33403 exhibited % difference of > 30% for the following analyte(s) 1,2,4-Trichlorobenzene, 1,4-Dioxane, Alpha Methyl Styrene and Naphthalene; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

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

Detection Summary

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Client Sample ID: VP-1, 5-6
Lab Sample ID: 140-16595-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.90	J	1.5	0.24	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	4.5		0.98	0.31	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	1.3		0.98	0.32	ug/m3	1		TO-15	Total/NA
1,3-Butadiene	25		0.88	0.14	ug/m3	1		TO-15	Total/NA
1,3-Dichlorobenzene	1.6		1.2	0.39	ug/m3	1		TO-15	Total/NA
1,4-Dichlorobenzene	0.51	J	1.2	0.38	ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	26		2.9	0.59	ug/m3	1		TO-15	Total/NA
2-Hexanone	1.4	J	1.6	0.24	ug/m3	1		TO-15	Total/NA
4-Methyl-2-pentanone (MIBK)	4.7		4.1	0.80	ug/m3	1		TO-15	Total/NA
Acetone	140		18	3.3	ug/m3	1		TO-15	Total/NA
Acrylonitrile	3.3	J	4.3	0.43	ug/m3	1		TO-15	Total/NA
Benzene	15		0.64	0.18	ug/m3	1		TO-15	Total/NA
Bromodichloromethane	0.84	J	1.3	0.29	ug/m3	1		TO-15	Total/NA
Bromoform	1.5	J	2.1	0.50	ug/m3	1		TO-15	Total/NA
Butane	130	E	2.4	0.17	ug/m3	1		TO-15	Total/NA
Carbon disulfide	13		1.2	0.097	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.82	J	1.3	0.24	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	1.9		0.71	0.13	ug/m3	1		TO-15	Total/NA
Chloroethane	0.47	J	0.53	0.092	ug/m3	1		TO-15	Total/NA
Chloroform	1.5		0.98	0.19	ug/m3	1		TO-15	Total/NA
Chloromethane	2.2		2.1	0.33	ug/m3	1		TO-15	Total/NA
Cyclohexane	12		1.4	0.14	ug/m3	1		TO-15	Total/NA
Dibromochloromethane	0.97	J	1.7	0.36	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	1.6		0.99	0.34	ug/m3	1		TO-15	Total/NA
Ethylbenzene	2.7		0.87	0.30	ug/m3	1		TO-15	Total/NA
Heptane	17		1.6	0.19	ug/m3	1		TO-15	Total/NA
Hexane	28		1.4	0.11	ug/m3	1		TO-15	Total/NA
Isopropylbenzene	0.55	J	2.0	0.29	ug/m3	1		TO-15	Total/NA
Methylene Chloride	3.1	J B	3.5	1.1	ug/m3	1		TO-15	Total/NA
m-Xylene & p-Xylene	8.1		0.87	0.52	ug/m3	1		TO-15	Total/NA
Naphthalene	0.56	J	2.1	0.47	ug/m3	1		TO-15	Total/NA
o-Xylene	3.3		0.87	0.26	ug/m3	1		TO-15	Total/NA
Propylbenzene	0.70	J	2.0	0.28	ug/m3	1		TO-15	Total/NA
Styrene	1.1		0.85	0.25	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	0.47	J	1.4	0.27	ug/m3	1		TO-15	Total/NA
Toluene	17		3.8	0.45	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.9		1.1	0.14	ug/m3	1		TO-15	Total/NA
Vinyl chloride	1.0		1.0	0.18	ug/m3	1		TO-15	Total/NA
Butane - DL	130		9.5	0.69	ug/m3	1		TO-15	Total/NA

Client Sample ID: VP-2, 5-6
Lab Sample ID: 140-16595-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.72	J	1.5	0.24	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	3.6		0.98	0.31	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	1.1		0.98	0.32	ug/m3	1		TO-15	Total/NA
1,3-Butadiene	11		0.88	0.14	ug/m3	1		TO-15	Total/NA
1,3-Dichlorobenzene	1.0	J	1.2	0.39	ug/m3	1		TO-15	Total/NA
1,4-Dichlorobenzene	0.43	J	1.2	0.38	ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	35		2.9	0.59	ug/m3	1		TO-15	Total/NA
2-Hexanone	2.2		1.6	0.24	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: VP-2, 5-6 (Continued)
Lab Sample ID: 140-16595-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone (MIBK)	5.5		4.1	0.80	ug/m3	1		TO-15	Total/NA
Acetone	150		18	3.3	ug/m3	1		TO-15	Total/NA
Benzene	8.1		0.64	0.18	ug/m3	1		TO-15	Total/NA
Bromodichloromethane	0.98	J	1.3	0.29	ug/m3	1		TO-15	Total/NA
Bromoform	1.5	J	2.1	0.50	ug/m3	1		TO-15	Total/NA
Butane	79		2.4	0.17	ug/m3	1		TO-15	Total/NA
Carbon disulfide	5.4		1.2	0.097	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.63	J	1.3	0.24	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	1.6		0.71	0.13	ug/m3	1		TO-15	Total/NA
Chloroform	1.3		0.98	0.19	ug/m3	1		TO-15	Total/NA
Chloromethane	4.1		2.1	0.33	ug/m3	1		TO-15	Total/NA
Cyclohexane	6.5		1.4	0.14	ug/m3	1		TO-15	Total/NA
Dibromochloromethane	1.6	J	1.7	0.36	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	1.4		0.99	0.34	ug/m3	1		TO-15	Total/NA
Ethylbenzene	3.0		0.87	0.30	ug/m3	1		TO-15	Total/NA
Heptane	8.0		1.6	0.19	ug/m3	1		TO-15	Total/NA
Hexane	13		1.4	0.11	ug/m3	1		TO-15	Total/NA
Isopropylbenzene	0.69	J	2.0	0.29	ug/m3	1		TO-15	Total/NA
Methylene Chloride	6.8	B	3.5	1.1	ug/m3	1		TO-15	Total/NA
m-Xylene & p-Xylene	8.4		0.87	0.52	ug/m3	1		TO-15	Total/NA
o-Xylene	3.5		0.87	0.26	ug/m3	1		TO-15	Total/NA
Propylbenzene	0.87	J	2.0	0.28	ug/m3	1		TO-15	Total/NA
Styrene	1.2		0.85	0.25	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	0.51	J	1.4	0.27	ug/m3	1		TO-15	Total/NA
Toluene	16		3.8	0.45	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.6		1.1	0.14	ug/m3	1		TO-15	Total/NA
Vinyl chloride	0.39	J	1.0	0.18	ug/m3	1		TO-15	Total/NA

Client Sample ID: VP-3, 5-6
Lab Sample ID: 140-16595-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	4.4		3.9	1.2	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	1.3	J	3.9	1.3	ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	23		12	2.4	ug/m3	1		TO-15	Total/NA
2-Hexanone	1.3	J	6.6	0.95	ug/m3	1		TO-15	Total/NA
4-Methyl-2-pentanone (MIBK)	6.0	J	16	3.2	ug/m3	1		TO-15	Total/NA
Acetone	110		71	13	ug/m3	1		TO-15	Total/NA
Benzene	19		2.6	0.72	ug/m3	1		TO-15	Total/NA
Bromoform	2.5	J	8.3	2.0	ug/m3	1		TO-15	Total/NA
Butane	160		9.5	0.69	ug/m3	1		TO-15	Total/NA
Carbon disulfide	3.3	J	5.0	0.39	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	9.0		2.8	0.52	ug/m3	1		TO-15	Total/NA
Chloroform	1.2	J	3.9	0.74	ug/m3	1		TO-15	Total/NA
Chloromethane	3.9	J	8.3	1.3	ug/m3	1		TO-15	Total/NA
Cyclohexane	8.3		5.5	0.55	ug/m3	1		TO-15	Total/NA
Dibromochloromethane	2.2	J	6.8	1.4	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	2.6	J	4.0	1.3	ug/m3	1		TO-15	Total/NA
Ethylbenzene	9.4		3.5	1.2	ug/m3	1		TO-15	Total/NA
Heptane	5.1	J	6.6	0.77	ug/m3	1		TO-15	Total/NA
Hexane	17		5.6	0.45	ug/m3	1		TO-15	Total/NA
Methylene Chloride	11	J B	14	4.4	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: VP-3, 5-6 (Continued)
Lab Sample ID: 140-16595-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	14		3.5	2.1	ug/m3	1		TO-15	Total/NA
o-Xylene	4.0		3.5	1.1	ug/m3	1		TO-15	Total/NA
Propylbenzene	1.4	J	7.9	1.1	ug/m3	1		TO-15	Total/NA
Toluene	21		15	1.8	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.8	J	4.5	0.56	ug/m3	1		TO-15	Total/NA

Client Sample ID: VP-4, 5-6
Lab Sample ID: 140-16595-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.63	J	1.5	0.24	ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	3.3		0.98	0.31	ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.94	J	0.98	0.32	ug/m3	1		TO-15	Total/NA
1,3-Butadiene	1.9		0.88	0.14	ug/m3	1		TO-15	Total/NA
1,3-Dichlorobenzene	0.66	J	1.2	0.39	ug/m3	1		TO-15	Total/NA
1,4-Dichlorobenzene	0.44	J	1.2	0.38	ug/m3	1		TO-15	Total/NA
2-Butanone (MEK)	14		2.9	0.59	ug/m3	1		TO-15	Total/NA
2-Hexanone	0.37	J	1.6	0.24	ug/m3	1		TO-15	Total/NA
4-Methyl-2-pentanone (MIBK)	1.2	J	4.1	0.80	ug/m3	1		TO-15	Total/NA
Acetone	130		18	3.3	ug/m3	1		TO-15	Total/NA
Benzene	3.4		0.64	0.18	ug/m3	1		TO-15	Total/NA
Bromodichloromethane	0.87	J	1.3	0.29	ug/m3	1		TO-15	Total/NA
Bromoform	1.3	J	2.1	0.50	ug/m3	1		TO-15	Total/NA
Butane	19		2.4	0.17	ug/m3	1		TO-15	Total/NA
Carbon disulfide	1.2		1.2	0.097	ug/m3	1		TO-15	Total/NA
Carbon tetrachloride	0.25	J	1.3	0.24	ug/m3	1		TO-15	Total/NA
Chlorodifluoromethane	1.4		0.71	0.13	ug/m3	1		TO-15	Total/NA
Chloroform	4.3		0.98	0.19	ug/m3	1		TO-15	Total/NA
Chloromethane	3.1		2.1	0.33	ug/m3	1		TO-15	Total/NA
Cyclohexane	4.5		1.4	0.14	ug/m3	1		TO-15	Total/NA
Dibromochloromethane	0.95	J	1.7	0.36	ug/m3	1		TO-15	Total/NA
Dichlorodifluoromethane	1.3		0.99	0.34	ug/m3	1		TO-15	Total/NA
Ethylbenzene	1.3		0.87	0.30	ug/m3	1		TO-15	Total/NA
Heptane	1.2	J	1.6	0.19	ug/m3	1		TO-15	Total/NA
Hexane	3.4		1.4	0.11	ug/m3	1		TO-15	Total/NA
Methylene Chloride	4.4	B	3.5	1.1	ug/m3	1		TO-15	Total/NA
m-Xylene & p-Xylene	4.8		0.87	0.52	ug/m3	1		TO-15	Total/NA
Naphthalene	0.57	J	2.1	0.47	ug/m3	1		TO-15	Total/NA
o-Xylene	1.9		0.87	0.26	ug/m3	1		TO-15	Total/NA
Propylbenzene	0.50	J	2.0	0.28	ug/m3	1		TO-15	Total/NA
Styrene	0.50	J	0.85	0.25	ug/m3	1		TO-15	Total/NA
Tetrachloroethene	2.2		1.4	0.27	ug/m3	1		TO-15	Total/NA
Toluene	7.7		3.8	0.45	ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	1.3		1.1	0.14	ug/m3	1		TO-15	Total/NA
Vinyl chloride	0.28	J	1.0	0.18	ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Giles Engineering Associates
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Job ID: 140-16595-1

Client Sample ID: VP-1, 5-6

Lab Sample ID: 140-16595-1

Date Collected: 09/09/19 10:57
Matrix: Air
Date Received: 09/10/19 10:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			09/12/19 02:10	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			09/12/19 02:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.90**	**J**	1.5	0.24	ug/m3			09/12/19 02:10	1
1,1,2-Trichloroethane	ND		1.1	0.28	ug/m3			09/12/19 02:10	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			09/12/19 02:10	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			09/12/19 02:10	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			09/12/19 02:10	1
1,2,4-Trimethylbenzene	**4.5**		0.98	0.31	ug/m3			09/12/19 02:10	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			09/12/19 02:10	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	*	1.4	0.22	ug/m3			09/12/19 02:10	1
1,2-Dichlorobenzene	ND		2.4	0.42	ug/m3			09/12/19 02:10	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			09/12/19 02:10	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			09/12/19 02:10	1
1,3,5-Trimethylbenzene	**1.3**		0.98	0.32	ug/m3			09/12/19 02:10	1
1,3-Butadiene	**25**		0.88	0.14	ug/m3			09/12/19 02:10	1
1,3-Dichlorobenzene	**1.6**		1.2	0.39	ug/m3			09/12/19 02:10	1
1,4-Dichlorobenzene	**0.51**	**J**	1.2	0.38	ug/m3			09/12/19 02:10	1
2-Butanone (MEK)	**26**		2.9	0.59	ug/m3			09/12/19 02:10	1
2-Hexanone	**1.4**	**J**	1.6	0.24	ug/m3			09/12/19 02:10	1
3-Chloropropene	ND		0.63	0.15	ug/m3			09/12/19 02:10	1
4-Methyl-2-pentanone (MIBK)	**4.7**		4.1	0.80	ug/m3			09/12/19 02:10	1
Acetone	**140**		18	3.3	ug/m3			09/12/19 02:10	1
Acrylonitrile	**3.3**	**J**	4.3	0.43	ug/m3			09/12/19 02:10	1
Benzene	**15**		0.64	0.18	ug/m3			09/12/19 02:10	1
Benzyl chloride	ND		2.1	0.40	ug/m3			09/12/19 02:10	1
Bromodichloromethane	**0.84**	**J**	1.3	0.29	ug/m3			09/12/19 02:10	1
Bromoform	**1.5**	**J**	2.1	0.50	ug/m3			09/12/19 02:10	1
Bromomethane	ND		0.78	0.12	ug/m3			09/12/19 02:10	1
Butane	**130**	**E**	2.4	0.17	ug/m3			09/12/19 02:10	1
Carbon disulfide	**13**		1.2	0.097	ug/m3			09/12/19 02:10	1
Carbon tetrachloride	**0.82**	**J**	1.3	0.24	ug/m3			09/12/19 02:10	1
Chlorobenzene	ND		0.92	0.23	ug/m3			09/12/19 02:10	1
Chlorodifluoromethane	**1.9**		0.71	0.13	ug/m3			09/12/19 02:10	1
Chloroethane	**0.47**	**J**	0.53	0.092	ug/m3			09/12/19 02:10	1
Chloroform	**1.5**		0.98	0.19	ug/m3			09/12/19 02:10	1
Chloromethane	**2.2**		2.1	0.33	ug/m3			09/12/19 02:10	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			09/12/19 02:10	1
cis-1,3-Dichloropropene	ND		1.8	0.34	ug/m3			09/12/19 02:10	1
Cyclohexane	**12**		1.4	0.14	ug/m3			09/12/19 02:10	1
Dibromochloromethane	**0.97**	**J**	1.7	0.36	ug/m3			09/12/19 02:10	1
Dibromomethane	ND		2.8	0.28	ug/m3			09/12/19 02:10	1
Dichlorodifluoromethane	**1.6**		0.99	0.34	ug/m3			09/12/19 02:10	1
Ethylbenzene	**2.7**		0.87	0.30	ug/m3			09/12/19 02:10	1
Heptane	**17**		1.6	0.19	ug/m3			09/12/19 02:10	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			09/12/19 02:10	1
Hexane	**28**		1.4	0.11	ug/m3			09/12/19 02:10	1
Isopropylbenzene	**0.55**	**J**	2.0	0.29	ug/m3			09/12/19 02:10	1
Methyl tert-butyl ether	ND		3.6	0.61	ug/m3			09/12/19 02:10	1

Client Sample ID: VP-1, 5-6
Lab Sample ID: 140-16595-1

Date Collected: 09/09/19 10:57
Matrix: Air
Date Received: 09/10/19 10:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**3.1**	**J B**	3.5	1.1	ug/m3			09/12/19 02:10	1
m-Xylene & p-Xylene	**8.1**		0.87	0.52	ug/m3			09/12/19 02:10	1
Naphthalene	**0.56**	**J**	2.1	0.47	ug/m3			09/12/19 02:10	1
o-Xylene	**3.3**		0.87	0.26	ug/m3			09/12/19 02:10	1
Propylbenzene	**0.70**	**J**	2.0	0.28	ug/m3			09/12/19 02:10	1
Styrene	**1.1**		0.85	0.25	ug/m3			09/12/19 02:10	1
Tetrachloroethene	**0.47**	**J**	1.4	0.27	ug/m3			09/12/19 02:10	1
Toluene	**17**		3.8	0.45	ug/m3			09/12/19 02:10	1
trans-1,2-Dichloroethene	ND		0.79	0.20	ug/m3			09/12/19 02:10	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			09/12/19 02:10	1
Trichloroethene	ND		1.1	0.19	ug/m3			09/12/19 02:10	1
Trichlorofluoromethane	**1.9**		1.1	0.14	ug/m3			09/12/19 02:10	1
Vinyl chloride	**1.0**		1.0	0.18	ug/m3			09/12/19 02:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*09/12/19 02:10*	*1*

Method: TO-15 - Volatile Organic Compounds in Ambient Air - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Butane	**130**		9.5	0.69	ug/m3			09/13/19 01:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*		*09/13/19 01:27*	*1*

Client Sample ID: VP-2, 5-6
Lab Sample ID: 140-16595-2

Date Collected: 09/09/19 10:59
Matrix: Air
Date Received: 09/10/19 10:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			09/13/19 02:16	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			09/13/19 02:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.72**	**J**	1.5	0.24	ug/m3			09/13/19 02:16	1
1,1,2-Trichloroethane	ND		1.1	0.28	ug/m3			09/13/19 02:16	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			09/13/19 02:16	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			09/13/19 02:16	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			09/13/19 02:16	1
1,2,4-Trimethylbenzene	**3.6**		0.98	0.31	ug/m3			09/13/19 02:16	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			09/13/19 02:16	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			09/13/19 02:16	1
1,2-Dichlorobenzene	ND		2.4	0.42	ug/m3			09/13/19 02:16	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			09/13/19 02:16	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			09/13/19 02:16	1
1,3,5-Trimethylbenzene	**1.1**		0.98	0.32	ug/m3			09/13/19 02:16	1
1,3-Butadiene	**11**		0.88	0.14	ug/m3			09/13/19 02:16	1
1,3-Dichlorobenzene	**1.0**	**J**	1.2	0.39	ug/m3			09/13/19 02:16	1
1,4-Dichlorobenzene	**0.43**	**J**	1.2	0.38	ug/m3			09/13/19 02:16	1
2-Butanone (MEK)	**35**		2.9	0.59	ug/m3			09/13/19 02:16	1

Client Sample ID: VP-2, 5-6
Lab Sample ID: 140-16595-2

Date Collected: 09/09/19 10:59
Matrix: Air
Date Received: 09/10/19 10:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	**2.2**		1.6	0.24	ug/m3			09/13/19 02:16	1
3-Chloropropene	ND		0.63	0.15	ug/m3			09/13/19 02:16	1
4-Methyl-2-pentanone (MIBK)	**5.5**		4.1	0.80	ug/m3			09/13/19 02:16	1
Acetone	**150**		18	3.3	ug/m3			09/13/19 02:16	1
Acrylonitrile	ND		4.3	0.43	ug/m3			09/13/19 02:16	1
Benzene	**8.1**		0.64	0.18	ug/m3			09/13/19 02:16	1
Benzyl chloride	ND		2.1	0.40	ug/m3			09/13/19 02:16	1
Bromodichloromethane	**0.98**	**J**	1.3	0.29	ug/m3			09/13/19 02:16	1
Bromoform	**1.5**	**J**	2.1	0.50	ug/m3			09/13/19 02:16	1
Bromomethane	ND		0.78	0.12	ug/m3			09/13/19 02:16	1
Butane	**79**		2.4	0.17	ug/m3			09/13/19 02:16	1
Carbon disulfide	**5.4**		1.2	0.097	ug/m3			09/13/19 02:16	1
Carbon tetrachloride	**0.63**	**J**	1.3	0.24	ug/m3			09/13/19 02:16	1
Chlorobenzene	ND		0.92	0.23	ug/m3			09/13/19 02:16	1
Chlorodifluoromethane	**1.6**		0.71	0.13	ug/m3			09/13/19 02:16	1
Chloroethane	ND		0.53	0.092	ug/m3			09/13/19 02:16	1
Chloroform	**1.3**		0.98	0.19	ug/m3			09/13/19 02:16	1
Chloromethane	**4.1**		2.1	0.33	ug/m3			09/13/19 02:16	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			09/13/19 02:16	1
cis-1,3-Dichloropropene	ND		1.8	0.34	ug/m3			09/13/19 02:16	1
Cyclohexane	**6.5**		1.4	0.14	ug/m3			09/13/19 02:16	1
Dibromochloromethane	**1.6**	**J**	1.7	0.36	ug/m3			09/13/19 02:16	1
Dibromomethane	ND		2.8	0.28	ug/m3			09/13/19 02:16	1
Dichlorodifluoromethane	**1.4**		0.99	0.34	ug/m3			09/13/19 02:16	1
Ethylbenzene	**3.0**		0.87	0.30	ug/m3			09/13/19 02:16	1
Heptane	**8.0**		1.6	0.19	ug/m3			09/13/19 02:16	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			09/13/19 02:16	1
Hexane	**13**		1.4	0.11	ug/m3			09/13/19 02:16	1
Isopropylbenzene	**0.69**	**J**	2.0	0.29	ug/m3			09/13/19 02:16	1
Methyl tert-butyl ether	ND		3.6	0.61	ug/m3			09/13/19 02:16	1
Methylene Chloride	**6.8**	**B**	3.5	1.1	ug/m3			09/13/19 02:16	1
m-Xylene & p-Xylene	**8.4**		0.87	0.52	ug/m3			09/13/19 02:16	1
Naphthalene	ND		2.1	0.47	ug/m3			09/13/19 02:16	1
o-Xylene	**3.5**		0.87	0.26	ug/m3			09/13/19 02:16	1
Propylbenzene	**0.87**	**J**	2.0	0.28	ug/m3			09/13/19 02:16	1
Styrene	**1.2**		0.85	0.25	ug/m3			09/13/19 02:16	1
Tetrachloroethene	**0.51**	**J**	1.4	0.27	ug/m3			09/13/19 02:16	1
Toluene	**16**		3.8	0.45	ug/m3			09/13/19 02:16	1
trans-1,2-Dichloroethene	ND		0.79	0.20	ug/m3			09/13/19 02:16	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			09/13/19 02:16	1
Trichloroethene	ND		1.1	0.19	ug/m3			09/13/19 02:16	1
Trichlorofluoromethane	**1.6**		1.1	0.14	ug/m3			09/13/19 02:16	1
Vinyl chloride	**0.39**	**J**	1.0	0.18	ug/m3			09/13/19 02:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*		*09/13/19 02:16*	*1*

Client: Giles Engineering Associates
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Job ID: 140-16595-1

Client Sample ID: VP-3, 5-6

Date Collected: 09/09/19 11:01
Date Received: 09/10/19 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 140-16595-3

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.4	0.65	ug/m3			09/13/19 03:04	1
1,1,2,2-Tetrachloroethane	ND		5.5	1.7	ug/m3			09/13/19 03:04	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.1	0.95	ug/m3			09/13/19 03:04	1
1,1,2-Trichloroethane	ND		4.4	1.1	ug/m3			09/13/19 03:04	1
1,1-Dichloroethane	ND		3.2	0.42	ug/m3			09/13/19 03:04	1
1,1-Dichloroethene	ND		3.2	0.54	ug/m3			09/13/19 03:04	1
1,2,4-Trichlorobenzene	ND		30	2.9	ug/m3			09/13/19 03:04	1
1,2,4-Trimethylbenzene	**4.4**		3.9	1.2	ug/m3			09/13/19 03:04	1
1,2-Dibromoethane (EDB)	ND		6.1	1.4	ug/m3			09/13/19 03:04	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		5.6	0.89	ug/m3			09/13/19 03:04	1
1,2-Dichlorobenzene	ND		9.6	1.7	ug/m3			09/13/19 03:04	1
1,2-Dichloroethane	ND		3.2	0.76	ug/m3			09/13/19 03:04	1
1,2-Dichloropropane	ND		3.7	0.96	ug/m3			09/13/19 03:04	1
1,3,5-Trimethylbenzene	**1.3**	**J**	3.9	1.3	ug/m3			09/13/19 03:04	1
1,3-Butadiene	ND		3.5	0.57	ug/m3			09/13/19 03:04	1
1,3-Dichlorobenzene	ND		4.8	1.6	ug/m3			09/13/19 03:04	1
1,4-Dichlorobenzene	ND		4.8	1.5	ug/m3			09/13/19 03:04	1
2-Butanone (MEK)	**23**		12	2.4	ug/m3			09/13/19 03:04	1
2-Hexanone	**1.3**	**J**	6.6	0.95	ug/m3			09/13/19 03:04	1
3-Chloropropene	ND		2.5	0.60	ug/m3			09/13/19 03:04	1
4-Methyl-2-pentanone (MIBK)	**6.0**	**J**	16	3.2	ug/m3			09/13/19 03:04	1
Acetone	**110**		71	13	ug/m3			09/13/19 03:04	1
Acrylonitrile	ND		17	1.7	ug/m3			09/13/19 03:04	1
Benzene	**19**		2.6	0.72	ug/m3			09/13/19 03:04	1
Benzyl chloride	ND		8.3	1.6	ug/m3			09/13/19 03:04	1
Bromodichloromethane	ND		5.4	1.2	ug/m3			09/13/19 03:04	1
Bromoform	**2.5**	**J**	8.3	2.0	ug/m3			09/13/19 03:04	1
Bromomethane	ND		3.1	0.50	ug/m3			09/13/19 03:04	1
Butane	**160**		9.5	0.69	ug/m3			09/13/19 03:04	1
Carbon disulfide	**3.3**	**J**	5.0	0.39	ug/m3			09/13/19 03:04	1
Carbon tetrachloride	ND		5.0	0.96	ug/m3			09/13/19 03:04	1
Chlorobenzene	ND		3.7	0.90	ug/m3			09/13/19 03:04	1
Chlorodifluoromethane	**9.0**		2.8	0.52	ug/m3			09/13/19 03:04	1
Chloroethane	ND		2.1	0.37	ug/m3			09/13/19 03:04	1
Chloroform	**1.2**	**J**	3.9	0.74	ug/m3			09/13/19 03:04	1
Chloromethane	**3.9**	**J**	8.3	1.3	ug/m3			09/13/19 03:04	1
cis-1,2-Dichloroethene	ND		3.2	0.95	ug/m3			09/13/19 03:04	1
cis-1,3-Dichloropropene	ND		7.3	1.3	ug/m3			09/13/19 03:04	1
Cyclohexane	**8.3**		5.5	0.55	ug/m3			09/13/19 03:04	1
Dibromochloromethane	**2.2**	**J**	6.8	1.4	ug/m3			09/13/19 03:04	1
Dibromomethane	ND		11	1.1	ug/m3			09/13/19 03:04	1
Dichlorodifluoromethane	**2.6**	**J**	4.0	1.3	ug/m3			09/13/19 03:04	1
Ethylbenzene	**9.4**		3.5	1.2	ug/m3			09/13/19 03:04	1
Heptane	**5.1**	**J**	6.6	0.77	ug/m3			09/13/19 03:04	1
Hexachlorobutadiene	ND		43	3.3	ug/m3			09/13/19 03:04	1
Hexane	**17**		5.6	0.45	ug/m3			09/13/19 03:04	1
Isopropylbenzene	ND		7.9	1.2	ug/m3			09/13/19 03:04	1
Methyl tert-butyl ether	ND		14	2.5	ug/m3			09/13/19 03:04	1

Client Sample ID: VP-3, 5-6
Lab Sample ID: 140-16595-3

Date Collected: 09/09/19 11:01
Matrix: Air
Date Received: 09/10/19 10:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	**11**	**J B**	14	4.4	ug/m3			09/13/19 03:04	1
m-Xylene & p-Xylene	**14**		3.5	2.1	ug/m3			09/13/19 03:04	1
Naphthalene	ND		8.4	1.9	ug/m3			09/13/19 03:04	1
o-Xylene	**4.0**		3.5	1.1	ug/m3			09/13/19 03:04	1
Propylbenzene	**1.4**	**J**	7.9	1.1	ug/m3			09/13/19 03:04	1
Styrene	ND		3.4	0.99	ug/m3			09/13/19 03:04	1
Tetrachloroethene	ND		5.4	1.1	ug/m3			09/13/19 03:04	1
Toluene	**21**		15	1.8	ug/m3			09/13/19 03:04	1
trans-1,2-Dichloroethene	ND		3.2	0.79	ug/m3			09/13/19 03:04	1
trans-1,3-Dichloropropene	ND		3.6	0.87	ug/m3			09/13/19 03:04	1
Trichloroethene	ND		4.3	0.77	ug/m3			09/13/19 03:04	1
Trichlorofluoromethane	**1.8**	**J**	4.5	0.56	ug/m3			09/13/19 03:04	1
Vinyl chloride	ND		4.1	0.73	ug/m3			09/13/19 03:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*60 - 140*		*09/13/19 03:04*	*1*

Client Sample ID: VP-4, 5-6
Lab Sample ID: 140-16595-4

Date Collected: 09/09/19 11:08
Matrix: Air
Date Received: 09/10/19 10:00
Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			09/13/19 03:53	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			09/13/19 03:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	**0.63**	**J**	1.5	0.24	ug/m3			09/13/19 03:53	1
1,1,2-Trichloroethane	ND		1.1	0.28	ug/m3			09/13/19 03:53	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			09/13/19 03:53	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			09/13/19 03:53	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			09/13/19 03:53	1
1,2,4-Trimethylbenzene	**3.3**		0.98	0.31	ug/m3			09/13/19 03:53	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			09/13/19 03:53	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			09/13/19 03:53	1
1,2-Dichlorobenzene	ND		2.4	0.42	ug/m3			09/13/19 03:53	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			09/13/19 03:53	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			09/13/19 03:53	1
1,3,5-Trimethylbenzene	**0.94**	**J**	0.98	0.32	ug/m3			09/13/19 03:53	1
1,3-Butadiene	**1.9**		0.88	0.14	ug/m3			09/13/19 03:53	1
1,3-Dichlorobenzene	**0.66**	**J**	1.2	0.39	ug/m3			09/13/19 03:53	1
1,4-Dichlorobenzene	**0.44**	**J**	1.2	0.38	ug/m3			09/13/19 03:53	1
2-Butanone (MEK)	**14**		2.9	0.59	ug/m3			09/13/19 03:53	1
2-Hexanone	**0.37**	**J**	1.6	0.24	ug/m3			09/13/19 03:53	1
3-Chloropropene	ND		0.63	0.15	ug/m3			09/13/19 03:53	1
4-Methyl-2-pentanone (MIBK)	**1.2**	**J**	4.1	0.80	ug/m3			09/13/19 03:53	1
Acetone	**130**		18	3.3	ug/m3			09/13/19 03:53	1
Acrylonitrile	ND		4.3	0.43	ug/m3			09/13/19 03:53	1
Benzene	**3.4**		0.64	0.18	ug/m3			09/13/19 03:53	1

Client: Giles Engineering Associates
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Job ID: 140-16595-1

Client Sample ID: VP-4, 5-6
Date Collected: 09/09/19 11:08
Date Received: 09/10/19 10:00
Sample Container: Summa Canister 6L

Lab Sample ID: 140-16595-4
Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	ND		2.1	0.40	ug/m3			09/13/19 03:53	1
Bromodichloromethane	**0.87**	**J**	1.3	0.29	ug/m3			09/13/19 03:53	1
Bromoform	**1.3**	**J**	2.1	0.50	ug/m3			09/13/19 03:53	1
Bromomethane	ND		0.78	0.12	ug/m3			09/13/19 03:53	1
Butane	**19**		2.4	0.17	ug/m3			09/13/19 03:53	1
Carbon disulfide	**1.2**		1.2	0.097	ug/m3			09/13/19 03:53	1
Carbon tetrachloride	**0.25**	**J**	1.3	0.24	ug/m3			09/13/19 03:53	1
Chlorobenzene	ND		0.92	0.23	ug/m3			09/13/19 03:53	1
Chlorodifluoromethane	**1.4**		0.71	0.13	ug/m3			09/13/19 03:53	1
Chloroethane	ND		0.53	0.092	ug/m3			09/13/19 03:53	1
Chloroform	**4.3**		0.98	0.19	ug/m3			09/13/19 03:53	1
Chloromethane	**3.1**		2.1	0.33	ug/m3			09/13/19 03:53	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			09/13/19 03:53	1
cis-1,3-Dichloropropene	ND		1.8	0.34	ug/m3			09/13/19 03:53	1
Cyclohexane	**4.5**		1.4	0.14	ug/m3			09/13/19 03:53	1
Dibromochloromethane	**0.95**	**J**	1.7	0.36	ug/m3			09/13/19 03:53	1
Dibromomethane	ND		2.8	0.28	ug/m3			09/13/19 03:53	1
Dichlorodifluoromethane	**1.3**		0.99	0.34	ug/m3			09/13/19 03:53	1
Ethylbenzene	**1.3**		0.87	0.30	ug/m3			09/13/19 03:53	1
Heptane	**1.2**	**J**	1.6	0.19	ug/m3			09/13/19 03:53	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			09/13/19 03:53	1
Hexane	**3.4**		1.4	0.11	ug/m3			09/13/19 03:53	1
Isopropylbenzene	ND		2.0	0.29	ug/m3			09/13/19 03:53	1
Methyl tert-butyl ether	ND		3.6	0.61	ug/m3			09/13/19 03:53	1
Methylene Chloride	**4.4**	**B**	3.5	1.1	ug/m3			09/13/19 03:53	1
m-Xylene & p-Xylene	**4.8**		0.87	0.52	ug/m3			09/13/19 03:53	1
Naphthalene	**0.57**	**J**	2.1	0.47	ug/m3			09/13/19 03:53	1
o-Xylene	**1.9**		0.87	0.26	ug/m3			09/13/19 03:53	1
Propylbenzene	**0.50**	**J**	2.0	0.28	ug/m3			09/13/19 03:53	1
Styrene	**0.50**	**J**	0.85	0.25	ug/m3			09/13/19 03:53	1
Tetrachloroethene	**2.2**		1.4	0.27	ug/m3			09/13/19 03:53	1
Toluene	**7.7**		3.8	0.45	ug/m3			09/13/19 03:53	1
trans-1,2-Dichloroethene	ND		0.79	0.20	ug/m3			09/13/19 03:53	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			09/13/19 03:53	1
Trichloroethene	ND		1.1	0.19	ug/m3			09/13/19 03:53	1
Trichlorofluoromethane	**1.3**		1.1	0.14	ug/m3			09/13/19 03:53	1
Vinyl chloride	**0.28**	**J**	1.0	0.18	ug/m3			09/13/19 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*60 - 140*		*09/13/19 03:53*	*1*

Default Detection Limits

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	RL	MDL	Units
1,1,1-Trichloroethane	1.1	0.16	ug/m3
1,1,2,2-Tetrachloroethane	1.4	0.42	ug/m3
1,1,2-Trichloro-1,2,2-trifluoroethane	1.5	0.24	ug/m3
1,1,2-Trichloroethane	1.1	0.28	ug/m3
1,1-Dichloroethane	0.81	0.11	ug/m3
1,1-Dichloroethene	0.79	0.13	ug/m3
1,2,4-Trichlorobenzene	7.4	0.73	ug/m3
1,2,4-Trimethylbenzene	0.98	0.31	ug/m3
1,2-Dibromoethane (EDB)	1.5	0.34	ug/m3
1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	0.22	ug/m3
1,2-Dichlorobenzene	2.4	0.42	ug/m3
1,2-Dichloroethane	0.81	0.19	ug/m3
1,2-Dichloropropane	0.92	0.24	ug/m3
1,3,5-Trimethylbenzene	0.98	0.32	ug/m3
1,3-Butadiene	0.88	0.14	ug/m3
1,3-Dichlorobenzene	1.2	0.39	ug/m3
1,4-Dichlorobenzene	1.2	0.38	ug/m3
2-Butanone (MEK)	2.9	0.59	ug/m3
2-Hexanone	1.6	0.24	ug/m3
3-Chloropropene	0.63	0.15	ug/m3
4-Methyl-2-pentanone (MIBK)	4.1	0.80	ug/m3
Acetone	18	3.3	ug/m3
Acrylonitrile	4.3	0.43	ug/m3
Benzene	0.64	0.18	ug/m3
Benzyl chloride	2.1	0.40	ug/m3
Bromodichloromethane	1.3	0.29	ug/m3
Bromoform	2.1	0.50	ug/m3
Bromomethane	0.78	0.12	ug/m3
Butane	2.4	0.17	ug/m3
Carbon disulfide	1.2	0.097	ug/m3
Carbon tetrachloride	1.3	0.24	ug/m3
Chlorobenzene	0.92	0.23	ug/m3
Chlorodifluoromethane	0.71	0.13	ug/m3
Chloroethane	0.53	0.092	ug/m3
Chloroform	0.98	0.19	ug/m3
Chloromethane	2.1	0.33	ug/m3
cis-1,2-Dichloroethene	0.79	0.24	ug/m3
cis-1,3-Dichloropropene	1.8	0.34	ug/m3
Cyclohexane	1.4	0.14	ug/m3
Dibromochloromethane	1.7	0.36	ug/m3
Dibromomethane	2.8	0.28	ug/m3
Dichlorodifluoromethane	0.99	0.34	ug/m3
Ethylbenzene	0.87	0.30	ug/m3
Heptane	1.6	0.19	ug/m3
Hexachlorobutadiene	11	0.83	ug/m3
Hexane	1.4	0.11	ug/m3
Isopropylbenzene	2.0	0.29	ug/m3
Methyl tert-butyl ether	3.6	0.61	ug/m3
Methylene Chloride	3.5	1.1	ug/m3
m-Xylene & p-Xylene	0.87	0.52	ug/m3
Naphthalene	2.1	0.47	ug/m3
o-Xylene	0.87	0.26	ug/m3
Propylbenzene	2.0	0.28	ug/m3

Default Detection Limits

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	RL	MDL	Units
Styrene	0.85	0.25	ug/m3
Tetrachloroethene	1.4	0.27	ug/m3
Toluene	3.8	0.45	ug/m3
trans-1,2-Dichloroethene	0.79	0.20	ug/m3
trans-1,3-Dichloropropene	0.91	0.22	ug/m3
Trichloroethene	1.1	0.19	ug/m3
Trichlorofluoromethane	1.1	0.14	ug/m3
Vinyl chloride	1.0	0.18	ug/m3

Surrogate Summary

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Matrix: Air **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB (60-140)								
140-16595-1	VP-1, 5-6	95								
140-16595-1 - DL	VP-1, 5-6	92								
140-16595-2	VP-2, 5-6	96								
140-16595-3	VP-3, 5-6	95								
140-16595-4	VP-4, 5-6	89								
LCS 140-33402/1002	Lab Control Sample	97								
LCS 140-33403/1007	Lab Control Sample	92								
MB 140-33402/5	Method Blank	88								
MB 140-33403/5	Method Blank	88								

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Client: Giles Engineering Associates
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Job ID: 140-16595-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 140-33402/5
Matrix: Air
Analysis Batch: 33402

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			09/11/19 13:33	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			09/11/19 13:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			09/11/19 13:33	1
1,1,2-Trichloroethane	ND		1.1	0.28	ug/m3			09/11/19 13:33	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			09/11/19 13:33	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			09/11/19 13:33	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			09/11/19 13:33	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			09/11/19 13:33	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			09/11/19 13:33	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			09/11/19 13:33	1
1,2-Dichlorobenzene	ND		2.4	0.42	ug/m3			09/11/19 13:33	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			09/11/19 13:33	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			09/11/19 13:33	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			09/11/19 13:33	1
1,3-Butadiene	ND		0.88	0.14	ug/m3			09/11/19 13:33	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			09/11/19 13:33	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			09/11/19 13:33	1
2-Butanone (MEK)	ND		2.9	0.59	ug/m3			09/11/19 13:33	1
2-Hexanone	ND		1.6	0.24	ug/m3			09/11/19 13:33	1
3-Chloropropene	ND		0.63	0.15	ug/m3			09/11/19 13:33	1
4-Methyl-2-pentanone (MIBK)	ND		4.1	0.80	ug/m3			09/11/19 13:33	1
Acetone	ND		18	3.3	ug/m3			09/11/19 13:33	1
Acrylonitrile	ND		4.3	0.43	ug/m3			09/11/19 13:33	1
Benzene	ND		0.64	0.18	ug/m3			09/11/19 13:33	1
Benzyl chloride	ND		2.1	0.40	ug/m3			09/11/19 13:33	1
Bromodichloromethane	ND		1.3	0.29	ug/m3			09/11/19 13:33	1
Bromoform	ND		2.1	0.50	ug/m3			09/11/19 13:33	1
Bromomethane	ND		0.78	0.12	ug/m3			09/11/19 13:33	1
Butane	ND		2.4	0.17	ug/m3			09/11/19 13:33	1
Carbon disulfide	ND		1.2	0.097	ug/m3			09/11/19 13:33	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			09/11/19 13:33	1
Chlorobenzene	ND		0.92	0.23	ug/m3			09/11/19 13:33	1
Chlorodifluoromethane	ND		0.71	0.13	ug/m3			09/11/19 13:33	1
Chloroethane	ND		0.53	0.092	ug/m3			09/11/19 13:33	1
Chloroform	ND		0.98	0.19	ug/m3			09/11/19 13:33	1
Chloromethane	ND		2.1	0.33	ug/m3			09/11/19 13:33	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			09/11/19 13:33	1
cis-1,3-Dichloropropene	ND		1.8	0.34	ug/m3			09/11/19 13:33	1
Cyclohexane	ND		1.4	0.14	ug/m3			09/11/19 13:33	1
Dibromochloromethane	ND		1.7	0.36	ug/m3			09/11/19 13:33	1
Dibromomethane	ND		2.8	0.28	ug/m3			09/11/19 13:33	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			09/11/19 13:33	1
Ethylbenzene	ND		0.87	0.30	ug/m3			09/11/19 13:33	1
Heptane	ND		1.6	0.19	ug/m3			09/11/19 13:33	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			09/11/19 13:33	1
Hexane	ND		1.4	0.11	ug/m3			09/11/19 13:33	1
Isopropylbenzene	ND		2.0	0.29	ug/m3			09/11/19 13:33	1
Methyl tert-butyl ether	ND		3.6	0.61	ug/m3			09/11/19 13:33	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-33402/5
Matrix: Air
Analysis Batch: 33402

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	1.68	J	3.5	1.1	ug/m3			09/11/19 13:33	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			09/11/19 13:33	1
Naphthalene	ND		2.1	0.47	ug/m3			09/11/19 13:33	1
o-Xylene	ND		0.87	0.26	ug/m3			09/11/19 13:33	1
Propylbenzene	ND		2.0	0.28	ug/m3			09/11/19 13:33	1
Styrene	ND		0.85	0.25	ug/m3			09/11/19 13:33	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			09/11/19 13:33	1
Toluene	ND		3.8	0.45	ug/m3			09/11/19 13:33	1
trans-1,2-Dichloroethene	ND		0.79	0.20	ug/m3			09/11/19 13:33	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			09/11/19 13:33	1
Trichloroethene	ND		1.1	0.19	ug/m3			09/11/19 13:33	1
Trichlorofluoromethane	ND		1.1	0.14	ug/m3			09/11/19 13:33	1
Vinyl chloride	ND		1.0	0.18	ug/m3			09/11/19 13:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*09/11/19 13:33*	*1*

Lab Sample ID: LCS 140-33402/1002
Matrix: Air
Analysis Batch: 33402

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	5.46	5.16		ug/m3		95	70 - 130
1,1,2,2-Tetrachloroethane	6.87	7.13		ug/m3		104	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	7.66	7.46		ug/m3		97	70 - 130
1,1,2-Trichloroethane	5.46	5.63		ug/m3		103	70 - 130
1,1-Dichloroethane	4.05	3.76		ug/m3		93	70 - 130
1,1-Dichloroethene	3.96	3.74		ug/m3		94	70 - 130
1,2,4-Trichlorobenzene	7.42	6.01		ug/m3		81	60 - 140
1,2,4-Trimethylbenzene	4.92	4.81		ug/m3		98	70 - 130
1,2-Dibromoethane (EDB)	7.68	7.41		ug/m3		96	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	6.99	10.7	*	ug/m3		153	60 - 140
1,2-Dichlorobenzene	6.01	5.72		ug/m3		95	70 - 130
1,2-Dichloroethane	4.05	4.03		ug/m3		99	70 - 130
1,2-Dichloropropane	4.62	4.13		ug/m3		89	70 - 130
1,3,5-Trimethylbenzene	4.92	4.69		ug/m3		95	70 - 130
1,3-Butadiene	2.21	2.77		ug/m3		125	60 - 140
1,3-Dichlorobenzene	6.01	5.63		ug/m3		94	70 - 130
1,4-Dichlorobenzene	6.01	5.70		ug/m3		95	70 - 130
2-Butanone (MEK)	2.95	2.43		ug/m3		83	60 - 140
2-Hexanone	4.10	3.79		ug/m3		92	60 - 140
3-Chloropropene	3.13	3.38		ug/m3		108	60 - 140
4-Methyl-2-pentanone (MIBK)	4.10	3.52		ug/m3		86	60 - 140
Acetone	7.13	6.12	J	ug/m3		86	60 - 140
Acrylonitrile	2.17	1.92		ug/m3		89	60 - 140
Benzene	3.19	2.83		ug/m3		89	70 - 130
Benzyl chloride	5.18	5.26		ug/m3		102	70 - 130

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-33402/1002
Matrix: Air
Analysis Batch: 33402

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	6.70	6.53		ug/m3		97	70 - 130
Bromoform	10.3	10.5		ug/m3		101	60 - 140
Bromomethane	3.88	4.72		ug/m3		122	70 - 130
Butane	2.38	3.04		ug/m3		128	60 - 140
Carbon disulfide	3.11	2.89		ug/m3		93	70 - 130
Carbon tetrachloride	6.29	6.49		ug/m3		103	70 - 130
Chlorobenzene	4.60	4.50		ug/m3		98	70 - 130
Chlorodifluoromethane	3.54	3.81		ug/m3		108	60 - 140
Chloroethane	2.64	3.19		ug/m3		121	70 - 130
Chloroform	4.88	4.78		ug/m3		98	70 - 130
Chloromethane	2.07	1.80		ug/m3		87	60 - 140
cis-1,2-Dichloroethene	3.96	3.56		ug/m3		90	70 - 130
cis-1,3-Dichloropropene	4.54	4.33		ug/m3		95	70 - 130
Cyclohexane	3.44	2.98		ug/m3		87	70 - 130
Dibromochloromethane	8.52	8.47		ug/m3		99	70 - 130
Dibromomethane	7.11	7.12		ug/m3		100	70 - 130
Dichlorodifluoromethane	4.95	5.77		ug/m3		117	60 - 140
Ethylbenzene	4.34	4.11		ug/m3		95	70 - 130
Heptane	4.10	3.42		ug/m3		83	70 - 130
Hexachlorobutadiene	10.7	9.16		ug/m3		86	60 - 140
Hexane	3.52	2.94		ug/m3		83	70 - 130
Isopropylbenzene	4.92	4.97		ug/m3		101	70 - 130
Methyl tert-butyl ether	3.61	3.43		ug/m3		95	60 - 140
Methylene Chloride	3.47	3.16		ug/m3		91	70 - 130
m-Xylene & p-Xylene	8.68	8.45		ug/m3		97	70 - 130
Naphthalene	5.24	4.27		ug/m3		81	60 - 140
o-Xylene	4.34	4.41		ug/m3		102	70 - 130
Propylbenzene	4.92	4.84		ug/m3		98	70 - 130
Styrene	4.26	4.14		ug/m3		97	70 - 130
Tetrachloroethene	6.78	6.35		ug/m3		94	70 - 130
Toluene	3.77	3.73		ug/m3		99	70 - 130
trans-1,2-Dichloroethene	3.96	3.91		ug/m3		99	70 - 130
trans-1,3-Dichloropropene	4.54	4.46		ug/m3		98	70 - 130
Trichloroethene	5.37	5.07		ug/m3		94	70 - 130
Trichlorofluoromethane	5.62	6.14		ug/m3		109	60 - 140
Vinyl chloride	2.56	3.24		ug/m3		127	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*

Lab Sample ID: MB 140-33403/5
Matrix: Air
Analysis Batch: 33403

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.1	0.16	ug/m3			09/12/19 11:38	1
1,1,2,2-Tetrachloroethane	ND		1.4	0.42	ug/m3			09/12/19 11:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.5	0.24	ug/m3			09/12/19 11:38	1

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-33403/5
Matrix: Air
Analysis Batch: 33403

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.1	0.28	ug/m3			09/12/19 11:38	1
1,1-Dichloroethane	ND		0.81	0.11	ug/m3			09/12/19 11:38	1
1,1-Dichloroethene	ND		0.79	0.13	ug/m3			09/12/19 11:38	1
1,2,4-Trichlorobenzene	ND		7.4	0.73	ug/m3			09/12/19 11:38	1
1,2,4-Trimethylbenzene	ND		0.98	0.31	ug/m3			09/12/19 11:38	1
1,2-Dibromoethane (EDB)	ND		1.5	0.34	ug/m3			09/12/19 11:38	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.4	0.22	ug/m3			09/12/19 11:38	1
1,2-Dichlorobenzene	ND		2.4	0.42	ug/m3			09/12/19 11:38	1
1,2-Dichloroethane	ND		0.81	0.19	ug/m3			09/12/19 11:38	1
1,2-Dichloropropane	ND		0.92	0.24	ug/m3			09/12/19 11:38	1
1,3,5-Trimethylbenzene	ND		0.98	0.32	ug/m3			09/12/19 11:38	1
1,3-Butadiene	ND		0.88	0.14	ug/m3			09/12/19 11:38	1
1,3-Dichlorobenzene	ND		1.2	0.39	ug/m3			09/12/19 11:38	1
1,4-Dichlorobenzene	ND		1.2	0.38	ug/m3			09/12/19 11:38	1
2-Butanone (MEK)	ND		2.9	0.59	ug/m3			09/12/19 11:38	1
2-Hexanone	ND		1.6	0.24	ug/m3			09/12/19 11:38	1
3-Chloropropene	ND		0.63	0.15	ug/m3			09/12/19 11:38	1
4-Methyl-2-pentanone (MIBK)	ND		4.1	0.80	ug/m3			09/12/19 11:38	1
Acetone	ND		18	3.3	ug/m3			09/12/19 11:38	1
Acrylonitrile	ND		4.3	0.43	ug/m3			09/12/19 11:38	1
Benzene	ND		0.64	0.18	ug/m3			09/12/19 11:38	1
Benzyl chloride	ND		2.1	0.40	ug/m3			09/12/19 11:38	1
Bromodichloromethane	ND		1.3	0.29	ug/m3			09/12/19 11:38	1
Bromoform	ND		2.1	0.50	ug/m3			09/12/19 11:38	1
Bromomethane	ND		0.78	0.12	ug/m3			09/12/19 11:38	1
Butane	ND		2.4	0.17	ug/m3			09/12/19 11:38	1
Carbon disulfide	ND		1.2	0.097	ug/m3			09/12/19 11:38	1
Carbon tetrachloride	ND		1.3	0.24	ug/m3			09/12/19 11:38	1
Chlorobenzene	ND		0.92	0.23	ug/m3			09/12/19 11:38	1
Chlorodifluoromethane	ND		0.71	0.13	ug/m3			09/12/19 11:38	1
Chloroethane	ND		0.53	0.092	ug/m3			09/12/19 11:38	1
Chloroform	ND		0.98	0.19	ug/m3			09/12/19 11:38	1
Chloromethane	ND		2.1	0.33	ug/m3			09/12/19 11:38	1
cis-1,2-Dichloroethene	ND		0.79	0.24	ug/m3			09/12/19 11:38	1
cis-1,3-Dichloropropene	ND		1.8	0.34	ug/m3			09/12/19 11:38	1
Cyclohexane	ND		1.4	0.14	ug/m3			09/12/19 11:38	1
Dibromochloromethane	ND		1.7	0.36	ug/m3			09/12/19 11:38	1
Dibromomethane	ND		2.8	0.28	ug/m3			09/12/19 11:38	1
Dichlorodifluoromethane	ND		0.99	0.34	ug/m3			09/12/19 11:38	1
Ethylbenzene	ND		0.87	0.30	ug/m3			09/12/19 11:38	1
Heptane	ND		1.6	0.19	ug/m3			09/12/19 11:38	1
Hexachlorobutadiene	ND		11	0.83	ug/m3			09/12/19 11:38	1
Hexane	ND		1.4	0.11	ug/m3			09/12/19 11:38	1
Isopropylbenzene	ND		2.0	0.29	ug/m3			09/12/19 11:38	1
Methyl tert-butyl ether	ND		3.6	0.61	ug/m3			09/12/19 11:38	1
Methylene Chloride	1.54	J	3.5	1.1	ug/m3			09/12/19 11:38	1
m-Xylene & p-Xylene	ND		0.87	0.52	ug/m3			09/12/19 11:38	1
Naphthalene	ND		2.1	0.47	ug/m3			09/12/19 11:38	1
o-Xylene	ND		0.87	0.26	ug/m3			09/12/19 11:38	1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 140-33403/5
Matrix: Air
Analysis Batch: 33403

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Propylbenzene	ND		2.0	0.28	ug/m3			09/12/19 11:38	1
Styrene	ND		0.85	0.25	ug/m3			09/12/19 11:38	1
Tetrachloroethene	ND		1.4	0.27	ug/m3			09/12/19 11:38	1
Toluene	ND		3.8	0.45	ug/m3			09/12/19 11:38	1
trans-1,2-Dichloroethene	ND		0.79	0.20	ug/m3			09/12/19 11:38	1
trans-1,3-Dichloropropene	ND		0.91	0.22	ug/m3			09/12/19 11:38	1
Trichloroethene	ND		1.1	0.19	ug/m3			09/12/19 11:38	1
Trichlorofluoromethane	ND		1.1	0.14	ug/m3			09/12/19 11:38	1
Vinyl chloride	ND		1.0	0.18	ug/m3			09/12/19 11:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*09/12/19 11:38*	*1*

Lab Sample ID: LCS 140-33403/1007
Matrix: Air
Analysis Batch: 33403

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	5.46	4.80		ug/m3		88	70 - 130
1,1,2,2-Tetrachloroethane	6.87	6.12		ug/m3		89	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	7.66	7.13		ug/m3		93	70 - 130
1,1,2-Trichloroethane	5.46	5.12		ug/m3		94	70 - 130
1,1-Dichloroethane	4.05	3.50		ug/m3		86	70 - 130
1,1-Dichloroethene	3.96	3.62		ug/m3		91	70 - 130
1,2,4-Trichlorobenzene	7.42	5.02		ug/m3		68	60 - 140
1,2,4-Trimethylbenzene	4.92	4.27		ug/m3		87	70 - 130
1,2-Dibromoethane (EDB)	7.68	6.80		ug/m3		89	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	6.99	7.83		ug/m3		112	60 - 140
1,2-Dichlorobenzene	6.01	5.12		ug/m3		85	70 - 130
1,2-Dichloroethane	4.05	3.65		ug/m3		90	70 - 130
1,2-Dichloropropane	4.62	4.07		ug/m3		88	70 - 130
1,3,5-Trimethylbenzene	4.92	4.09		ug/m3		83	70 - 130
1,3-Butadiene	2.21	2.83		ug/m3		128	60 - 140
1,3-Dichlorobenzene	6.01	5.08		ug/m3		85	70 - 130
1,4-Dichlorobenzene	6.01	5.15		ug/m3		86	70 - 130
2-Butanone (MEK)	2.95	2.37		ug/m3		80	60 - 140
2-Hexanone	4.10	2.88		ug/m3		70	60 - 140
3-Chloropropene	3.13	2.99		ug/m3		96	60 - 140
4-Methyl-2-pentanone (MIBK)	4.10	3.09		ug/m3		75	60 - 140
Acetone	7.13	6.13	J	ug/m3		86	60 - 140
Acrylonitrile	2.17	2.00		ug/m3		92	60 - 140
Benzene	3.19	2.85		ug/m3		89	70 - 130
Benzyl chloride	5.18	4.09		ug/m3		79	70 - 130
Bromodichloromethane	6.70	5.96		ug/m3		89	70 - 130
Bromoform	10.3	7.92		ug/m3		77	60 - 140
Bromomethane	3.88	4.60		ug/m3		118	70 - 130
Butane	2.38	2.97		ug/m3		125	60 - 140

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 140-33403/1007
Matrix: Air
Analysis Batch: 33403

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon disulfide	3.11	2.82		ug/m3		91	70 - 130
Carbon tetrachloride	6.29	5.73		ug/m3		91	70 - 130
Chlorobenzene	4.60	4.16		ug/m3		90	70 - 130
Chlorodifluoromethane	3.54	3.26		ug/m3		92	60 - 140
Chloroethane	2.64	3.33		ug/m3		126	70 - 130
Chloroform	4.88	4.27		ug/m3		87	70 - 130
Chloromethane	2.07	2.63		ug/m3		127	60 - 140
cis-1,2-Dichloroethene	3.96	3.53		ug/m3		89	70 - 130
cis-1,3-Dichloropropene	4.54	4.08		ug/m3		90	70 - 130
Cyclohexane	3.44	2.98		ug/m3		87	70 - 130
Dibromochloromethane	8.52	7.19		ug/m3		84	70 - 130
Dibromomethane	7.11	6.93		ug/m3		97	70 - 130
Dichlorodifluoromethane	4.95	4.08		ug/m3		83	60 - 140
Ethylbenzene	4.34	3.85		ug/m3		89	70 - 130
Heptane	4.10	3.73		ug/m3		91	70 - 130
Hexachlorobutadiene	10.7	7.43		ug/m3		70	60 - 140
Hexane	3.52	3.18		ug/m3		90	70 - 130
Isopropylbenzene	4.92	4.42		ug/m3		90	70 - 130
Methyl tert-butyl ether	3.61	3.18		ug/m3		88	60 - 140
Methylene Chloride	3.47	3.03		ug/m3		87	70 - 130
m-Xylene & p-Xylene	8.68	7.58		ug/m3		87	70 - 130
Naphthalene	5.24	3.45		ug/m3		66	60 - 140
o-Xylene	4.34	3.92		ug/m3		90	70 - 130
Propylbenzene	4.92	4.49		ug/m3		91	70 - 130
Styrene	4.26	3.62		ug/m3		85	70 - 130
Tetrachloroethene	6.78	6.00		ug/m3		89	70 - 130
Toluene	3.77	3.56		ug/m3		94	70 - 130
trans-1,2-Dichloroethene	3.96	3.56		ug/m3		90	70 - 130
trans-1,3-Dichloropropene	4.54	3.99		ug/m3		88	70 - 130
Trichloroethene	5.37	4.74		ug/m3		88	70 - 130
Trichlorofluoromethane	5.62	5.29		ug/m3		94	60 - 140
Vinyl chloride	2.56	3.07		ug/m3		120	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*60 - 140*

QC Association Summary

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Air - GC/MS VOA

Analysis Batch: 33402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16595-1	VP-1, 5-6	Total/NA	Air	TO-15	
MB 140-33402/5	Method Blank	Total/NA	Air	TO-15	
LCS 140-33402/1002	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 33403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-16595-1 - DL	VP-1, 5-6	Total/NA	Air	TO-15	
140-16595-2	VP-2, 5-6	Total/NA	Air	TO-15	
140-16595-3	VP-3, 5-6	Total/NA	Air	TO-15	
140-16595-4	VP-4, 5-6	Total/NA	Air	TO-15	
MB 140-33403/5	Method Blank	Total/NA	Air	TO-15	
LCS 140-33403/1007	Lab Control Sample	Total/NA	Air	TO-15	

Client Sample ID: VP-1, 5-6
Lab Sample ID: 140-16595-1
Date Collected: 09/09/19 10:57
Matrix: Air
Date Received: 09/10/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	33402	09/12/19 02:10	S1K	TAL KNX
	Instrument ID: MR									
Total/NA	Analysis	TO-15	DL	1	50 mL	500 mL	33403	09/13/19 01:27	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: VP-2, 5-6
Lab Sample ID: 140-16595-2
Date Collected: 09/09/19 10:59
Matrix: Air
Date Received: 09/10/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	33403	09/13/19 02:16	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: VP-3, 5-6
Lab Sample ID: 140-16595-3
Date Collected: 09/09/19 11:01
Matrix: Air
Date Received: 09/10/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	50 mL	500 mL	33403	09/13/19 03:04	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: VP-4, 5-6
Lab Sample ID: 140-16595-4
Date Collected: 09/09/19 11:08
Matrix: Air
Date Received: 09/10/19 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	33403	09/13/19 03:53	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-33402/5
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	33402	09/11/19 13:33	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Method Blank
Lab Sample ID: MB 140-33403/5
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	200 mL	500 mL	33403	09/12/19 11:38	S1K	TAL KNX
	Instrument ID: MR									

Lab Chronicle

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-33402/1002
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	500 mL	500 mL	33402	09/11/19 10:34	S1K	TAL KNX
	Instrument ID: MR									

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 140-33403/1007
Date Collected: N/A
Matrix: Air
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	500 mL	500 mL	33403	09/12/19 09:40	S1K	TAL KNX
	Instrument ID: MR									

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = Eurofins TestAmerica, Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: Giles Engineering Associates
Job ID: 140-16595-1
Project/Site: STARBUCKS/TORRANCE,CA/2E-1908009

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
140-16595-1	VP-1, 5-6	Air	09/09/19 10:57	09/10/19 10:00	Air Canister (6-Liter) #11169
140-16595-2	VP-2, 5-6	Air	09/09/19 10:59	09/10/19 10:00	Air Canister (6-Liter) #10374
140-16595-3	VP-3, 5-6	Air	09/09/19 11:01	09/10/19 10:00	Air Canister (6-Liter) #10977
140-16595-4	VP-4, 5-6	Air	09/09/19 11:08	09/10/19 10:00	Air Canister (6-Liter) #09729

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

140-16595 Chain of Custody

Client Contact Information	**Project Manager: Mike Pisarik**	1 of 1 COCs
Company: Giles Engineering Associates	**Phone:**	
Address: 1965 N. Main St.	**Site Contact:**	
City/State/Zip: Orange, CA 92865	**TAL Contact:**	
STARBUCKS 09		
Project Name: ~~Chevron~~ A/Torrance, CA/2E-19080~~4~~	**Analysis Turnaround Time**	
Site/location: Torrance, CA	Standard (Specify) 7-day	
PO # 2E-1908~~0~~ 09	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
VP-1, 5-6	9-9-19	10:27	10:57	-29	-4	12064	11169	X											
VP-2, 5-6	"	10:29	10:59	-31	-5	11944	10374	X											
VP-3, 5-6	"	10:31	11:01	-30	-4	10939	10977	X											
VP-4, 5-6	↓	10:33	11:08	-32	-4	10925	09729	X											

Sampled by :		Temperature (Fahrenheit)		
		Interior	Ambient	
	Start			
	Stop			
		Pressure (inches of Hg)		
		Interior	Ambient	
	Start			
	Stop			

Received @ ambient, 1 box
Fedex Po, Custody seal intact
trk# 4795 7837 3655
KW 9/10/19

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: KP	Date/Time: 9-9-19 / 15:00	Canisters Received by: CTA 9/10/19 1000	4 cans 4 KR
Samples Relinquished by:	Date/Time:	Received by:	
Relinquished by:	Date/Time:	Received by:	

Lab Use Only **Shipper Name:** **Opened by:** **Condition:**

Loc: 140

EUROFINS/TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:** **16595**

Review Items	Yes	No	NA	If No, what was the problem?
1. Are the shipping containers intact?	✓			☐ **Containers, Broken**
2. Were ambient air containers received intact?			✓	☑ Checked in lab
3. The coolers/containers custody seal if present, is it intact?	✓			☐ Yes ☐ NA
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID :_____ Correction factor: _____			✓	☐ **Cooler Out of Temp, Client Contacted, Proceed/Cancel** ☐ **Cooler Out of Temp, Same Day Receipt**
5. Were all of the sample containers received intact?	✓			☐ **Containers, Broken**
6. Were samples received in appropriate containers?	✓			☐ **Containers, Improper; Client Contacted; Proceed/Cancel**
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **COC & Samples Do Not Match** ☐ **COC Incorrect/Incomplete** ☐ **COC Not Received**
8. Were all of the samples listed on the COC received?	✓			☐ **Sample Received, Not on COC** ☐ **Sample on COC, Not Received**
9. Is the date/time of sample collection noted?	✓			☐ **COC; No Date/Time; Client Contacted**
10. Was the sampler identified on the COC?		✓		☑ **Sampler Not Listed on COC**
11. Is the client and project name/# identified?	✓			☐ **COC Incorrect/Incomplete**
12. Are tests/parameters listed for each sample?	✓			☐ **COC No tests on COC**
13. Is the matrix of the samples noted?	✓			☐ **COC Incorrect/Incomplete**
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **COC Incorrect/Incomplete**
15. Were samples received within holding time?	✓			☐ **Holding Time - Receipt**
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **pH Adjusted, pH Included (See box 16A)** ☐ **Incorrect Preservative**
17. Were VOA samples received without headspace?			✓	☐ **Headspace (VOA only)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:_____			✓	☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, notify lab to adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

Labeling Verified by: **Date:**

pH test strip lot number:

	Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:		
Lot Number:		
Exp Date:		
Analyst:		
Date:		
Time:		

Project #: 14002587 PM Instructions: _____

Sample Receiving Associate: KC LwR Date: 9/10/19

QA026R32.doc, 062719

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 9/10/2019

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
HMT	140-16595-a-1	11169	16482	B	6	-4.9	18:16	
HMT	140-16595-a-2	10374	16482	B	6	-5.4	18:17	
HMT	140-16595-a-3	10977	16482	B	6	-6.1	18:18	
HMT	140-16595-a-4	09729	16482	B	6	-4.0	18:19	

□ Receiving –Air Can –Calve Open (NCM #_____)
□ Air - Can P -24 to -25 " - Flow Contr. Works (NCM#_____)
□ Air - Can P -24 to -25 " - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Works (NCM#_____)
□ Air - Can P Out -26" - Flow Contr. Faulty (NCM#_____)
□ Air - Can P Low -24 to -25 " - Grab Sample (NCM#_____)
□ Air - Can P Low -26 "- Grab Sample (NCM#_____)

Geotechnical, Environmental & Construction Materials Consultants

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