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November 14, 2022

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320 West 4th Street, Suite 200  
Los Angeles, California 90013

Dear Mr. Cho:

Enclosed is one electronic copy of the *Remediation Status Report – Third Quarter 2022, Defense Fuel Support Point Norwalk* (SCP NO. 0286A, SITE ID No. 16638) located at 15306 Norwalk Boulevard, Norwalk, California

If you have any questions or require additional information concerning this document, please contact me at (571) 767-9813 or [carol.devier-heeney@dla.mil](mailto:carol.devier-heeney@dla.mil).

Sincerely,

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Carol Devier-Heeney  
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Enclosure  
As stated

cc: Neil Irish, P.G., Principal Geologist, SGI/Apex

**REMEDIATION STATUS REPORT – THIRD QUARTER 2022**  
**DEFENSE FUEL SUPPORT POINT NORWALK**  
**15306 Norwalk Boulevard**  
**Norwalk, California**

SGI Project No. 091-NDLA-018  
DLA Contract No. SPE603-20-D-5008, CLIN 002

Prepared For:



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AST	above ground storage tank
BTEX	Benzene, toluene, ethylbenzene, and total xylenes
COD	Chemical Oxygen Demand
°F	degrees Fahrenheit
DFSP	Defense Fuel Support Point
DLA	Defense Logistics Agency - Energy Environmental Division Restoration Branch
DTP	Depth to product
DTW	Depth to groundwater
ELAP	Environmental Laboratory Accreditation Program
EPA	United States Environmental Protection Agency
GAC	Granular activated carbon
GRO	Gasoline range organic
GWE	Groundwater extraction
GWETS	Groundwater extraction and treatment system
JP-5	Jet propellant number 5
LNAPL	Light non-aqueous phase liquid
µg/L	micrograms per liter
MTBE	Methyl tertiary-butyl ether
ND	Non-detect
NFA	No Further Action
NPDES	National Pollutant Discharge Elimination System
OM&M	Operations, maintenance, and monitoring
OVA	Organic vapor analyzer
ppm	Parts per million
PID	Photoionization detector
RWQCB	California Regional Water Quality Control Board, Los Angeles Region
SCAQMD	South Coast Air Quality Management District
SFPP	Santa Fe Pacific Pipelines Partners, L.P.
SGI	The Source Group, Inc.
SVE	Soil vapor extraction
SS	Suspended Solids
TBA	Tertiary-butyl alcohol
TOC	Top of casing

TPHd	Total petroleum hydrocarbons quantified as diesel
TPHg	Total petroleum hydrocarbons quantified as gasoline
VES	Vapor extraction system
VOCs	Volatile organic Compounds



## 1.0 INTRODUCTION

On behalf of our client, Defense Logistics Agency - Energy (DLA), The Source Group, Inc., a subsidiary of Apex Companies, LLC (SGI-Apex) presents this report to summarize remediation system operations during this reporting period (Third Quarter 2022 – July 1, 2022 through September 30, 2022) for the Defense Fuel Support Point (DFSP) Norwalk facility, located at 15306 Norwalk Boulevard, Norwalk, California (Site; Figures 1 and 2).

This report is submitted pursuant to a request from the California Regional Water Quality Control Board, Los Angeles Region (RWQCB) in a letter dated May 3, 2013.

### 1.1 Contaminants of Concern

Soil and groundwater at the areas of concern are impacted with hydrocarbons consisting primarily of benzene, toluene, ethylbenzene, and total xylenes (collectively, BTEX), jet propellant number 5 (JP-5), diesel, methyl tertiary-butyl ether (MTBE), and tertiary-butyl alcohol (TBA). MTBE and TBA are interpreted to have resulted from Santa Fe Pacific Pipelines Partners, L.P. (SFPP) operations, and remediation of these impacts is being addressed by SFPP.

The impacted areas consist of the northwestern corner of the Site, the north-central portion of the former tank farm (central area), the northeastern property boundary (eastern area), off-site Holifield Park area, and the southern former water tank and truck fueling areas (southern area).

### 1.2 Remediation Technologies

Various remediation technologies have been implemented at the Site to treat the hydrocarbon impacts in soil and groundwater. The purposes of these technologies are to reduce hydrocarbon concentrations to cleanup goals, prevent off-site migration, contain contaminant mass, and ultimately achieve Site closure within a reasonable timeframe.

Remediation technologies utilized at the Site include soil vapor extraction (SVE), groundwater extraction (GWE), biosparging, and light non-aqueous phase liquid (LNAPL) removal via manual bailing, passive skimming, absorbent socks, and active pumping using a portable skimming pump or vacuum truck. The above ground treatment of contaminated vadose zone soils excavated at the Site was conducted from April 2015 until March 2017 (see SGI-Apex's January 2018 *Shallow Soil Closure Report*). An automated product recovery system was brought online during August 2016 and SVE and/or biosparge wells were installed during November 2016, June/July 2017 and November/December 2017 as part of ongoing remedial expansion activities.

A summary of Site remediation wells, including well identification, well construction information, well function, and operational status, is presented in Table 1. The soil and groundwater remediation system layout (well and piping locations) is presented in Figure 2.

### 1.2.1 Groundwater Extraction and Treatment System

The GWE wells pumping to the groundwater extraction and treatment system (GWETS) for hydrocarbon extraction of dissolved-phase subsurface impacts, historically included wells installed in the northwest corner of the Site (GW-2 and GW-13), the central area (GW-14R, which was not connected to the GWETS due to the presence of LNAPL at the time), and the eastern area (GW-15, GW-16, and GMW-58, which was not connected to the GWETS when SGI-Apex took over the project).

The GWETS utilizes electric pumps in each of the GWE wells to extract groundwater into a shared surge tank. Groundwater is then pumped from the surge tank through three particulate-removal bag filter vessels in series (BF1, BF2, and BF3), two MYCELX vessels in series (MX-7 and MX-21) for the removal of residual free product and/or oils/grease, a Bayoxide vessel for arsenic removal (added on June 22, 2022 [B-1]), and two coal-based carbon (GAC) vessels in series (750-pound GAC-1 and 2,000-pound GAC-2). The final two GAC vessels (2,000-lb GAC-3 and 1,500-lb GAC-4) were removed from the treatment process during the Third Quarter 2021. GAC-3 was placed in standby position and GAC-4 is no longer operable. The groundwater is then discharged to the sanitary sewer.

Operation of the GWETS was conducted in accordance with CI No. 7585 and South Coast Air Quality Management District (SCAQMD) Permit to Operate G6962, A/N 501180. Discharge of the treated groundwater was conducted in accordance with National Pollutant Discharge Elimination System (NPDES) permit CAG994004 until February 27, 2019 when the system was shut down pending approval of the sewer discharge permit application. The GWETS was restarted on October 10, 2019 and is operating in accordance with Sanitation Districts of Los Angeles County Industrial Wastewater Discharge Permit number 22453. Active GWE wells are identified in Section 3.1 and Tables 2A through 2C.

During this reporting period, a temperature survey event was conducted to estimate source zone degradation rates under active remediation as part of ongoing evaluation of remedial performance, and in anticipation of a natural source zone depletion (NSZD) assessment to be performed in the near future. One of the objectives for the temperature survey is to evaluate the distribution of hydrocarbon degradation rates across the site in order to establish technical justification (along with other lines of evidence) for ending groundwater extraction activities on site. Temperature was measured in 23 existing monitoring and 15 biosparge wells to evaluate bioactivity in various areas of the site within the remediation system zone of influence (ZOI), and in “hot-spot” areas of recalcitrant contamination located beyond the ZOI. A brief summary of results is provided in Section 2.1, and a more detailed summary is included as Attachment C.

### 1.2.2 Biosparge System

Biosparge wells for hydrocarbon removal from dissolved-phase subsurface impacts are located throughout the Site. The biosparge system was off-line pending completion of soil cleanup activities per SGI-Apex’s January 2018 *Shallow Soil Closure Report*. System recommissioning work was completed during Fourth Quarter 2018 in accordance with SGI-Apex’s June 30, 2017 *Remediation Well Installation Update Report*, and July 11, 2018 *Well Installation Completion Report*. The

recommissioned biosparge system includes 109 biosparge wells (Table 1) connected to the system via 11 total air supply trunklines. Injection air is supplied to the wells by a rotary claw compressor and cooled by a heat exchanger before delivery to the wells via the active air supply trunkline. The trunklines are connected to a common manifold and injection air is controlled by solenoids on each trunkline. The injection cycle duration and frequency are controlled by timers and total injection duration is recorded by hour meters for each trunkline. Biosparge system shakedown testing was conducted in late December 2018, and system operation resumed in early 2019.

Biosparge system influence testing was performed during the Fourth Quarter 2021 and is summarized in SGI-Apex's February 11, 2022 *Remediation Status Report – Fourth Quarter 2021*.

Subsequently, biosparge system optimization was performed during the Fourth Quarter 2021. During the Second Quarter 2022, biosparge trunkline cycles were further adjusted at the control panel to alternate between eight groups rather than four, increasing pressure and flow to each well. Follow up monitoring is planned to verify system effectiveness and allow for any necessary adjustments to injection rates and/or cycling times.

### 1.2.3 Soil Vapor Extraction Systems

As illustrated in Figure 2, the SVE well network for hydrocarbon extraction from vadose zone subsurface impacts historically included wells installed in the following areas: former above ground storage tank (AST) basin 80001 (VEW-23), former AST basins 80006 and 80007 (VEW-22, HW-1 and HW-3), former AST basin 80008 (HW-5, and HW-7), former AST basin 55004 (VEW-28, VEW-29, and VEW-30), northeastern boundary area (VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, and VEW-37), and southern former truck fueling and water tank area (VEW-31, VEW-38, VEW-39, VEW-40, VW-07, VW-09, VW-10, VW-11, VW-12, VW-13, VW-14, VW-15, and VW-16).

Several new SVE wells were installed within the eastern area and southern area of the Site during November 2016 and June/July 2017, as summarized in SGI-Apex's June 30, 2017 *Remediation Well Installation Update Report*. Wells VEW-38, VEW-39 and VEW-40 were brought online to the carbon vapor extraction system (VES) in June 2017, and wells RW-1, RW-2, RW-7, RW-9, RW-12, RW-13, RW-18, RW-20 through RW-24, RW-26, and RW-28 through RW-33 were brought online in August 2017. The new SVE wells were brought online following the completion of tie-in work to the carbon VES. Most of these wells were subsequently tied into the temporary thermal oxidizer VES during late December 2017/early January 2018 prior to the January 8, 2018 startup of this system, with the carbon VES being utilized to exclusively extract from three horizontal wells (HW-1, HW-5 and HW-7) that span through the entire former tank farm since 2018. Additionally, tie-in of wells RW-2 through RW-8, RW-10 through RW-12, and RW-14 through RW-17 to the temporary thermal oxidizer VES was completed on February 14, 2018, and wells RW-34 through RW-50 were tied in and brought online on June 27, 2018. The permanent full-scale thermal oxidizer VES (hereafter referred to as thermal oxidizer VES) was installed and tested and system startup began on March 13, 2019.

Each VES utilizes a blower to remove soil vapors from the subsurface. The extracted vapors are conveyed through a knockout tank that separates entrained moisture from the soil vapors. For both

systems, accumulated moisture within the knockout tank is treated by the GWETS, as described in the preceding section. Following is a brief summary of each VES.

### 1.2.3.1 Carbon Vapor Extraction System

Soil vapors from the carbon VES knockout tank are treated via four GAC vessels where volatile organic compounds (VOCs) are adsorbed onto the GAC within the vessels. The primary and secondary GAC vessels, each 5,000 pounds, are installed in series, and are followed by a pair of tertiary vessels, each 2,000 pounds, installed in parallel.

Operation of the carbon VES is currently conducted in accordance with SCAQMD Permit to Operate G12863, A/N 518989 issued on April 15, 2011. This permit was modified under A/N 568793 and a Permit to Construct was issued on March 6, 2015, to additionally allow for above ground soil treatment activities at the Site which were completed in March 2017 (see Section 1.2.5 for further details). System operational data is summarized in Tables 3A through 3C. Active SVE wells associated with the system are identified in Section 3.2 and Table 4.

### 1.2.3.2 Thermal Oxidizer Vapor Extraction System

A temporary thermal oxidizer VES began operation on January 8, 2018. The temporary thermal oxidizer VES was intended to treat vapors associated with the relatively high concentration SVE wells that were originally tied into the carbon VES, as discussed in SGI-Apex's May 15, 2018, *Remediation Status Report - First Quarter 2018*. These high concentration SVE wells were connected to the carbon VES in late June and early August 2017. Additional wells in the southern area of the Site (RW-34 through RW-50) were brought online to the temporary thermal oxidizer VES in June 2018. The system was shut down on January 8, 2019, to comply with the SCAQMD Various Locations Permit F97121 which limited the operational period to one calendar year.

The permanent full-scale thermal oxidizer VES was installed and tested in March 2019, shortly after the temporary VES was shut down. The gas meter was installed in mid-February 2019, and the natural gas line was activated on February 26, 2019. The system manufacturer's service technicians (Baker Furnace) conducted the initial system equipment testing on March 4, 2019, and system startup began on March 13, 2019.

The thermal oxidizer VES operated this quarter in catalytic mode. Upon installation of a new catalytic cell on March 26, 2021, soil vapors from the thermal oxidizer VES knockout tank are heated to a minimum temperature of 750°F prior to atmospheric discharge. Operation of the thermal oxidizer VES is conducted in accordance with SCAQMD Permit to Construct/Operate G52288, A/N 602424. The SCAQMD Rule 1166 notification form for SVE system startup was provided to SCAQMD on March 13, 2019. System operational data is summarized in Tables 5A through 5C. Active SVE wells associated with the thermal oxidizer systems are identified in Section 3.2 and Table 6.

## 1.2.4 LNAPL Removal

LNAPL removal at the Site is accomplished via both physical and automated processes. Select wells are gauged for floating product approximately once every two weeks, and product removal is

conducted via manually bailing, active pumping using a portable product skimmer, and/or by utilizing absorbent socks installed based on the measured LNAPL thickness in each target well.

An automated product recovery system connected to wells located in the central area of the Site has also operated since August 2016. LNAPL removal wells are identified in Sections 3.3 and 3.4 and Tables 7A through 7W. A map showing the measurable liquid-phase hydrocarbons during the first semiannual 2022 monitoring event is presented in Figure 3.

### **1.2.5 Above Ground Soil Treatment**

Per SGI-Apex's May 1, 2015, *Remediation Status Report - First Quarter 2015*, the excavation of impacted vadose zone soils at the Site began during January 2015. Treatment was achieved via the construction of soil biopiles that were connected to the carbon VES for SCAQMD permit compliance purposes. Biopile operations, maintenance and monitoring (OM&M) continued until March 20, 2017 after a final phase of limited additional cross-trenching and excavation work with the remaining treatment cells being subsequently disconnected and brought online April 24, 2015 following the completion of above ground treatment cell construction activities.

From January 2015 through March 2017, a total estimated volume of 67,574 cubic yards of petroleum hydrocarbon contaminated soil was excavated at the Site to depths up to 35 feet below ground surface. The goal of this remediation was to clean up source area soils that contributed to the degradation of groundwater and ready the real property of the Site for eventual conveyance. Details associated with the OM&M of the biopiles are provided in prior remediation status reports. Further details regarding treatment cell construction and excavated soil cleanup activities are provided in SGI-Apex's January 2018 *Shallow Soil Closure Report* and September 2018 *Addendum to the Shallow Soil Closure Report – Western Portion*. The RWQCB granted a no further action (NFA) determination for the shallow soil in the upper 10 feet of the Site's eastern 15-acre parcel on April 19, 2018. The NFA determination was contingent upon declaration of covenant and environmental restriction, which was recorded on September 27, 2018. Regulatory closure of shallow soil in the western part of the Site is pending.

### **1.2.6 Soil Management**

The RWQCB previously approved the March 8, 2012, *Onsite Soil Management Plan* prepared and amended by Parsons Corporation (May 2012 *Response to April 10, 2012 RWQCB Comments on Onsite Soil Management Plan*). Both documents and the RWQCB approval (February 26, 2014) specified the number of samples and analytical requirements. Soil generated from trenching and drilling operations at the Site was tested according to that approved soil management plan protocol.

## 2.0 OPERATIONS, MAINTENANCE AND MONITORING

OM&M of the remediation systems included the following tasks:

- Performed minimum weekly maintenance and monitoring of the GWETS, carbon VES, thermal oxidizer VES, LNAPL Recovery, and the biosparge system.
- Collected and analyzed influent and effluent vapor samples from the carbon VES and thermal oxidizer VES.
- Collected and analyzed influent and effluent groundwater samples from the GWETS.
- Performed weekly LNAPL removal from applicable wells via bailing, skimming and/or absorbent socks.
- Performed periodic gauging of wells connected to the product recovery system, along with adjusting associated pump cycle durations and frequencies to optimize LNAPL removal.
- Continued extraction efforts from wells with LNAPL and monitored for thicknesses of LNAPL sufficient to resume pumping in off-line wells.

Remediation system inspections were performed on a regular basis during operation. For these inspections, vapor flow rate, vacuum, volumes of extracted product, hours of operation, and other system parameters were recorded.

### 2.1 Groundwater Extraction and Treatment System

The GWETS was restarted on October 10, 2019. GWE wells pumping to the GWETS this quarter were GW-14R, GWM-31 and GW-16. System OM&M details and monthly performance results are summarized in Tables 2A, 2B and 2C. The GWETS was temporarily shut down on June 24, 2022 for pump maintenance, due to the presence of naturally occurring orange sludge bacteria in all three pumping GWE wells, which is plugging up the pumps and discharge lines, and decreasing GWE well flow rates. Following in-well chemical treatment and the installation of new pumps in all three active GWE wells, the GWETS was restarted during this reporting period on September 9, 2022. A historical summary of influent water analytical sample results is provided in Table 8. Per the new sewer discharge permit, sampling is conducted semiannually and quarterly (chemical oxygen demand [COD] and suspended solids [SS] only) since January 1, 2020.

Wells GMW-31 and GW-14R, which have had no measurable LNAPL since December 2019, were connected to the GWETS on March 11, 2020, and began operation May 14, 2020 and May 18, 2020, respectively.

A preliminary temperature monitoring survey and evaluation of NSZD rates across the site was performed during the Third Quarter 2022 period. Temperature was measured in 23 existing monitoring and 15 biosparge wells to evaluate bioactivity in various areas of the site. In summary:

- The range of NSZD rates observed (126 to 477 gallons/acre/year) were similar to the range of rates reported for the adjacent Kinder Morgan remediation site as reported in Jacobs' October 2020 *Technical Memo: Natural Source Zone Depletion Preliminary Results*, which were estimated via carbon dioxide efflux measurements using three different methods.
- The temperature survey results indicate that appreciable bioactivity is occurring site-wide, even in impacted wells outside of the ZOI (e.g. downgradient wells MW-27, MW-11, and TF-24), suggesting contaminant plume mobility is limited by the ongoing degradation of dissolved TPH impacts in downgradient areas.
- Groundwater temperature did not correlate to NSZD rates, although it does appear to be a good indicator of biosparge influence. Elevated groundwater temperatures (>26°C) were generally present within the biosparge system ZOI, with some exceptions (e.g. wells TFB-19 and TFB-31).
- Results generally confirm that the “hot-spot” areas identified during the 2021 biosparge system influence testing, as discussed in SGI-Apex's February 2022 *Remediation Status Report – Fourth Quarter 2021*, are located in areas with lower groundwater temperatures and/or lower NSZD rates, beyond the remediation system ZOI.

The preliminary temperature monitoring evaluation is included as Appendix C.

## 2.2 Soil Vapor Extraction Systems

The carbon VES system was restarted on November 21, 2019, upon installation of a new blower. System OM&M details and performance results are summarized in Tables 3A, 3B and 3C. Historical field photoionization detector (PID) readings from individual wells are summarized in Tables 9A through 9D; historical analytical vapor sampling results from individual wells are summarized in Table 10.

A temporary thermal oxidizer VES operated from January 8, 2018. The system was shut down on January 8, 2019, to comply with the SCAQMD Various Locations Permit which limited the operational period to one calendar year.

A permanent thermal oxidizer VES was installed, and startup was conducted on March 13, 2019. System operational hours were limited to daytime hours from July to mid-August due to ongoing noise concerns from nearby residents. Sound blankets were installed in August and the thermal oxidizer began unrestricted operation (24/7) on August 26, 2019. The thermal oxidizer is intended to treat vapors associated with the relatively high concentration SVE wells that were originally tied into the carbon VES, as discussed in SGI-Apex's May 15, 2018, *Remediation Status Report - First Quarter 2018*. All such wells that have since been installed and connected as part of ongoing remediation expansion activities at the Site have been tied into the thermal oxidizer to cost-effectively accelerate the overall remediation project. Compliance and/or performance soil vapor samples from the carbon and thermal oxidizer VESs were collected in Tedlar bags during the reporting period as summarized in Tables 4 and 6. All vapor samples were delivered to Environmental Laboratory Accreditation Program (ELAP) accredited American Analytics for analysis.

The vapor samples were analyzed for the following:

- Total petroleum hydrocarbons quantified as gasoline (TPHg) using United States Environmental Protection Agency (EPA) Method 8015 Modified; and
- BTEX and MTBE using EPA Method 8260B.

Historical summaries of influent vapor analytical sampling results for the carbon VES and thermal oxidizer VES are provided in Tables 4 and 6, respectively. The laboratory analytical reports and chain-of-custody documents for the thermal oxidizer and carbon VES samples are included in Appendix A. As the Table 6 results indicate, thermal oxidizer VES concentrations decreased allowing for the installation of the catalytic cell on March 26, 2021. Maximum gasoline range organic (GRO), benzene and MTBE concentrations this period are 2,200 micrograms per liter ( $\mu\text{g/L}$ ), 1.8  $\mu\text{g/L}$  and non-detect (ND)  $<1.0 \mu\text{g/L}$ , respectively. Maximum historic levels for these constituents were previously 14,000  $\mu\text{g/L}$  for GRO (October/December 2019) and 21  $\mu\text{g/L}$  for benzene (August 2019). MTBE has never been detected.

### 2.3 Biosparge System

The biosparge wells associated with the original system are located throughout the central and eastern areas of the Site. As summarized on Table 1, several of these wells were abandoned to allow for the excavation of impacted soil from the area at or surrounding each respective well (see Sections 1.2.5 and 1.2.6) or were confirmed to be missing/destroyed during September 2016 field reconnaissance work.

Dual-nested SVE and biosparge wells RW-1 through RW-34 were installed during late June and early July 2017 with additional wells, RW-35 through RW-50 and TFB-1 through TFB-38, installed during November and December 2017 (Table 1). All of these wells were installed as part of ongoing remedial expansion activities to target impacts in the eastern area, central area, and southern area of the Site (Figure 2) in accordance with SGI-Apex's March 14, 2017 *Well Replacement Report and Work Plan*, June 30, 2017 *Remediation Well Installation Update Report*, and July 11, 2018 *Well Installation Completion Report*.

Conveyance piping installation activities concluded in October 2018, and the system equipment assembly was completed in early December 2018. System equipment shakedown testing was conducted in mid-December 2018, and preliminary system startup occurred during the week of December 24, 2018. System operation resumed in early 2019. Biosparge operations conducted during this quarter continued in the central area, the eastern area, and the southern area wells. Biosparge system OM&M details during this quarter are provided in Tables 11A through 11C.

### 2.4 LNAPL Removal Via Bailing, Skimming and Absorbent Socks

Depth to product (DTP) and depth to groundwater (DTW) were measured to the nearest 0.01 foot from the top of the well casing (TOC) using an interface probe in select monitoring wells approximately every two weeks during the reporting period. LNAPL was removed from select wells via manual bailing, active pumping using a portable product skimmer and by utilizing absorbent socks. All product is placed in an AST located within the existing treatment compound. Mass and



volume removal estimates using these techniques are summarized in Tables 7A, 7B, 7O and 7R along with associated LNAPL gauging results.

## **2.5 LNAPL Removal Via Product Recovery System**

The permitting and installation of the product recovery system was completed on August 8, 2016, at which time full-scale operations commenced. At that time, the system consisted of six pneumatically activated product removal pumps deployed in key wells located in the central area of the Site. Two additional pumps were procured during October 2017 in response to increasing LNAPL thickness trends from the prior quarter. In early October 2018, an additional eight product removal pumps were brought online, expanding the system capacity to allow operation of up to 16 product removal pumps simultaneously.

All pumped product is routed to an AST located within the existing treatment compound via double contained conveyance piping. The product stored in the AST is subsequently removed off-site by a licensed transport, recycling and disposal company (Appendix B). LNAPL removal is determined individually for active wells with product removal pumps based on interpolating the total volume of product collected in the AST during a given quarter and periodically measuring the volume of LNAPL recovered per cycle for each pump. A portion of the total AST product volume is assigned to each active pump based on well-specific cycle duration and frequency values which are programmed based on current gauging and yield data. Product recovery system OM&M continued through the current quarter with limited operation due to the decrease in LNAPL in wells. OM&M details for all wells connected to the product recovery system during this quarter are provided in Tables 7E through 7W.

### 3.0 SUMMARY OF REMEDIATION PROGRESS

The following sections describe remedial progress at the Site

#### 3.1 Groundwater Extraction and Treatment System

The GWETS was restarted on October 10, 2019. Based on the total petroleum hydrocarbons quantified as diesel (TPHd) results for influent water samples and total groundwater extracted, an estimated 9,957 pounds of TPHd have been removed since April 1996 (Table 2C).

#### 3.2 Soil Vapor Extraction Systems

The carbon VES system was restarted on November 21, 2019 upon installation of a new blower. Wells HW-1, HW-5, HW-7 and newly installed HW-8 and HW-9 are connected to the carbon VES system. Well HW-3 remained off-line after it was first determined to be yielding minimal flow during July 2017, and subsequently scoped and confirmed to be collapsed in two separate locations during November 2017. Flow and mass extraction testing were conducted on well HW-3 in December 2018, and results indicated very low vapor concentrations and minimal flow rate. The well was abandoned on June 7, 2019, and replaced with two new horizontal wells, HW-8 and HW-9. These two new wells were connected to the carbon VES in July 2019 (Table 9A).

Based on field photoionization detector (PID) readings (Tables 9B through 9D) and previous quarters laboratory concentrations (Table 10), the catalytic cell for the thermal oxidizer VES was installed on March 26, 2021. Wells in the southern area were connected to the carbon VES system on March 19, 2021.

The total mass of VOCs removed via the carbon and the thermal oxidizer extraction systems during this period was approximately 8,610 pounds (429 pounds via the carbon VES and 8,181 pounds via the thermal oxidizer VES). An estimated 2,988,133 pounds have been removed since April 1996 (Table 3C) via the carbon VES and approximately 362,704 pounds removed via the temporary and permanent thermal oxidizer VESs since January 2018 (Table 5C). Note that the total estimated mass of VOCs removed via SVE does not account for any mass removed *in-situ* via biodegradation.

#### 3.3 Biosparge System

Recommissioning of the biosparge system was completed during Fourth Quarter 2018, and system startup operations began in late December in the central area wells BSP-21 through BSP-24, BSP-27, BSP-25, BSP-26, BSP-28 through BSP-30; operations began in mid-April 2019 in the eastern area wells BSP-10 thru BSP-14, RW-4, RW-5, RW-9, RW-10, RW-11, RW-14, RW-18. On August 23, 2019, sparging operations were phased into the southern area wells BSP-19, BSP-20, RW-21, RW-23, RW-26, BSP-17, BSP-18, RW-30, RW-31, RW-32, RW-34, BSP-15, BSP-16, RW-19, RW-20, RW-25, and RW-28. Additional southern area wells RW-22, RW-24, RW-27, RW-29, RW-33, RW-43, RW-35, RW-38, RW-39, RW-45, RW-36, RW-37, RW-41, RW-42, RW-46, RW-47,

RW-48, RW-49, and RW-50 were brought online on September 20, 2019. Additional eastern area wells RW-1, RW-3, RW-12, and RW-13 were brought online on November 15, 2019; and RW-2, RW-7, RW-8, RW-6, RW-15, RW-16, and RW-17 were brought online on April 16, 2020. Additional central area wells TFB-7, TFB-9, TFB-10, TFB-11, TFB-12, TFB-13, TFB-14, TFB-1, TFB-2, TFB-4, TFB-5, TFB-6, and TFB-8 were brought online on November 18, 2019.

Central area wells TFB-21, TFB-26, TFB-27, TFB-28, TFB-31, TFB-34, TFB-16, TFB-17, TFB-20, TFB-32, TFB-36, TFB-37, and TFB-38 continue to target areas where the LNAPL plume has receded. Startup of additional inactive biosparge wells will be evaluated based on LNAPL plume trends and monitoring data collected as part of ongoing system optimization efforts.

### **3.4 LNAPL Gauging and Removal**

During the reporting period, DTW and DTP were measured in Hollifield Park wells GMW-62, GMW-68, and on-site wells TFR-22, TFR-24, TFR-29 and RTF-18-E (Tables 7A, 7B, 7N, 7O, 7P and 7R).

A total of approximately 17 gallons (118 pounds) of LNAPL was removed from the Site during this quarter, and an estimated 10,514 gallons (71,036 pounds) of LNAPL has been removed since January 2014.

#### **3.4.1 LNAPL Removal Via Bailing, Skimming and Absorbent Socks**

Approximately 4 gallons (29 pounds) of LNAPL was removed via manual bailing, active pumping using a portable product skimmer and/or by utilizing absorbent socks from wells GMW-62, GMW-68, TFR-24, TFR-29 and RTF-18-E during this reporting period (Table 7A, 7B, 7O, 7P and 7R).

#### **3.4.2 LNAPL Removal Via Product Recovery System**

Wells TFR-9, GMW-18, TFR-12, TFR-14, TF-15, TFR-15, TF-16, GW-14R, TFR-22, TFR-24, TFR-29, and TFR-33, RTF-18-E, RTF-18-NW, RTF-18-N, TF-18, RTF-18-NNW and RTF-18-W were connected to an automated product recovery system which included 16 total active recovery pumps. Pumping resumed in well RTF-18-E in early January 2019 and was taken back off-line in late February 2019 due to insufficient yield. Pumping resumed in September 2019 and shut down again in mid-February 2020 due to insufficient yield. Well RTF-18-NNW has remained off-line due to insufficient yield since March 2018. Based on low LNAPL yields during initial testing from wells TFR-27, and GMW-45 conducted in early October 2018, skimmers have remained off-line since mid-October 2018. If LNAPL thicknesses increase, pumping may resume from these wells during the next reporting period.

Approximately 13 gallons (89 pounds) of LNAPL was pumped from wells TFR-22 and TFR-29 during this reporting period (Tables 7N and 7P).

LNAPL gauging results along with cumulative mass and volume removal estimates are summarized in Tables 7E through 7W.

#### 4.0 REMEDIATION SYSTEMS EVALUATION AND OPTIMIZATION

Remedial system optimization activities are ongoing at the Site to help ensure effective cleanup operations. For the carbon VES, vapor-phase VOC concentrations from the horizontal wells will be monitored and sampled. Continuous thermal oxidizer VES operation began on August 26, 2019 after the installation of sound blankets.

Reconfiguration of the respective vapor extraction systems will be conducted regularly to allow for cost-effective site-wide cleanup. Thus, as concentration levels in one or more currently high concentration wells decline to the point where carbon treatment becomes feasible, the well(s) will be progressively disconnected from the thermal oxidizer VES and tied into the carbon VES.

SGI-Apex will continue to monitor individual well influent vapor concentrations associated with each existing VES and modify which extraction wells are online along with adjusting respective valve positions, as necessary.

Per the non-detect, stable, or declining dissolved groundwater analytical data from off-site wells (as illustrated in previous semiannual groundwater monitoring reports) and from the previous aquifer pump testing and groundwater capture zone analysis, the current GWETS, along with natural attenuation, has been successful in preventing further impacted groundwater from flowing off-site, and has captured and treated a significant portion of impacted groundwater under Holifield Park.

GWE in the central area from wells GMW-31 and GW-14R and in the eastern area from well GW-16 will continue to assist with containment until further evaluation of natural attenuation is conducted. Additionally, absorbent sock installation and LNAPL recovery via pumping and/or manual bailing will continue along with full-scale OM&M of the product recovery system. Due to a decline in measurable LNAPL, pumping in TFR-29 has temporarily ceased to allow LNAPL recovery. Currently, well TFR-22 is the only active LNAPL pumping well.

Up-to-date gauging data will continue to be collected during the next reporting period with rotating recovery operations being implemented based on ongoing performance data. If warranted by the data, pumping will also resume in any locations where it was previously conducted.

For all active pumping wells, adjustments will continue to be made to the associated extraction frequency and duration of each pump cycle to help maximize LNAPL yields without isolating the well from the product plume. Future adjustments to all such wells may also be made on the basis of periodic bail down testing conducted to establish current transmissivity values for correlating apparent to actual product thicknesses.

Biosparging operations will continue to run in the new trunkline configuration and adjusted run time schedule during the Fourth Quarter 2022. Biosparge operations will continue to be optimized to enhance volatilization and biodegradation in impacted areas and will expand to target areas where the LNAPL plume has receded. Periodic collection of pressure response and field parameters data from monitoring wells within the treatment zone will be used to optimize operations and confirm the biosparging zone of influence.

## 5.0 PLANNED FOURTH QUARTER 2022 ACTIVITIES

During the next reporting period, DLA plans to continue to focus in-situ remedial efforts on the central area, eastern area, and southern area of the Site. Following is a summary of planned Third Quarter 2022 OM&M activities:

- Continue minimum weekly maintenance and monitoring of the thermal oxidizer VES. Tasks include measuring individual well vapor concentrations with an organic vapor analyzer (OVA) and collecting/analyzing monthly influent and effluent vapor samples.
- Collect individual extraction well vapor samples for laboratory analysis as needed. Vapor samples will be collected from horizontal wells and extraction wells.
- Continue regular LNAPL gauging and removal activities (as applicable), including wells GWM-62 and GMW-68 (both located off-site in Holifield Park), GMW-7, TF-19, and product recovery system wells TFR-9, GMW-18, TFR-12, TF-15, TFR-14, TFR-15, TF-16, GW-14R, TFR-18, TFR-22, TFR-24, TFR-29, TFR-33, RTF-18-E, RTF-18-NW, RTF-18-N, RTF-18-NNW, RTF-18-W, TF-18, TFR-27, and GMW-45.
- Gauge wells TFR-17, TFR-19, TFR-32, TFR-30, TFR-5, TFR-7, TFR-21, and TFR-26 periodically as SVE is applied (via the thermal oxidizer VES) to evaluate any appearance and/or increase in LNAPL thicknesses and the potential for active/passive product recovery.
- Continue controlled product recovery system OM&M of well TFR-22 and TFR-29, located in the central area of the Site.
- Continue to utilize the carbon VES for focused extraction from the relatively low concentration SVE wells to allow for reasonable carbon usage rates while achieving comprehensive site-wide vadose zone cleanup in conjunction with the new permanent thermal oxidizer VES (i.e., treatment of both relatively high and low concentration wells via the simultaneous use of both vapor abatement technologies).
- Continue the permanent thermal oxidizer VES operations to cost-effectively process moderate vapor concentration (catalytic mode from approximately 500 ppm to 3,000 ppm) well flows, with any remaining low concentration (less than approximately 500 ppm) well flows being more cost-effectively treated via the existing carbon VES.
- Continue to evaluate influent vapor concentrations to the thermal oxidizer VES after installation of the catalytic cell.
- Evaluate converting low concentration HW wells to biovent wells for bioremediation.
- Continue minimum weekly maintenance and monitoring of the GWETS operations and collect groundwater samples for laboratory analysis as required by the sewer discharge permit.
- Continue to evaluate GWE flow rates and confirm contaminant containment.

- Install additional horizontal treatment wells (vapor extraction and biosparge) in the Eastern 15-acre parcel and Holifield Park to target the remaining high concentration impacted areas in preparation for land development by the City of Norwalk. The drilling event is tentatively scheduled to begin in late November 2022.
- Collect additional temperature monitoring data from a reduced set of wells, focusing on the wells within the vicinity of the “hot-spots” targeted by the proposed system expansion. This data will be used, along with the continuous temperature monitoring data, to evaluate remedial effectiveness of the proposed system expansion.
- Evaluate biosparge trunkline cycling configuration and make adjustments as needed to optimize air delivery to treatment wells located in previously identified “hot-spot” areas.
- Periodically measure pressure in nearby monitoring wells during biosparging operations to verify influence.

Ongoing remediation activities and progress will be described in the *Fourth Quarter 2022 Remediation Progress Report* to be submitted by February 15, 2022.

## 6.0 LIMITATIONS

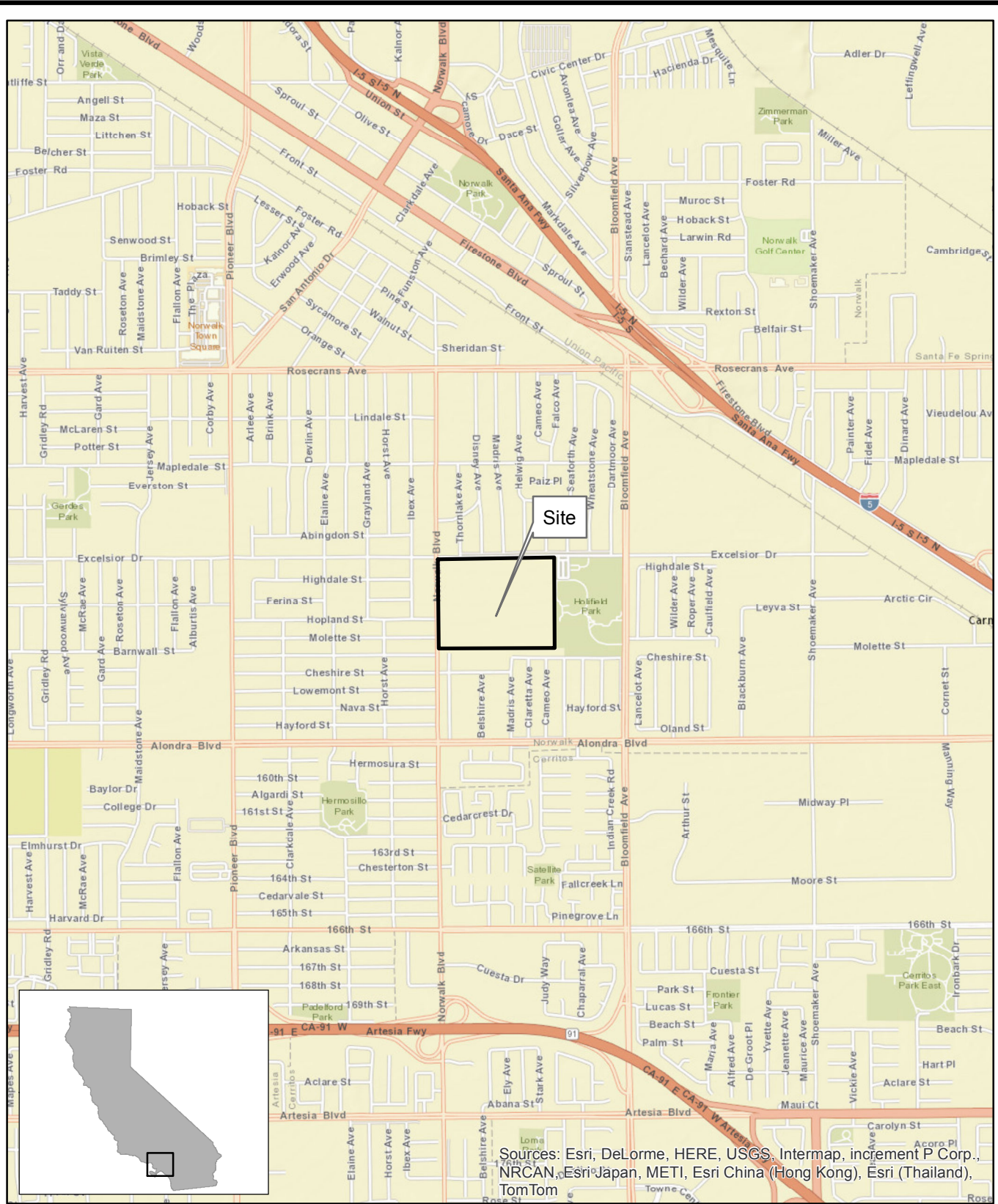
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The presented findings and recommendations in this report are intended to be taken in their entirety to assist DLA and RWQCB personnel in applying their own professional judgment in making decisions related to the property. SGI-Apex cannot provide conclusions on environmental conditions outside the completed scope of work. SGI-Apex cannot guarantee that future conditions will not change and affect the validity of the presented conclusions and recommended work. No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, conclusions, and recommendations.

## FIGURES





Sources: Esri, DeLorme, HERE, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom

SOURCE:  
ESRI 7.5 MINUTE TOPOGRAPHIC MAP.  
<http://resources.esri.com/arcgisonline/services>

PROJECT NO.:	DATE:	DR. BY:	APP. BY:
04-NDLA-003	5/28/2014	JK	PP

SCALE= 1:24,000



1962 FREEMAN AVENUE SIGNAL HILL, CA 90755  
(562) 597-1055

**DEFENSE FUEL SUPPORT POINT  
NORWALK**  
15306 NORWALK BOULEVARD  
NORWALK, CALIFORNIA

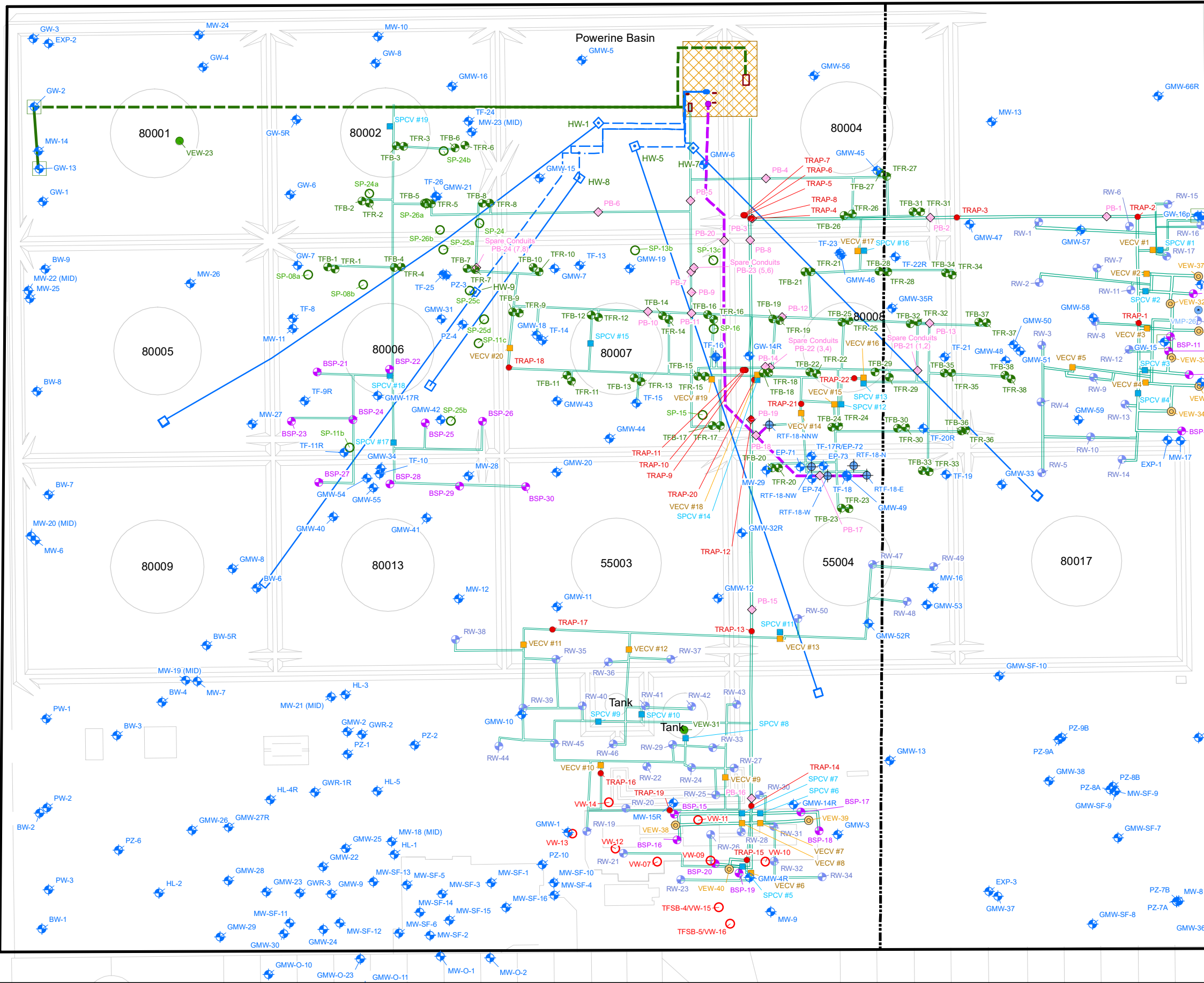
**SITE LOCATION MAP**

FIGURE  
**1**


























Excelsior Dr

Powerline Basin

Norwalk Blvd



**Legend**

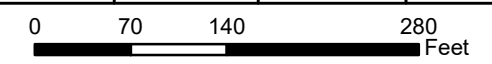
-  Former Above Ground Storage Tanks
-  DFSP Norwalk Border
-  Fence
-  Berm
-  Treatment System Enclosure
-  Below Grade Trenching and Piping to Remediation Wells
-  Existing Horizontal Vapor Extraction Wells
-  Below Grade Groundwater Extraction System Piping
-  Above Grade Groundwater Extraction System Piping
-  Product Recovery System Piping
-  Horizontal Vapor Extraction System Piping
-  Western Boundary of Eastern 15-Acre Parcel
-  System Manifold within Treatment Enclosure
-  Total Fluid and Groundwater Monitoring Wells
-  TF-18 Area LNAPL Recovery Wells
-  Biosparging Wells
-  Vapor Extraction Wells (November 2016)
-  Biosparging and Vapor Extraction Wells
-  Co-Located Total Fluid and Biosparge Wells
-  Vapor Extraction Wells (2004)
-  Sparging Points (August 2004)
-  Pull Box (for Wire or Tubing)
-  PVC Condensate Trap for Vapor Extraction Piping
-  Vapor Extraction System Control Vaults
-  Biosparge System Control Vaults



**DFSP Norwalk**

15306 Norwalk Boulevard  
Norwalk, California

Project Number:	Date:	Drawn By:	Approved By:
091-NDLA-026	01/15/2019	PW / SM	BT

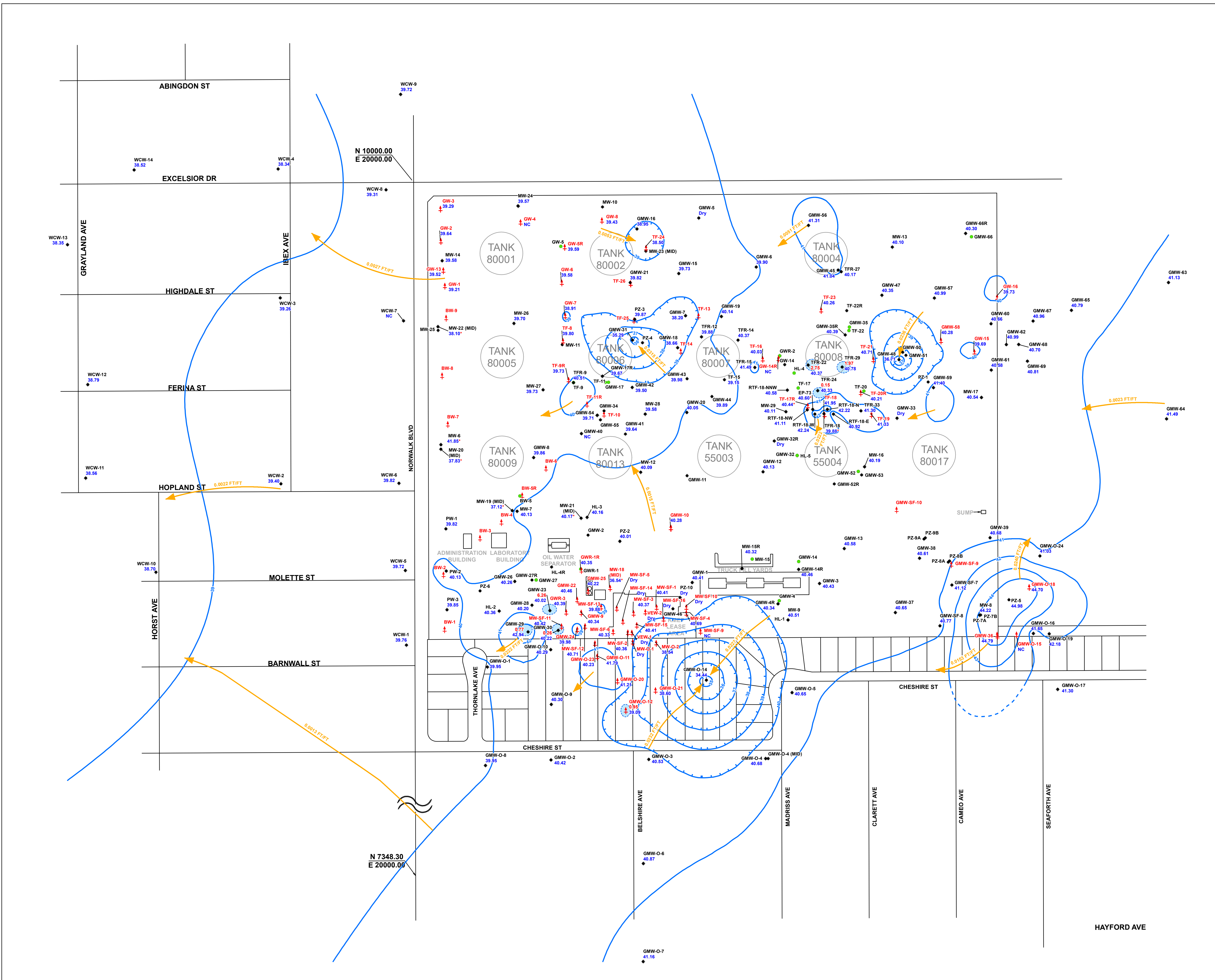


**Site Map Showing All Well and Piping Locations**



1962 Freeman Avenue Signal Hill, CA 90755  
(562) 597-1055

**Figure**  
**2**



**Explanation**

- GMW-5 ● Groundwater monitoring well
- VEW-1 † Vapor extraction, groundwater extraction, total fluids, or free product extraction well used for site remediation
- GMW-47 42.19 ● Groundwater elevation in feet above mean sea level (MSL)
- GMW-36 0.27 † 42.58 † Apparent thickness of free product measured in well (feet), groundwater elevations calculated by removing product head effect.
- EP-73 40.6 ● Groundwater elevation not used in contouring
- TF-17 ● Decommissioned well

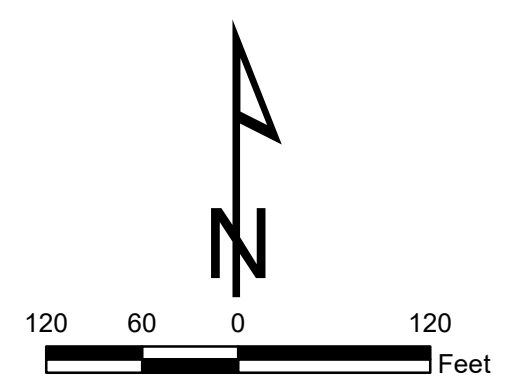
- 43.0 - - - groundwater elevation in feet above MSL (dashed where inferred)
- Estimated extent of measurable light nonaqueous phase liquid (LNAPL, free product) on groundwater; dashed where inferred
- Approximate direction of groundwater flow and estimated horizontal hydraulic gradient in foot/foot (ft/ft)

**Notes**

1. Groundwater elevations and product thicknesses shown at wells are based on data collected by SGI, Blaine Tech, and SFPF in May 2022.
2. SFPF and DLA's remediation systems were shut down approximately 1 week prior to collecting fluid level measurements in May 2022.
3. Wells screened in the Exposition aquifer or near the bottom of the uppermost aquifer, or with groundwater elevations that are inconsistent with surrounding groundwater elevations, are not used in contouring. Groundwater elevation contours are intended to represent generalized site-wide conditions and are interpreted from data collected by Blaine Tech. Wells with groundwater elevations not used in contouring are marked with a red asterisk (\*).
4. NC = groundwater elevation could not be calculated because well was either dry during the monitoring event, not measured due to an obstruction or other access complication, or the casing elevation is not available.
5. Wells at which a groundwater elevation or "NC" qualifier is not supplied are not included in the Monitoring and Reporting Program and were not visited during this monitoring event.
6. Fuel storage tanks depicted on the figure are historical structures and have been removed from the site.

**Survey Notes**

1. Base map prepared from data provided by Fluor Daniel GTI, Dulin & Boynton, Geomatrix, and Parsons.
2. Except as noted below, well locations surveyed by Dulin & Boynton.
3. Locations of wells HL-3, and HL-4 based on field measurements by Fluor Daniel GTI and Woodward-Clyde.
4. Locations of wells BW-1 through BW-9 surveyed by Geomatrix based on reference to other wells surveyed by Dulin & Boynton.
5. Locations of wells TFR-9, TFR-12, TFR-14, TFR-15, TFR-18, TFR-22, TFR-24, TFR-27, TFR-29, and TFR-33 based on field measurements by SGI.



GROUNDWATER ELEVATIONS AND MEASURABLE LIQUID-PHASE HYDROCARBONS IN UPPERMOST GROUNDWATER ZONE  
 May 2022  
 DEFENSE FUEL SUPPORT POINT NORWALK  
 Norwalk, California

By: Ann Espejo      Date: 6/2022      Project No: KMNWCR22

**Jacobs**      Figure 3

\\c1\proj\GIS\PROJECTS\DEFENSE FUEL SUPPORT POINT NORWALK\MAP FILES\2022\22A\_REPORT\FIGURE\_3\_UWA\_2022.MXD AEP/PLJ 11/10/2022 4:39:50 PM

## TABLES

**TABLE 1**  
**Remediation Well Summary**  
DFSP Norwalk  
15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function
Central Area	Northwest Corner (AST 80001)	GW-1		06/12/95	75.97	63	25 - 60	GWE
		GW-2		06/12/95	75.78	63	25 - 60	GWE
		GW-3		06/13/95	75.79	63	25 - 60	GWE
		GW-4		06/12/95	75.78	63	25 - 60	GWE
		GW-13		04/26/07	76.85	67	25 - 65	GWE
		VEW-23		08/03/04	76.20	25	15 - 25	SVE
Central Area	North (AST 80002, AST 80004, AST 80006, AST 80007, AST 80008, AST 80001, AST 55004)	VEW-22	16	--	--	25	15 - 25	SVE
		HW-1	14	--	--	25	Continuous	SVE
		HW-3	14, 17, 18	--	--	25	Continuous	SVE
		HW-5	14	--	--	25	Continuous	SVE
		HW-7	14	--	--	25	Continuous	SVE
		HW-8	19	06/07/19	--	30	60	SVE
		HW-9	19	06/07/19	--	29	220	SVE
		GMW-21	1	08/02/91	76.23	50	25 - 50	TFE/GWE
		GMW-31		06/02/93	76.50	65	25 - 50	GWE
		GW-14R	2	11/08/16	78.77	50	25 - 50	GWE
		SP8a	15	--	--	50	48 - 50	Biosparge
		SP-8b	15	--	--	50	48 - 50	Biosparge
		SP-11b	15	--	--	50	48 - 50	Biosparge
		SP-11c	15	--	--	50	48 - 50	Biosparge
		SP-13b	3, 15	--	--	50	48 - 50	Biosparge
		SP-13c	15	--	--	50	48 - 50	Biosparge
		SP-15	4, 15	--	--	50	48 - 50	Biosparge
		SP-16	15	--	--	50	48 - 50	Biosparge
		SP-24	15	--	--	50	48 - 50	Biosparge
		SP-24a	15	--	--	50	48 - 50	Biosparge
		SP-24b	15	--	--	50	48 - 50	Biosparge
		SP-25a	15	--	--	50	48 - 50	Biosparge
		SP-25b	15	--	--	50	48 - 50	Biosparge
		SP-25c	15	--	--	50	48 - 50	Biosparge
		SP-25d	15	--	--	50	48 - 50	Biosparge
		SP-26	15	--	--	50	48 - 50	Biosparge
		SP-26a	15	--	--	50	48 - 50	Biosparge
		TF-8		09/22/95	74.86	63	25 - 60	TFE, GWE
		TF-9	5	09/22/95	74.47	63	25 - 60	TFE, GWE
		TF-10		09/25/95	73.61	63	25 - 60	TFE, GWE
TF-11	5	09/25/95	74.40	63	25 - 60	TFE, GWE		
TF-13		09/26/95	75.47	63	25 - 60	TFE, GWE		

**TABLE 1**  
**Remediation Well Summary**  
DFSP Norwalk  
15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function
Central Area	North (AST 80002, AST 80004, AST 80006, AST 80007, AST 80008, AST 80001, AST 55004)	TF-14		09/27/95	74.35	63	25 - 60	TFE, GWE
		TF-15		09/28/95	74.78	63	25 - 60	TFE, GWE
		TF-16		09/28/95	75.89	63	25 - 60	TFE, GWE
		TF-17	6	09/29/95	74.88	63	25 - 60	TFE, GWE
		TF-18		07/06/94	73.75	50.5	20 - 50	TFE, GWE
		TF-19		10/03/95	75.07	63	25 - 60	TFE, GWE
		TF-20	7	10/03/95	75.08	63	25 - 60	TFE, GWE
		TF-21		09/29/95	74.96	63	25 - 60	TFE, GWE
		TF-22	8	10/02/95	74.76	63	25 - 60	TFE, GWE
Central Area	North (AST 80002, AST 80006, AST 80008, AST 55004)	TF-23		07/05/94	75.31	50.5	20 - 50	TFE, GWE
		TF-24	9	09/26/95	76.43	63	25 - 60	TFE, GWE
		TF-25		04/04/01	74.85	47	26 - 36	TFE, GWE
		TF-26		04/03/01	75.85	47	26 - 36	TFE, GWE
		RTF-18-N		12/28/15	75.17	40	25 - 40	TFE, GWE
		RTF-18-E		12/28/15	75.19	40	25 - 40	TFE, GWE
		RTF-18-W		12/28/15	74.86	40	25 - 40	TFE, GWE
		RTF-18-NW		12/29/15	76.22	40	25 - 40	TFE, GWE
		RTF-18-NNW		12/29/15	76.77	40	25 - 40	TFE, GWE
Central Area	North (AST 80002, AST 80004, AST 80006, AST 80007, AST 80008, AST 80013, AST 55003, AST 55004)	BSP-21	10	12/07/17	--	46	43 - 45	Biosparge
		BSP-22	10	12/07/17	--	46	43 - 45	Biosparge
		BSP-23	10	12/08/17	--	46	43 - 45	Biosparge
		BSP-24	10	12/07/17	--	46	43 - 45	Biosparge
		BSP-25	10	12/08/17	--	46	43 - 45	Biosparge
		BSP-26	10	12/08/17	--	46	43 - 45	Biosparge
		BSP-27	10	12/07/17	--	46	43 - 45	Biosparge
		BSP-28	10	12/07/17	--	46	43 - 45	Biosparge
		BSP-29	10	12/08/17	--	46	43 - 45	Biosparge
		BSP-30	10	12/11/17	--	46	43 - 45	Biosparge
		TFR-1	10	12/13/17	--	40	20 - 40	TFE, SVE
		TFR-2	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-3	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-4	10	12/13/17	--	40	20 - 40	TFE, SVE
		TFR-5	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-6	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-7	10	12/13/17	--	40	20 - 40	TFE, SVE
		TFR-8	10	12/12/17	--	40	20 - 40	TFE, SVE
TFR-9	10	12/13/17	--	40	20 - 40	TFE, SVE		
		TFR-10	10	12/11/17	--	40	20 - 40	TFE, SVE

**TABLE 1**  
**Remediation Well Summary**  
DFSP Norwalk  
15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function
Central Area	North (AST 80002, AST 80004, AST 80006, AST 80007, AST 80008, AST 80013, AST 55003, AST 55004)	TFR-11	10	12/11/17	--	40	20 - 40	TFE, SVE
		TFR-12	10	12/11/17	--	40	20 - 40	TFE, SVE
		TFR-13	10	12/15/17	--	40	20 - 40	TFE, SVE
		TFR-14	10	12/13/17	--	40	20 - 40	TFE, SVE
		TFR-15	10	12/14/17	--	40	20 - 40	TFE, SVE
		TFR-16	10	12/14/17	--	40	20 - 40	TFE, SVE
		TFR-17	10	12/14/17	--	40	20 - 40	TFE, SVE
		TFR-18	10	12/14/17	--	40	20 - 40	TFE, SVE
		TFR-19	10	12/12/17	--	40	20 - 40	TFE, SVE
		TFR-20	10	12/15/17	--	40	20 - 40	TFE, SVE
		TFR-21	10	12/11/17	--	40	20 - 40	TFE, SVE
		TFR-22	10	11/30/17	--	40	20 - 40	TFE, SVE
		TFR-23	10	11/29/17	--	40	20 - 40	TFE, SVE
		TFR-24	10	11/30/17	--	40	20 - 40	TFE, SVE
		TFR-25	10	11/30/17	--	40	20 - 40	TFE, SVE
		TFR-26	10	11/29/17	--	40	20 - 40	TFE, SVE
		TFR-27	10	11/29/17	--	40	20 - 40	TFE, SVE
		TFR-28	10	11/29/17	--	40	20 - 40	TFE, SVE
		TFR-29	10	11/29/17	--	40	20 - 40	TFE, SVE
		TFR-30	10	11/29/17	--	40	20 - 40	TFE, SVE
		TFR-31	10	11/29/17	--	40	20 - 40	TFE, SVE
		TFR-32	10	11/30/17	--	40	20 - 40	TFE, SVE
		TFR-33	10	11/28/17	--	40	20 - 40	TFE, SVE
		TFR-34	10	11/28/17	--	40	20 - 40	TFE, SVE
		TFR-35	10	11/29/17	--	40	20 - 40	TFE, SVE
		TFB-1	10	12/06/17	--	46	43 - 45	Biosparge
		TFB-2	10	12/05/17	--	46	43 - 45	Biosparge
		TFB-3	10	12/05/17	--	46	43 - 45	Biosparge
		TFB-4	10	12/06/17	--	46	43 - 45	Biosparge
		TFB-5	10	12/06/17	--	46	43 - 45	Biosparge
		TFB-6	10	12/05/17	--	46	43 - 45	Biosparge
		TFB-7	10	12/06/17	--	46	43 - 45	Biosparge
		TFB-8	10	12/05/17	--	46	43 - 45	Biosparge
		TFB-9	10	12/04/17	--	46	43 - 45	Biosparge
		TFB-10	10	12/04/17	--	46	43 - 45	Biosparge
TFB-11	10	12/04/17	--	50	48 - 50	Biosparge		
TFB-12	10	12/01/17	--	46	43 - 45	Biosparge		
TFB-13	10	12/01/17	--	46	43 - 45	Biosparge		

**TABLE 1**  
**Remediation Well Summary**  
 DFSP Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function		
Central Area	North (AST 80002, AST 80004, AST 80006, AST 80007, AST 80008, AST 80013, AST 55003, AST 55004)	TFB-14	10	11/30/17	--	46	43 - 45	Biosparge		
		TFB-15	10	11/27/17	--	46	43 - 45	Biosparge		
		TFB-16	10	11/28/17	--	46	43 - 45	Biosparge		
		TFB-17	10	11/28/17	--	46	43 - 45	Biosparge		
		TFB-18	10	11/27/17	--	46	43 - 45	Biosparge		
		TFB-19	10	11/28/17	--	46	43 - 45	Biosparge		
		TFB-20	10	11/30/17	--	46	43 - 45	Biosparge		
		TFB-21	10	11/27/17	--	46	43 - 45	Biosparge		
		TFB-22	10	11/27/17	--	46	43 - 45	Biosparge		
		TFB-23	10	11/28/17	--	46	43 - 45	Biosparge		
		TFB-24	10	11/27/17	--	46	43 - 45	Biosparge		
		TFB-25	10	11/27/17	--	46	43 - 45	Biosparge		
		TFB-26	10	11/22/17	--	46	43 - 45	Biosparge		
		TFB-27	10	11/21/17	--	46	43 - 45	Biosparge		
		TFB-28	10	11/22/17	--	46	43 - 45	Biosparge		
		TFB-29	10	11/27/17	--	46	43 - 45	Biosparge		
		TFB-30	10	11/27/17	--	46	43 - 45	Biosparge		
		TFB-31	10	11/21/17	--	46	43 - 45	Biosparge		
		TFB-32	10	11/22/17	--	46	43 - 45	Biosparge		
		TFB-33	10	11/27/17	--	46	43 - 45	Biosparge		
		TFB-34	10	11/21/17	--	46	43 - 45	Biosparge		
		TFB-35	10	11/27/17	--	46	43 - 45	Biosparge		
				RW-35	10	11/15/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
				RW-36	10	11/15/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
				RW-37	10	11/16/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
				RW-38	10	11/16/17	--	33 / 47	13 - 33 / 44 - 46	SVE / Biosparge
		RW-47	10	11/17/17	--	33 / 47	13 - 33 / 44 - 46	SVE / Biosparge		
		RW-48	10	11/17/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-49	10	11/16/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-50	10	11/20/17	--	33 / 47	13 - 33 / 44 - 46	SVE / Biosparge		
Eastern Area	North	BSP-1	11	04/18/07	--	50	47 - 49	Biosparge		
		BSP-2	11	04/18/07	--	50	48 - 50	Biosparge		
		BSP-3	11	04/17/07	--	48	46 - 48	Biosparge		
		BSP-4	11	04/17/07	--	49	47 - 49	Biosparge		
		BSP-5	11	04/17/07	--	49.5	47 - 49	Biosparge		
		BSP-6	11	04/18/07	--	49	47 - 49	Biosparge		
		BSP-7	11	04/19/07	--	48	46 - 48	Biosparge		
		BSP-8	11	04/19/07	--	48	46 - 48	Biosparge		



**TABLE 1**  
**Remediation Well Summary**  
DFSP Norwalk  
15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function	
Eastern Area	North	BSP-9	11	04/19/07	--	48	46 - 48	Biosparge	
		BSP-10	12	11/04/16	--	46.5	44 - 46	Biosparge	
		BSP-11	12	11/04/16	--	40	38 - 40	Biosparge	
		BSP-12	12	11/04/16	--	46.5	44 - 46	Biosparge	
		BSP-13	12	11/07/16	--	46.5	44 - 46	Biosparge	
		BSP-14	12	11/07/16	--	46.5	44 - 46	Biosparge	
		GMW-58		08/14/98		75.48	55	20 - 55	GWE
		GW-15		04/26/07		74.94	60.5	20.5 - 60.6	GWE
		GW-16		07/07/09		76.33	63	20.5 - 60.5	GWE
		RW-1	13	06/21/17	-- / --		35 / 46	15 - 35 / 43 - 45	SVE / Biosparge
		RW-2	13	06/21/17	--		33 / 46	13 - 33 / 43 - 45	SVE / Biosparge
		RW-3	13	06/21/17	--		37 / 46	17 - 37 / 43 - 45	SVE / Biosparge
		RW-4	13	06/22/17	--		34 / 46	14 - 34 / 43 - 45	SVE / Biosparge
		RW-5	13	06/22/17	--		34 / 46	14 - 34 / 43 - 45	SVE / Biosparge
		RW-6	13	06/27/17	--		37 / 46	17 - 37 / 43 - 45	SVE / Biosparge
		RW-7	13	06/26/17	--		37 / 46	17 - 37 / 43 - 45	SVE / Biosparge
		RW-8	13	06/28/17	--		38.5 / 46	18.5 - 38.5 / 43 - 45	SVE / Biosparge
		RW-9	13	06/26/17	--		35 / 46	15 - 35 / 43 - 45	SVE / Biosparge
		RW-10	13	06/22/17	--		34 / 46	14 - 34 / 43 - 45	SVE / Biosparge
		RW-11	13	06/26/17	--		36 / 46	16 - 36 / 43 - 45	SVE / Biosparge
		RW-12	13	06/23/17	--		34 / 46	14 - 34 / 43 - 45	SVE / Biosparge
		RW-13	13	06/23/17	--		35 / 46	15 - 35 / 43 - 45	SVE / Biosparge
		RW-14	13	06/23/17	--		34 / 46	14 - 34 / 43 - 45	SVE / Biosparge
		RW-15	13	06/20/17	--		38 / 46	18 - 38 / 43 - 45	SVE / Biosparge
		RW-16	13	06/20/17	--		34 / 46	14 - 34 / 43 - 45	SVE / Biosparge
		RW-17	13	06/27/17	--		39 / 46	19 - 39 / 43 - 45	SVE / Biosparge
		RW-18	13	06/20/17	--		38 / 46	18 - 38 / 43 - 45	SVE / Biosparge
		SP-21a	3, 15	--	--		50	48 - 50	Biosparge
		SP-21b	3, 15	--	--		50	48 - 50	Biosparge
		VEW-32		04/11/07	--		25	10 - 25	SVE
		VEW-33		04/11/07	--		25	10 - 25	SVE
		VEW-34		04/11/07	--		25	10 - 25	SVE
		VEW-35		04/10/07	--		25	10 - 25	SVE
		VEW-36		04/10/07	--		25	10 - 25	SVE
		VEW-37		40/10/07	--		25	10 - 25	SVE
		TFR-36	10	11/30/17	--		40	20 - 40	TFE, SVE
		TFR-37	10	11/28/17	--		40	20 - 40	TFE, SVE
		TFR-38	10	11/28/17	--		40	20 - 40	TFE, SVE

**TABLE 1**  
**Remediation Well Summary**  
DFSP Norwalk  
15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function		
Eastern Area	North	TFB-36	10	11/20/17	--	46	43 - 45	Biosparge		
		TFB-37	10	11/21/17	--	46	43 - 45	Biosparge		
		TFB-38	10	11/20/17	--	46	43 - 45	Biosparge		
Southern Area	Former Truck Fueling Area and Adjacent Water Tank Area	BSP-15	12	11/02/16	--	50.5	48 - 50	Biosparge		
		BSP-16	12	11/03/16	--	50.5	48 - 50	Biosparge		
		BSP-17	12	11/03/16	--	50.5	48 - 50	Biosparge		
		BSP-18	12	11/03/16	--	50.5	48 - 50	Biosparge		
		BSP-19	12	11/02/16	--	50.5	48 - 50	Biosparge		
		BSP-20	12	11/01/16	--	50.5	48 - 50	Biosparge		
		RW-19	13	06/30/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-20	13	06/29/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-21	13	06/30/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-22	13	06/28/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-23	13	06/30/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-24	13	06/28/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-25	13	06/28/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-26	13	07/03/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-27	13	06/28/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-28	13	07/03/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-29	13	06/29/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-30	13	06/27/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-31	13	07/03/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-32	13	07/03/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-33	13	06/29/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-34	13	07/03/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-39	10	11/15/17	--	33 / 47	13 - 33 / 44 - 46	SVE / Biosparge		
		RW-40	10	11/15/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-41	10	11/14/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-42	10	11/14/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-43	10	11/14/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-44	10	11/13/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-45	10	11/13/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		RW-46	10	11/13/17	--	33 / 46	13 - 33 / 43 - 45	SVE / Biosparge		
		VEW-31				08/03/04	75.10	15	5 - 15	SVE
		VEW-38	12			11/02/16	--	30.5	20 - 30	SVE
VEW-39	12			11/03/16	--	30.5	20 - 30	SVE		
VEW-40	12			11/02/16	--	30.5	20 - 30	SVE		
VW-07	16			--	75.64	--	--	SVE		



**TABLE 1**  
**Remediation Well Summary**  
 DFSP Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Remediation Area	Location	Well	Notes	Installation Date	Casing Elevation (ft msl)	Total Depth (ft bgs)	Screen Interval (ft bgs)	Remediation Well Function
Southern Area	Former Truck Fueling Area and Adjacent Water Tank Area	VW-09	16	--	75.77	--	--	SVE
		VW-10		03/23/04	75.78	30.5	20 - 30	SVE
		VW-11		03/23/04	75.55	25	20 - 25	SVE
		VW-12		03/23/04	75.79	30.5	15 - 30	SVE
		VW-13		03/23/04	75.42	29	25 - 29	SVE
		VW-14		03/23/04	75.89	28	15 - 28	SVE
		VW-15		04/14/04	75.45	30	20 - 30	SVE
		VW-16		04/14/04	75.29	30	20 - 30	SVE

**Legend/Notes :**

ft msl = Feet above mean sea level  
 ft bgs = Feet below ground surface  
 AST = Aboveground storage tank  
 BSP = Biosparge  
 BS = Biosparge  
 HW = Horizontal Well  
 GW/GWE = Groundwater extraction  
 RTF = Recovery Total Fluids  
 RW = Recovery Well  
 SP = Sparge  
 SVE = Soil vapor extraction  
 TF = Total fluid  
 TFE = Total fluid extraction  
 TFB = Total fluids biosparge  
 TFR = Total fluids recovery  
 VW/VEW = Vapor extraction well  
 -- = Information not available

- 1 = Also referred to as TF-24.  
 2 = Replaced abandoned well GW-14 per SGI's March 14, 2017 *Well Replacement Report and Work Plan*.  
 3 = Located during field reconnaissance work conducted on September 21, 2016 but determined to likely have silt at the bottom of the casing since the measured total depth was several feet higher than the construction well depth.  
 4 = Located during field reconnaissance work conducted on September 21, 2016 but determined to be inaccessible.  
 5 = Abandoned on December 29, 2014 (replacement pending per SGI's March 14, 2017 *Well Replacement Report and Work Plan* ).  
 6 = Abandoned on December 30, 2014 (replacement pending per SGI's March 14, 2017 *Well Replacement Report and Work Plan* ).  
 7 = Abandoned on January 5, 2015 (replacement pending per SGI's March 14, 2017 *Well Replacement Report and Work Plan* ).  
 8 = Abandoned on December 31, 2014 (replacement pending per SGI's March 14, 2017 *Well Replacement Report and Work Plan* ).  
 9 = Also referred to as "old TF-24" or "former TF-24".  
 10 = Recently installed per SGI's July 11, 2018 *Well Installation Completion Report* .  
 11 = Abandoned on November 16, 2017.  
 12 = Recently installed per SGI's March 14, 2017 *Well Replacement Report and Work Plan*.  
 13 = Recently installed per SGI's June 30, 2017 *Remediation Well Installation Update Report*.  
 14 = Well installed by Government Technology Services in September 1992; exact date unknown.  
 15 = Well installed by Parsons in October 1999; exact date unknown.  
 16 = Well installation date unknown.  
 17 = Confirmed to be inoperable in October 2017 (well plugged)..  
 18 = Well abandoned in-place on 6/7/19 and 6/10/19 and replaced with new horizontal wells HW-8 and HW-9  
 19 = Total well length is 340-feet for horizontal well HW-8 and 500-feet for HW-9.

**TABLE 2A**  
**Groundwater Extraction and Treatment System Operations Summary - July**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	GW-14R Totalizer Reading (gallons)	GMW-31 Totalizer Reading (gallons)	GW-16 Totalizer Reading (gallons)	Groundwater Extracted from Eastern Area (gallons)	Groundwater Extracted from Central Area (gallons)	Discharge Totalizer Reading (gallons)	Groundwater Extracted and Treated (gallons)	Influent DRO (ug/L)	Cumulative DRO Removed <sup>A</sup> (lb)
7/1/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/2/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/3/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/4/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/5/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/6/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/7/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/8/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/9/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/10/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/11/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/12/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/13/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/14/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/15/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/16/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/17/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/18/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/19/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/20/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/21/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/22/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/23/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/24/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/25/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/26/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/27/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/28/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/29/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/30/22	Off line		--	--	--	--	--	--	--	--	9,956.89
7/31/22	Off line		--	--	--	--	--	--	--	--	9,956.89

Cumulative Groundwater Discharged by the GWETS to Date (gallons)							
Period	July	Quarter 1, 2022	Quarter 2, 2022	Quarter 3, 2022	Quarter 4, 2022	2022 to Date	April 1996 to Date
Volume	0	343,100	76,128	0	--	419,229	82,001,209

Cumulative Mass DRO Removed by the GWETS <sup>A</sup> (lb)			
Period	July	Quarter 3 to Date	April 1996 to Date
Mass	0.00	0.00	9,956.9

$$\text{Liquid-Phase DRO Mass [lb]} = \left( \text{Conc.} \left[ \frac{\mu\text{g}}{\text{L}} \right] \right) \cdot \left( \frac{3.785 \text{ L}}{\text{gal}} \right) \cdot \left( \frac{1 \text{ g}}{1,000,000 \mu\text{g}} \right) \cdot \left( \frac{1 \text{ lb}}{453.59 \text{ g}} \right) \cdot (\text{Volume [gal]})$$

**Legend / Notes:**

Groundwater extraction wells on line this month: None.

\* = Operational values interpolated from chart recorder data or previous monitoring event.

GWETS = Groundwater extraction and treatment system

µg/L - Micrograms per liter

A = Hydrocarbon removal is calculated using analytical laboratory result for DRO (if not detected, half the detection limit used) from sample collected this month.

-- = Not applicable

lb = Pounds

DRO = Diesel range organics



**TABLE 2B**  
**Groundwater Extraction and Treatment System Operations Summary - August**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	GW-14R Totalizer Reading (gallons)	GMW-31 Totalizer Reading (gallons)	GW-16 Totalizer Reading (gallons)	Groundwater Extracted from Eastern Area (gallons)	Groundwater Extracted from Central Area (gallons)	Discharge Totalizer Reading (gallons)	Groundwater Extracted and Treated (gallons)	Influent DRO (ug/L)	Cumulative DRO Removed <sup>A</sup> (lb)
8/1/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/2/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/3/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/4/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/5/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/6/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/7/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/8/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/9/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/10/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/11/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/12/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/13/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/14/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/15/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/16/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/17/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/18/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/19/22	Technician		1,116,465	601,259	1,769,408	1,769,408	1,717,724	3,588,502	0	--	9,956.89
8/20/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/21/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/22/22	Technician		1,116,465	601,259	1,769,408	1,769,408	1,717,724	3,588,502	0	--	9,956.89
8/23/22	Technician		1,116,465	601,259	1,769,408	1,769,408	1,717,724	3,588,502	0	--	9,956.89
8/24/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/25/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/26/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/27/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/28/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/29/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/30/22	Off line		--	--	--	--	--	--	--	--	9,956.89
8/31/22	Technician		1,116,465	601,259	1,769,408	1,769,408	1,717,724	3,588,502	0	--	9,956.89

Cumulative Groundwater Discharged by the GWETS (gallons)							
Period	August	Quarter 1, 2022	Quarter 2, 2022	Quarter 3, 2022	Quarter 4, 2022	2022 to Date	April 1996 to Date
Volume	0	343,100	76,128	0	--	419,229	82,001,209

Cumulative Mass DRO Removed by the GWETS <sup>A</sup> (lb)			
Period	August	Quarter 3 to Date	April 1996 to Date
Mass	0.00	0.00	9,956.9

$$\text{Liquid-Phase DRO Mass [lb]} = \left( \text{Conc.} \left[ \frac{\mu\text{g}}{\text{L}} \right] \right) \cdot \left( \frac{3,785 \text{ L}}{\text{gal}} \right) \cdot \left( \frac{1 \text{ g}}{1,000,000 \mu\text{g}} \right) \cdot \left( \frac{1 \text{ lb}}{453.59 \text{ g}} \right) \cdot (\text{Volume [gal]})$$

**Legend / Notes:**

Groundwater extraction wells on line this month: None.

\* = Operational values interpolated from chart recorder data or previous monitoring event.

GWETS = Groundwater extraction and treatment system

ug/L - Micrograms per liter

A = Hydrocarbon removal is calculated using analytical laboratory result for DRO (if not detected, half the detection limit used) from sample collected this month.

-- = Not applicable

lb = Pounds

DRO = Diesel range organics



**TABLE 2C**  
**Groundwater Extraction and Treatment System Operations Summary - September**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	GW-14R Totalizer Reading (gallons)	GMW-31 Totalizer Reading (gallons)	GW-16 Totalizer Reading (gallons)	Groundwater Extracted from Eastern Area (gallons)	Groundwater Extracted from Central Area (gallons)	Discharge Totalizer Reading (gallons)	Groundwater Extracted and Treated (gallons)	Influent DRO (ug/L)	Cumulative DRO Removed <sup>A</sup> (lb)
9/1/22	Off line		--	--	--	--	--	--	--	--	9,956.89
9/2/22	Off line		--	--	--	--	--	--	--	--	9,956.89
9/3/22	Off line		--	--	--	--	--	--	--	--	9,956.89
9/4/22	Off line		--	--	--	--	--	--	--	--	9,956.89
9/5/22	Off line		--	--	--	--	--	--	--	--	9,956.89
9/6/22	Off line		--	--	--	--	--	--	--	--	9,956.89
9/7/22	Off line		--	--	--	--	--	--	--	--	9,956.89
9/8/22	Off line		--	--	--	--	--	--	--	--	9,956.89
9/9/22	Technician	1, 2	1,116,465	601,422	1,769,408	1,769,408	1,717,887	3,591,330	2,828	--	9,956.89
9/10/22	*		--	--	--	--	--	--	--	--	9,956.89
9/11/22	*		--	--	--	--	--	--	--	--	9,956.89
9/12/22	Technician	3	1,116,744	606,632	1,769,408	1,769,408	1,723,376	3,595,162	3,832	--	9,956.89
9/13/22	*		--	--	--	--	--	--	--	--	9,956.90
9/14/22	*		--	--	--	--	--	--	--	--	9,956.90
9/15/22	*		--	--	--	--	--	--	--	--	9,956.90
9/16/22	*		--	--	--	--	--	--	--	--	9,956.90
9/17/22	*		--	--	--	--	--	--	--	--	9,956.90
9/18/22	*		--	--	--	--	--	--	--	--	9,956.90
9/19/22	*		--	--	--	--	--	--	--	--	9,956.90
9/20/22	*		--	--	--	--	--	--	--	--	9,956.90
9/21/22	*		--	--	--	--	--	--	--	--	9,956.90
9/22/22	*		--	--	--	--	--	--	--	--	9,956.90
9/23/22	*		--	--	--	--	--	--	--	--	9,956.91
9/24/22	*		--	--	--	--	--	--	--	--	9,956.91
9/25/22	*		--	--	--	--	--	--	--	--	9,956.91
9/26/22	Technician		1,130,177	618,279	1,769,573	1,769,573	1,748,456	3,628,612	33,450	--	9,956.91
9/27/22	*		--	--	--	--	--	--	--	--	9,956.91
9/28/22	Technician	4, 5	1,132,096	619,943	1,769,582	1,769,582	1,752,039	3,633,390	4,779	340	9,956.92
9/29/22	*		--	--	--	--	--	--	--	--	9,956.93
9/30/22	Technician		1,137,273	624,466	1,769,603	1,769,603	1,761,739	3,646,898	13,508	--	9,956.95

Cumulative Groundwater Discharged by the GWETS (gallons)							
Period	September	Quarter 1, 2022	Quarter 2, 2022	Quarter 3, 2022	Quarter 4, 2022	2022 to Date	April 1996 to Date
Volume	58,396	343,100	76,128	58,396	--	477,625	82,059,605

Cumulative Mass DRO Removed by the GWETS <sup>A</sup> (lb)			
Period	September	Quarter 3 to Date	April 1996 to Date
Mass	0.06	0.06	9,957.0

$$Liquid-Phase\ DRO\ Mass\ [lb] = \left( Conc. \left[ \frac{\mu g}{L} \right] \right) \bullet \left( \frac{3.785\ L}{gal} \right) \bullet \left( \frac{1\ g}{1,000,000\ \mu g} \right) \bullet \left( \frac{1\ lb}{453.59\ g} \right) \bullet Volume\ [gal]$$

**Legend / Notes:**

- 1 = GWETS restarted.
  - 2 = Pumping resumed from GMW-31 following extensive in-well chemical treatment and installation of a new pump.
  - 3 = Pumping resumed from GW-14R following extensive in-well chemical treatment and installation of a new pump.
  - 4 = Pumping resumed from GW-16 following extensive in-well chemical treatment and installation of a new pump.
  - 5 = Collected monthly water samples for laboratory analysis.
- Groundwater extraction wells on line this month: GW-14R, GWM-31, GW-16.  
 \* = Operational values interpolated from chart recorder data or previous monitoring event.

GWETS = Groundwater extraction and treatment system

ug/L - Micrograms per liter

A = Hydrocarbon removal is calculated using analytical laboratory result for DRO (if not detected, half the detection limit used) from sample collected this month.

-- = Not applicable

lb = Pounds

DRO = Diesel range organics



**TABLE 3A**  
**Carbon Vapor Extraction System Operations Summary - July**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow <sup>A</sup> (scfm)	VES Manifold Vacuum (in. Hg)	Carbon Inlet Temperature (°F)	Laboratory Process Concentration (ppmv)	Field Process Concentration <sup>B,C</sup> (ppmv)	Field Effluent Concentration <sup>B,C</sup> (ppmv)	Cumulative Vapor-Phase GRO Removed <sup>D</sup> (lb)
07/01/22	Technician	1	76,708	643	5.4	134.0	--	257.5	0.0	2,987,705
07/02/22	*		76,732	643	--	--	--	--	--	2,987,711
07/03/22	*		76,756	643	--	--	--	--	--	2,987,716
07/04/22	*		76,780	643	--	--	--	--	--	2,987,722
07/05/22	*		76,804	643	--	--	--	--	--	2,987,728
07/06/22	*		76,828	643	--	--	--	--	--	2,987,734
07/07/22	*		76,852	643	--	--	--	--	--	2,987,740
07/08/22	Technician		76,876	630	5.5	135.0	--	315.0	0.0	2,987,745
07/09/22	*		76,900	630	--	--	--	--	--	2,987,751
07/10/22	*		76,924	630	--	--	--	--	--	2,987,756
07/11/22	*		76,948	630	--	--	--	--	--	2,987,762
07/12/22	Technician	2	76,972	613	5.8	130.0	18	226.0	0.0	2,987,768
07/13/22	*		76,996	613	--	--	--	--	--	2,987,773
07/14/22	*		77,020	613	--	--	--	--	--	2,987,779
07/15/22	Technician	3	77,045	0	--	--	--	--	--	2,987,779
07/16/22	Offline		77,045	0	--	--	--	--	--	2,987,779
07/17/22	Offline		77,045	0	--	--	--	--	--	2,987,779
07/18/22	Offline		77,045	0	--	--	--	--	--	2,987,779
07/19/22	Offline		77,045	0	--	--	--	--	--	2,987,779
07/20/22	Technician	1	77,045	613	--	--	--	--	--	2,987,779
07/21/22	*		77,069	613	--	--	--	--	--	2,987,784
07/22/22	Technician	3	77,093	636	5.1	132.0	--	278.0	0.0	2,987,790
07/23/22	Offline		77,093	0	--	--	--	--	--	2,987,790
07/24/22	Offline		77,093	0	--	--	--	--	--	2,987,790
07/25/22	Offline		77,093	0	--	--	--	--	--	2,987,790
07/26/22	Offline		77,093	0	--	--	--	--	--	2,987,790
07/27/22	Offline		77,093	0	--	--	--	--	--	2,987,790
07/28/22	Offline		77,093	0	--	--	--	--	--	2,987,790
07/29/22	Technician	1	77,096	648	4.8	123.0	--	263.0	0.0	2,987,791
07/30/22	*		77,121	648	--	--	--	--	--	2,987,797
07/31/22	*		77,145	648	--	--	--	--	--	2,987,803

Cumulative Mass TPHg Removed by the VES <sup>D</sup> (lb)			
Period	July	Quarter 3 to Date	April 1996 to Date
Mass	99	99	2,987,803

$$\text{Vapor-Phase TPHg Mass [lb]} = \left( \text{Conc.} \left[ \frac{\mu\text{g}}{\text{L}} \right] \right) \left( \frac{28.32 \text{ L}}{\text{ft}^3} \right) \left( \frac{1 \text{ g}}{1,000,000 \mu\text{g}} \right) \left( \frac{1 \text{ lb}}{453.59 \text{ g}} \right) \left( \text{Flow [scfm]} \right) \left( \frac{60 \text{ min}}{\text{hr}} \right) \left( \text{OpTime [hrs]} \right)$$

**Legend / Notes:**

- 1 = VES restarted.
  - 2 = Collected monthly influent, after GAC-1, after GAC-2, and Effluent samples for laboratory analysis.
  - 3 = VES manually shut down pending site-wide well temperature survey activities.
  - \* = Operational values interpolated from chart recorder data or previous monitoring event.
  - = Not applicable or not measured
- Vapor extraction wells on line this month: HW-1, HW-9, HW-5, HW-7, Trunkline #2

- VES = Soil vapor extraction system
- scfm = Standard cubic feet per minute
- A = Reading from chart recorder.
- B = Concentrations obtained with a calibrated organic vapor analyzer.
- C = Concentrations correlated to laboratory data and expressed as hexane.
- D = Hydrocarbon removal is calculated using analytical laboratory result for GRO (if not detected, half the detection limit is used).
- in. Hg = Inches of mercury
- °F = Degrees Fahrenheit
- ppmv = Parts per million by volume
- lb = Pounds



**TABLE 3B**  
**Carbon Vapor Extraction System Operations Summary - August**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow <sup>A</sup> (scfm)	VES Manifold Vacuum (in. Hg)	Carbon Inlet Temperature (°F)	Laboratory Process Concentration (ppmv)	Field Process Concentration <sup>B,C</sup> (ppmv)	Field Effluent Concentration <sup>B,C</sup> (ppmv)	Cumulative Vapor-Phase GRO Removed <sup>D</sup> (lb)
08/01/22	Technician		77,170	643	4.9	127.0	--	229.8	0.0	2,987,818
08/02/22	*		77,194	643	--	--	--	--	--	2,987,823
08/03/22	*		77,218	643	--	--	--	--	--	2,987,828
08/04/22	*		77,242	643	--	--	--	--	--	2,987,833
08/05/22	*		77,267	643	--	--	--	--	--	2,987,838
08/06/22	*		77,291	643	--	--	--	--	--	2,987,843
08/07/22	*		77,315	643	--	--	--	--	--	2,987,849
08/08/22	Technician	1, 2	77,340	642	4.9	130.0	16	215.7	0.2	2,987,854
08/09/22	*		77,363	642	--	--	--	--	--	2,987,859
08/10/22	*		77,387	642	--	--	--	--	--	2,987,864
08/11/22	*		77,411	642	--	--	--	--	--	2,987,869
08/12/22	*		77,435	642	--	--	--	--	--	2,987,874
08/13/22	*		77,458	642	--	--	--	--	--	2,987,878
08/14/22	*		77,482	642	--	--	--	--	--	2,987,883
08/15/22	*		77,506	642	--	--	--	--	--	2,987,888
08/16/22	*		77,530	642	--	--	--	--	--	2,987,893
08/17/22	*		77,553	642	--	--	--	--	--	2,987,898
08/18/22	Technician		77,577	638	5.1	130.0	--	284.0	0.0	2,987,903
08/19/22	*		77,602	638	--	--	--	--	--	2,987,908
08/20/22	*		77,626	638	--	--	--	--	--	2,987,914
08/21/22	*		77,651	638	--	--	--	--	--	2,987,919
08/22/22	*		77,676	638	--	--	--	--	--	2,987,924
08/23/22	*		77,700	638	--	--	--	--	--	2,987,929
08/24/22	Technician		77,725	638	5.1	130.0	--	185.0	0.0	2,987,934
08/25/22	*		77,748	638	--	--	--	--	--	2,987,939
08/26/22	*		77,772	638	--	--	--	--	--	2,987,944
08/27/22	*		77,795	638	--	--	--	--	--	2,987,949
08/28/22	*		77,819	638	--	--	--	--	--	2,987,954
08/29/22	*		77,842	638	--	--	--	--	--	2,987,958
08/30/22	Technician		77,865	641	5.0	132.0	--	204.0	0.0	2,987,963
08/31/22	Technician	3	77,892	635	--	--	--	--	--	2,987,969

Cumulative Mass TPHg Removed by the VES <sup>A</sup> (lb)			
Period	August	Quarter 3 to Date	April 1996 to Date
Mass	166	265	2,987,969

$$\text{Vapor-Phase TPHg Mass [lb]} = \left( \text{Conc.} \left[ \frac{\mu\text{g}}{\text{L}} \right] \right) \cdot \left( \frac{28.32 \text{ L}}{\text{ft}^3} \right) \cdot \left( \frac{1 \text{ g}}{1,000,000 \mu\text{g}} \right) \cdot \left( \frac{1 \text{ lb}}{453.59 \text{ g}} \right) \cdot (\text{Flow [scfm]}) \cdot \left( \frac{60 \text{ min}}{\text{hr}} \right) \cdot (\text{OpTime [hrs]})$$

**Legend / Notes:**

- 1 = Collected monthly influent, after GAC-1, after GAC-2, and Effluent samples for laboratory analysis.
  - 2 = Collected individual well vapor samples for laboratory analysis from HWs.
  - 3 = VES automatically shut down due to high temperature.
  - = Not applicable or not measured
  - \* = Operational values interpolated from chart recorder data or previous monitoring event.
- Vapor extraction wells on line this month: HW-1, HW-9, HW-5, HW-7, Trunkline #2

- VES = Soil vapor extraction system
- in. Hg = Inches of mercury
- scfm = Standard cubic feet per minute
- °F = Degrees Fahrenheit
- A = Reading from chart recorder.
- B = Concentrations obtained with a calibrated organic vapor analyzer.
- C = Concentrations correlated to laboratory data and expressed as hexane.
- D = Hydrocarbon removal is calculated using analytical laboratory results for GRO (if not detected, half the detection limit is used).
- ppmv = Parts per million by volume
- lb = Pounds





**TABLE 3C**  
**Carbon Vapor Extraction System Operations Summary - September**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow <sup>A</sup> (scfm)	VES Manifold Vacuum (in. Hg)	Carbon Inlet Temperature (°F)	Laboratory Process Concentration (ppmv)	Field Process Concentration <sup>B,C</sup> (ppmv)	Field Effluent Concentration <sup>B,C</sup> (ppmv)	Cumulative Vapor-Phase GRO Removed <sup>D</sup> (lb)
09/01/22	Technician	1	77,897	650	--	--	--	--	--	2,987,970
09/02/22	*		77,908	650	--	--	--	--	--	2,987,973
09/03/22	*		77,920	650	--	--	--	--	--	2,987,976
09/04/22	*		77,931	650	--	--	--	--	--	2,987,979
09/05/22	*		77,942	650	--	--	--	--	--	2,987,982
09/06/22	*		77,953	650	--	--	--	--	--	2,987,985
09/07/22	Technician		77,965	669	3.7	138.0	--	127.8	0.0	2,987,988
09/08/22	*		77,988	669	--	--	--	--	--	2,987,995
09/09/22	*		78,011	669	--	--	--	--	--	2,988,001
09/10/22	*		78,035	669	--	--	--	--	--	2,988,008
09/11/22	*		78,058	669	--	--	--	--	--	2,988,014
09/12/22	*		78,082	669	--	--	--	--	--	2,988,021
09/13/22	*		78,105	669	--	--	--	--	--	2,988,027
09/14/22	*		78,129	669	--	--	--	--	--	2,988,034
09/15/22	Technician		78,152	643	5.0	120.0	--	203.0	0.0	2,988,040
09/16/22	Technician		78,180	638	4.3	124.0	--	242.3	0.0	2,988,047
09/17/22	*		78,203	638	--	--	--	--	--	2,988,053
09/18/22	*		78,226	638	--	--	--	--	--	2,988,059
09/19/22	*		78,249	638	--	--	--	--	--	2,988,065
09/20/22	Technician	2	78,273	645	4.3	124.0	20	228.6	0.0	2,988,072
09/21/22	*		78,297	645	--	--	--	--	--	2,988,078
09/22/22	*		78,321	645	--	--	--	--	--	2,988,084
09/23/22	*		78,345	645	--	--	--	--	--	2,988,091
09/24/22	*		78,369	645	--	--	--	--	--	2,988,097
09/25/22	*		78,393	645	--	--	--	--	--	2,988,103
09/26/22	*		78,417	645	--	--	--	--	--	2,988,110
09/27/22	*		78,440	645	--	--	--	--	--	2,988,116
09/28/22	*		78,464	645	--	--	--	--	--	2,988,122
09/29/22	Technician		78,488	642	4.6	120.0	--	37.6	0.0	2,988,129
09/30/22	*		78,503	642	--	--	--	--	--	2,988,133

Cumulative Mass TPHg Removed by the VES <sup>A</sup> (lb)			
Period	September	Quarter 3 to Date	April 1996 to Date
Mass	164	429	2,988,133

$$Vapor-Phase\ TPHg\ Mass\ [lb] = \left( Conc. \left[ \frac{\mu g}{L} \right] \right) \cdot \left( \frac{28.32\ L}{ft^3} \right) \cdot \left( \frac{1\ g}{1,000,000\ \mu g} \right) \cdot \left( \frac{1\ lb}{453.59\ g} \right) \cdot (Flow\ [scfm]) \cdot \left( \frac{60\ min}{hr} \right) \cdot (OpTime\ [hrs])$$

**Legend / Notes :**

1 = VES restarted.  
 2 = Collected monthly influent, after GAC-1, after GAC-2, and Effluent samples for laboratory analysis.

-- = Not applicable or not measured

\* = Operational values interpolated from chart recorder data or previous monitoring event.

Vapor extraction wells on line this month: HW-1, HW-9, HW-5, HW-7, Trunkline #2

VES = Soil vapor extraction system      in. Hg = Inches of mercury      ppmv = Parts per million by volume  
 scfm = Standard cubic feet per minute      °F = Degrees Fahrenheit      lb = Pounds  
 A = Reading from chart recorder.  
 B = Concentrations obtained with a calibrated organic vapor analyzer.  
 C = Concentrations correlated to laboratory data and expressed as hexane.  
 D = Hydrocarbon removal is calculated using analytical laboratory results for GRO (if not detected, half the detection limit is used)



**TABLE 4**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Carbon VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	Vapor Extraction System Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		Total Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
04/29/11		--	TO-3 & 8260B	--	--	--	17	60	0.021	0.067	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
05/27/11		--	TO-3 & 8260B	--	--	--	13	46	0.021	0.067	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
06/30/11		--	TO-3 & 8260B	--	--	--	11	39	0.018	0.057	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
07/27/11		--	TO-3 & 8260B	--	--	--	8.6	31	0.013	0.042	<0.0050	<0.019	0.012	0.052	--	--	--	--	0.013	0.056	<0.010	<0.036
08/26/11		--	TO-3 & 8260B	--	--	--	7.8	28	0.012	0.038	<0.0050	<0.019	0.020	0.087	--	--	--	--	0.0264	0.115	<0.010	<0.036
09/30/11		--	TO-3 & 8260B	--	--	--	6.9	25	0.012	0.038	<0.0050	<0.019	0.011	0.048	--	--	--	--	0.011	0.048	<0.010	<0.036
10/28/11		--	TO-3 & 8260B	--	--	--	5.4	19	0.011	0.035	<0.0050	<0.019	0.015	0.065	--	--	--	--	0.028	0.12	<0.010	<0.036
11/30/11		--	TO-3 & 8260B	--	--	--	8.5	30	0.012	0.038	<0.0050	<0.019	0.0067	0.029	--	--	--	--	0.010	0.043	<0.010	<0.036
12/28/11		--	TO-3 & 8260B	--	--	--	8.6	31	0.024	0.077	0.0075	0.028	0.0096	0.042	--	--	--	--	0.022	0.095	<0.010	<0.036
01/26/12		--	TO-3 & 8260B	--	--	--	3.7	13	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
02/24/12		--	TO-3 & 8260B	--	--	--	4.6	16	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
03/28/12		--	TO-3 & 8260B	--	--	--	4.1	15	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
04/27/12		--	TO-3 & 8260B	--	--	--	3.6	13	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
05/31/12		--	TO-3 & 8260B	--	--	--	6.5	23	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
06/28/12		--	TO-3 & 8260B	--	--	--	5.3	19	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
07/26/12		--	TO-3 & 8260B	4.1	--	--	4.1	15	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
08/31/12		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
09/27/12		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
10/30/12		--	TO-3 & 8260B	1.5	--	--	6.1	22	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
11/26/12		--	TO-3 & 8260B	4.2	--	--	4.2	15	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
12/19/12		--	TO-3 & 8260B	3.2	--	--	3.2	11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
01/31/13		--	TO-3 & 8260B	4.6	--	--	4.6	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--
02/27/13		--	TO-3 & 8260B	4.5	--	--	4.5	16	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
03/28/13		--	TO-3 & 8260B	6.7	--	--	6.7	24	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
04/22/13		--	TO-3 & 8260B	5.4	--	--	5.4	19	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
07/29/13		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
08/12/13		--	TO-3 & 8260B	--	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
10/30/13		--	TO-3 & 8260B	3.0	--	--	3.0	11	0.014	0.045	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
11/27/13		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	0.015	0.065	<0.010	<0.036
12/19/13		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	--	--	--	--	<0.015	<0.065	<0.010	<0.036
03/21/14		--	TO-3 & 8260B	1.5	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	<0.0050	<0.022	<0.010	<0.043	<0.015	<0.065	<0.010	<0.036



**TABLE 4**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Carbon VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	Vapor Extraction System Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		Total Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
04/23/14		VEW-32, VEW-33, VEW-34, VEW-35, VEW-36 VEW-37, HW-1, HW-3, HW-5, HW-7	TO-3 & 8260B	1.9	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	<0.0050	<0.022	<0.010	<0.043	<0.015	<0.065	<0.010	<0.036
05/16/14	1	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36 VEW-37, HW-1, HW-3, HW-5, HW-7	TO-3 & 8260B	1.1	--	--	<3.0	<11	<0.0050	<0.016	<0.0050	<0.019	<0.0050	<0.022	<0.0050	<0.022	<0.010	<0.043	<0.015	<0.065	<0.010	<0.036
07/09/14	2	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36 VEW-37, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	24	<b>6.1</b>	<b>25</b>	<b>7.0</b>	<b>25</b>	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
08/13/14		VEW-32, VEW-33, VEW-34, VEW-35, VEW-36 VEW-37, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	27	<b>7.3</b>	<b>30</b>	<b>8.4</b>	<b>30</b>	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
09/17/14	3	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	5.6	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
10/23/14	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	1.2	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
11/17/14	5	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	1.3	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
12/17/14		VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	0.5	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
01/14/15		VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	1.5	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
02/20/15		VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	1.5	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
03/27/15		VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	3.4	<4.9	<20	<5.6	<20	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
04/27/15	6	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	8015M & 8260M	132	<b>140</b>	<b>580</b>	<b>160</b>	<b>580</b>	<b>0.63</b>	<b>2.0</b>	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<b>0.23</b>	<b>1.0</b>	<b>0.23</b>	<b>1.0</b>	<0.6	<2.0
05/29/15	6,7	--	8015M & 8260M	103	<b>83</b>	<b>340</b>	<b>97</b>	<b>340</b>	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
06/03/15	6,8	VEW-32, VEW-33, VEW-34	8015M & 8260M	47	<b>32</b>	<b>130</b>	<b>37</b>	<b>130</b>	<0.16	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.3	<1.5	<0.6	<2.0
07/09/15	6	VEW-32, VEW-33, VEW-34	8015M & 8260M	162	<b>150</b>	<b>600</b>	<b>170</b>	<b>600</b>	<0.16	<0.50	<b>0.15</b>	<b>0.58</b>	<0.12	<0.50	<b>0.67</b>	<b>2.9</b>	<b>0.71</b>	<b>3.1</b>	<b>1.38</b>	<b>6.0</b>	<0.55	<2.0
07/15/15	6,9	VEW-32, VEW-33, VEW-34	8015M & 8260M	147	<b>170</b>	<b>700</b>	<b>200</b>	<b>700</b>	<0.16	<0.50	<b>0.53</b>	<b>2.0</b>	<b>0.18</b>	<b>0.78</b>	<b>0.99</b>	<b>4.3</b>	<b>1.5</b>	<b>6.3</b>	<b>2.49</b>	<b>10.6</b>	<0.55	<2.0
07/21/15	6,9	VEW-32, VEW-33, VEW-34	8015M & 8260M	259	<b>160</b>	<b>640</b>	<b>180</b>	<b>640</b>	<0.16	<0.50	<b>0.25</b>	<b>0.94</b>	<0.12	<0.50	<b>0.71</b>	<b>3.1</b>	<b>0.62</b>	<b>2.7</b>	<b>1.33</b>	<b>5.8</b>	<0.55	<2.0
07/29/15	6,9	VEW-32, VEW-33, VEW-34	8015M & 8260M	129	<b>170</b>	<b>710</b>	<b>200</b>	<b>710</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<b>0.32</b>	<b>1.4</b>	<b>0.25</b>	<b>1.1</b>	<b>0.57</b>	<b>2.5</b>	<0.55	<2.0
08/17/15	6,10	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5	8015M & 8260M	135	<b>130</b>	<b>550</b>	<b>160</b>	<b>550</b>	<b>0.75</b>	<b>2.4</b>	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<b>0.28</b>	<b>1.2</b>	<b>0.28</b>	<b>1.2</b>	<0.55	<2.0
09/09/15	6,11	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	202	<b>190</b>	<b>760</b>	<b>220</b>	<b>760</b>	<b>0.30</b>	<b>0.95</b>	<b>0.74</b>	<b>2.8</b>	<b>0.76</b>	<b>3.3</b>	<b>0.69</b>	<b>3.0</b>	<b>2.5</b>	<b>11</b>	<b>3.19</b>	<b>14</b>	<0.55	<2.0
09/22/15	6,9	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	225	<b>150</b>	<b>600</b>	<b>170</b>	<b>600</b>	<b>0.27</b>	<b>0.85</b>	<b>0.37</b>	<b>1.4</b>	<0.12	<0.50	<b>0.71</b>	<b>3.1</b>	<b>0.58</b>	<b>2.5</b>	<b>1.29</b>	<b>5.6</b>	<0.55	<2.0
09/25/15	6,9	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	258	<b>220</b>	<b>890</b>	<b>250</b>	<b>890</b>	<b>0.41</b>	<b>1.3</b>	<b>0.64</b>	<b>2.4</b>	<b>0.17</b>	<b>0.75</b>	<b>0.74</b>	<b>3.2</b>	<b>0.85</b>	<b>3.7</b>	<b>1.59</b>	<b>6.9</b>	<0.55	<2.0
10/07/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	256	<b>230</b>	<b>940</b>	<b>270</b>	<b>940</b>	<b>0.69</b>	<b>2.2</b>	<b>0.82</b>	<b>3.1</b>	<b>0.22</b>	<b>0.97</b>	<b>0.41</b>	<b>1.8</b>	<b>1.1</b>	<b>4.6</b>	<b>1.51</b>	<b>6.4</b>	<0.55	<2.0
11/04/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	380	<b>290</b>	<b>1,200</b>	<b>340</b>	<b>1,200</b>	<b>0.88</b>	<b>2.8</b>	<b>1.6</b>	<b>5.9</b>	<b>0.25</b>	<b>1.1</b>	<b>1.4</b>	<b>6.2</b>	<b>2.1</b>	<b>9.0</b>	<b>3.5</b>	<b>15</b>	<0.55	<2.0
12/07/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	346	<b>320</b>	<b>1,300</b>	<b>370</b>	<b>1,300</b>	<b>0.69</b>	<b>2.2</b>	<b>1.9</b>	<b>7.0</b>	<b>0.15</b>	<b>0.64</b>	<b>0.76</b>	<b>3.3</b>	<b>0.94</b>	<b>4.1</b>	<b>1.7</b>	<b>7.4</b>	<0.55	<2.0
01/13/16	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	141	<b>110</b>	<b>470</b>	<b>130</b>	<b>470</b>	<b>0.16</b>	<b>0.52</b>	<b>0.29</b>	<b>1.1</b>	<0.12	<0.50	<b>0.22</b>	<b>0.95</b>	<b>0.30</b>	<b>1.3</b>	<b>0.52</b>	<b>2.3</b>	<0.55	<2.0
02/10/16	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	124	<b>98</b>	<b>400</b>	<b>110</b>	<b>400</b>	<b>0.59</b>	<b>1.9</b>	<b>0.66</b>	<b>2.5</b>	<b>0.23</b>	<b>1.0</b>	<b>0.39</b>	<b>1.7</b>	<b>0.6</b>	<b>2.6</b>	<b>0.99</b>	<b>4.3</b>	<0.55	<2.0
03/02/16	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	92	<b>54</b>	<b>220</b>	<b>63</b>	<b>220</b>	<0.16	<0.50	<b>0.25</b>	<b>0.93</b>	<0.12	<0.50	<b>0.14</b>	<b>0.62</b>	<0.23	<1.0	<b>0.14</b>	<b>0.62</b>	<0.55	<2.0
04/06/16	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	124	<b>120</b>	<b>490</b>	<b>140</b>	<b>490</b>	<b>0.38</b>	<b>1.2</b>	<b>0.29</b>	<b>1.1</b>	<0.12	<0.50	<b>0.17</b>	<b>0.72</b>	<0.23	<1.0	<b>0.17</b>	<b>0.72</b>	<0.55	<2.0
05/04/16	6,7	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	107	<b>100</b>	<b>410</b>	<b>120</b>	<b>410</b>	<b>0.31</b>	<b>1.0</b>	<b>0.20</b>	<b>0.77</b>	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
06/06/16	6,12	VEW-32, VEW-33, HW-1, HW-3, HW-5	8015M & 8260M	73	<b>59</b>	<b>240</b>	<b>68</b>	<b>240</b>	<b>0.59</b>	<b>1.9</b>	<b>0.50</b>	<b>1.9</b>	<0.12	<0.50	<b>0.41</b>	<b>1.8</b>	<b>0.51</b>	<b>2.2</b>	<b>0.92</b>	<b>4.0</b>	<0.55	<2.0

**TABLE 4**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Carbon VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	Vapor Extraction System Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		Total Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
07/06/16	6,13	HW-1, HW-3, HW-5	8015M & 8260M	49	37	150	43	150	0.41	1.3	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
09/01/16	6,13	HW-1, HW-3, HW-5	8015M & 8260M	46	18	75	21	75	0.41	1.3	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
10/12/16	6,13,14	HW-1, HW-3, HW-5	8015M & 8260M	43	19	79	22	79	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
11/01/16	6,13	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	114	81	330	94	330	0.53	1.7	0.23	0.86	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
12/05/16	6,13	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	96	86	350	100	350	0.31	1.0	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
01/09/17	6,13	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	86	68	280	80	280	0.63	2.0	0.24	0.89	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
02/06/17	6,13	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	93	66	270	77	270	0.44	1.4	0.19	0.72	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
03/15/17	6,13	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	96	76	310	88	310	0.53	1.7	0.24	0.9	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
03/27/17	15,16	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	193	150	600	170	600	0.91	2.9	0.42	1.6	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
04/17/17	15	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	138	150	610	170	610	1.1	3.5	0.53	2.0	<0.12	<0.50	<0.12	<0.50	0.23	1.0	0.23	1.0	<0.55	<2.0
05/03/17	15	HW-1, HW-3, HW-5, HW-7	8015M & 8260M	141	120	510	140	510	0.69	2.2	0.58	2.2	0.12	0.51	<0.12	<0.50	0.35	1.5	0.35	1.5	<0.55	<2.0
06/05/17	15	HW-1, HW-3, HW-5	8015M & 8260M	136	110	430	120	430	0.81	2.6	0.40	1.5	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
06/27/17	15,17	HW-1, HW-3, HW-5, VEW-38, VEW-39, VEW-40	8015M & 8260M	--	140	560	160	560	0.38	1.2	0.20	0.75	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
07/19/17		HW-5, HW-7 and VEW-39	8015M & 8260M	199	120	500	140	500	0.75	2.4	0.45	1.7	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
08/09/17	18,19	HW-1, HW-5, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	8015M & 8260M	695	560	2,300	650	2,300	0.69	2.2	0.29	1.1	0.53	2.3	<0.12	<0.50	0.44	1.9	0.44	1.9	<0.55	<2.0
09/07/17	19	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	8015M & 8260M	767	610	2,500	710	2,500	1.2	3.9	0.48	1.8	0.46	2.0	<0.12	<0.50	0.51	2.2	0.51	2.2	<0.55	<2.0
10/12/17	19,20	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	8015M & 8260M	536	370	1,500	430	1,500	1.0	3.2	0.32	1.2	0.41	1.8	0.20	0.88	0.83	3.6	1.0	4.5	<0.55	<2.0
11/02/17	19	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	8015M & 8260M	300	240	970	270	970	0.78	2.5	0.24	0.89	0.28	1.2	<0.12	<0.50	0.51	2.2	0.51	2.2	<0.55	<2.0
12/11/17	19	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	8015M & 8260M	335	270	1,100	300	1,100	0.85	2.7	0.27	1.0	0.21	0.9	<0.12	<0.50	0.37	1.6	0.37	1.6	<0.55	<2.0
01/11/18	21	HW-1, HW-5, HW-7	8015M & 8260M	269	240	970	270	970	1.1	3.4	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
02/12/18	21	HW-1, HW-5, HW-7	8015M & 8260M	148	86	350	88	350	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
03/28/18	21	HW-1, HW-5, HW-7	8015M & 8260M	201	160	670	170	670	0.59	1.9	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
04/02/18	21	HW-1, HW-5, HW-7	8015M & 8260M	191	150	620	160	620	0.25	0.79	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
05/02/18	21	HW-1, HW-5, HW-7	8015M & 8260M	149	110	470	150	470	0.16	0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
06/06/18	21	HW-1, HW-5, HW-7	8015M & 8260M	95	49	200	50	200	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
07/02/18	21	HW-1, HW-5, HW-7	8015M & 8260M	135	120	490	120	490	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
08/06/18	21	HW-1, HW-5, HW-7	8015M & 8260M	134	49	200	48	200	0.3	0.95	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
09/13/18	21	HW-1, HW-5, HW-7	8015M & 8260M	109	49	200	50	200	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
10/29/18	21	HW-1, HW-5, HW-7	8015M & 8260M	118	66	270	59	270	0.44	1.4	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
11/14/18	21	HW-1, HW-5, HW-7	8015M & 8260M	202	200	800	170	800	1.3	4.2	0.69	2.6	<0.12	<0.5	<0.12	<0.5	0.35	1.5	<0.35	<1.5	<0.55	<2.0
12/12/18	21	HW-1, HW-5, HW-7	8015M & 8260M	130	98	400	87	400	0.59	1.9	0.21	0.79	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0

**TABLE 4**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Carbon VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	Vapor Extraction System Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		Total Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
01/28/19	21	HW-1, HW-5, HW-7	8015M & 8260M	228	220	880	190	880	1.3	4.0	0.27	1.0	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
02/12/19	21, 22	HW-1, HW-5, HW-7	8015M & 8260M	258	240	1,000	220	1,000	1.0	3.3	0.23	0.88	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
04/03/19	21, 22	HW-1, HW-5, HW-7	8015M & 8260M	394	73	300	65	300	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
11/25/19	23	HW-1, HW-5, HW-7, HW-8, HW-9	8015M & 8260M	164	42	170	38	170	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.1	<0.35	<1.6	<0.55	<2.0
12/30/19		HW-1, HW-5, HW-7, HW-8, HW-9	8015M & 8260M	39	7.1	29	6.3	29	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
01/15/20		HW-1, HW-5, HW-7, HW-8, HW-9	8015M & 8260M	15	5.4	22	<5.7	22	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
02/18/20		HW-1, HW-5, HW-7, HW-8, HW-9	8015M & 8260M	12	<4.9	<20	<5.7	<20	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
02/27/20		HW-1, HW-5, HW-7, HW-8, HW-9	8015 & 8260B	16	<4.9	<20	<5.7	<20	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
03/16/20	24	HW-1, HW-5, HW-7	8015 & 8260B	105	18.09	74	16	74	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
04/01/20	25	HW-1, HW-5, HW-7, HW-8, HW-9	8015 & 8260B	47	8.31	34	7.5	34	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
04/15/20		HW-1, HW-5, HW-7, HW-8, HW-9	8015 & 8260B	87	9.5	39	8.6	39	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
05/15/20		HW-1, HW-5, HW-7, HW-8, HW-9	8015 & 8260B	119	17	68	15	68	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
06/22/20		HW-1, HW-5, HW-7, HW-8, HW-9	8015 & 8260B	151	24	98	21	98	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
07/20/20		HW-1, HW-9, HW-7, Trunkline #1, Trunkline #2	8015 & 8260B	572	98	400	79	400	0.19	0.6	0.16	0.59	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
08/24/20		HW-1, HW-9, HW-7, Trunkline #1, Trunkline #2	8015 & 8260B	797	93	380	69	380	0.17	0.53	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
09/14/20		HW-1, HW-9, HW-7, Trunkline #2	8015 & 8260B	397	44	180	33	180	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
10/05/20		HW-1, HW-9, HW-7	8015 & 8260B	80	13	54	9.8	54	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
11/05/20	26	HW-1, HW-9, HW-7, Trunkline #2	8015 & 8260B	392	34	140	25	140	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
11/30/20		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	398	29	120	22	120	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
02/24/21		HW-1, HW-9, HW-5, HW-7	8015 & 8260B	38	<4.9	<20	<4.9	<20	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
03/08/21		HW-1, HW-8, HW-9, HW-5, HW-7	8015 & 8260B	53	6.8	28	5.1	28	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
04/19/21		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	238	22	90	16	90	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
06/08/21		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	177	21	86	16	86	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
06/21/21		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	247	18	73	13	73	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
07/07/21		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	196	22	90	16	90	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5	<0.55	<2.0
08/09/21		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	203	17	69	13	69	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
09/20/21		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	155	16	64	12	64	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
10/18/21		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	152	14	56	10	56	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
11/10/21		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	191	29	120	21	120	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
12/06/21		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	315	46	190	35	190	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
01/18/22		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	212	32	130	25	130	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0

**TABLE 4**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Carbon VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	Vapor Extraction System Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		Total Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
02/09/22		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	151	<b>27</b>	<b>110</b>	<b>19</b>	<b>110</b>	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
03/09/22		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	327	<b>29</b>	<b>120</b>	<b>22</b>	<b>120</b>	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
04/20/22		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	306	<b>34</b>	<b>140</b>	<b>25</b>	<b>140</b>	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
05/10/22		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	287	<b>37</b>	<b>150</b>	<b>27</b>	<b>150</b>	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
06/16/22		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	306	<b>23</b>	<b>95</b>	<b>17</b>	<b>95</b>	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
07/12/22		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	226	<b>24</b>	<b>100</b>	<b>18</b>	<b>100</b>	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
08/08/22		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	216	<b>21</b>	<b>87</b>	<b>16</b>	<b>87</b>	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0
09/20/22		HW-1, HW-9, HW-5, HW-7, Trunkline #2	8015 & 8260B	229	<b>27</b>	<b>110</b>	<b>20</b>	<b>110</b>	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.178	<0.75	<0.28	<1.0

**Legend / Notes:**

Data collected prior to April 2014 not verified for completeness nor accuracy.

Influent vapor sample inadvertently not collected during August 2016.

VES = Vapor extraction system

ppmv = Parts per million by volume

GRO = Gasoline range organics

µg/L = Micrograms per liter

**- Reported concentrations are shown in bold.**

MTBE = Methyl tertiary-butyl ether

-- = Not available or not analyzed

OVA = Organic Vapor Analyzer (calibrated or correlated to Hexane)

<0.1 = Not detected at or above the Method Reporting Limit (MRL) shown

A = Laboratory reporting Gasoline Range Organics (GRO) as Hexane prior to 11-05-20.

1 = VES manually shut down on 05/29/14.

2 = VES restarted.

3 = Closed vapor extraction wells VEW-35, VEW-36, and VEW-37 on 08/27/14 based on field readings (see Table 9A for details).

4 = VES manually shut down.

5 = VES restarted on 11/03/14.

6 = Select soil biopiles also on line.

7 = Closed all vapor extraction wells from 05/07/15 to 06/03/15, and 05/25/16 to 06/17/16, respectively, to focus extraction efforts on soil biopiles.

8 = Opened vapor extraction wells VEW-32, VEW-33 and VEW-34.

9 = Additional sample collected for laboratory analysis as part of field instrument correlation study.

10 = Opened vapor extraction wells HW-1, HW-3 and HW-5 on 08/10/15 based on field PID readings (see Table 9A for details).

11 = Closed vapor extraction well VEW-34 on 08/19/15 based on low to non-detectable lab results (see Table 10 for details).

12 = Opened vapor extraction wells HW-1, HW-3 and HW-5 on 06/17/16.

13 = Valves associated with vapor extraction wells HW-1, HW-3, HW-5 and/or HW-7 each set to a partially open position while leaving all other wells closed to focus extraction efforts on soil biopiles.

14 = Resumed vapor extraction from well HW-7 based on field PID readings (see Table 9A for details).

15 = Valves associated with vapor extraction wells HW-1, HW-3, HW-5 and/or HW-7 each set to optimize system in accordance with recent field readings and/or lab data since completion of ex-situ remediation project on 03/20/17.

16 = Additional sample collected for laboratory analysis after disconnecting all soil biopiles and optimizing system on 03/20/17 (i.e., with extraction efforts again focused on in-situ remediation following completion of ex-situ remediation project).

17 = Wells VEW-38, VEW-39 and VEW-40 tied into system during late June 2017 following installation per SGI's March 14, 2017 *Well Replacement Report and Work Plan*.

18 = Wells RW-1, RW-2, RW-7, RW-9, RW-12, RW-13, RW-18, RW-20 through RW-24, RW-26, and RW-28 through RW-33 tied into system during early August 2017 following installation per SGI's June 30, 2017 *Remediation Well Installation Update Report*.

19 = For full list of wells online, see SGI's November 15, 2017 *Remediation Status Report - Third Quarter 2017* and February 15, 2018 *Remediation Status Report - Fourth Quarter 2017*, respectively.

20 = Opened dilution valve approximately 10% to reduce carbon usage rate.

21 = Closed dilution valve and focused extraction efforts on relatively low concentration horizontal wells to reduce carbon usage with all other higher concentration vertical wells being connected to the thermal oxidizer (see Table 8 for details).

22 = No sample collected for analysis during March 2019 due to site condition and system operation status.

23 = System restart on 10/30/19 after installation of new blower.

24 = System shut down 3/31/20 due to high effluent value permit exceedence on 3/16/20.

25 = Resampled and restarted system on 4/3/20 upon return to permit compliance.

26 = Laboratory reporting Gasoline Range Organics (GRO) as Hexane prior to 11-05-20.

**TABLE 5A**  
**Thermal Oxidizer Vapor Extraction System Operations Summary - July**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow <sup>A</sup> (scfm)	VES Manifold Vacuum (in. WC)	Oxidizer Inlet Temperature TE1 Excess Controller (°F)	Laboratory Process GRO Concentration (ppmv)	Field Inlet Process Oxidizer Concentration <sup>B,C</sup> (ppmv)	Field Effluent Concentration <sup>B,C</sup> (ppmv)	Cumulative Vapor-Phase GRO Removed <sup>D</sup> (lb)
07/01/22	Technician	1	22,414	718	68	807	--	530	6	347,451
07/02/22	*		22,438	718	--	--	--	--	--	347,594
07/03/22	*		22,462	718	--	--	--	--	--	347,737
07/04/22	*		22,486	718	--	--	--	--	--	347,879
07/05/22	*		22,511	718	--	--	--	--	--	348,022
07/06/22	*		22,535	718	--	--	--	--	--	348,165
07/07/22	*		22,559	718	--	--	--	--	--	348,308
07/08/22	Technician		22,583	719	68	791	--	396	7	348,451
07/09/22	*		22,607	719	--	--	--	--	--	348,592
07/10/22	*		22,631	719	--	--	--	--	--	348,733
07/11/22	*		22,654	719	--	--	--	--	--	348,873
07/12/22	Technician	2	22,678	685	68	792	390	356	5	349,007
07/13/22	*		22,702	685	--	--	--	--	--	349,145
07/14/22	*		22,727	685	--	--	--	--	--	349,282
07/15/22	Technician	3	22,751	0	--	--	--	--	--	349,282
07/16/22	Offline		22,751	0	--	--	--	--	--	349,282
07/17/22	Offline		22,751	0	--	--	--	--	--	349,282
07/18/22	Offline		22,751	0	--	--	--	--	--	349,282
07/19/22	Offline		22,751	0	--	--	--	--	--	349,282
07/20/22	Technician	1	22,751	685	--	--	--	--	--	349,282
07/21/22	*		22,775	685	--	--	--	--	--	349,418
07/22/22	Technician	3	22,799	756	64	794	--	363	3	349,567
07/23/22	Offline		22,799	0	--	--	--	--	--	349,567
07/24/22	Offline		22,799	0	--	--	--	--	--	349,567
07/25/22	Offline		22,799	0	--	--	--	--	--	349,567
07/26/22	Offline		22,799	0	--	--	--	--	--	349,567
07/27/22	Offline		22,799	0	--	--	--	--	--	349,567
07/28/22	Offline		22,799	0	--	--	--	--	--	349,567
07/29/22	Technician	1	22,803	745	64	819	--	558	3	349,592
07/30/22	*		22,827	745	--	--	--	--	--	349,739
07/31/22	*		22,851	745	--	--	--	--	--	349,886

Cumulative Mass TPHg Removed by the VES <sup>D</sup> (lb)			
Period	July	Quarter 3 to Date	January 2018 to Date
Mass	2,465.1	2,465.1	357,727.4

$$\text{Vapor-Phase TPHg Mass [lb]} = \left( \text{Conc.} \left[ \frac{\mu\text{g}}{\text{L}} \right] \right) \cdot \left( \frac{28.32 \text{ L}}{\text{ft}^3} \right) \cdot \left( \frac{1 \text{ g}}{1,000,000 \mu\text{g}} \right) \cdot \left( \frac{1 \text{ lb}}{453.59 \text{ g}} \right) \cdot \left( \text{Flow [scfm]} \right) \cdot \left( \frac{60 \text{ min}}{\text{hr}} \right) \cdot \left( \text{OpTime [hrs]} \right)$$

**Legend / Notes:**

- 1 = VES restarted.
- 2 = Collected monthly influent and effluent samples for laboratory analysis.
- 3 = VES manually shut down pending site-wide well temperature survey activities.

System operating under SCAQMD Permit #G52288

**Vapor extraction wells on line this month (grouped by location):**

Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)

- VES = Soil vapor extraction system
- scfm = Standard cubic feet per minute
- ppmv = Parts per million by volume
- in. Hg = Inches of mercury
- °F = Degrees Fahrenheit
- lb = Pounds

- A = Reading measured using Dwyer DS-300 flow sensor.
- B = Concentrations obtained with a calibrated organic vapor analyzer.
- C = Concentrations correlated to laboratory data and expressed as hexane.
- D = Hydrocarbon removal is calculated using analytical laboratory result for GRO (if not detected, half the detection limit is used) from samples collected this month (laboratory report attached).
- NA = Not available
- = Not applicable or not measured
- \* = Operational values interpolated from chart recorder data or previous monitoring event.



**TABLE 5B**  
**Thermal Oxidizer Vapor Extraction System Operations Summary - August**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow <sup>A</sup> (scfm)	VES Manifold Vacuum (in. WC)	Oxidizer Inlet Temperature TE1 Excess Controller (°F)	Laboratory Process GRO Concentration (ppmv)	Field Inlet Process Oxidizer Concentration <sup>B,C</sup> (ppmv)	Field Effluent Concentration <sup>B,C</sup> (ppmv)	Cumulative Vapor-Phase GRO Removed <sup>D</sup> (lb)
08/01/22	Technician		22,875	749	66	798	--	410	3	350,129
08/02/22	*		22,899	749	--	--	--	--	--	350,211
08/03/22	*		22,924	749	--	--	--	--	--	350,292
08/04/22	*		22,948	749	--	--	--	--	--	350,374
08/05/22	*		22,972	749	--	--	--	--	--	350,456
08/06/22	*		22,996	749	--	--	--	--	--	350,538
08/07/22	*		23,021	749	--	--	--	--	--	350,619
08/08/22	Technician	1, 2	23,045	759	66	781	220	292	5	350,702
08/09/22	*		23,069	759	--	--	--	--	--	350,783
08/10/22	*		23,093	759	--	--	--	--	--	350,865
08/11/22	*		23,116	759	--	--	--	--	--	350,946
08/12/22	*		23,140	759	--	--	--	--	--	351,027
08/13/22	*		23,164	759	--	--	--	--	--	351,108
08/14/22	*		23,188	759	--	--	--	--	--	351,190
08/15/22	*		23,212	759	--	--	--	--	--	351,271
08/16/22	*		23,235	759	--	--	--	--	--	351,352
08/17/22	*		23,259	759	--	--	--	--	--	351,433
08/18/22	Technician		23,283	712	63	785	--	422	5	351,509
08/19/22	*		23,308	712	--	--	--	--	--	351,588
08/20/22	*		23,332	712	--	--	--	--	--	351,667
08/21/22	*		23,357	712	--	--	--	--	--	351,746
08/22/22	*		23,382	712	--	--	--	--	--	351,825
08/23/22	*		23,406	712	--	--	--	--	--	351,904
08/24/22	Technician		23,431	764	63	777	--	236	4	351,989
08/25/22	*		23,455	764	--	--	--	--	--	352,069
08/26/22	*		23,478	764	--	--	--	--	--	352,150
08/27/22	*		23,502	764	--	--	--	--	--	352,231
08/28/22	*		23,525	764	--	--	--	--	--	352,312
08/29/22	*		23,549	764	--	--	--	--	--	352,392
08/30/22	Technician		23,572	732	64	778	--	202	4	352,470
08/31/22	*		23,596	732	--	--	--	--	--	352,549

Cumulative Mass TPHg Removed by the VES <sup>D</sup> (lb)			
Period	August	Quarter 3 to Date	January 2018 to Date
Mass	2,663.1	5,128.2	360,390.4

$$Vapor-Phase\ TPHg\ Mass\ [lb] = \left( Conc. \left[ \frac{\mu g}{L} \right] \right) \cdot \left( \frac{28.32\ L}{ft^3} \right) \cdot \left( \frac{1\ g}{1,000,000\ \mu g} \right) \cdot \left( \frac{1\ lb}{453.59\ g} \right) \cdot (Flow\ [scfm]) \cdot \left( \frac{60\ min}{hr} \right) \cdot (OpTime\ [hrs])$$

**Legend / Notes:**

- 1 = Collected monthly influent and effluent samples for laboratory analysis.
- 2 = Collected Trunkline samples for laboratory analysis.

- VES = Soil vapor extraction system
- scfm = Standard cubic feet per minute
- ppmv = Parts per million by volume
- in. Hg = Inches of mercury
- °F = Degrees Fahrenheit
- lb = Pounds

System operating under SCAQMD Permit #G52288

**Vapor extraction wells on line this month (grouped by location):**

Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)

- A = Reading measured using Dwyer DS-300 flow sensor.
- B = Concentrations obtained with a calibrated organic vapor analyzer.
- C = Concentrations correlated to laboratory data and expressed as hexane.
- D = Hydrocarbon removal is calculated using analytical laboratory result for GRO (if not detected, half the detection limit is used) from samples collected this month (laboratory report attached).
- NA = Not available
- = Not applicable or not measured
- \* = Operational values interpolated from chart recorder data or previous monitoring event.





**TABLE 5C**  
**Thermal Oxidizer Vapor Extraction System Operations Summary - September**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	VES Hour Meter Reading (hours)	VES Process Flow <sup>A</sup> (scfm)	VES Manifold Vacuum (in. WC)	Oxidizer Inlet Temperature TE1 Excess Controller (°F)	Laboratory Process GRO Concentration (ppmv)	Field Inlet Process Oxidizer Concentration <sup>B,C</sup> (ppmv)	Field Effluent Concentration <sup>B,C</sup> (ppmv)	Cumulative Vapor-Phase GRO Removed <sup>D</sup> (lb)
09/01/22	*		23,621	732	--	--	--	--	--	352,010
09/02/22	*		23,645	732	--	--	--	--	--	352,110
09/03/22	*		23,669	732	--	--	--	--	--	352,209
09/04/22	*		23,693	732	--	--	--	--	--	352,309
09/05/22	*		23,718	732	--	--	--	--	--	352,409
09/06/22	*		23,742	732	--	--	--	--	--	352,509
09/07/22	Technician		23,766	787	66	771	--	230	2	352,616
09/08/22	*		23,790	787	--	--	--	--	--	352,722
09/09/22	*		23,814	787	--	--	--	--	--	352,828
09/10/22	*		23,838	787	--	--	--	--	--	352,934
09/11/22	*		23,862	787	--	--	--	--	--	353,040
09/12/22	*		23,886	787	--	--	--	--	--	353,147
09/13/22	*		23,910	787	--	--	--	--	--	353,253
09/14/22	Technician		23,934	787	--	--	--	--	--	353,359
09/15/22	Technician		23,953	716	67	780	--	212	3	353,435
09/16/22	*		23,977	716	--	--	--	--	--	353,533
09/17/22	*		24,001	716	--	--	--	--	--	353,630
09/18/22	*		24,026	716	--	--	--	--	--	353,727
09/19/22	*		24,050	716	--	--	--	--	--	353,825
09/20/22	Technician		24,074	740	--	777	270	130	4	353,925
09/21/22	*		24,098	740	--	--	--	--	--	354,025
09/22/22	*		24,122	740	--	--	--	--	--	354,124
09/23/22	*		24,146	740	--	--	--	--	--	354,223
09/24/22	*		24,170	740	--	--	--	--	--	354,323
09/25/22	*		24,193	740	--	--	--	--	--	354,422
09/26/22	*		24,217	740	--	--	--	--	--	354,521
09/27/22	*		24,241	740	--	--	--	--	--	354,621
09/28/22	*		24,265	740	--	--	--	--	--	354,720
09/29/22	Technician		24,289	656	67	779	--	214	6	354,808
09/30/22	*		24,304	656	--	--	--	--	--	354,863

Cumulative Mass TPHg Removed by the VES <sup>A</sup> (lb)			
Period	September	Quarter 3 to Date	January 2018 to Date
Mass	3,053.0	8,181.2	362,704.4

$$Vapor-Phase\ TPHg\ Mass\ [lb] = \left( Conc. \left[ \frac{\mu g}{L} \right] \right) \left( \frac{28.32\ L}{ft^3} \right) \left( \frac{1\ g}{1,000,000\ \mu g} \right) \left( \frac{1\ lb}{453.59\ g} \right) \left( Flow\ [scfm] \right) \left( \frac{60\ min}{hr} \right) \left( OpTime\ [hrs] \right)$$

**Legend / Notes:**

- 1 = Collected monthly influent and effluent samples for laboratory analysis.
- 2 = System automatically shut down, left off in advance of site-wide well temperature survey.

- VES = Soil vapor extraction system
- in. Hg = Inches of mercury
- scfm = Standard cubic feet per minute
- °F = Degrees Fahrenheit
- ppmv = Parts per million by volume
- lb = Pounds

System operating under SCAQMD Permit #G52288

**Vapor extraction wells on line this month (grouped by location):**

Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)

- A = Reading measured using Dwyer DS-300 flow sensor.
- B = Concentrations obtained with a calibrated organic vapor analyzer.
- C = Concentrations correlated to laboratory data and expressed as hexane.
- D = Hydrocarbon removal is calculated using analytical laboratory result for GRO (if not detected, half the detection limit is used) from samples collected this month (laboratory report attached).

- NA = Not available
- = Not applicable or not measured
- \* = Operational values interpolated from chart recorder data or previous monitoring event.



**TABLE 6**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Thermal Oxidizer VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	VES Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Ethylbenzene		MTBE		Toluene		o-Xylene		m,p-Xylenes		Total Xylenes	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
01/11/18	1,2,3	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, RW-9, RW-13, RW-18 and RW-26	8015M & 8260M	1,942	370	1500	380	1,500	<0.16	<0.50	<0.12	<0.50	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5
03/14/18	2,4,5,6	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	8015M & 8260M	2,193	370	1500	380	1,500	0.41	1.3	<0.12	<0.50	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	<0.23	<1.0	<0.35	<1.5
04/02/18	2	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	8015M & 8260M	1,370	1,700	7,100	1,800	7,100	4.1	13	0.28	1.2	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	0.76	3.3	<0.35	<1.5
05/02/18	2	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	8015M & 8260M	1,380	780	3,200	820	3,200	3.0	9.6	<0.12	<0.50	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	0.28	1.2	<0.35	<1.5
06/06/18	2,6,7	HW-1, HW-5, HW-7, VEW-39, RW-1, -4, -9, -10, -11, -13, -14 and -18	8015M & 8260M	1,531	1,000	4,100	990	4,100	4.1	13	0.17	0.72	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	0.53	2.3	<0.35	<1.5
07/02/18	2,6	RW-1, -4, -5, -9, -10, -11, -13, -18, -22, -29, -23, -24, -26, -27, -28, -30, -31, -32, -33, -36, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	890	560	2,300	560	2,300	2.2	7.1	<0.23	<1.0	<1.1	<4.0	<0.27	<1.0	<0.23	<1.0	0.55	2.4	<0.35	<1.5
08/06/18	2,6	RW-1, -4, -5, -9, -10, -11, -13, -18, -22, -29, -23, -24, -26, -27, -28, -30, -31, -32, -33, -36, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	876	710	2,900	710	2,900	0.88	2.8	0.23	1.0	<0.55	<2.0	0.58	2.2	0.25	1.1	0.92	4.0	<0.35	<1.5
09/13/18	2,6	RW-1, -4, -5, -9, -10, -11, -13, -18, -22, -29, -23, -24, -26, -27, -28, -30, -31, -32, -33, -36, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	935	930	3,800	930	3,800	1.9	6.0	0.41	1.8	<0.28	<1.0	0.34	1.3	0.18	0.77	0.94	4.1	<0.35	<1.5
10/29/18	2,6	RW-1, -4, -5, -9, -10, -11, -14, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -36, -37, -38, -40, -41, -42, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	791	440	1,800	390	1,800	0.97	3.1	<0.12	<0.5	<0.55	<2.0	<0.13	<0.5	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5
11/14/18	2,6	RW-1, -4, -5, -9, -10, -11, -14, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -36, -37, -38, -40, -41, -42, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	794	640	2,600	560	2,600	1.6	5.1	0.18	0.77	<0.55	<2.0	<0.13	<0.5	<0.12	<0.5	0.41	1.8	<0.35	<1.5
12/17/18	2,6,8	RW-1, -4, -5, -9, -10, -11, -14, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -36, -37, -38, -40, -41, -42, -44, -45, -47, -48, -49, -50, VEW-40	8015M & 8260M	968	220	900	200	900	0.47	1.5	<0.12	<0.5	<0.55	<2.0	<0.13	<0.5	<0.12	<0.5	<0.23	<1.0	<0.38	<1.8
03/19/19	2,6,9	RW-1, -4, -5, -9, -10, -11, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, and -50; VEW-40; TFR-5, -7, -9, -10, -11, -13, -16, -19, -21, -24, -26, -28, -30, -35, -36, and -37	8015M & 8260M	766	270	1,100	240	1,100	0.72	2.3	<0.12	<0.50	<0.55	<2.0	<0.13	<0.50	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5
04/03/19	2,6,9	RW-1, -4, -5, -9, -10, -11, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, and -50; VEW-40; TFR-5, -7, -9, -10, -11, -13, -16, -19, -21, -24, -26, -28, -30, -35, -36, and -37	8015M & 8260M	1,984	210	860	190	860	0.28	0.91	<0.12	<0.50	<0.55	<2.0	<0.13	<0.50	<0.12	<0.5	<0.23	<1.0	<0.35	<1.5
04/22/19	2,6,9	RW-1, -4, -5, -9, -10, -11, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, and -50; VEW-40; TFR-5, -7, -9, -10, -11, -13, -16, -19, -21, -24, -26, -28, -30, -35, -36, and -37	8015M & 8260M	2,410	660	2,700	600	2,700	2.9	9.2	0.28	1.2	<0.55	<2.0	<0.13	<0.50	0.13	0.58	0.41	1.8	0.54	2.38
05/06/19	2,6,9	RW-1, -4, -5, -9, -10, -11, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, and -50; VEW-40; TFR-5, -7, -9, -10, -11, -13, -16, -19, -21, -24, -26, -28, -30, -35, -36, and -37	8015M & 8260M	1,860	710	2,900	630	2,900	3.8	12	0.46	2.0	<0.55	<2.0	<0.13	<0.50	<0.12	<0.50	0.64	2.8	0.64	2.8
06/06/19	2,6,9	RW-1, -4, -5, -9, -10, -11, -18, -22, -23, -24, -26, -27, -28, -29, -30, -31, -32, -33, -35, -37, -40, -41, -42, -43, -44, -45, -47, -48, -49, and -50; VEW-40; TFR-5, -7, -9, -10, -11, -12, -13, -14, -15, -16, -18, -19, -21, -22, -24, -26, -28, -29, -30, -32, -33, TF-17, TFR-18, TFR-19, TFR-22, TFR-25, TF-18, RTF-18-E, RTF-18-NW	8015M & 8260M	5,375	950	3,900	860	3,900	5.3	17	0.25	1.1	<0.55	<2.0	0.21	0.8	<0.12	<0.5	0.46	2.0	0.46	2.0

**TABLE 6**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Thermal Oxidizer VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	VES Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Ethylbenzene		MTBE		Toluene		o-Xylene		m,p-Xylenes		Total Xylenes	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
07/10/19	2,6,9	Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15, TFR-16), (TFR-5, TFR-7, TFR-9, TFR-10, TFR-12); Eastern Area - (RW-1, RW-11, RW-18, RW-13, RW-4, RW-5, RW-9, RW-10, TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Southern Area - (RW-23, RW-30, RW-31, RW-32, VEW-40, RW-26, RW-28, RW-24, RW-27, RW-33, RW-43, RW-22, RW-29, RW-45, RW-35, RW-40, RW-44, RW-36, RW-37, RW-41, RW-42, RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	1,962	2,100	8,500	1,900	8,500	5.3	17	0.37	1.6	<0.55	<2.0	0.58	2.2	0.25	1.1	0.78	3.4	1.03	4.5
08/05/19	6	Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15, TFR-16), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-18), (RW-13), (RW-4, RW-5, RW-9, RW-10); Southern Area - (RW-23), (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-24, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	2,620	2,700	11,000	2,500	11,000	6.6	21	0.37	1.6	<0.55	<2.0	0.77	2.9	0.25	1.1	0.94	4.1	1.19	5.2
09/09/19	6	Central Area - (TFR-21, TFR-26, TFR-27, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-13), (RW-4, RW-5, RW-9, RW-10); Southern Area - (RW-23), (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-24, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	2,180	2,300	9,600	2,100	9,600	5.0	16	1.0	4.4	<0.55	<2.0	0.72	2.7	0.28	1.2	1.6	6.9	7.18	8.1
10/31/19		Central Area - (TFR-21, TFR-26, TFR-27, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-13, RW-14), (RW-4, RW-5, RW-9, RW-10); Southern Area - (RW-30, RW-31, RW-32), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	2,176	3,400	14,000	3,100	14,000	5.6	18	0.92	4.0	<0.55	<2.0	0.61	2.3	0.46	2.0	2.2	9.7	2.66	12
11/20/19		Central Area - (TFR-21, TFR-26, TFR-27, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-13, RW-14), (RW-4, RW-5, RW-9, RW-10); Southern Area - (RW-30, RW-31, RW-32), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	1,290	3,200	13,000	2,800	13,000	2.0	6.5	0.83	3.6	<0.55	<2.0	0.53	2.0	0.39	1.7	1.3	5.8	1.69	7.5
12/16/19		Central Area - (TFR-21, TFR-26, TFR-27, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-13, RW-14), (RW-4, RW-5, RW-9, RW-10); Southern Area - (RW-30, RW-31, RW-32), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	1,566	3,400	14,000	3,000	14,000	5.0	16	1.0	4.4	<0.55	<2.0	0.72	2.7	0.28	1.2	1.6	6.9	1.88	8.1
1/15/2020		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-7), (RW-13, RW-14), (RW-4, RW-9, RW-10); Southern Area - (RW-30, RW-31, RW-32), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	1,446	2,400	10,000	2,300	10,000	2.20	7.10	0.69	3.00	<1.1	<4	0.93	3.50	0.62	2.70	1.70	7.40	2.32	10
2/18/2020		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-17, TFR-18, RFR-19, TFR-22), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-7), (RW-13, RW-14), (RW-4, RW-9, RW-10); Southern Area - (RW-30, RW-31, RW-32), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	996	1,900	7,800	1,700	7,800	2.10	6.80	0.55	2.40	<.55	<2	0.80	3.00	0.55	2.40	1.40	6.20	1.95	8.6

**TABLE 6**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Thermal Oxidizer VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	VES Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Ethylbenzene		MTBE		Toluene		o-Xylene		m,p-Xylenes		Total Xylenes	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
3/16/2020		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TFR-29, TFR-32, TFR-35, TFR-36, TFR-37), (TFR-17, TFR-18, RFR-19, TFR-22, TFR-25), (TFR-11, TFR-13, TFR-14, TFR-15), (TFR-5, TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1, RW-6, RW-15, RW-16, RW-17), (VEW-32, VEW-37, RW-2, RW-7, RW-11), (VEW-33, VEW-36, RW-8, RW-12, RW-18), (VEW-34, VEW-35, RW-13, RW-14), (RW-3, RW-4, RW-5, RW-9, RW-10); Southern Area - (RW-19, RW-20, RW-22, RW-29, RW-45), (RW-35, RW-38, RW-39, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42, RW-46), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	864	1,198	4,900	313	1,100	1.94	6.20	0.41	1.80	<.55	<2	0.74	2.80	0.48	2.10	1.22	5.30	1.7	7.4
4/15/2020		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TFR-29, TFR-32, TFR-35, TFR-36, TFR-37), (TFR-17, TFR-18, RFR-19, TFR-22, TFR-25), (TFR-11, TFR-13, TFR-14, TFR-15), (TFR-5, TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1, RW-6, RW-15, RW-16, RW-17), (VEW-32, VEW-37, RW-2, RW-7, RW-11), (VEW-33, VEW-36, RW-8, RW-12, RW-18), (VEW-34, VEW-35, RW-13, RW-14), (RW-3, RW-4, RW-5, RW-9, RW-10); Southern Area - (RW-19, RW-20, RW-22, RW-29, RW-45), (RW-35, RW-38, RW-39, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42, RW-46), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	606	830	3,400	740	3,400	0.94	3.00	0.18	0.80	<.55	<2	0.42	1.60	0.25	1.10	0.55	2.40	0.8	3.5
5/15/2020		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-17, TFR-18, TFR-19, TFR-22), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-33), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	522	1,100	4,600	960	4,600	0.78	2.50	0.28	1.20	<.55	<2	0.48	1.80	0.37	1.60	0.88	3.80	1.25	5.4
6/22/2020		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-17, TFR-18, TFR-19), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-33), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015M & 8260M	708	1,900	7,700	1,700	7,700	1.50	4.90	0.20	0.86	<.55	<2	0.32	1.20	0.30	1.30	0.60	2.60	0.9	3.9
7/20/2020		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-17, TFR-18, TFR-19), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-33), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015 & 8260B	630	950	3,900	--	3,900	1.10	3.50	0.21	0.91	<0.55	<2.0	0.42	1.60	0.48	2.10	0.71	3.10	1.19	5.2
9/14/2020		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-17, TFR-18, TFR-19), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-33), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015 & 8260B	748	1,900	7,700	--	7,700	3.40	11.00	0.35	1.50	<0.55	<2.0	0.40	1.50	0.35	1.50	0.85	3.70	1.2	5.2
10/5/2020		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-33), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015 & 8260B	582	1,300	5,300	--	5,300	1.20	3.90	0.22	0.96	<0.55	<2.0	0.58	2.20	0.25	1.10	0.62	2.70	0.87	3.8

**TABLE 6**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Thermal Oxidizer VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	VES Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Ethylbenzene		MTBE		Toluene		o-Xylene		m,p-Xylenes		Total Xylenes	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
11/4/2020		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-40, RW-26, RW-28), (RW-29), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49).	8015 & 8260B	554	1,900	7,900	1,400	7,900	1.20	3.90	0.32	1.40	<0.55	<2.0	0.85	3.20	0.35	1.50	0.81	3.50	1.16	5.0
12/7/2020		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-40, RW-26, RW-28), (RW-29), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49).	8015 & 8260B	512	1,300	5,500	1,000	5,500	0.94	3.00	0.35	1.50	<0.55	<2.0	0.74	2.80	0.37	1.60	0.85	3.70	1.22	5.3
1/28/2021		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-40, RW-26, RW-28), (RW-29), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49).	8015 & 8260B	782	1,400	5,600	1,000	5,600	1.80	5.80	0.41	1.80	<0.55	<2.0	0.40	1.50	0.32	1.40	0.99	4.30	1.31	5.7
2/24/2021		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-40, RW-26, RW-28), (RW-29), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49).	8015 & 8260B	826	980	4,000	740	4,000	1.40	4.60	0.41	1.80	<0.55	<2.0	0.42	1.60	0.25	1.10	0.92	4.00	1.17	5.1
3/8/2021		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-21, RW-23), (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-24, RW-25, RW-27, RW-33, RW-43), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015 & 8260B	696	540	2,200	400	2,200	1.80	5.60	0.46	2.00	<0.55	<2.0	0.58	2.20	0.28	1.20	0.94	4.10	1.22	5.3
4/19/2021		Central Area - (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12), (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34); Eastern Area - (RW-1), (RW-7), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-21, RW-23), (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-24, RW-25, RW-27, RW-33, RW-43), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015 & 8260B	504	420	1,700	310	1,700	1.40	4.40	0.28	1.20	<0.55	<2.0	0.26	0.97	0.20	0.86	0.60	2.60	0.8	3.46
6/8/2021		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015 & 8260B	486	390	1,600	280	1,600	1.10	3.60	0.46	2.00	<0.55	<2.0	0.53	2.00	0.35	1.50	1.00	4.40	1.35	5.9
6/21/2021		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50).	8015 & 8260B	538	460	1,900	340	1,900	1.10	3.40	0.37	1.60	<0.55	<2.0	0.48	1.80	0.30	1.30	0.88	3.80	1.18	5.1

**TABLE 6**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Thermal Oxidizer VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	VES Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Ethylbenzene		MTBE		Toluene		o-Xylene		m,p-Xylenes		Total Xylenes	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
7/7/2021		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	490	460	1,900	340	1,900	0.94	3.00	0.44	1.90	<0.55	<2.0	0.53	2.00	0.37	1.60	1.10	4.70	1.47	6.3
8/9/2021		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	406	370	1,500	290	1,500	1.20	3.90	0.46	2.00	<0.28	<1.0	0.58	2.20	0.37	1.60	1.00	4.50	1.37	6.1
9/20/2021		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	412	320	1,300	240	1,300	0.44	1.40	0.32	1.40	<0.28	<1.0	0.37	1.40	0.30	1.30	0.83	3.60	1.13	4.9
10/18/2021		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	436	440	1,800	330	1,800	0.85	2.70	0.37	1.60	<0.28	<1.0	0.45	1.70	0.37	1.60	1.00	4.50	1.37	6.1
11/10/2021		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	446	610	2,500	450	2,500	1.10	3.40	0.28	1.20	<0.28	<1.0	0.32	1.20	0.23	1.00	0.69	3.00	0.92	4.0
12/6/2021		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	458	640	2,600	470	2,600	0.63	2.00	0.35	1.50	<0.28	<1.0	0.42	1.60	0.30	1.30	0.99	4.30	1.29	5.6
1/18/2022		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	498	610	2,500	460	2,500	1.10	3.60	0.37	1.60	<0.28	<1.0	0.45	1.70	0.25	1.10	0.92	4.00	1.17	5.1
2/9/2022		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	436	540	2,200	390	2,200	0.75	2.40	0.22	0.97	<0.28	<1.0	0.32	1.20	0.21	0.90	0.69	3.00	0.9	3.9
3/9/2022		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	402	540	2,200	400	2,200	0.81	2.60	0.25	1.10	<0.28	<1.0	0.42	1.60	0.30	1.30	0.83	3.60	1.13	4.9

**TABLE 6**  
**Historical Summary of Analytical Vapor Sampling Results - Influent Thermal Oxidizer VES**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	VES Wells On Line	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		VOCs as Hexane <sup>A</sup>		Benzene		Ethylbenzene		MTBE		Toluene		o-Xylene		m,p-Xylenes		Total Xylenes	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
4/20/2022		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	310	370	1,500	280	1,500	0.41	1.30	0.21	0.93	<0.28	<1.0	0.24	0.89	0.25	1.10	0.62	2.70	0.87	3.8
5/10/2022		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	356	390	1,600	290	1,600	0.53	1.70	0.25	1.10	<0.28	<1.0	0.32	1.20	0.28	1.20	0.81	3.50	1.09	4.7
6/16/2022		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	290	370	1,500	270	1,500	0.41	1.30	0.17	0.72	<0.28	<1.0	0.29	1.10	0.21	0.90	0.58	2.50	0.79	3.4
7/12/2022		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	356	540	2,200	390	2,200	0.56	1.80	0.30	1.30	<0.28	<1.0	0.37	1.40	0.35	1.50	1.10	4.60	1.45	6.1
8/8/2022		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	292	290	1,200	220	1,200	0.41	1.30	0.18	0.76	<0.28	<1.0	0.18	0.69	0.16	0.70	0.53	2.30	0.69	3.0
9/20/2022		Central Area - (TFR-21, TFR-26, TFR-27, TFR-28, TFR-34), (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12); Eastern Area - (RW-1), (RW-13), (RW-3, RW-4, RW-9, RW-10); Southern Area - (RW-30), (VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8015 & 8260B	130	370	1,500	270	1,500	0.56	1.80	0.18	0.80	<0.28	<1.0	0.20	0.74	0.20	0.87	0.55	2.40	0.75	3.27

**Legend / Notes:**

- VES = Vapor extraction system
- GRO = Gasoline range organics
- MTBE = Methyl tertiary-butyl ether
- OVA = Organic Vapor Analyzer (calibrated or correlated to Hexane)
- ppmv = Parts per million by volume
- µg/L = Micrograms per liter
- <1 = Not detected at or above the Method Reporting Limit (MRL) shown.
- = Not available or not analyzed
- Reported concentrations are shown in bold.**

A = Laboratory reporting Gasoline Range Organics (GRO) as Hexane prior to 11-05-20.

- 1 = Temporary thermal oxidizer VES started on 01/08/18.
- 2 = VES operations limited to daytime hours due to noise concerns from nearby residents.
- 3 = Noise abatement measures implemented in an effort to address concerns from nearby residents.
- 4 = Vapor extraction wells RW-3 through RW-6, RW-8, RW-11, RW-12, and RW-14 through RW-17 brought online 02/14/18 following the completion of installations and tie-in activities per SGI's June 30, 2017 *Remediation Well Installation Update Report*.
- 5 = No sample collected for analysis during February 2018 due to site condition and system operation status.
- 6 = Measured individual well concentrations and opened and/or closed select vapor extraction wells (see Table 9A through 9D for details).
- 7 = Vapor extraction wells RW-19, RW-20, RW-22, RW-24, RW-27 through RW-30, RW-32, RW-33, RW-35 through RW-38, and RW-40 through RW-50 brought online 6/27/18 following the completion of tie-in activities per SGI's June 30, 2017 report.
- 8 = Temporary thermal oxidizer VES shutdown on 01/08/2019.
- 9 = Permanent thermal oxidizer VES started on 03/13/2019.



**TABLE 7A**  
**Summary of LNAPL Removal in Well GMW-62 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing <sup>A</sup> (gallons)	LNAPL Removed with Socks <sup>A</sup> (pounds)	LNAPL Removed with Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A, B</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A, B</sup> (pounds)
<i>End of Second Quarter 2022:</i>							149.3	1,021.6
07/13/22	--	36.10	--	0.0	0.0	0.0	149.3	1,021.6
07/26/22	--	35.76	--	0.0	0.0	0.0	149.3	1,021.6
08/05/22	--	--	--	0.0	0.0	0.0	149.3	1,021.6
09/07/22	--	36.22	--	0.0	0.0	0.0	149.3	1,021.6
09/15/22	--	33.42	--	0.0	0.3	0.0	149.3	1,021.9
09/30/22	--	33.48	--	0.0	0.0	0.0	149.3	1,021.9
<b>Cumulative for the Reporting Period <sup>A</sup>:</b>				<b>0.0</b>	<b>0.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b>
<b>Cumulative Beginning January 2014 <sup>A, B</sup>:</b>				<b>112.0</b>	<b>255.5</b>	<b>37.3</b>	<b>149.3</b>	<b>1,021.9</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Difference between additive sum and displayed cumulative value is a result of rounding and/or significant figures.

B = Cumulative LNAPL removed since January 2014. LNAPL removed prior to January 2014 can be found in previously submitted Remediation Progress Reports.





**TABLE 7B**  
**Summary of LNAPL Removal in Well GMW-68 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing <sup>A</sup> (gallons)	LNAPL Removed with Socks <sup>A</sup> (pounds)	LNAPL Removed with Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A, B</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A, B</sup> (pounds)
<i>End of Second Quarter 2022:</i>							99.4	680.5
07/13/22	--	35.13	--	0.0	2.6	0.4	99.8	683.1
07/26/22	--	34.94	--	0.0	1.6	0.2	100.1	684.7
08/05/22	--	35.21	--	0.0	1.9	0.3	100.3	686.6
09/07/22	--	35.14	--	0.0	2.4	0.3	100.7	689.0
09/15/22	--	33.69	--	0.0	0.0	0.0	100.7	689.0
09/30/22	--	33.55	--	0.0	0.0	0.0	100.7	689.0
<b>Cumulative for the Reporting Period <sup>A</sup>:</b>				<b>0.0</b>	<b>8.5</b>	<b>1.2</b>	<b>1.2</b>	<b>8.5</b>
<b>Cumulative Beginning October 2016 <sup>A, B</sup>:</b>				<b>33.5</b>	<b>459.8</b>	<b>67.2</b>	<b>100.7</b>	<b>689.0</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Difference between additive sum and displayed cumulative value is a result of rounding and/or significant figures.

B = Cumulative LNAPL removed since October 2016 following installation of well during July 2015 (no measureable product from July 2015 through February 2017).



**TABLE 7C**  
**Summary of LNAPL Removal in Well GMW-7 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Product Removal Via Bailing, Skimming, or Absorbant Socks During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning December 2014 <sup>A</sup>:</b>				<b>8.0</b>	<b>135.6</b>	<b>19.8</b>	<b>27.8</b>	<b>190.4</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since December 2014. LNAPL removed prior to December 2014 can be found in previously submitted Remediation Progress Reports.



**TABLE 7D**  
**Summary of LNAPL Removal in Well TF-19 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Product Removal Via Bailing, Skimming, or Absorbant Socks During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning June 2015 <sup>A</sup>:</b>				<b>6.75</b>	<b>199.1</b>	<b>29.08</b>	<b>35.8</b>	<b>245.2</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since June 2015 (no measureable product from January 2014 to May 2015). LNAPL removed prior to January 2014 can be found in previously submitted Remediation Progress Reports.

**TABLE 7E**  
**Summary of LNAPL Removal in Well TFR-9 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning October 2018 <sup>A,B</sup>:</b>				<b>150.0</b>	<b>0.0</b>	<b>0.0</b>	<b>150.0</b>	<b>1,026.5</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TFR-9 initiated on October 8, 2018 but pump was manually shutdown on January 16, 2019 to allow for LNAPL recovery and resumed operating from February 7-27, 2019; Pump remained off-line through June 2019 based on regular gauging data showing little to no measureable product in the well).



**TABLE 7F**  
**Summary of LNAPL Removal in Well GMW-18 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period <sup>B</sup>:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning March 2017 <sup>A</sup>:</b>				<b>101.1</b>	<b>75.8</b>	<b>11.1</b>	<b>112.2</b>	<b>767.6</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since March 2017. LNAPL removed prior to March 2017 can be found in previously submitted Remediation Progress Reports.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well GMW-18 initiated on October 8, 2018; pump manually shutdown on January 16, 2019 due to insufficient yield and remained off-line through June 2019).

**TABLE 7G**  
**Summary of LNAPL Removal in Well TFR-12 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning April 2018 <sup>A,B</sup>:</b>				<b>284.3</b>	<b>0.0</b>	<b>0.0</b>	<b>284.3</b>	<b>1,945.7</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since April 2018 following installation of well during December 2017.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well TFR-12 initiated on April 23, 2018, and temporarily discontinued from September 5, 2018 to October 8, 2018 pending hookup to a new controller; Pump manually shutdown on March 11, 2019 due to insufficient yield and remained off-line through June 2019).

**TABLE 7H**  
**Summary of LNAPL Removal in Well TFR-14 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning April 2018 <sup>A,B</sup>:</b>				<b>2.1</b>	<b>0.0</b>	<b>0.0</b>	<b>2.1</b>	<b>14.2</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since April 2018 following installation of well during December 2017.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well TFR-12 initiated on April 23, 2018, and temporarily discontinued from September 5, 2018 to October 8, 2018 pending hookup to a new controller; Pump manually shutdown on March 11, 2019 due to insufficient yield and remained off-line through June 2019).



**TABLE 71**  
**Summary of LNAPL Removal in Well TF-15 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period <sup>B</sup>:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning October 2016 <sup>A</sup>:</b>				<b>187.1</b>	<b>52.5</b>	<b>7.7</b>	<b>194.8</b>	<b>1,332.9</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since October 2016. No LNAPL removed previously during 2016 or throughout 2015 due to excavation project (January 2015 - March 2017) inadvertently resulting in burial of well head which was located during October 2016. LNAPL removed prior to well head being buried can be found in previously submitted Remediation Progress Reports.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TF-15 initiated on October 8, 2018 but pump was manually shutdown on November 15, 2018 to allow for LNAPL recovery, and also operated from November 28, 2018 to March 11, 2019 and April 17, 2019 to May 2, 2019; Pump has otherwise remained off-line due to insufficient yield).





**TABLE 7J**  
**Summary of LNAPL Removal in Well TFR-15 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning October 2018 <sup>A,B</sup>:</b>				<b>23.0</b>	<b>0.0</b>	<b>0.0</b>	<b>23.0</b>	<b>157.4</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TFR-15 initiated on October 18, 2018 but pump was manually shutdown on November 15, 2018 to allow for LNAPL recovery with operations resuming from November 28, 2018 to December 7, 2018, and again from December 19, 2018 to February 27, 2019; Pump remained off-line through June 2019 due to insufficient yield).



**TABLE 7K**  
**Summary of LNAPL Removal in Well TF-16 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								

<b>Cumulative for the Reporting Period:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning March 2017 - June 2019 <sup>B</sup>:</b>	<b>323.0</b>	<b>0.0</b>	<b>0.0</b>	<b>323.0</b>	<b>2,210.4</b>
<b>Cumulative Beginning October 2016 <sup>A</sup>:</b>	<b>333.3</b>	<b>35.8</b>	<b>5.2</b>	<b>338.5</b>	<b>2,316.3</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since October 2016. No LNAPL removed previously during 2016 or throughout 2015 due to excavation project (January 2015 - March 2017) inadvertently resulting in burial of well head which was located during October 2016. LNAPL removed prior to well head being buried can be found in previously submitted Remediation Progress Reports.

B = Well hooked up to product recovery system on March 3, 2017 (i.e., all LNAPL removed subsequent to this date achieved via pumping) with skimmer manually shutdown on March 28, 2018 to allow for LNAPL recovery; Operations resumed on an intermittent basis starting on July 19, 2018, and regularly from September 19, 2018 to October 3, 2018, and again from December 14, 2018 to March 11, 2019 and May 2-6, 2019. Pump has otherwise remained off-line due to insufficient yield.

**TABLE 7L**  
**Summary of LNAPL Removal in Well GW-14R - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning October 2018 <sup>A,B</sup>:</b>				<b>360.0</b>	<b>0.0</b>	<b>0.0</b>	<b>360.0</b>	<b>2,463.6</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well GW-14R initiated on October 8, 2018 but pump was manually shutdown on April 17, 2019 to allow for LNAPL recovery, and only otherwise operated briefly during the reporting period from May 2-6, 2019 to evaluate the well yield).



**TABLE 7M**  
**Summary of LNAPL Removal in Well TFR-18 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning October 2018 <sup>A,B</sup>:</b>				<b>18.1</b>	<b>0.0</b>	<b>0.0</b>	<b>18.1</b>	<b>124.2</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well GW-14R initiated on October 8, 2018 but pump was manually shutdown on April 17, 2019 to allow for LNAPL recovery, and only otherwise operated briefly during the reporting period from May 2-6, 2019 to evaluate the well yield).



**TABLE 7N**  
**Summary of LNAPL Removal in Well TFR-22 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
<i>End of Second Quarter 2022:</i>							356.3	2,438.0
07/08/22	34.03	34.23	0.20	1.1	--	--	357.3	2,445.4
07/13/22	33.58	33.71	0.13	0.0	--	--	357.3	2,445.4
07/26/22	34.59	34.84	0.25	0.0	--	--	357.3	2,445.4
08/05/22	34.16	34.34	0.18	1.1	--	--	358.4	2,452.8
08/17/22	34.33	34.51	0.18	1.1	--	--	359.5	2,460.3
09/07/22	33.03	33.27	0.24	1.1	--	--	360.6	2,467.7
09/14/22	32.26	32.48	0.22	1.1	--	--	361.7	2,475.1
09/30/22	34.35	34.80	0.45	1.1	--	--	362.8	2,482.5
<b>Cumulative for the Reporting Period:</b>				<b>6.5</b>	<b>0.0</b>	<b>0.0</b>	<b>6.5</b>	<b>44.5</b>
<b>Cumulative Beginning October 2018 <sup>A,B</sup>:</b>				<b>362.8</b>	<b>0.0</b>	<b>0.0</b>	<b>362.8</b>	<b>2,482.5</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TFR-22 initiated on October 8, 2018 but pump was manually shutdown on November 28, 2018 to allow for LNAPL recovery; Pumping resumed on from December 14, 2018 to April 17, 2019, and May 30, 2019 through June 30, 2019).



**TABLE 70**  
**Summary of LNAPL Removal in Well TFR-24 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
<i>End of Second Quarter 2022:</i>							111.3	761.5
07/13/22	--	34.21	0.00	0.0	3.1	0.5	111.7	764.6
07/26/22	--	34.41	0.00	0.0	0.0	0.0	111.7	764.6
08/05/22	--	--	--	0.0	0.0	0.0	111.7	764.6
09/07/22	--	34.47	0.00	0.0	4.1	0.6	112.3	768.8
09/15/22	--	34.36	0.00	0.0	0.5	0.1	112.4	769.3
09/30/22	--	34.46	0.00	0.0	4.9	0.7	113.1	774.1
<b>Cumulative for the Reporting Period:</b>				<b>0.0</b>	<b>12.6</b>	<b>1.8</b>	<b>1.8</b>	<b>12.6</b>
<b>Cumulative Beginning October 2018 <sup>A,B</sup>:</b>				<b>110.1</b>	<b>20.9</b>	<b>3.1</b>	<b>113.1</b>	<b>774.1</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TFR-24 initiated on October 8, 2018 but pump was manually shutdown on November 28, 2018 to allow for LNAPL recovery, and also operated from December 7-27, 2018, January 4-7, 2019, January 11, 2019 to February 7, 2019, and February 19, 2019 to March 11, 2019; Pump remained off-line through June 2019 due to insufficient yield; pump manually shutdown on February 14, 2020 due to insufficient yield).



**TABLE 7P**  
**Summary of LNAPL Removal in Well TFR-29 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing <sup>A</sup> (gallons)	LNAPL Removed with Socks <sup>A</sup> (pounds)	LNAPL Removed with Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A,B</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A,B</sup> (pounds)
<i>End of Second Quarter 2022:</i>							977.9	6,692.2
07/08/22	33.20	36.05	2.85	2.2	--	--	980.1	6,707.0
07/13/22	30.92	33.34	2.42	2.2	--	--	982.3	6,721.8
07/26/22	34.52	34.91	0.39	1.1	--	--	983.3	6,729.2
08/05/22	34.04	34.24	0.20	1.1	--	--	984.4	6,736.6
08/17/22	--	35.03	0.00	0.0	--	--	984.4	6,736.6
09/07/22	--	32.08	0.00	0.0	--	--	984.4	6,736.6
09/14/22	--	34.17	0.00	0.0	--	--	984.4	6,736.6
09/30/22	--	35.88	0.00	0.0	--	--	984.4	6,736.6
<b>Cumulative for the Reporting Period<sup>A</sup>:</b>				<b>6.5</b>	<b>0.0</b>	<b>0.0</b>	<b>6.5</b>	<b>44.5</b>
<b>Cumulative Beginning April 2018<sup>A,B,C,D</sup>:</b>				<b>981.9</b>	<b>17.3</b>	<b>2.5</b>	<b>984.4</b>	<b>6,736.6</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Difference between additive sum and displayed cumulative value is a result of rounding and/or significant figures.

B = Cumulative LNAPL removed since April 2018 following installation of well during November 2017.

C = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016

(skimming from well TFR-29 initiated on April 23, 2018, and temporarily discontinued from September 5, 2018 to October 8, 2018 pending hookup to a new controller).

D = Skimmer shutdown on February 21, 2020 due to insufficient yield.



**TABLE 7Q**  
**Summary of LNAPL Removal in Well TFR-33 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								
<b>Cumulative for the Reporting Period:</b>				<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning October 2018 <sup>A,B</sup>:</b>				<b>123.0</b>	<b>0.0</b>	<b>0.0</b>	<b>123.0</b>	<b>841.7</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since October 2018 following hookup of well to a newly installed controller.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of expanded product recovery system operations that began on October 8, 2018 (skimming from well TFR-33 initiated on October 8, 2018 but pump was manually shutdown on December 7, 2018 to allow for LNAPL recovery, and also operated from December 19, 2018 through February 27, 2019; Pump remained off-line through June 2019 due to insufficient yield).





**TABLE 7R**  
**Summary of LNAPL Removal in Well RTF-18-E - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
<i>End of Second Quarter 2022:</i>							682.0	4,667.0
07/13/22	--	34.22	0.00	0.0	3.1	0.5	682.4	4,670.1
07/26/22	--	34.56	0.00	0.0	1.6	0.2	682.7	4,671.7
08/05/22	--	33.83	0.00	0.0	0.0	0.0	682.7	4,671.7
09/07/22	--	34.41	0.00	0.0	2.1	0.3	683.0	4,673.9
09/15/22	--	34.35	0.00	0.0	0.5	0.1	683.1	4,674.4
09/30/22	--	34.03	0.00	0.0	0.0	0.0	683.1	4,674.4

<b>Cumulative for the Reporting Period:</b>	<b>0.0</b>	<b>7.4</b>	<b>1.1</b>	<b>1.1</b>	<b>7.4</b>
<b>Cumulative Beginning May 2016 - July 2016 <sup>A</sup>:</b>	<b>47.5</b>	<b>0.0</b>	<b>0.0</b>	<b>47.5</b>	<b>325.1</b>
<b>Cumulative Beginning August 2016 - September 2019 <sup>B</sup>:</b>	<b>593.4</b>	<b>0.0</b>	<b>0.0</b>	<b>593.4</b>	<b>4,061.5</b>
<b>Cumulative Beginning May 2016 <sup>A</sup>:</b>	<b>679.1</b>	<b>27.3</b>	<b>4.0</b>	<b>683.1</b>	<b>4,674.4</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since May 2016 following installation of well during December 2015.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well RTF-18-E initiated on August 11, 2016).

\* = Well RTF-18-E was off-line from February 15, 2017 to October 4, 2017 to allow for LNAPL recovery which continued to be adequate for effective removal via skimming until March 15, 2018 when the pump was again shutdown and remained off-line until December 27, 2018 (pumping resumed until February 27, 2019 with no subsequent operations through June 2019 based on regular gauging data showing little to no measureable product in the well); pump shutdown on February 14, 2020 due to insufficient yield.



**TABLE 7S**  
**Summary of LNAPL Removal in Well RTF-18-NW - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								

<b>Cumulative for the Reporting Period:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning May 2016 - July 2016 <sup>A</sup>:</b>	<b>76.5</b>	<b>0.0</b>	<b>0.0</b>	<b>76.5</b>	<b>523.5</b>
<b>Cumulative Beginning August 2016 - June 2019 <sup>B</sup>:</b>	<b>2,961.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2,961.0</b>	<b>20,262.6</b>
<b>Cumulative Beginning May 2016 <sup>A</sup>:</b>	<b>3,039.6</b>	<b>0.0</b>	<b>0.0</b>	<b>3,039.6</b>	<b>20,800.5</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since May 2016 following installation of well during December 2015.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well RTF-18-NW initiated on August 11, 2016).

\* = Well RTF-18-NW was off-line from February 15, 2017 to August 10, 2017 to allow for LNAPL recovery which continued to be adequate for effective removal via skimming until March 11, 2019 with no subsequent operations through June 2019 based on regular gauging data showing little to no measureable product in the well.

**TABLE 7T**  
**Summary of LNAPL Removal in Well RTF-18-N - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								

<b>Cumulative for the Reporting Period:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning April 2016 - July 2016 <sup>A</sup>:</b>	<b>47.5</b>	<b>0.0</b>	<b>0.0</b>	<b>47.5</b>	<b>325.1</b>	<b>0.0</b>
<b>Cumulative Beginning August 2016 - June 2019 <sup>B</sup>:</b>	<b>497.5</b>	<b>0.0</b>	<b>0.0</b>	<b>497.5</b>	<b>3,404.5</b>	<b>0.0</b>
<b>Cumulative Beginning April 2016 <sup>A</sup>:</b>	<b>545.0</b>	<b>0.0</b>	<b>0.0</b>	<b>545.0</b>	<b>3,729.6</b>	<b>0.0</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since April 2016 following installation of well during December 2015.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well RTF-18-N initiated on August 11, 2016).

\* = Well RTF-18-N was off-line from September 14, 2016 to October 10, 2017, and November 7, 2017 to January 7, 2018, to allow for LNAPL recovery (pumping resumed until February 27, 2019 with no subsequent operations through June 2019 based on regular gauging data showing little to no measureable product in the well).

**TABLE 7U**  
**Summary of LNAPL Removal in Well TF-18 - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								

<b>Cumulative for the Reporting Period:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning January 2014 - July 2016<sup>A</sup>:</b>	<b>266.1</b>	<b>307.3</b>	<b>44.9</b>	<b>311.0</b>	<b>2,128.1</b>	
<b>Cumulative Beginning August 2016 - June 2019<sup>B</sup>:</b>	<b>2,003.0</b>	<b>0.0</b>	<b>0.0</b>	<b>2,003.0</b>	<b>13,707.0</b>	
<b>Cumulative Beginning January 2014<sup>A</sup>:</b>	<b>2,271.2</b>	<b>307.3</b>	<b>44.9</b>	<b>2,316.1</b>	<b>15,849.3</b>	

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed prior to January 2014 can be found in previously submitted Remediation Progress Reports.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming initially isolated to well TF-18 for testing purposes with other wells coming online August 11, 2016).

\* = Product recovery system off-line from January 9-27, 2017 due to full storage tank, and well TF-18 resumed operating after tank was emptied until February 8, 2017 when skimmer was manually shutdown to allow for LNAPL recovery (pumping resumed from August 10, 2017 to January 25, 2019 with no subsequent operations through June 2019 based on regular gauging data showing little to no measureable product in the well).

**TABLE 7V**  
**Summary of LNAPL Removal in Well RTF-18-NNW - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								

<b>Cumulative for the Reporting Period:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning April 2016 - July 2016 <sup>A</sup>:</b>	<b>54.5</b>	<b>0.0</b>	<b>0.0</b>	<b>54.5</b>	<b>373.0</b>	
<b>Cumulative Beginning August 2016 - June 2019 <sup>B</sup>:</b>	<b>62.5</b>	<b>0.0</b>	<b>0.0</b>	<b>62.5</b>	<b>427.7</b>	
<b>Cumulative Beginning April 2016 <sup>A</sup>:</b>	<b>117.0</b>	<b>0.0</b>	<b>0.0</b>	<b>117.0</b>	<b>800.7</b>	

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since April 2016 following installation of well during December 2015.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well RTF-18-NNW initiated on September 14, 2016 (off-line since January 9, 2017).

\* = Product recovery system off-line from January 9-27, 2017 due to full storage tank, and well RTF-18-NNW has since remained off-line to allow for LNAPL recovery which decreased from January 2017 to March 2017 with no measurable product from early March 2017 through mid-September 2017, and less than 0.3 foot at the end of 2017 (note that product thicknesses temporarily exhibited a further increasing overall trend during 2018 that has since reversed with little to no measurable product since late February 2019).

**TABLE 7W**  
**Summary of LNAPL Removal in Well RTF-18-W - Third Quarter 2022**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Depth to LNAPL (feet btc)	Depth to Water (feet btc)	Measured LNAPL Thickness (feet)	LNAPL Removed Via Vacuum Truck, Pumping and/or Bailing (gallons)	LNAPL Removed with Socks (pounds)	LNAPL Removed with Socks (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (gallons)	Cumulative LNAPL Removed Via Vacuum Truck, Pumping, Bailing and Socks <sup>A</sup> (pounds)
No Pumping/Skimming from Product Recovery System Well During 3rd Quarter 2022								

<b>Cumulative for the Reporting Period:</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Beginning April 2016 - July 2016 <sup>A</sup>:</b>	<b>38.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>38.8</b>	<b>265.2</b>
<b>Cumulative Beginning August 2016 - June 2019 <sup>B</sup>:</b>	<b>371.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>371.0</b>	<b>2,538.8</b>
<b>Cumulative Beginning April 2016 <sup>A</sup>:</b>	<b>409.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>409.8</b>	<b>2,804.0</b>

**Legend / Notes:**

LNAPL = Light non-aqueous phase liquids      feet btc = Feet below top of casing      Sock = LNAPL absorbent sock      -- = Not applicable

A = Cumulative LNAPL removed since April 2016 following installation of well during December 2015.

B = Cumulative LNAPL removed from a pneumatically controlled skimmer installed as part of a product recovery system that started operating on August 8, 2016 (skimming from well RTF-18-W initiated on September 14, 2016).

\* = Well RTF-18-W was off-line from December 9, 2016 to October 10, 2017 to allow for LNAPL recovery which continued to be adequate for effective removal via skimming until April 4, 2019 when the pump was again shutdown and remained off-line through June 2019 based on regular gauging data showing little to no measureable product in the well.

**TABLE 8**  
**Historical Summary of Analytical Groundwater Sampling Results - Influent GWETS**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	GWETS Wells On Line	Laboratory Analysis Methods	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
04/22/08		--	--	--	--	71	25	17	42	30	14	4.6	<2.0	<2.0	<2.0
05/01/08		--	--	810	--	--	--	--	--	--	--	--	--	--	--
05/16/08		--	--	760	--	--	--	--	--	--	--	--	--	--	--
06/12/08		--	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	25	7.7	<2.0	<2.0	<2.0
07/19/08		--	--	170	<100	27	0.77	7.0	13	7.9	<10	3.9	<2.0	<2.0	<2.0
09/03/08		--	--	--	--	--	--	--	--	--	<10	--	--	--	--
09/08/08		--	--	--	--	27	0.99	8.3	13	8.2	<10	3.1	<2.0	<2.0	<2.0
09/15/08		--	--	--	--	36	0.81	8.5	12	6.8	<10	3.8	<2.0	<2.0	<2.0
11/13/08		--	--	--	--	27	<0.50	2.0	12	5.6	<10	<0.50	<2.0	<2.0	<2.0
11/26/08		--	--	--	--	<0.50	<0.50	<0.50	1.3	0.61	16	5.6	<2.0	<2.0	<2.0
12/13/08		--	--	--	--	<0.50	<0.50	0.56	1.1	0.54	19	7.0	<2.0	<2.0	<2.0
01/09/09		--	--	--	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<2.0	<2.0	<2.0
03/05/09		--	--	<100	--	21	<0.50	2.5	7.2	3.1	12	3.1	<2.0	<2.0	<2.0
03/18/09		--	--	200	170	21	<0.50	2.9	7.0	4.5	13	3.3	<2.0	<2.0	<2.0
05/15/09		--	--	<100	--	--	--	--	--	--	--	--	--	--	--
06/04/09		--	--	190	--	26	<0.50	3.3	10	6.6	<10	4.8	<2.0	<2.0	<2.0
06/24/09		--	--	--	--	28	<0.50	2.5	7.6	4.2	12	4.4	<2.0	<2.0	<2.0
05/28/09		--	--	170	--	27	<0.50	2.6	7.9	4.5	<10	3.6	<2.0	<2.0	<2.0
11/19/09		--	--	<100	--	15	<0.50	1.3	5.8	2.9	5.6	2.3	1.2	<2.0	<2.0
10/26/10		--	--	--	--	20	<0.50	1.6	7.4	2.1	8.0	2.9	1.1	<2.0	<2.0
06/01/11		--	--	90	--	--	--	--	--	--	--	--	--	--	--
07/14/11		--	--	--	--	13	<0.50	2.3	6.2	3.0	6.7	1.6	<2.0	<2.0	<2.0
09/13/11		--	--	--	--	5.0	<0.50	0.37	3.4	0.99	<10	1.3	<2.0	<2.0	<2.0
09/22/11		--	--	--	--	5.5	<0.50	0.92	7.2	1.6	5.6	1.1	<2.0	<2.0	<2.0
10/19/11		--	--	--	--	8.2	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<2.0	<2.0	<2.0
01/20/12		--	--	--	--	14	<0.50	2.8	7.8	1.2	16	1.3	0.42	<2.0	<2.0
02/03/12		--	--	120	340	--	--	--	--	--	--	--	--	--	--
02/17/12		--	--	--	--	10	<0.50	1.5	7.4	1.2	15	1.2	0.39	<2.0	<2.0

**TABLE 8**  
**Historical Summary of Analytical Groundwater Sampling Results - Influent GWETS**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	GWETS Wells On Line	Laboratory Analysis Methods	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
02/24/12		--	--	180	--	26	<0.50	1.0	7.0	1.2	<10	1.2	0.41	<2.0	<2.0
03/02/12		--	--	--	--	23	<0.50	1.4	11	2.4	8.7	1.4	0.47	<2.0	<2.0
03/06/12		--	--	--	--	28	<0.50	1.0	9.0	1.7	13	1.1	0.37	<2.0	<2.0
06/15/12		--	--	--	--	39	13	17	88	26	<10	1.3	0.52	<2.0	<2.0
08/31/12		--	--	820	940	--	--	--	--	--	--	--	--	--	--
09/27/12		--	--	5,300	3,800	--	--	--	--	--	--	--	--	--	--
10/23/12		--	--	--	--	67	60	110	460	140	<10	<0.50	<2.0	<2.0	<2.0
01/31/13		--	--	3,600	--	--	--	--	--	--	--	--	--	--	--
05/01/13		--	--	6,300	5,500	20	4.7	8.0	41	14	4.8	0.56	<2.0	<2.0	<2.0
07/12/13		--	--	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<2.0	<2.0	<2.0
08/20/13		--	--	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<2.0	<2.0	<2.0
12/19/13		--	--	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.50	<2.0	<2.0	<2.0
02/07/14		--	--	1,500	2,300	--	--	--	--	--	--	--	--	--	--
03/21/14		--	--	--	--	61	5.1	23	150	45	<10	0.87	<2.0	<2.0	<2.0
05/29/14	1	--	8015M & 8260B	--	--	29	1.0	30	180	45	<10	1.0	<2.0	<2.0	<2.0
07/09/14	2	GW-15, GW-16	8015M & 8260B	720	1,800	82	3.8	27	110	31	<7.0	<0.40	<0.50	<0.40	<0.30
08/13/14		GW-15, GW-16	8015M & 8260B	150	1,500	57	3.7	30	130	36	<7.0	0.77	<0.50	<0.40	<0.30
09/17/14		GW-15, GW-16	8015M & 8260B	800	3,500	23	0.73	20	170	40	<7.0	0.83	<0.50	<0.40	<0.30
10/20/14		GW-15, GW-16	8015M & 8260B	560	3,600	31	2.2	40	240	54	<7.0	0.6	<0.50	<0.40	<0.30
11/17/14	3,4,1	GW-15, GW-16	8015M & 8260B	260	1,400	21	0.71	10	62	18	<7.0	<0.40	<0.50	<0.40	<0.30
12/17/14	4,1	GW-15, GW-16	8015M & 8260B	190	880	23	0.66	8.8	48	14	<7.0	<0.40	<0.50	<0.40	<0.30
01/14/15	4,1	GW-15, GW-16	8015M & 8260B	4,600	3,800	150	2.8	29	130	37	<7.0	<0.40	<0.50	<0.40	<0.30
02/20/15	4,1	GW-15, GW-16	8015M & 8260B	2,500	8,100	230	9.8	220	880	220	<7.0	0.45	<0.50	<0.40	<0.30
03/27/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	620	980	9.9	<0.30	2.7	18	5.9	<7.0	1.0	<0.50	<0.40	<0.30
05/11/15	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	330	16	5.2	5.9	37	14	<7.0	0.58 J	<0.50	<0.40	<0.30
06/03/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	150	340	20	6.6	12	22	25	<7.0	0.52 J	<0.50	<0.40	<0.30
07/09/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	180	610	<0.20	<0.30	<0.20	<0.40	<0.30	<7.0	0.62 J	<0.50	<0.40	<0.30



**TABLE 8**  
**Historical Summary of Analytical Groundwater Sampling Results - Influent GWETS**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	GWETS Wells On Line	Laboratory Analysis Methods	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
08/17/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	430	<40	<0.20	<0.30	<0.20	0.95 J	<0.30	<7.0	0.71 J	<0.50	<0.40	<0.30
09/03/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	86 J	570	5.9	0.37 J	3.7	10	14	<7.0	0.45 J	<0.50	<0.40	<0.30
10/05/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	500	7.3	<0.30	8.7	35	15	<7.0	0.73 J	<0.50	<0.40	<0.30
11/02/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	420	3,400	5.1	<0.30	17	130	22	<7.0	0.85 J	<0.50	<0.40	<0.30
12/07/15		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	710	3,800	0.70	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
01/12/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	2,000	510	14	<0.30	3.6	25	7.0	<7.0	<0.40	<0.50	<0.40	<0.30
02/01/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	72 J	180	13	<0.30	0.53	2.7	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
03/14/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	270	1,100	0.91	<0.30	<0.20	1.6	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
04/04/16	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	76 J	100	0.99	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
05/04/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	170	470	<0.20	<0.30	<0.20	1.3	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
06/01/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	280	75 J	4.9	<0.30	<0.20	<0.40	<0.30	<7.0	0.43 J	<0.50	<0.40	<0.30
07/11/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	330	<40	4.7	<0.30	<0.20	<0.40	<0.30	<7.0	0.79 J	<0.50	<0.40	<0.30
08/01/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	3.7	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
09/01/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	2.7	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
10/12/16	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	230	<40	4.5	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
11/01/16	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	120	52 J	3.1	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
12/05/16		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	450	51 J	<0.20	<0.30	<0.20	<0.40	<0.30	<7.0	0.60 J	<0.50	<0.40	<0.30
01/09/17		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	150	<40	4.4	<0.30	<0.20	<0.40	<0.30	<7.0	0.58 J	<0.50	<0.40	<0.30
02/06/17	6	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	110	<40	3.5	<0.30	0.41 J	0.60 J	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
03/15/17	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	68 J	<40	4.3	<0.30	<0.20	<0.40	<0.30	<7.0	0.60 J	<0.50	<0.40	<0.30
04/05/17	5	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	74 J	<40	8.4	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
05/03/17		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	72 J	<40	4.3	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
06/05/17		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	62 J	<40	5.0	<0.30	<0.20	0.50 J	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
07/19/17	5	GW-2, GW-15, GW-16	8015M & 8260B	75 J	<40	3.4	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
08/02/17		GW-2, GW-15, GW-16	8015M & 8260B	80 J	<40	4.0	<0.30	<0.20	<0.40	<0.30	<7.0	0.88 J	<0.50	<0.40	<0.30
09/13/17		GW-2, GW-15, GW-16	8015M & 8260B	84 J	<40	<0.20	<0.30	<0.20	<0.40	<0.30	<7.0	0.69 J	<0.50	<0.40	<0.30
10/16/17		GW-2, GW-15, GW-16	8015M & 8260B	64 J	<40	3.7	<0.30	<0.20	<0.40	<0.30	<7.0	0.54 J	<0.50	<0.40	<0.30

**TABLE 8**  
**Historical Summary of Analytical Groundwater Sampling Results - Influent GWETS**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	GWETS Wells On Line	Laboratory Analysis Methods	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
11/13/17		GW-2, GW-15, GW-16	8015M & 8260B	<b>78 J</b>	<40	<b>4.5</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<b>0.54 J</b>	<0.50	<0.40	<0.30
12/11/17	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	<b>2.8</b>	<0.30	<0.20	<0.40	<0.30	<b>8.8 J</b>	<0.40	<0.50	<0.40	<0.30
01/11/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<b>73 J</b>	<40	<b>2.0</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
02/26/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<b>130</b>	<40	<b>5.3</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<b>0.49 J</b>	<0.50	<0.40	<0.30
03/20/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	<b>4.4</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<b>0.47 J</b>	<0.50	<0.40	<0.30
04/02/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<b>65 J</b>	<40	<b>2.9</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<b>0.50 J</b>	<0.50	<0.40	<0.30
05/02/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<b>130</b>	<40	<b>2.5</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<b>0.74 J</b>	<0.50	<0.40	<0.30
06/04/18		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	<b>0.74</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
07/02/18	7,8	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	<b>1.1</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<b>0.41 J</b>	<0.50	<0.40	<0.30
08/06/18		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	<b>3.1</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
09/13/18		GW-2, GW-15, GW-16	8015M & 8260B	<60	<40	<b>0.38 J</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
10/29/18		GW-15, GW-16	8015M & 8260B	<60	<40	<b>2.4</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
11/14/18		GW-15, GW-16	8015M & 8260B	<60	<40	<b>2.0</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<0.40	<0.50	<0.40	<0.30
12/17/18	7	GW-2, GW-13, GW-15, GW-16	8015M & 624	<b>170</b>	<100	<0.5	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0
01/08/19		GW-2, GW-13, GW-15, GW-16	8015M & 8260B	--	<40	<b>1.4</b>	<0.30	<0.20	<0.40	<0.30	<7.0	<b>0.92 J</b>	<0.50	<0.40	<0.30
02/06/19	9	GW-2, GW-13, GW-15, GW-16	8015M & 8260B	<60	<40	<b>1.4</b>	<0.30	<0.20	<b>0.52 J</b>	<0.30	<7.0	<b>0.49 J</b>	<0.50	<0.40	<0.30
01/30/20	10,11	GW-13, GW-15, GW-16	8015B	<b>790</b>	--	--	--	--	--	--	--	--	--	--	--
03/11/20	10,11	GW-15, GW-16	8015B & EPA 624	<b>370</b>	--	<5.0	<5.0	<5.0	<1.0	<0.5	<10	<0.5	<0.5	<0.5	<0.5
04/22/20		GW-16	8015B	<94	<50	--	--	--	--	--	--	--	--	--	--
05/27/20		GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>610</b>	<b>490</b>	<b>46</b>	<5.0	<5.0	<10	<5.0	<10	<5.0	<5.0	<1.0	<1.0
06/24/20		GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>850</b>	<b>640</b>	<b>79</b>	<5.0	<5.0	<10	<5.0	<b>12</b>	<b>6.4</b>	<5.0	<1.0	<1.0
07/24/20	12	GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>1,000</b>	<b>150</b>	<b>6.2</b>	<5.0	<5.0	<10	<5.0	<b>18</b>	<5.0	<5.0	<1.0	<1.0
11/24/20	12	GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>430</b>	<b>190</b>	<b>5.3</b>	<5.0	<5.0	<10	<5.0	<b>12</b>	<5.0	<5.0	<1.0	<1.0
01/28/21	13	GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>860</b>	<b>410</b>	<b>34</b>	<5.0	<5.0	<10	<5.0	<b>25</b>	<5.0	<5.0	<1.0	<1.0
02/10/21		GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>1,500</b>	<b>740</b>	<b>48</b>	<5.0	<5.0	<10	<5.0	<b>30</b>	<b>5.2</b>	<5.0	<1.0	<1.0
05/05/21		GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>470</b>	<b>190</b>	<b>8.6</b>	<5.0	<5.0	<10	<5.0	<b>14</b>	<5.0	<5.0	<1.0	<1.0
06/11/21		GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>540</b>	<b>260</b>	<b>7.0</b>	<5.0	<5.0	<10	<5.0	<b>17</b>	<5.0	<5.0	<1.0	<1.0

**TABLE 8**  
**Historical Summary of Analytical Groundwater Sampling Results - Influent GWETS**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Sample Date	Notes	GWETS Wells On Line	Laboratory Analysis Methods	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	TBA	MTBE	DIPE	ETBE	TAME
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
07/09/21		GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>480</b>	<b>250</b>	<b>6.2</b>	<5.0	<5.0	<10	<5.0	<b>21</b>	<5.0	<5.0	<1.0	<1.0
08/18/21		GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>500</b>	<b>110</b>	<5.0	<5.0	<5.0	<10	<5.0	<b>26</b>	<5.0	<5.0	<1.0	<1.0
09/27/21		GMW-31, GW-14R	8015B & EPA 624	<b>800</b>	<b>220</b>	<5.0	<5.0	<5.0	<10	<5.0	<b>33</b>	<5.0	<5.0	<1.0	<1.0
10/20/21		GMW-31, GW-14R	8015B & EPA 624	<b>760</b>	<b>140</b>	<5.0	<5.0	<5.0	<10	<5.0	<b>36</b>	<5.0	<5.0	<1.0	<1.0
11/10/21		GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>550</b>	<50	<5.0	<5.0	<5.0	<10	<5.0	<10	<5.0	<5.0	<1.0	<1.0
12/07/21		GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>620</b>	<b>120</b>	<5.0	<5.0	<5.0	<10	<5.0	<b>39</b>	<5.0	<5.0	<1.0	<1.0
01/19/22		GW-16, GW-14R	8015B & EPA 624	<b>830</b>	<b>210</b>	<5.0	<5.0	<5.0	<10	<5.0	<b>36</b>	<5.0	<5.0	<1.0	<1.0
02/16/22		GW-16, GW-14R	8015B & EPA 624	<b>420</b>	<b>55</b>	<5.0	<5.0	<5.0	<10	<5.0	<b>46</b>	<5.0	<5.0	<1.0	<1.0
03/09/22		GW-16, GW-14R	8015B & EPA 624	<b>460</b>	<b>67</b>	<5.0	<5.0	<5.0	<10	<5.0	<b>42</b>	<5.0	<5.0	<1.0	<1.0
04/28/22		GW-16, GW-14R	8015B & EPA 624	<b>490</b>	<50	<5.0	<5.0	<5.0	<10	<5.0	<10	<5.0	<5.0	<1.0	<1.0
05/11/22		GW-16, GW-14R	8015B & EPA 624	<b>470</b>	<50	<5.0	<5.0	<5.0	<10	<5.0	<b>58</b>	<5.0	<5.0	<1.0	<1.0
06/16/22		GW-16, GMW-31	8015B & EPA 624	<b>47</b>	<50	<5.0	<5.0	<5.0	<10	<5.0	<10	<5.0	<5.0	<1.0	<1.0
09/28/22	14,15	GW-16, GMW-31, GW-14R	8015B & EPA 624	<b>340</b>	<50	<5.0	<0.5	<5.0	<10	<5.0	<b>49</b>	<5.0	<5.0	<1.0	<1.0

**Legend / Notes:**

Data collected prior to July 2014 not verified for completeness nor accuracy.

GWETS = Groundwater extraction and treatment system  
 TPHd = Total petroleum hydrocarbons as diesel  
 ETBE = Ethyl tertiary-butyl ether  
 TPHg = Total petroleum hydrocarbons as gasoline

MTBE = Methyl tertiary-butyl ether  
 TAME = tertiary-Amyl-methyl ether

TBA = tertiary-Butyl alcohol  
 µg/L = Micrograms per liter

DIPE = Diisopropyl ether  
 -- = Not available or not analyzed

<1 = Not detected at or above the Method Reporting Limit (MRL) shown. Beginning 7/9/14, not detected at or above the Method Detection Limit (MDL) shown.

J = Estimated value. Analyte detected at a level less than the MRL and greater than or equal to the MDL.

**- Reported concentrations are shown in bold.**

- 1 = GWETS manually shut down.
- 2 = GWETS restarted on 7/2/14, 1/13/15 and 2/25/15.
- 3 = GWETS manually shut down on 11/11/14.
- 4 = GWETS temporarily restarted but left off-line upon departure.
- 5 = GWETS manually shut down on 4/13/15, 5/6/15, 4/4/16, 9/26/16, 11/7/16, 3/8/17, 4/17/17 and 7/3/17, and restarted on 4/27/15, 5/8/15, 4/28/16, 10/12/16, 11/23/16, 3/15/17, 4/25/17 and 7/17/17, respectively.
- 6 = GWETS restarted following an automatic shut down on 2/4/17.
- 7 = GWETS manually shut down on 11/20/17 and largely remained off-line through late May 2018, as well as during July and December 2018, with the exception of a few operational days and/or weeks to collect system removal performance samples following the completion of media change out work, and/or to complete routine groundwater monitoring and sampling work along with system maintenance activities.
- 8 = GWETS manually shut down from 7/9/18 to 7/12/18 for installation of replacement discharge totalizer, 7/13/18 to 7/16/18 for repairs, and 7/18/18 to 7/20/18 for carbon changeout fieldwork.
- 9 = GWETS off-line since 2/27/19 pending the completion of an alternative waste discharge evaluation study.
- 10 = GWETS restarted on October 10, 2019 per the new sewer discharge permit. Sampling will begin January 1, 2020 per the permit requirements.
- 11 = TPHd and benzene, toluene, and ethylbenzene analyzed for mass extraction purposes only; new Industrial Waste Discharge (IWD) permit has different analytical requirements than previous stormsewer discharge permit.
- 12 = GWETS manually shut down on 6/30/20 and largely remained off-line through early January 2021 with the exception of a few operational days and/or weeks to collect system removal performance samples.
- 13 = GWETS restarted on 1/5/21.
- 14 = GWETS manually shut down 6/24/22 due to naturally occurring sludge in extraction wells.
- 15 = GWETS restarted on 9/9/22 following extensive in-well chemical treatment and installation of new pumps in all extraction wells.



**TABLE 9A**  
**Historical Summary of Field Vapor Readings - Former Tank Farm Horizontal Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Depth for Horizontal Wells or Interval in Feet Below Grade for Vertical Wells					
			HW-1	HW-3 **	HW-5	HW-7 **	HW-8	HW-9
			25	25	25	25	60	220
07/09/14	1	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	69	20	140	4,176	--	--
07/18/14		VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	74	21	4,000	15,000	--	--
08/27/14	2	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	0.8	4.5	3.6	0.1	--	--
08/27/14	3	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	2.1	0	2.5	146.0	--	--
10/23/14	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	3.3	20.0	2.9	2	--	--
12/17/14	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	0	0	0	0.2	--	--
03/30/15	4,5	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	24	2	62	382.0	--	--
04/02/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	400	34	270	370	--	--
04/06/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	825	160	835	800	--	--
04/08/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	800	315	600	580	--	--
04/15/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	680	297	545	585	--	--
04/24/15	6	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	1,900	125	533	1,233	--	--
04/27/15	4,6	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	1,455	138	400	810	--	--
06/08/15	6,7	VEW-32, VEW-33, VEW-34	--	--	--	--	--	--
06/12/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	--
06/15/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	--
06/26/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	--
07/16/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	--
08/10/15	4,6,8	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5	1,947	28	676	732	--	--
08/20/15	6,9	VEW-32, VEW-33, HW-1, HW-3, HW-5	1,792	--	1,283	1,526	--	--
09/08/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	1,914	--	839	1,811	--	--
09/16/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	1,333	--	756	1,142	--	--
10/09/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	854	--	462	807	--	--
11/04/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	605	--	372	500	--	--
12/07/15	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	880	--	590	760	--	--
01/13/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	640	--	415	390	--	--
02/08/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	520	--	300	240	--	--
03/02/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	400	--	360	180	--	--
04/06/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	420	--	260	220	--	--
05/04/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	400	--	240	180	--	--
06/17/16	6	HW-1, HW-3, HW-5	740	--	470	330	--	--

**TABLE 9A**  
**Historical Summary of Field Vapor Readings - Former Tank Farm Horizontal Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Depth for Horizontal Wells or Interval in Feet Below Grade for Vertical Wells					
			HW-1	HW-3 **	HW-5	HW-7 **	HW-8	HW-9
			25	25	25	25	60	220
07/06/16	6,10	HW-1, HW-3, HW-5	480	--	340	220	--	--
08/05/16	6	HW-1, HW-3, HW-5	240	4	190	230.0	--	--
09/01/16	6,10	HW-1, HW-3, HW-5	280	--	220	260	--	--
10/20/16	4,6,10,11	HW-1, HW-3, HW-5, HW-7	200	140	240	280	--	--
11/01/16	6,10	HW-1, HW-3, HW-5, HW-7	160	120	180	260	--	--
12/05/16	4,6,10	HW-1, HW-3, HW-5, HW-7	120	100	200	240	--	--
01/09/17	6,10	HW-1, HW-3, HW-5, HW-7	80	17	180	200	--	--
02/06/17	4,6,10	HW-1, HW-3, HW-5, HW-7	100	13	160	180	--	--
03/20/17	12	HW-1, HW-3, HW-5, HW-7	110	12	120	160	--	--
04/17/17		HW-1, HW-3, HW-5, HW-7	120	10	160	220	--	--
05/03/17		HW-1, HW-3, HW-5, HW-7	100	19	140	260	--	--
06/05/17		HW-1, HW-3, HW-5	107	15	82	211	--	--
07/19/17	13	HW-5, HW-7 and VEW-39	--	49	79	286	--	--
08/09/17	14,15	HW-1, HW-5, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	192	--	94	236	--	--
09/07/17	14,15	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	180	--	60	220	--	--
10/12/17	14,15	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	220	--	80	260	--	--
11/02/17	14,15	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	346	--	105	334	--	--
12/11/17	14,15	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	280	--	90	220	--	--
01/11/18	15,16	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, RW-9, RW-13, RW-18 and RW-26	160	--	120	340	--	--
02/12/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1 through RW-18, and RW-26	60	--	75	290	--	--
03/14/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	--	--	--	--	--	--
03/28/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	200	--	160	240	--	--
04/02/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	180	--	140	220	--	--
05/02/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	140	--	120	200	--	--
06/06/18	15	HW-1, HW-5, HW-7, VEW-39, RW-1, -4, -9, -10, -11, -13, -14 and -18	100	--	80	160	--	--
06/27/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	--	--	--	--	--	--
07/16/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	--	--	--	--	--	--
07/30/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	--	--	--	--	--	--

**TABLE 9A**  
**Historical Summary of Field Vapor Readings - Former Tank Farm Horizontal Wells**  
DFSP, Norwalk  
15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Depth for Horizontal Wells or Interval in Feet Below Grade for Vertical Wells					
			HW-1	HW-3 **	HW-5	HW-7 **	HW-8	HW-9
			25	25	25	25	60	220
08/29/18	15	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	--	--	--	--	--	--
12/03/18	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	--	--	--	--	--
01/25/19	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	1,127	--	375	474	--	--
02/12/19	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	1,845	--	696	718	--	--
03/06/19	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	1,309	--	1,115	939	--	--
03/12/19	15,17	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	--	--	--	--	--
03/20/19	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	591	--	234	730	--	--
03/26/19	15	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	--	--	--	--	--
04/09/19	15,18	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW- 22, -24, -26, -27 -28, -29, -35, -40, -44, 30,-32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	>15,000	--	1,541	1,725	--	--
11/25/19	19,20	HW-1, HW-5, HW-7, HW-8, HW-9	730	--	501	730	--	1,820
12/16/19		HW-1, HW-5, HW-7, HW-8, HW-9	4,900	--	1,336	1,215	431	1,375
01/15/20		HW-1, HW-5, HW-7, HW-8, HW-9	184	--	6	10	976	22
02/05/20		HW-1, HW-5, HW-7, HW-8, HW-9	371	--	5	124	6	843
02/14/20		HW-1, HW-5, HW-7, HW-8, HW-9	397	--	24	366	4	805
02/18/20		HW-1, HW-5, HW-7, HW-8, HW-9	139	--	4	149	3	530
02/27/20		HW-1, HW-5, HW-7, HW-8, HW-9	155	--	29	21	2	1,192
03/04/20		HW-1, HW-5, HW-7, HW-8, HW-9	2,188	--	611	461	61	774
03/16/20		HW-1, HW-5, HW-7, HW-8, HW-9	1,520	--	241	186	21	4,344
03/24/20		HW-1, HW-5, HW-7, HW-8, HW-9	339	--	57	156	6	2,681
04/01/20		HW-1, HW-5, HW-7, HW-8, HW-9	132	--	5	87	4	1,982
04/10/20		HW-1, HW-5, HW-7, HW-8, HW-9	172	--	5	145	0	378
04/15/20		HW-1, HW-5, HW-7, HW-8, HW-9	143	--	4	286	3	768
04/24/20		HW-1, HW-5, HW-7, HW-8, HW-9	83	--	16	337	4	780

**TABLE 9A**  
**Historical Summary of Field Vapor Readings - Former Tank Farm Horizontal Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Depth for Horizontal Wells or Interval in Feet Below Grade for Vertical Wells					
			HW-1	HW-3 **	HW-5	HW-7 **	HW-8	HW-9
			25	25	25	25	60	220
05/01/20		HW-1, HW-5, HW-7, HW-8, HW-9	108	--	1	15000+	1	15000+
05/06/20		HW-1, HW-5, HW-7, HW-8, HW-9	99	--	18	15000+	2	15000+
05/15/20		HW-1, HW-5, HW-7, HW-8, HW-9	199	--	8	697	7	1,058
05/28/20		HW-1, HW-5, HW-7, HW-8, HW-9	105	--	5	636	5	1,841
06/03/20		HW-1, HW-5, HW-7, HW-8, HW-9	88	--	3	475	4	968
06/09/20		HW-1, HW-5, HW-7, HW-8, HW-9	73	--	3	399	1	853
06/22/20		HW-1, HW-5, HW-7, HW-8, HW-9	140	--	71	493	3	957
06/23/20	21	HW-1, HW-7, HW-9	--	--	--	--	--	--
07/01/20		HW-1, HW-7, HW-9	165	--	--	615	--	1,867
07/07/20		HW-1, HW-7, HW-9	123	--	--	457	--	1,882
07/17/20		HW-1, HW-7, HW-9	127	--	--	387	--	3,470
07/20/20		HW-1, HW-7, HW-9	127	--	--	339	--	1,893
07/31/20		HW-1, HW-7, HW-9	106	--	--	330	--	211
08/07/20		HW-1, HW-7, HW-9	320	--	--	503	--	929
08/10/20		HW-1, HW-7, HW-9	98	--	--	463	--	2,908
08/17/20		HW-1, HW-7, HW-9	128	--	--	660	--	3,633
08/24/20		HW-1, HW-7, HW-9	141	--	12	615	15	7,848
08/26/20		HW-1, HW-7, HW-9	108	--	--	546	--	2,573
08/31/20		HW-1, HW-7, HW-9	97	--	--	490	--	1,873
09/11/20		HW-1, HW-7, HW-9	86	--	--	439	--	1,502
09/14/20		HW-1, HW-7, HW-9	362	--	--	398	--	3,815
09/24/20		HW-1, HW-7, HW-9	42	--	--	311	--	34
09/28/20		HW-1, HW-7, HW-9	115	--	--	471	--	1,783
10/05/20		HW-1, HW-7, HW-9	122	--	--	400	--	3,011
10/12/20		HW-1, HW-7, HW-9	77	--	--	219	--	1,542
10/19/20		HW-1, HW-7, HW-9	101	--	--	1,791	--	1,771
10/28/20		HW-1, HW-7, HW-9	102	--	--	171	--	69
11/5/20		HW-1, HW-7, HW-9	107	--	49	165	124	1,421
11/16/20		HW-1, HW-5, HW-7, HW-9	64	--	25	134	--	964
11/24/20		HW-1, HW-5, HW-7, HW-9	46	--	104	--	--	993
1/15/21		HW-1, HW-9, HW-5, HW-7	48	--	72	56	--	976
2/4/21		HW-1, HW-9, HW-5, HW-7	139	--	77	59	--	421
2/8/21		HW-1, HW-9, HW-5, HW-7	48	--	--	--	--	--

**TABLE 9A**  
**Historical Summary of Field Vapor Readings - Former Tank Farm Horizontal Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Depth for Horizontal Wells or Interval in Feet Below Grade for Vertical Wells					
			HW-1	HW-3 **	HW-5	HW-7 **	HW-8	HW-9
			25	25	25	25	60	220
2/24/21		HW-1, HW-9, HW-5, HW-7	43	--	6	35	--	1,287
3/4/21		HW-1, HW-8, HW-9, HW-5, HW-7	48	--	33	295	46	535
3/8/21	22	HW-1, HW-8, HW-9, HW-5, HW-7	48	--	19	231	3	458
3/15/21		HW-1, HW-9, HW-5, HW-7	37	--	48	245	--	1,192
3/24/21		HW-1, HW-9, HW-5, HW-7	43	--	63	73	--	1,274
3/30/21		HW-1, HW-9, HW-5, HW-7	--	--	73	68	--	1,150
4/6/21		HW-1, HW-9, HW-5, HW-7	43	--	49	346	--	592
4/15/21		HW-1, HW-9, HW-5, HW-7	33	--	33	193	--	605
4/19/21		HW-1, HW-9, HW-5, HW-7	71	--	42	--	--	369
4/26/21		HW-1, HW-9, HW-5, HW-7	58	--	61	141	--	456
5/10/21		HW-1, HW-9, HW-5, HW-7	144	--	100	364	--	833
5/19/21		HW-1, HW-9, HW-5, HW-7	61	--	64	104	--	583
5/28/21		HW-1, HW-9, HW-5, HW-7	46	--	15	121	--	675
6/4/21		HW-1, HW-9, HW-5, HW-7	25	--	7	121	--	879
6/16/21		HW-1, HW-9, HW-5, HW-7	70	--	16	101	--	493
6/21/21		HW-1, HW-9, HW-5, HW-7	37	--	14	136	--	727
6/28/21		HW-1, HW-9, HW-5, HW-7	21	--	5	133	--	840
7/7/21		HW-1, HW-9, HW-5, HW-7	79	--	37	153	--	613
7/16/21		HW-1, HW-9, HW-5, HW-7	31	--	21	102	--	448
7/23/21		HW-1, HW-9, HW-5, HW-7	43	--	18	118	--	425
7/28/21		HW-1, HW-9, HW-5, HW-7	49	--	45	137	--	697
8/3/21		HW-1, HW-9, HW-5, HW-7	27	--	24	125	--	515
8/9/21		HW-1, HW-9, HW-5, HW-7	41	--	46	68	--	715
8/18/21		HW-1, HW-9, HW-5, HW-7	22	--	12	102	--	698
8/25/21		HW-1, HW-9, HW-5, HW-7	18	--	20	68	--	479
8/31/21		HW-1, HW-9, HW-5, HW-7	13	--	18	46	--	455
9/14/21		HW-1, HW-9, HW-5, HW-7	59	--	54	201	--	710
9/20/21		HW-1, HW-9, HW-5, HW-7	63	--	45	153	--	634
9/27/21		HW-1, HW-9, HW-5, HW-7	22	--	14	92	--	788
10/5/21		HW-1, HW-9, HW-5, HW-7	54	--	29	137	--	663
10/13/21		HW-1, HW-9, HW-5, HW-7	17	--	1	90	--	373
10/18/21		HW-1, HW-9, HW-5, HW-7	38	--	7	121	--	621
10/27/21		HW-1, HW-9, HW-5, HW-7	23	--	26	184	--	463



**TABLE 9A**  
**Historical Summary of Field Vapor Readings - Former Tank Farm Horizontal Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Depth for Horizontal Wells or Interval in Feet Below Grade for Vertical Wells					
			HW-1	HW-3 **	HW-5	HW-7 **	HW-8	HW-9
			25	25	25	25	60	220
11/1/21		HW-1, HW-9, HW-5, HW-7	65	--	78	145	--	917
11/9/21		HW-1, HW-9, HW-5, HW-7	26	--	14	130	--	546
11/17/21		HW-1, HW-9, HW-5, HW-7	16	--	3	165	--	427
11/30/21		HW-1, HW-9, HW-5, HW-7	14	--	40	187	--	376
12/6/21		HW-1, HW-9, HW-5, HW-7	18	--	5	151	--	588
12/13/21		HW-1, HW-9, HW-5, HW-7	12	--	3	160	--	831
12/28/21		HW-1, HW-9, HW-5, HW-7	10	--	2	786	--	812
1/6/22		HW-1, HW-9, HW-5, HW-7	29	--	43	17	--	525
1/11/22		HW-1, HW-9, HW-5, HW-7	79	--	75	853	--	425
1/18/22		HW-1, HW-9, HW-5, HW-7	38	--	22	1,373	--	796
1/26/22		HW-1, HW-9, HW-5, HW-7	11	--	12	0	--	535
2/1/22		HW-1, HW-9, HW-5, HW-7	17	--	108	1,414	--	1,130
2/9/22		HW-1, HW-9, HW-5, HW-7	22	--	6	930	--	514
2/15/22		HW-1, HW-9, HW-5, HW-7	55	--	63	802	--	1,082
2/22/22		HW-1, HW-9, HW-5, HW-7	25	--	23	159	--	902
3/1/22		HW-1, HW-9, HW-5, HW-7	22	--	47	168	--	1,050
3/9/22		HW-1, HW-9, HW-5, HW-7	34	--	58	652	--	715
3/15/22		HW-1, HW-9, HW-5, HW-7	44	--	4	84	--	843
3/21/22		HW-1, HW-9, HW-5, HW-7	41	--	4	420	--	381
3/31/22		HW-1, HW-9, HW-5, HW-7	47	--	25	325	--	814
4/6/22		HW-1, HW-9, HW-5, HW-7	32	--	4	550	--	626
4/13/22		HW-1, HW-9, HW-5, HW-7	37	--	13	486	--	568
4/26/22		HW-1, HW-9, HW-5, HW-7	30	--	66	595	--	653
5/3/22		HW-1, HW-9, HW-5, HW-7	44	--	57	628	--	483
5/10/22		HW-1, HW-9, HW-5, HW-7	41	--	55	373	--	754
5/17/22		HW-1, HW-9, HW-5, HW-7	32	--	68	973	--	1,281
5/27/22		HW-1, HW-9, HW-5, HW-7	19	--	4	618	--	693
6/3/22		HW-1, HW-9, HW-5, HW-7	22	--	37	1,392	--	860
6/9/22		HW-1, HW-9, HW-5, HW-7	28	--	43	1,275	--	885
6/16/22		HW-1, HW-9, HW-5, HW-7	14	--	55	1,809	--	464
7/1/22		HW-1, HW-9, HW-5, HW-7	20	--	4	1,576	--	672
7/12/22		HW-1, HW-9, HW-5, HW-7	30	--	25	1,303	--	463
7/29/22		HW-1, HW-9, HW-5, HW-7	47	--	62	553	--	386

**TABLE 9A**  
**Historical Summary of Field Vapor Readings - Former Tank Farm Horizontal Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Depth for Horizontal Wells or Interval in Feet Below Grade for Vertical Wells					
			HW-1	HW-3 **	HW-5	HW-7 **	HW-8	HW-9
			25	25	25	25	60	220
8/1/22		HW-1, HW-9, HW-5, HW-7	13	--	10	19	--	468
8/8/22		HW-1, HW-9, HW-5, HW-7	12	--	6	53	--	420
8/18/22		HW-1, HW-9, HW-5, HW-7	14	--	11	73	--	526
8/30/22		HW-1, HW-9, HW-5, HW-7	18	--	11	65	--	412
9/7/22		HW-1, HW-9, HW-5, HW-7	9	--	4	95	--	417
9/15/22		HW-1, HW-9, HW-5, HW-7	9	--	28	273	--	>15000
9/16/22		HW-1, HW-9, HW-5, HW-7	--	--	--	--	--	12,400
9/20/22		HW-1, HW-9, HW-5, HW-7	12	--	13	161	--	1,269
9/29/22		HW-1, HW-9, HW-5, HW-7	9	--	19	163	--	385

**Legend / Notes:**

GRO = Gasoline range organics      ppmv = Parts per million by volume      OVA = Organic Vapor Analyzer      -- = Readings not taken      VES = Vapor extraction system  
 Concentrations measured using calibrated field OVA.

- 1 = Initial readings on carbon VES restart (off line since manually shut down on 05/29/14).
  - 2 = Readings prior to well optimization.
  - 3 = Readings following well optimization (closed wells VEW-35, VEW-36 and VEW-37 based on field OVA readings).
  - 4 = Offline wells temporarily opened for monitoring, then returned to closed position.
  - 5 = Readings collected following slightly opening well field valve to vapor extraction system.
  - 6 = Select soil biopiles also online.
  - 7 = Closed select vapor wells to focus extraction efforts on soil biopiles.
  - 8 = Opened vapor extraction wells HW-1, HW-3 and HW-5 based on field OVA readings.
  - 9 = Closed vapor extraction well VEW-34 on 8/19/15 based on low to non-detectable lab results (see Table 7 for details).
  - 10 = Valved down vapor extraction wells HW-1, HW-3 and/or HW-5 while leaving all other wells closed to focus extraction efforts on soil biopiles.
  - 11 = Opened vapor extraction well HW-7 based on field OVA reading.
  - 12 = Ex-situ remediation project completed/all soil biopiles disconnected and well valves subsequently set to optimize carbon VES in accordance with recent field OVA readings and/or lab data.
  - 13 = Wells VEW-38, VEW-39 and VEW-40 tied into carbon VES during late June 2017 following installation per SGI's March 14, 2017 Well Replacement Report and Work Plan.
  - 14 = For full list of wells online, see SGI's November 15, 2017 *Remediation Status Report - Third Quarter 2017* and *February 15, 2018 Remediation Status Report - Fourth Quarter 2017*, respectively.
  - 15 = See Tables 9B, 9C and 9D for applicable RW on line well field vapor readings.
  - 16 = Wells VEW-38, VEW-39 and VEW-40 disconnected from carbon VES and tied into thermal oxidizer VES upon 01/08/18 startup (see SGI's May 15, 2018 *Remediation Status Report - First Quarter 2018* for details).
  - 17 = New Thermal Oxidizer system startup on 3/13/19.
  - 18 = VES Carbon system shutdown on 4/18/19 to replace blower.
  - 19 = HW-3 abandoned and replaced on 6/7/19 and 6/10/19 and replaced with new horizontal wells HW-8 and HW-9. Nw HW's connected to VES Carbon system on 7/16/19.
  - 20 = VES Carbon system restart on 11/21/19 after new blower installation.
  - 19 = HW-3 abandoned and replaced on 6/7/19 and 6/10/19 and replaced with new horizontal wells HW-8 and HW-9.
  - 21 = Closed off HW-8 and HW-5 due to low PID readings. HW-7 and HW-9 opened 100%
  - 22 = Closed off HW-8 due to low PID readings.
- \* = Carbon VES only through 2017 and also includes thermal oxidizer VES wells online after 2017.  
 \*\* = Tabulated data corrected after determining well HW-3 was incorrectly labeled as well HW-7 and vice versa during late July 2017 re-development work.





**TABLE 9B**  
**Historical Summary of Field Vapor Readings - Central Area Vertical Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Interval in Feet Below Grade																																		
			Truckline #1, VECV #17					Truckline #3, VECV #14					Truckline #3, VECV #15					Truckline #4, VECV #16					Truckline #4, VECV #18					Truckline #5, VECV #19					Truckline #5, VECV #20				
			TFR-21 13-33	TFR-26 13-33	TFR-27 13-33	TFR-28 13-33	TFR-34 13-33	TFR-18 13-33	RTF-18-E 13-33	RTF-18-W 13-33	RTF-18-NW 13-33	RTF-18-NNW 13-33	TFR-20 13-33	TFR-23 13-33	TFR-24 13-33	TFR-30 13-33	TFR-33 13-33	TFR-29 13-33	TFR-32 12-33	TFR-35 13-33	TFR-36 13-33	TFR-37 13-33	TFR-17 14-33	TFR-18 15-33	TFR-19 16-33	TFR-22 17-33	TFR-25 18-33	TFR-11 13-33	TFR-13 13-33	TFR-14 14-33	TFR-15 15-33	TFR-16 13-33	TFR-5 13-33	TFR-7 13-33	TFR-9 13-33	TFR-10 13-33	TFR-12 14-33
03/05/21		[TFR-21, TFR-26, TFR-27, TFR-28, TFR-34], (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12)	3,934	1,544	848	874	302	676	3,860	4,010	746	3,828	30	66	16,240	708	912	12,440	--	--	--	--	2,258	1,174	4,890	28,750	9,150	--	2,648	270	342	--	--	278	562	--	212
05/13/21		[TFR-21, TFR-26, TFR-27, TFR-28, TFR-34], (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12)	3,858	1,428	778	588	220	668	2,296	1,954	246	1,848	128	154	12,170	786	584	9,220	--	--	--	--	2,040	500	2,552	19,150	5,690	--	2,160	184	316	--	--	38	490	--	70
07/23/21		[TFR-21, TFR-26, TFR-27, TFR-28, TFR-34], (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12)	3,549	1,492	725	656	275	394	1,396	1,106	264	884	8	20	9,570	458	254	7,780	--	--	--	--	1,048	280	2,132	17,140	3,860	--	1,474	110	174	--	--	86	348	--	62
09/16/21		[TFR-21, TFR-26, TFR-27, TFR-28, TFR-34], (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12)	3,625	1,520	796	620	250	205	1,250	335	940	1,628	12	14	7,130	406	205	8,150	--	--	--	--	968	305	2,084	15,850	4,150	--	1,380	155	210	--	--	102	354	--	98
01/21/22		[TFR-21, TFR-26, TFR-27, TFR-28, TFR-34], (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12)	2,544	1,265	710	486	74	306	965	1,336	150	904	54	76	10,520	376	416	6,850	--	--	--	--	654	220	1,455	15,750	4,845	--	1,446	126	34	--	--	40	268	--	200
03/08/22		[TFR-21, TFR-26, TFR-27, TFR-28, TFR-34], (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12)	2,836	1,220	740	520	138	280	1,025	1,122	325	1,406	46	102	9,865	412	315	6,620	--	--	--	--	722	265	2,130	15,750	4,260	--	1,122	178	126	--	--	88	244	--	266
08/15/22		[TFR-21, TFR-26, TFR-27, TFR-28, TFR-34], (TF-18, RTF-18-E, RTF-18-W, RTF-18-NW, RTF-18-NNW), (TFR-20, TFR-23, TFR-24, TFR-30, TFR-33), (TFR-29), (TFR-17, TFR-18, TFR-19, TFR-22, TFR-25), (TFR-13, TFR-14, TFR-15), (TFR-7, TFR-9, TFR-12)	2,734	688	376	404	92	76	1,234	1,894	342	716	0	2	224	94	9,330	6,160	--	--	--	--	310	94	214	12,150	3,170	--	386	68	56	--	--	24	128	--	94

**Legend / Notes:**  
 GRO = Gasoline range organics      ppmv = Parts per million by volume      OVA = Organic Vapor Analyzer      -- = Readings not taken      VES = Vapor extraction system  
 Concentrations measured using calibrated field OVA.  
 1 = Wells RW-35 through RW-38, and RW47 through RW-50 tied into thermal oxidizer VES during late June 2018 following installation per SGI's July 2018 *Well Installation Completion Report*.  
 2 = See Tables 8A, 8C and 8D for applicable HW, VEW and RW on line well field vapor readings.  
 3 = New Thermal Oxidizer system startup on 3/13/19.  
 4 = Closed wells were opened to check for rebound concentrations.  
 \* = Carbon vapor extraction system and thermal oxidizer vapor extraction system.



**TABLE 9C**  
**Historical Summary of Field Vapor Readings - Eastern Area Vertical Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Interval in Feet Below Grade																							
			Truckline #1, VECV #1					Truckline #1, VECV #2					Truckline #1, VECV #3					Truckline #1, VECV #4					Truckline #1, VECV #5			
			RW-1	RW-6	RW-15	RW-16	RW-17	VEW-32	VEW-37	RW-2	RW-7	RW-11	VEW-33	VEW-36	RW-8	RW-12	RW-18	VEW-34	VEW-35	RW-13	RW-14	RW-3	RW-4	RW-5	RW-9	RW-10
			15 - 35	17 - 37	18 - 38	14 - 34	19 - 39	10 - 25	10 - 25	13 - 33	17 - 37	16 - 36	10 - 25	10 - 25	18.5 - 38.5	14 - 34	18 - 38	10 - 25	10 - 25	15 - 35	14 - 34	17 - 37	14 - 34	14 - 34	15 - 35	14 - 34
07/09/14	1	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	154	20	--	--	--	10	6.4	--	--	--	4.2	5.5	--	--	--	--	--	--	
07/18/14		VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	134	18	--	--	--	5.6	4.1	--	--	--	3.3	2.1	--	--	--	--	--	--	
08/27/14	2	VEW-32, VEW-33, VEW-34, VEW-35, VEW-36, VEW-37, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	6.3	0	--	--	--	0.4	0	--	--	--	0.4	0.2	--	--	--	--	--	--	
08/27/14	3	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	174	--	--	--	--	0.2	--	--	--	--	0	--	--	--	--	--	--	--	
10/23/14	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	191	151	--	--	--	22	9.1	--	--	--	8.0	28	--	--	--	--	--	--	
12/17/14	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	62	11	--	--	--	37	24	--	--	--	2.0	15	--	--	--	--	--	--	
03/30/15	4,5	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	2.5	1.0	--	--	--	0.1	20	--	--	--	0.3	4.8	--	--	--	--	--	--	
04/02/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	25	0	--	--	--	4.1	0	--	--	--	0	0	--	--	--	--	--	--	
04/06/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	171	0	--	--	--	5.7	0	--	--	--	3.0	0	--	--	--	--	--	--	
04/08/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	195	0	--	--	--	35	0	--	--	--	25	0	--	--	--	--	--	--	
04/15/15	4	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	273	0	--	--	--	223	0	--	--	--	87	0	--	--	--	--	--	--	
04/24/15	6	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
04/27/15	4,6	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	210	2.4	--	--	--	324	5.7	--	--	--	115	4.8	--	--	--	--	--	--	
06/08/15	6,7	VEW-32, VEW-33, VEW-34	--	--	--	--	--	180	--	--	--	--	130	--	--	--	--	40	--	--	--	--	--	--	--	
06/12/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	194	--	--	--	--	126	--	--	--	--	80	--	--	--	--	--	--	--	
06/15/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	158	--	--	--	--	77	--	--	--	--	39	--	--	--	--	--	--	--	
06/26/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	123	--	--	--	--	104	--	--	--	--	20	--	--	--	--	--	--	--	
07/16/15	6	VEW-32, VEW-33, VEW-34	--	--	--	--	--	256	--	--	--	--	147	--	--	--	--	17	--	--	--	--	--	--	--	
08/10/15	4,6,8	VEW-32, VEW-33, VEW-34, HW-1, HW-3, HW-5	--	--	--	--	--	456	3.9	--	--	--	334	2.2	--	--	--	63	16	--	--	--	--	--	--	
08/20/15	6,9	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	530	--	--	--	--	329	--	--	--	--	--	--	--	--	--	--	--	--	
09/08/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	395	--	--	--	--	162	--	--	--	--	--	--	--	--	--	--	--	--	
09/16/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	266	--	--	--	--	184	--	--	--	--	--	--	--	--	--	--	--	--	
10/09/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	343	--	--	--	--	258	--	--	--	--	--	--	--	--	--	--	--	--	
11/04/15	6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	401	--	--	--	--	184	--	--	--	--	--	--	--	--	--	--	--	--	
12/07/15	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	327	14	--	--	--	246	12	--	--	--	88	22	--	--	--	--	--	--	
01/13/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	220	17	--	--	--	260	22	--	--	--	72	34	--	--	--	--	--	--	
02/08/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	160	11	--	--	--	220	28	--	--	--	55	42	--	--	--	--	--	--	
03/02/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	120	15	--	--	--	240	32	--	--	--	47	31	--	--	--	--	--	--	
04/06/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	60	12	--	--	--	380	18	--	--	--	29	22	--	--	--	--	--	--	
05/04/16	4,6	VEW-32, VEW-33, HW-1, HW-3, HW-5	--	--	--	--	--	90	19	--	--	--	340	25	--	--	--	36	18	--	--	--	--	--	--	
06/17/16	6	HW-1, HW-3, HW-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
07/06/16	6,10	HW-1, HW-3, HW-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

**TABLE 9C**  
**Historical Summary of Field Vapor Readings - Eastern Area Vertical Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Interval in Feet Below Grade																								
			Truckline #1, VECV #1					Truckline #1, VECV #2					Truckline #1, VECV #3					Truckline #1, VECV #4					Truckline #1, VECV #5				
			RW-1	RW-6	RW-15	RW-16	RW-17	VEW-32	VEW-37	RW-2	RW-7	RW-11	VEW-33	VEW-36	RW-8	RW-12	RW-18	VEW-34	VEW-35	RW-13	RW-14	RW-3	RW-4	RW-5	RW-9	RW-10	
			15 - 35	17 - 37	18 - 38	14 - 34	19 - 39	10 - 25	10 - 25	13 - 33	17 - 37	16 - 36	10 - 25	10 - 25	16.5 - 38.5	14 - 34	18 - 38	10 - 25	10 - 25	15 - 35	14 - 34	17 - 37	14 - 34	14 - 34	15 - 35	14 - 34	
08/05/16	6	HW-1, HW-3, HW-5	--	--	--	--	--	20	8.3	--	--	--	140	34	--	--	--	11	9.0	--	--	--	--	--	--	--	
09/01/16	6,10	HW-1, HW-3, HW-5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
10/20/16	4,6,10,11	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	32	6.4	--	--	--	80	30	--	--	--	9.1	7.3	--	--	--	--	--	--	--	
11/01/16	6,10	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/05/16	4,6,10	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	20	7.1	--	--	--	60	20	--	--	--	17	8.8	--	--	--	--	--	--	--	
01/09/17	6,10	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
02/06/17	4,6,10	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	12	5.4	--	--	--	45	14	--	--	--	11	6.1	--	--	--	--	--	--	--	
03/20/17	12	HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
04/17/17		HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/03/17		HW-1, HW-3, HW-5, HW-7	--	--	--	--	--	15	6.7	--	--	--	33	19	--	--	--	17	8.1	--	--	--	--	--	--	--	
06/05/17		HW-1, HW-3, HW-5	--	--	--	--	--	10	11	--	--	--	14	12	--	--	--	8.0	7.1	--	--	--	--	--	--	--	
07/19/17	13	HW-5, HW-7 and VEW-39	--	--	--	--	--	12	4.8	--	--	--	47	6.2	--	--	--	9.3	4.1	--	--	--	--	--	--	--	
08/09/17	1,2,3	HW-1, HW-5, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	1,268	--	--	--	--	5.5	5.4	16	120	--	27	3.7	--	76	374	7.7	2.3	2,440	--	--	--	--	1,164	--	
09/07/17	2,3	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	3,860	--	--	--	--	9.2	10	99	495	--	20	14	--	90	679	11	5.5	2,870	--	--	--	--	320	--	
10/12/17	2,3	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	2,480	--	--	--	--	13	12	75	310	--	28	19	--	120	580	14	9.3	2,620	--	--	--	--	660	--	
11/02/17	2,2	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	3,140	--	--	--	--	10	9.1	50	225	--	23	15	--	140	430	11	6.6	3,200	--	--	--	--	840	--	
12/11/17	2,3	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	2,250	--	--	--	--	7.7	9.1	60	180	--	20	8.8	--	80	350	9.3	5.1	3,040	--	--	--	--	590	--	
03/14/18	4,5	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	2,520	15	12	40	28	7.2	4.3	31	181	420	2.4	0.4	5.1	5.5	937	8.1	7.3	2,000	1,235	68	598	4,600	2,824	>10,000	
07/16/18	4,5	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	725	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
07/30/18	4,5	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	--	--	--	--	--	--	--	401	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
08/29/18	4,5	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, -4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	--	--	--	--	--	--	--	475	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/03/18	4,5	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	--	--	--	--	--	--	--	--	641	--	--	--	--	952	--	--	--	8,157	--	>15,000	>15,000	>15,000	>15,000	
03/12/19	3,6	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	190	0	0	16	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
03/27/19	3,6	HW-1, HW-5, HW-7, RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	838	0	--	--	--	--	--	402	--	1,172	--	--	--	--	992	--	--	13,772	--	--	1,021	1,850	6,280	2,150	
06/05/19	3	RW-1, -4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	574	--	--	--	--	--	--	--	--	10	--	--	--	--	420	--	--	3,420	--	--	776	1,083	4,210	1,143	
07/23/19		(RW-1), (RW-11), (RW-18), (RW-13), (RW-4), RW-5, RW-9, RW-10)	643	--	--	--	--	--	--	--	--	6	--	--	--	--	130	--	--	724.0	--	--	851	805	2,750	1,238	
08/26/19	7	(RW-1), (RW-18), (RW-13), (RW-4), RW-5, RW-9, RW-10)	678	2	3	19	3	--	--	33	52	5	--	40.0	37	7	7	13.0	7.0	1,520	1,380	522	430	512	1,455	502	
09/23/19		(RW-1), (RW-18), (RW-13), (RW-4), RW-5, RW-9, RW-10)	682	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	177	258	306	179	145	679	637	

**TABLE 9C**  
**Historical Summary of Field Vapor Readings - Eastern Area Vertical Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Interval in Feet Below Grade																									
			Truckline #1, VECV #1					Truckline #1, VECV #2					Truckline #1, VECV #3					Truckline #1, VECV #4				Truckline #1, VECV #5						
			RW-1	RW-6	RW-15	RW-16	RW-17	VEW-32	VEW-37	RW-2	RW-7	RW-11	VEW-33	VEW-36	RW-8	RW-12	RW-18	VEW-34	VEW-35	RW-13	RW-14	RW-3	RW-4	RW-5	RW-9	RW-10		
15 - 35	17 - 37	18 - 38	14 - 34	19 - 39	10 - 25	10 - 25	13 - 33	17 - 37	16 - 36	10 - 25	10 - 25	18.5 - 38.5	14 - 34	18 - 38	10 - 25	10 - 25	15 - 35	14 - 34	17 - 37	14 - 34	14 - 34	15 - 35	14 - 34					
12/03/19	7	(RW-1), (RW-13, RW-14), (RW-4, RW-5, RW-9, RW-10)	4	2	2	--	--	--	--	2	434	--	--	--	--	--	10	6	226	124	--	28	--	116	146			
01/08/20		(RW-1), (RW-7), (RW-13, RW-14), (RW-4, RW-9, RW-10)	1,050	--	--	--	--	--	--	466	--	--	--	--	--	--	--	630	184	--	360	--	1,720	900				
03/02/20	7	(RW-1), (RW-2, RW-7), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10)	1,156	--	--	--	--	--	2	1,370	262	--	--	2	1,024	2	14	2	2	88	128	46	202	8	836	746		
04/30/20		(RW-1), (RW-2, RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10)	694	--	--	--	--	--	10	84	--	--	--	514	--	--	--	--	110	164	148	188	--	2,158	710			
05/21/20		(RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10)	794	--	--	--	--	--	--	56	--	--	--	245	--	--	--	--	135	98	108	164	--	1,530	620			
09/29/20	7	(RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10)	704	8	4	--	--	--	--	10	--	--	--	38	--	2	4	2	102	--	62	112	--	780	350			
10/27/20		(RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10)	834	--	--	--	--	--	--	36	--	--	--	60	--	--	--	--	1,262	0	108	140	--	1,028	274			
01/21/21	7	(RW-1), (RW-7), (RW-8), (RW-13, RW-14), (RW-3, RW-4, RW-9, RW-10)	604	4	0	0	0	0	0	40	0	0	0	116	0	6	0	0	1,676	4	6	140	2	2,086	28			
03/05/21		(RW-1), (RW-7), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10)	740	--	--	--	--	--	--	6	--	--	--	46	--	--	--	--	442	--	22	160	--	1,660	142			
04/27/21		(RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10)	702	--	--	--	--	--	--	--	--	--	--	16	--	--	--	--	308	--	60	114	--	1,650	76			
07/22/21		(RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10)	652	--	--	--	--	--	--	--	--	--	--	27	--	--	--	--	206	--	40	206	--	995	42			
09/02/21		(RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10)	722	--	--	--	--	--	--	--	--	--	--	19	--	--	--	--	272	--	55	187	--	1,121	36			
01/14/22		(RW-1), (RW-8), (RW-13), (RW-3, RW-4, RW-9, RW-10)	514	--	--	--	--	--	--	--	--	--	--	34	--	--	--	--	64	--	34	130	--	1,200	28			
03/11/22		(RW-1), (RW-13), (RW-3, RW-4, RW-9, RW-10)	424	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--	44	--	30	90	--	968	26			
08/17/22		(RW-1), (RW-13), (RW-3, RW-4, RW-9, RW-10)	190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	22	--	2	10	--	646	24			

**Legend / Notes:**

GRO = Gasoline range organics      ppmv = Parts per million by volume      OVA = Organic Vapor Analyzer      -- = Readings not taken      VES = Vapor extraction system  
 Concentrations measured using calibrated field OVA.  
 1 = Wells RW-1, RW-2, RW-7, RW-9, RW-12, RW-13 and RW-18 initially tied into carbon VES during early August 2017 following installation per SGI's June 30, 2017 *Remediation Well Installation Update Report*.  
 2 = For full list of wells on line, see SGI's November 15, 2017 *Remediation Status Report - Third Quarter 2017* and February 15, 2018 *Remediation Status Report - Fourth Quarter 2017*, respectively.  
 3 = See Tables 9A, 9B and 9D for applicable HW, VEW and RW on line well field vapor readings.  
 4 = Wells RW-1, RW-2, RW-7, RW-9, RW-12, RW-13 and RW-18 disconnected from carbon VES and tied into thermal oxidizer VES upon 01/08/18 startup.  
 5 = Wells RW-3 through RW-6, RW-8, RW-10, RW-11, and RW-14 through RW-17 tied into thermal oxidizer VES during mid-February 2018 following installation per SGI's June 30, 2017 *Remediation Well Installation Update Report*.  
 6 = New Thermal Oxidizer system startup on 3/13/19.  
 7 = Closed wells were opened to check for rebound concentrations.  
 \* = Carbon VES only through 2017 and also includes thermal oxidizer VES wells online after 2017.



TABLE 9D  
 Historical Summary of Field Vapor Readings - Southern Area Vertical Wells  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Interval in Feet Below Grade																																										
			Trunkline #2, VECV #6		Trunkline #2, VECV #7					Trunkline #2, VECV #8				Trunkline #2, VECV #9				Trunkline #2, VECV #10				Trunkline #2, VECV #11				Trunkline #2, VECV #12				Trunkline #2, VECV #13															
			RW-21	RW-23	VEW-39	RW-30	RW-31	RW-32	RW-34	VEW-40	RW-26	RW-28	RW-24	RW-25	RW-27	RW-33	RW-43	RW-19	RW-20	RW-22	RW-29	RW-45	RW-38	RW-39	RW-39	RW-40	RW-44	RW-36	RW-37	RW-41	RW-42	RW-46	RW-47	RW-48	RW-49	RW-50									
08/09/17	1,2	HW-1, HW-5, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	160	787	--	6,550	7,165	820	--	--	4,340	8,420	1,525	--	1,230	--	129	1,775	620	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										
09/07/17	2	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	110	141	--	8,240	3,400	715	--	--	3,290	8,080	1,423	--	836	--	58	1,379	1,123	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
10/12/17	2	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	165	340	--	5,800	5,200	955	--	--	3,880	9,190	1,200	--	900	--	220	1,800	818	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
11/02/17	2	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	140	250	--	7,330	4,300	1,060	--	--	2,900	6,400	1,770	--	620	--	170	1,410	909	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										
12/11/17	2	HW-1, HW-7, VEW-38, VEW-39, VEW-40, and Select RW Wells	120	230	--	6,400	3,900	700	--	--	3,400	7,170	1,605	--	510	--	190	1,660	764	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										
03/14/18		HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-1, 4, -5, -7, -9, -10, -11, -13, -14, -18 and -26	80	320	--	2,900	1,730	800	--	--	1,800	3,100	950	--	180	--	280	840	660	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--										
06/27/18	3	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	55	1,896	--	32	80	421	80	--	1,821	5,000	459	89	1,215	843	--	43	42	2,595	2,563	--	416	134	24	1,782	--	452	1,509	849	3,040	--	191	886	728	56									
07/30/18	3	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	--	--	--	1,630	1,253	--	--	3,261	>15,000	1,383	--	767	1,283	--	--	2,928	1,341	--	522	--	--	778	--	2,166	1,930	--	>15,000	--	3,968	672	1,008	692	--										
08/29/18	3	HW-1, HW-5, HW-7, VEW-38, VEW-40, RW-19, -20, -22, -24, -26 through -30, -32, -33, -35 through -38 and -40 through -50	--	475	--	4,160	3,378	1,715	1,630	--	>15,000	2,127	>15,000	1,320	--	699	1,324	--	--	2,558	1,721	--	658	--	--	856	--	2,616	2,049	4,925	>15,000	--	4,460	841	2,359	674									
12/03/18	3	HW-1, HW-5, HW-7, RW-1, 4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	389	--	4,373	4,284	--	3,376	--	--	>15,000	857	--	2,685	1,013	--	--	362	--	--	532	--	--	538	--	1,507	1,123	>15,000	>15,000	--	--	596	61	309	--									
03/27/19	3	HW-1, HW-5, HW-7, RW-1, 4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	402	--	1,613	3,764	1,013	4,284	--	--	>15,000	316	4,400	124	--	214	975	--	--	402	--	--	399	--	--	1,116	--	961	715	5,575	>15,000	--	>15,000	549	2,740	--								
05/08/19	3	HW-1, HW-5, HW-7, RW-1, 4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	14	--	--	--	283	3,764	--	--	--	--	--	--	7	--	--	--	569	172	--	--	--	14	94	--	--	>15,000	248	--	1,107	709	2,740	--										
05/31/19	3	HW-1, HW-5, HW-7, RW-1, 4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	13	--	1,326	896	325	--	--	246	3,960	85	--	80	181	--	--	493	223	--	--	--	--	--	--	--	--	--	--	--	--	42	--	--	--									
06/05/19		HW-1, HW-5, HW-7, RW-1, 4, -5, -9, -10, -11, -14, -18, VEW-40, RW-22, -24, -26, -27, -28, -29, -35, -40, -44, 30, -32, -33, -36, -37, -41, -42, -43, -46, -47, -48, -49, -50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1,414	--	384	639	1,107	561	--									
07/22/19		(RW-23, RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-24, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	23	--	827	679	293	--	2,250	370	3,680	145	--	75	205	61	--	634	311	65	123	--	--	203	224	461	245	1,743	1,465	--	363	780	1,175	688	--									
08/26/19	7	(RW-23, RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-24, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	4	11	10	431	407	331	15	25	2,460	229	2,440	154	12	64	189	42	10	10	505	211	59	98	74	7	135	179	235	153	986	813	75	397	794	950	630								
09/23/19		(RW-23, RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-24, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	12	--	453	340	325	--	23	1,670	233	1,752	89	--	47	180	44	--	578	320	29	101	--	--	126	15	316	264	1,113	750	--	147	313	128	267									
12/04/19	7	(RW-30, RW-31, RW-32), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	0	0	8	392	226	160	18	18	1,838	314	2,454	10	14	4	140	8	--	--	--	120	2	4	170	24	344	216	1,126	638	28	270	504	80	400	--									
01/08/20	3	(RW-30, RW-31, RW-32), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	--	--	630	330	260	--	<20	1,920	222	2,700	--	--	144	--	--	--	--	--	94	--	--	104	--	352	280	1,100	600	--	330	640	84	316	--									
03/05/20	3,7	(RW-21, RW-23), (VEW-39, RW-30, RW-31, RW-32, RW-34), (VEW-38, VEW-40, RW-26, RW-28), (RW-24, RW-25, RW-27, RW-33, RW-43), (RW-19, RW-20, RW-22, RW-29, RW-45), (RW-35, RW-36, RW-39, RW-40, RW-44), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	0	0	4	454	536	240	0	8	1,945	470	3,940	4	4	0	126	4	4	4	508	346	2	46	0	0	80	2	270	182	1,192	688	4	292	520	196	294								
05/01/20		(RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-33), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	--	--	388	254	186	--	--	1,720	354	1,800	--	--	141	--	--	--	284	246	--	2	--	--	96	--	259	134	1,252	572	--	302	997	155	235	--								
05/21/20		(RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-33), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	--	--	375	248	188	--	--	1,650	405	2,478	--	--	102	--	--	--	170	82	--	20	--	--	70	--	186	132	1,156	622	--	230	352	212	224	--								
10/02/20	7	(RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-33), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	2	--	4	174	54	68	5	24	750	72	926	--	--	66	4	--	--	110	70	16	18	--	4	56	6	252	122	1,044	574	66	54	76	16	128	--								
10/27/20		(RW-30, RW-31, RW-32), (VEW-40, RW-26, RW-28), (RW-33), (RW-22, RW-29), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	--	--	242	184	116	18	--	1,115	302	2,352	--	--	118	--	--	--	184	165	--	16	--	--	86	--	208	162	988	588	--	270	386	10	178	--								
01/21/21	7	(RW-30), (VEW-40, RW-26, RW-28), (RW-33), (RW-22, RW-29), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	0	0	0	6	0	0	0	0	2	12	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	64	8	0	2	2	0	2	2	2	96	94	1,156	394	8	166	462	0	104
03/05/21		(RW-21, RW-23), (RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-24, RW-25, RW-27, RW-33, RW-43), (RW-22, RW-29, RW-45), (RW-35, RW-36, RW-39, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	8	4	--	282	--	--	--	36	1,144	136	842	10	4	16	42	8	--	--	8	2	--	16	--	--	102	--	196	90	844	524	--	130	288	14	104	--							
04/29/21		(RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	--	--	178	--	--	--	2	715	26	388	--	--	22	--	--	--	--	--	--	--	--	--	--	208	94	620	412	--	78	74	14	74	--									
07/22/21		(RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	--	--	--	--	--	--	2	738	68	636	--	--	60	--	--	--	--	--	--	--	--	--	--	184	87	688	362	--	10	18	2	34	--									





**TABLE 9D**  
**Historical Summary of Field Vapor Readings - Southern Area Vertical Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Notes	Vapor Extraction System(s) Wells On Line *	Well GRO Concentration (ppmv) / Screen Interval in Feet Below Grade																																	
			Trunkline #2, VECV #6		Trunkline #2, VECV #7				Trunkline #2, VECV #8				Trunkline #2, VECV #9				Trunkline #2, VECV #10				Trunkline #2, VECV #11				Trunkline #2, VECV #12				Trunkline #2, VECV #13							
			RW-21	RW-23	VEW-39	RW-30	RW-31	RW-32	RW-34	VEW-38	VEW-40	RW-26	RW-28	RW-24	RW-25	RW-27	RW-33	RW-43	RW-19	RW-20	RW-22	RW-29	RW-45	RW-35	RW-36	RW-39	RW-40	RW-44	RW-36	RW-37	RW-41	RW-42	RW-46	RW-47	RW-48	RW-49
09/02/21		(RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	--	--	210	--	--	--	2	725	71	586	--	--	--	55	--	--	--	--	8	--	--	75	--	136	78	726	351	--	62	54	8	65	
10/06/22	7	(RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	0	10	4	160	4	8	12	2	554	30	318	2	0	0	52	0	0	0	0	2	28	0	0	74	8	130	102	716	264	10	--	--	--	--
01/13/22		(RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	--	--	160	--	--	--	44	674	140	680	--	--	--	78	--	--	--	--	95	--	--	72	--	104	454	706	212	--	30	6	0	48	
03/01/22		(RW-30), (VEW-38, VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	--	--	155	--	--	--	35	586	105	706	--	--	--	66	--	--	--	--	43	--	--	75	--	115	95	690	275	--	42	21	2	55	
08/04/22		(RW-30), (VEW-40, RW-26, RW-28), (RW-33), (RW-35, RW-40), (RW-36, RW-37, RW-41, RW-42), (RW-47, RW-48, RW-49, RW-50)	--	--	--	122	--	--	--	--	440	40	200	--	--	--	82	--	--	--	--	10	--	--	48	--	70	142	598	336	--	68	12	4	70	

**Legend / Notes:**

GRO = Gasoline range organics      ppmv = Parts per million by volume      OVA = Organic Vapor Analyzer      -- = Readings not taken      VES = Vapor extraction system

Concentrations measured using calibrated field OVA.

1 = Wells RW-20 through RW-24, RW-26, and RW-28 through RW-33 initially tied into carbon VES during early August 2017 following installation per SG's June 30, 2017 Remediation Well Installation Update Report.

2 = For full list of wells on line, see SGI's November 15, 2017 Remediation Status Report - Third Quarter 2017 and February 15, 2018 Remediation Status Report - Fourth Quarter 2017, respectively.

3 = See Tables 9A, 9B and 9C for applicable HW, VEW and RW on line well field vapor readings.

4 = Wells RW-20 through RW-24, RW-26, and RW-28 through RW-33 disconnected from carbon VES and tied into thermal oxidizer VES upon 01/08/18 startup (see SGI's May 15, 2018 Remediation Status Report - First Quarter 2018 for details).

5 = Wells RW-19, RW-25, RW-27, RW-34, and RW-39 through RW-46 tied into thermal oxidizer VES during late June 2018 following installation per SGI's July 2018 Well Installation Completion Report.

6 = New Thermal Oxidizer system startup on 3/13/18.

7 = Closed wells were opened to check for rebound concentrations.

\* = Carbon VES only through 2017 and also includes thermal oxidizer VES wells online after 2017.

**TABLE 10**  
**Historical Summary of Analytical Vapor Sampling Results - Individual Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Well ID	Sample Date	Notes	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
HW-1	07/09/14	1	8015 & 8260B	69	23	96	<0.2	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.6	<2.0
	10/23/14			3.3	<4.9	<20	<0.2	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.6	<2.0
	04/27/15			1,455	830	3,400	1.1	3.5	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/10/15			1,947	2,700	11,000	1.0	3.3	<0.13	<0.50	0.25	1.1	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	02/08/16			520	440	1,800	0.88	2.8	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	04/06/16			420	340	1,400	1.0	3.2	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	01/18/17	2		80	88	310	0.59	1.9	0.18	0.67	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	11/02/17			346	240	1,000	0.59	1.9	<0.13	<0.50	0.15	0.66	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	02/12/18			60	27	110	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	03/28/18			167	180	730	0.34	1.1	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/06/18			--	110	450	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	02/12/19			1,845	810	3,300	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	11/25/19			730	200	820	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	02/18/20			139	24	98	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	05/15/20			199	24	100	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	08/24/20			141	12	50	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	11/05/20			107	8.3	34	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	02/24/21			43	8.3	34	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	07/07/21			79	17	68	<0.16	<0.5	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	10/18/21			38	14	58	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0
01/18/22		38	6.4	26	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0		
05/10/22		41	6.8	28	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0		
08/08/22		12	<4.9	<20	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0		
HW-3 *	07/09/14	1	8015 & 8260B	20	<4.9	<20	<0.2	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.6	<2.0
	10/23/14			20	<4.9	<20	<0.2	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.6	<2.0
	04/27/15			138	66	270	0.28	0.9	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/10/15			28	7.3	30	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	01/18/17	2		17	8.5	30	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
HW-5	07/09/14	1	8015 & 8260B	140	46	190	<0.2	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.6	<2.0
	10/23/14			2.9	<4.9	<20	<0.2	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.6	<2.0
	04/27/15			400	290	1,200	0.17	0.55	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	0.30	1.3	<0.55	<2.0
	08/10/15			676	930	3,800	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	02/08/16			300	320	1,300	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	04/06/16			260	210	870	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/08/16			190	120	480	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	01/18/17	2		180	85	300	0.34	1.1	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	11/02/17			105	39	160	0.21	0.7	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	02/12/18			75	90	370	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	03/28/18			91	140	560	0.63	2.0	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/06/18			--	100	410	0.50	1.6	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	02/12/19			696	270	1,100	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	11/25/19			501	170	710	0.56	1.8	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	02/18/20			4	<4.9	<20	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
05/15/20		8	<4.9	<20	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0		
08/24/20		12	<4.9	<20	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0		

**TABLE 10**  
**Historical Summary of Analytical Vapor Sampling Results - Individual Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Well ID	Sample Date	Notes	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
HW-5	11/05/20			49	<4.9	<20	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	02/24/21			6	<4.9	<20	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	07/07/21			37	<4.9	<20	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	10/18/21			7	<4.9	<20	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0
	01/18/22			22	<4.9	<20	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0
	05/10/22			55	<4.9	<20	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0
	08/08/22			6	<4.9	<20	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0
HW-7 *	07/09/14	1	8015 & 8260B	4,176	2,055	8,400	3.1	10	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.6	<2.0
	10/23/14			2.0	<4.9	<20	<0.2	<0.50	<0.1	<0.50	<0.1	<0.50	<0.1	<0.50	<0.2	<1.0	<0.6	<2.0
	04/27/15			810	590	2,400	3.4	11	0.69	2.6	0.32	1.4	0.20	0.88	1.2	5.0	<0.55	<2.0
	08/10/15			732	950	3,900	6.3	20	0.34	1.3	0.64	2.8	0.30	1.3	2.3	10	<0.55	<2.0
	02/08/16			240	190	780	1.2	3.8	0.37	1.4	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	04/06/16			220	170	710	1.4	4.4	0.53	2.0	<0.12	<0.50	<0.12	<0.50	0.28	1.2	<0.55	<2.0
	08/08/16			230	170	710	2.0	6.5	0.56	2.1	<0.12	<0.50	<0.12	<0.50	0.32	1.4	<0.55	<2.0
	01/18/17	2		200	110	370	2.0	6.5	0.82	3.1	0.12	0.52	0.12	0.51	0.35	1.5	<0.55	<2.0
	05/03/17			260	240	1,000	2.1	6.6	1.2	4.6	0.15	0.64	0.15	0.66	0.51	2.2	<0.55	<2.0
	11/02/17			334	210	860	2.3	7.4	1.2	4.4	0.18	0.78	0.16	0.68	0.51	2.2	<0.55	<2.0
	02/12/18			290	230	960	1.3	4.0	0.48	1.8	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	03/28/18			270	190	760	0.59	1.9	0.21	0.79	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/06/18			--	210	840	1.30	4.2	0.80	3.00	0.12	0.53	0	1	0	2	<0.55	<2.0
	02/12/19			696	240	1,000	2.30	7.2	0.88	3.30	0.14	0.60	0	1	0	2	<0.55	<2.0
	11/25/19			730	240	1,000	0.53	1.7	0.42	1.60	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	02/18/20			149	16	64	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	05/15/20			697	190	760	0.81	2.6	0.69	2.6	<0.12	<0.50	0.12	0.54	0.28	1.2	<0.55	<2.0
	08/24/20			615	130	540	0.88	2.8	0.45	1.70	<0.12	<0.50	<0.12	<0.50	0.28	1.2	<0.55	<2.0
	11/05/20			165	18	72	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	02/24/21			35	6.6	27	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
07/07/21		153	34	140	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0		
10/18/21		121	29	120	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0		
01/18/22		1,373	460	1,900	<0.078	<0.25	0.069	0.26	<0.058	<0.25	0.090	0.39	0.12	0.52	<0.28	<1.0		
05/10/22		373	160	640	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0		
08/08/22		53	78	320	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0		
HW-8	11/25/19	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	02/18/20			3	<4.9	<20	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	05/15/20			7	<4.9	<20	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	08/24/20			15	<4.9	<20	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	11/05/20			124	<4.9	<20	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
HW-9	11/25/19	8		1,820	390	1,600	<0.16	<0.5	<0.13	<0.50	0.25	1.1	0.35	1.50	0.94	4.10	<0.55	<2.0
	02/18/20			530	320	1,300	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	05/15/20			1,058	510	2,100	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	08/24/20			7,848	560	2,300	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	11/05/20			1,421	340	1,400	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
	02/24/21			1,287	320	1,300	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0
07/07/21		613	160	670	<0.16	<0.50	<0.13	<0.5	<0.12	<0.5	<0.12	<0.5	<0.23	<1.0	<0.55	<2.0		
10/18/21		621	180	740	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	0.12	0.53	<0.28	<1.0		

**TABLE 10**  
**Historical Summary of Analytical Vapor Sampling Results - Individual Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Well ID	Sample Date	Notes	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
HW-9	01/18/22		8015 & 8260B	796	210	840	<0.078	<0.25	<0.066	<0.25	<0.058	<0.25	<0.058	<0.25	<0.12	<0.5	<0.28	<1.0
	05/10/22			754	190	790	<0.078	<0.25	<0.066	<0.25	<b>0.092</b>	<b>0.40</b>	<0.058	<0.25	<b>0.16</b>	<b>0.70</b>	<0.28	<1.0
	08/08/22			420	190	770	<0.078	<0.25	<0.066	<0.25	<b>0.064</b>	<b>0.28</b>	<0.058	<0.25	<b>0.14</b>	<b>0.60</b>	<0.28	<1.0
VEW-32	07/09/14	1		154	132	540	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	10/23/14			191	19	76	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	04/27/15			210	320	1,300	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/10/15			456	460	1,900	<b>0.66</b>	<b>2.1</b>	<0.13	<0.50	<b>0.23</b>	<b>1.0</b>	<0.12	<0.50	<b>0.46</b>	<b>2.0</b>	<0.55	<2.0
	02/08/16			160	130	550	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	04/06/16			60	17	68	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
06/27/17		9.0		<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
VEW-33	07/09/14	1		10	<4.9	<20	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	10/23/14			22	6.6	27	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	04/27/15			324	270	1,100	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/10/15			334	290	1,200	<b>0.50</b>	<b>1.6</b>	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<b>0.32</b>	<b>1.4</b>	<0.55	<2.0
	02/08/16			220	270	1,100	<b>0.38</b>	<b>1.2</b>	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	04/06/16			380	340	1,400	<b>0.50</b>	<b>1.6</b>	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<b>0.25</b>	<b>1.1</b>	<0.55	<2.0
06/27/17		5.8		<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
VEW-34	07/09/14	1		4.2	<4.9	<20	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	10/23/14			8.0	<4.9	<20	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	04/27/15			115	44	180	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/10/15			63	14	57	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
06/27/17		7.0		<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
VEW-35	07/09/14	1		5.5	<4.9	<20	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	10/23/14			28	<4.9	<20	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	04/27/15			4.8	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/10/15			16.4	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
06/27/17		4.5		<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
VEW-36	07/09/14	1		6.4	<4.9	<20	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	10/23/14			9.1	<4.9	<20	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	04/27/15			5.7	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/10/15			2.2	8.1	33	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
06/27/17		6.7		<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
VEW-37	07/09/14	1		20	<4.9	<20	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	10/23/14			151	<4.9	<20	<0.2	<0.5	<0.1	<0.5	<0.1	<0.5	<0.1	<0.5	<0.2	<1.0	<0.6	<2.0
	04/27/15			2.4	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	08/10/15			3.9	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
06/27/17		5.7		<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
VEW-38	06/27/17	3		331	37	150	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	07/27/17			--	490	2,000	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	09/07/17			480	440	1,800	<0.16	<0.50	<0.13	<0.50	<b>0.17</b>	<b>0.74</b>	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
06/27/18	4	51		8.3	34	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
VEW-39	06/27/17	3		130	37	150	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	07/27/17		--	1,100	4,300	<b>0.41</b>	<b>1.3</b>	<0.13	<0.50	<b>0.78</b>	<b>3.4</b>	<0.12	<0.50	<b>0.62</b>	<b>2.7</b>	<0.55	<2.0	
09/07/17		190	29	120	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0		
VEW-40	06/27/17	3	3,018	2,700	11,000	<b>0.28</b>	<b>0.88</b>	<0.13	<0.50	<b>0.99</b>	<b>4.3</b>	<0.12	<0.50	<b>0.81</b>	<b>3.5</b>	<0.55	<2.0	

**TABLE 10**  
**Historical Summary of Analytical Vapor Sampling Results - Individual Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Well ID	Sample Date	Notes	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
VEW-40	07/27/17		8015 & 8260B	--	8,800	36,000	1.4	4.4	<0.13	<0.50	8.5	37	0.23	1.0	5.3	23	<0.55	<2.0
	09/07/17			9,200	7,600	31,000	0.97	3.1	<0.13	<0.50	3.7	16	0.25	1.1	2.2	9.0	<0.55	<2.0
	06/27/18	4		5,100	2,900	12,000	<0.78	<2.5	<0.78	<2.5	0.78	3.4	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RW-1	08/09/17	5		1,268	1,100	4,400	1.7	5.4	3.7	14	0.85	3.7	0.55	2.4	2.5	11	<0.55	<2.0
	09/07/17			3,860	2,300	9,600	6.3	20	16	60	2.8	12	2.0	8.9	7.4	32	<0.55	<2.0
RW-2	08/09/17	5		16	39	160	0.19	0.61	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	03/14/18			31	22	92	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-3	03/14/18	6		68	37	150	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-4	03/14/18	6		598	460	1,900	1.8	5.9	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-5	03/14/18	6		4,600	2,900	12,000	1.7	5.5	<0.13	<0.50	0.78	3.4	0.18	0.76	2.5	11	<0.55	<2.0
RW-7	08/09/17	5		120	320	1,300	<0.16	<0.50	0.14	0.53	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	03/14/18			54	64	260	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-9	08/09/17	5		1,164	1,100	4,500	0.44	1.4	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	09/07/17			320	240	1,000	0.75	2.4	<0.13	<0.50	0.19	0.83	<0.12	<0.50	0.41	1.8	<0.55	<2.0
	03/14/18			2,824	2,000	8,100	18	59	<0.13	<0.50	5.1	22	3.0	13	9.4	41	<0.55	<2.0
RW-10	03/14/18	6		>10,000	14,000	58,000	14	45	<0.13	<0.50	0.69	3.0	0.53	2.3	5.8	25	<0.55	<2.0
RW-11	03/14/18	6		420	230	950	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-12	08/09/17	5		76	100	420	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	03/14/18			5.5	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-13	08/09/17	5		2,440	1,800	7,400	1.6	5.0	<0.13	<0.50	0.22	0.95	0.28	1.2	1.7	7.4	<0.55	<2.0
	09/07/17			2,870	1,800	7,400	5.9	19.0	<0.13	<0.50	1.8	7.9	1.5	6.4	6.4	28	<0.55	<2.0
	03/14/18			2,000	7,300	30,000	9.1	29	<0.13	<0.50	0.64	2.8	0.46	2.0	1.8	7.6	<0.55	<2.0
RW-14	03/14/18	6		1,235	950	3,900	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-18	08/09/17	5		374	170	700	1.3	4.2	<0.13	<0.50	0.32	1.4	0.28	1.2	1.2	5.3	<0.55	<2.0
	09/07/17			679	320	1,300	2.2	7.1	0.7	3	0.62	2.7	0.53	2.3	2.2	9.6	<0.55	<2.0
	03/14/18			937	490	2,000	1.4	4.4	<0.13	<0.50	<0.12	<0.50	0.25	1.1	0.76	3.3	<0.55	<2.0
RW-19	06/27/18	4		43	4.9	20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-20	08/16/17	5		129	73	300	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	09/07/17			58	61	250	<0.16	<0.50	<0.13	<0.50	0.16	0.69	<0.12	<0.50	0.32	1.4	<0.55	<2.0
	06/27/18	4		42	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-21	08/09/17	5	160	95	390	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
	06/27/18	4	55	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
RW-22	08/16/17	5	1,775	1,600	6,700	0.38	1.2	<0.13	<0.50	3.2	14	0.20	0.88	4.6	20	<0.55	<2.0	
	09/07/17		1,379	1,200	5,000	0.44	1.4	<0.13	<0.50	2.2	9.5	0.48	2.1	3.2	14	<0.55	<2.0	
	06/27/18	4	2,595	1,200	4,800	<0.78	<2.5	<0.66	<2.5	<0.58	<2.5	<0.58	<2.5	<1.2	<5.0	<2.8	<10	
RW-23	08/09/17	5	787	660	2,700	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
	09/07/17		141	83	340	<0.16	<0.50	<0.13	<0.50	0.25	1.1	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
RW-24	08/16/17	5	1,525	1,400	5,900	<0.16	<0.50	<0.13	<0.50	0.19	0.82	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
	09/07/17		1,423	930	3,800	<0.16	<0.50	<0.13	<0.50	0.37	1.6	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
	06/27/18	4	459	98	400	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
RW-25	06/27/18	4	89	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
RW-26	08/09/17	5	4,340	7,100	29,000	0.23	0.75	<0.13	<0.50	0.94	4.1	<0.12	<0.50	0.35	1.5	<0.55	<2.0	
	09/07/17		3,290	3,200	13,000	<0.16	<0.50	<0.13	<0.50	0.88	3.8	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
	06/27/18	4	1,821	710	2,900	<0.78	<2.5	<0.66	<2.5	<0.58	<2.5	<0.58	<2.5	<1.2	<5.0	<2.8	<10	
RW-27	06/27/18	4	1,215	420	1,700	<0.31	<1.0	<0.27	<1.0	<0.23	<1.0	<0.23	<1.0	<0.46	<2.0	<1.1	<4.0	



**TABLE 10**  
**Historical Summary of Analytical Vapor Sampling Results - Individual Wells**  
 DFSP, Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Well ID	Sample Date	Notes	Laboratory Analysis Methods	GRO Field OVA Reading	GRO		Benzene		Toluene		Ethylbenzene		o-Xylene		m,p-Xylenes		MTBE	
				(ppmv)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)	(ppmv)	(µg/L)
RW-28	08/09/17	5	8015 & 8260B	<b>8,420</b>	<b>7,600</b>	<b>31,000</b>	<b>2.4</b>	<b>7.6</b>	<0.13	<0.50	<b>9.4</b>	<b>41</b>	<b>0.28</b>	<b>1.2</b>	<b>3.7</b>	<b>16</b>	<0.55	<2.0
	09/07/17			<b>8,080</b>	<b>7,300</b>	<b>30,000</b>	<b>1.7</b>	<b>5.5</b>	<0.13	<0.50	<b>8.1</b>	<b>35</b>	<b>0.25</b>	<b>1.1</b>	<b>3.0</b>	<b>13</b>	<0.55	<2.0
	06/27/18	4		<b>5,000</b>	<b>4,200</b>	<b>17,000</b>	<0.78	<2.5	<0.66	<2.5	<b>2.3</b>	<b>10</b>	<0.58	<2.5	<b>1.9</b>	<b>8.2</b>	<2.8	<10
RW-29	08/09/17	5		<b>620</b>	<b>640</b>	<b>2,600</b>	<b>0.16</b>	<b>0.52</b>	<0.13	<0.50	<b>0.17</b>	<b>0.75</b>	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	09/07/17			<b>1,123</b>	<b>930</b>	<b>3,800</b>	<b>0.17</b>	<b>0.54</b>	<0.13	<0.50	<b>0.13</b>	<b>0.56</b>	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	06/27/18	4		<b>2,563</b>	<b>780</b>	<b>3,200</b>	<0.78	<2.5	<0.66	<2.5	<0.58	<2.5	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RW-30	08/09/17	5		<b>6,550</b>	<b>12,000</b>	<b>50,000</b>	<b>0.85</b>	<b>2.7</b>	<0.13	<0.50	<b>17</b>	<b>72</b>	<0.12	<0.50	<b>0.81</b>	<b>3.5</b>	<0.55	<2.0
	09/07/17			<b>8,240</b>	<b>3,200</b>	<b>13,000</b>	<0.16	<0.50	<0.13	<0.50	<b>6.9</b>	<b>30</b>	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	06/27/18	4		<b>32</b>	<b>13</b>	<b>54</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-31	08/09/17	5		<b>7,165</b>	<b>6,800</b>	<b>28,000</b>	<b>1.2</b>	<b>3.9</b>	<b>0.20</b>	<b>0.76</b>	<b>3.2</b>	<b>14</b>	<b>1.6</b>	<b>7.1</b>	<b>3.7</b>	<b>16</b>	<0.55	<2.0
	09/07/17			<b>3,400</b>	<b>2,900</b>	<b>12,000</b>	<b>0.4</b>	<b>1.4</b>	<0.13	<0.50	<b>3.0</b>	<b>13</b>	<b>1.1</b>	<b>4.9</b>	<b>2.3</b>	<b>10</b>	<0.55	<2.0
	06/27/18	4		<b>80</b>	<b>12</b>	<b>51</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-32	08/16/17	5		<b>820</b>	<b>880</b>	<b>3,600</b>	<0.16	<0.50	<0.13	<0.50	<b>0.78</b>	<b>3.4</b>	<0.12	<0.50	<b>0.28</b>	<b>1.2</b>	<0.55	<2.0
	09/07/17			<b>715</b>	<b>810</b>	<b>3,300</b>	<b>0.17</b>	<b>0.54</b>	<0.13	<0.50	<b>0.55</b>	<b>2.4</b>	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	06/27/18	4		<b>421</b>	<b>66</b>	<b>270</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-33	08/16/17	5		<b>1,230</b>	<b>860</b>	<b>3,500</b>	<0.16	<0.50	<0.13	<0.50	<b>0.44</b>	<b>1.9</b>	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	09/07/17			<b>836</b>	<b>640</b>	<b>2,600</b>	<0.16	<0.50	<0.13	<0.50	<b>0.35</b>	<b>1.5</b>	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
	06/27/18	4		<b>843</b>	<b>210</b>	<b>840</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-34	06/27/18	4		<b>46</b>	<4.9	<20	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-35	06/27/18	4		<b>416</b>	<b>83</b>	<b>340</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-36	06/27/18	4		<b>452</b>	<b>440</b>	<b>1,800</b>	<0.78	<2.5	<0.66	<2.5	<0.58	<2.5	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RW-37	06/27/18	4		<b>1,509</b>	<b>210</b>	<b>850</b>	<0.31	<1.0	<0.27	<1.0	<0.23	<1.0	<0.23	<1.0	<0.46	<2.0	<1.1	<4.0
RW-38	06/27/18	4		<b>134</b>	<b>24</b>	<b>100</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-39	06/27/18	4		<b>24</b>	<b>37</b>	<b>150</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-40	06/27/18	4		<b>1,782</b>	<b>2,900</b>	<b>12,000</b>	<0.78	<2.5	<0.66	<2.5	<b>0.78</b>	<b>3.4</b>	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RW-41	06/27/18	4		<b>849</b>	<b>1,300</b>	<b>5,300</b>	<0.78	<2.5	<0.66	<2.5	<0.58	<2.5	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RW-42	06/27/18	4		<b>3,040</b>	<b>1,500</b>	<b>6,200</b>	<0.78	<2.5	<0.66	<2.5	<0.58	<2.5	<0.58	<2.5	<1.2	<5.0	<2.8	<10
RW-43	06/27/18	4		<b>886</b>	<b>230</b>	<b>950</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0
RW-44	06/27/18	4		<b>728</b>	<b>88</b>	<b>360</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<b>2.2</b>	<b>9.4</b>	<b>0.60</b>	<b>2.6</b>	<0.55	<2.0
RW-45	06/27/18	4		<b>56</b>	<b>14</b>	<b>57</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<b>0.12</b>	<b>0.50</b>	<0.23	<1.0	<0.55	<2.0
RW-46	06/27/18	4	<b>191</b>	<b>44</b>	<b>180</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
RW-47	06/27/18	4	<b>751</b>	<b>240</b>	<b>1,000</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
RW-48	06/27/18	4	<b>1,454</b>	<b>540</b>	<b>2,200</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
RW-49	06/27/18	4	<b>823</b>	<b>180</b>	<b>720</b>	<0.16	<0.50	<0.13	<0.50	<0.12	<0.50	<0.12	<0.50	<0.23	<1.0	<0.55	<2.0	
RW-50	06/27/18	4	<b>5,000</b>	<b>1,600</b>	<b>6,500</b>	<0.78	<2.5	<0.66	<2.5	<b>1.2</b>	<b>5.0</b>	<0.58	<2.5	<1.2	<5.0	<2.8	<10	
RTF-18-NW	10/05/17	7	<b>9,000</b>	<b>16,000</b>	<b>67,000</b>	<b>100</b>	<b>330</b>	<b>0.18</b>	<b>0.66</b>	<b>12</b>	<b>52</b>	<b>13</b>	<b>56</b>	<b>60</b>	<b>260</b>	<0.55	<2.0	
	10/09/17	7	<b>3,635</b>	<b>18,000</b>	<b>72,000</b>	<b>170</b>	<b>550</b>	<1.3	<5.0	<b>17</b>	<b>75</b>	<b>19</b>	<b>83</b>	<b>92</b>	<b>400</b>	<5.5	<20	

**Legend / Notes:**

GRO = Gasoline range organics  
 OVA = Organic Vapor Analyzer (calibrated or correlated to Hexane)  
 MTBE = Methyl tertiary-butyl ether  
 ppmv = Parts per million by volume  
 µg/L = Micrograms per liter  
 <0.6 = Not detected at or above the method reporting limit (MRL) shown.  
 -- = Not measured

**- Reported concentrations are shown in bold.**

- 1 = Samples collected following system restart (off line since manual shut down on 05/29/14).
- 2 = Field OVA reading from 01/09/17.
- 3 = System tie in work to allow for vapor extraction completed during late June 2017 following installation per SGI's March 14, 2017 *Well Replacement Report and Work Plan*.
- 4 = System tie in work to allow for vapor extraction completed during late June 2018 following installation per SGI's July 2018 *Well Installation Completion Report*.
- 5 = System tie in work to allow for vapor extraction completed during early August 2017 following installation per SGI's June 30, 2017 *Remediation Well Installation Update Report*.
- 6 = System tie in work to allow for vapor extraction completed during mid-February 2018 following installation per SGI's June 30, 2017 *Remediation Well Installation Update Report*.
- 7 = Well temporarily utilized as an extraction point as part of vacuum enhanced LNAPL recovery testing per SGI's July 2018 *LNAPL Recovery Testing Report*.
- 8 = HW-3 abandoned and replaced on 6/7/19 and 6/10/19 and replaced with new horizontal wells HW-8 and HW-9. Nw HW's connected to VES Carbon system on 7/16/19.
- \* = Tabulated data corrected after determining well HW-3 was incorrectly labeled as well HW-7 and vice versa during late July 2017 re-development work.



**TABLE 11A**  
**Biosparge System Operations Summary - July**  
 DFSP Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	Cumulative Blower Runtime (hours)	Blower Discharge Pressure (psig)	Blower Discharge Temperature (°F)	HE Outlet Temperature (°F)	Main Header Pressure (psig)	Sparge Total Flow-dP (in WC)	Sparge Total Pressure (psig)	Sparge Total Temperature (°F)
07/01/22	Technician		22,446.2	11	235	135	9	8.0	8	120
07/02/22	*		22,460.9	--	--	--	--	--	--	--
07/03/22	*		22,475.6	--	--	--	--	--	--	--
07/04/22	*		22,490.3	--	--	--	--	--	--	--
07/05/22	*		22,505.0	--	--	--	--	--	--	--
07/06/22	*		22,519.7	--	--	--	--	--	--	--
07/07/22	*		22,534.4	--	--	--	--	--	--	--
07/08/22	Technician		22,549.1	11	235	125	6	9.8	6	120
07/09/22	*		22,573.6	--	--	--	--	--	--	--
07/10/22	*		22,598.0	--	--	--	--	--	--	--
07/11/22	*		22,622.5	--	--	--	--	--	--	--
07/12/22	Technician		22,646.9	13	240	131	10	8.9	9	115
07/13/22	*		22,670.2	--	--	--	--	--	--	--
07/14/22	*		22,693.6	--	--	--	--	--	--	--
07/15/22	Technician	1	22,716.9	--	--	--	--	--	--	--
07/16/22	Offline		22,723.8	--	--	--	--	--	--	--
07/17/22	Offline		22,730.6	--	--	--	--	--	--	--
07/18/22	Offline		22,737.5	--	--	--	--	--	--	--
07/19/22	Offline		22,744.3	--	--	--	--	--	--	--
07/20/22	Technician	2	22,751.2	--	--	--	--	--	--	--
07/21/22	*		22,758.0	--	--	--	--	--	--	--
07/22/22	Technician	1	22,764.9	10	235	134	10	8.8	10	124
07/23/22	Offline		22,765.3	--	--	--	--	--	--	--
07/24/22	Offline		22,765.6	--	--	--	--	--	--	--
07/25/22	Offline		22,766.0	--	--	--	--	--	--	--
07/26/22	Offline		22,766.3	--	--	--	--	--	--	--
07/27/22	Offline		22,766.7	--	--	--	--	--	--	--
07/28/22	Offline		22,767.0	--	--	--	--	--	--	--
07/29/22	Technician	2	22,767.4	11	235	128	10	8.9	9	118
07/30/22	*		22,783.9	--	--	--	--	--	--	--
07/31/22	*		22,800.3	--	--	--	--	--	--	--

**Legend / Notes:**

System operating under SCAQMD Various Locations Permit #G52288

1 = Biosparge system manually shut down pending site-wide well temperature survey activities.

2 = Biosparge system restarted.

Biosparge wells on line this month (grouped by location):

**Central Area** - (TFB-15, -16, 17, -18, -19, -25), (TFB-20, -23, -24, -30, -33), (TFB-29, -32, -35, -36, -37, -38), (TFB-7, -9, -10, -11, -12, -13, -14), (TFB-21, -26, -27, -28, -31, -34), (BSP-25, -26, -28, -29, -30), (BSP-21, -22, -23, -24, -27), (TFB-1, -2, -4, -5, -6, -8). **Eastern Area**- (RW-1, -6, -15, -16, -17), (BSP-10, -11, RW-2, -7, -11), (BSP-12, -13, RW-3, -8, -12, -18), (BSP-14, RW-4, -5, -9, -10, -13, -14); **Southern Area** - (BSP-17, -18, RW-30, -31, -32, -34), (BSP-15, -16, -19, -20, -25, -28), (RW-22, -24, -27, -29, -33, -43), (RW-40), (RW-36, -37, -41, -42, -46), (RW-47, -48, -49, -50).

psig = pounds per square inch  
 in. WC = inches of water column  
 °F = Degrees Fahrenheit

NA = Not available

HE = Heat Exchanger

-- = Not applicable or not measured

\* = Operational values interpolated from chart recorder data or previous monitoring event.



**TABLE 11B**  
**Biosparge System Operations Summary - August**  
 DFSP Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	Cumulative Blower Runtime (hours)	Blower Discharge Pressure (psig)	Blower Discharge Temperature (°F)	HE Outlet Temperature (°F)	Main Header Pressure (psig)	Sparge Total Flow (in WC)	Sparge Total Pressure (psig)	Sparge Total Temperature (°F)
08/01/22	*		22,816.8	--	--	--	--	--	--	--
08/02/22	*		22,833.2	--	--	--	--	--	--	--
08/03/22	*		22,849.7	--	--	--	--	--	--	--
08/04/22	*		22,866.1	--	--	--	--	--	--	--
08/05/22	*		22,882.6	--	--	--	--	--	--	--
08/06/22	*		22,899.0	--	--	--	--	--	--	--
08/07/22	*		22,915.5	--	--	--	--	--	--	--
08/08/22	*		22,931.9	--	--	--	--	--	--	--
08/09/22	*		22,948.4	--	--	--	--	--	--	--
08/10/22	*		22,964.8	--	--	--	--	--	--	--
08/11/22	*		22,981.3	--	--	--	--	--	--	--
08/12/22	Technician		22,997.7	11	245	145	9	8.5	8.0	128
08/13/22	*		23,020.9	--	--	--	--	--	--	--
08/14/22	*		23,044.1	--	--	--	--	--	--	--
08/15/22	*		23,067.3	--	--	--	--	--	--	--
08/16/22	*		23,090.5	--	--	--	--	--	--	--
08/17/22	*		23,113.7	--	--	--	--	--	--	--
08/18/22	Technician		23,136.9	11	230	126	9	9.2	7.5	120
08/19/22	*		23,161.4	--	--	--	--	--	--	--
08/20/22	*		23,185.9	--	--	--	--	--	--	--
08/21/22	*		23,210.5	--	--	--	--	--	--	--
08/22/22	*		23,235.0	--	--	--	--	--	--	--
08/23/22	*		23,259.5	--	--	--	--	--	--	--
08/24/22	Technician		23,284.0	12	235	130	9	9.0	8.5	120
08/25/22	*		23,307.5	--	--	--	--	--	--	--
08/26/22	*		23,331.0	--	--	--	--	--	--	--
08/27/22	*		23,354.6	--	--	--	--	--	--	--
08/28/22	*		23,378.1	--	--	--	--	--	--	--
08/29/22	*		23,401.6	--	--	--	--	--	--	--
08/30/22	Technician		23,425.1	11	230	130	15	--	15.0	126
08/31/22	*		23,449.1	--	--	--	--	--	--	--

**Legend / Notes:**

System operating under SCAQMD Various Locations Permit #G52288

Biosparge wells on line this month (grouped by location):

**Central Area** - (TFB-15, -16, 17, -18, -19, -25), (TFB-20, -23, -24, -30, -33), (TFB-29, -32, -35, -36, -37, -38), (TFB-7, -9, -10, -11, -12, -13, -14), (TFB-21, -26, -27, -28, -31, -34), (BSP-25, -26, -28, -29, -30), (BSP-21, -22, -23, -24, -27), (TFB-1, -2, -4, -5, -6, -8). **Eastern Area** - (RW-1, -6, -15, -16, -17), (BSP-10, -11, RW-2, -7, -11), (BSP-12, -13, RW-3, -8, -12, -18), (BSP-14, RW-4, -5, -9, -10, -13, -14). **Southern Area** - (BSP-17, -18, RW-30, -31, -32, -34), (BSP-15, -16, -19, -20, -25, -28), (RW-22, -24, -27, -29, -33, -43), (RW-40), (RW-36, -37, -41, -42, -46), (RW-47, -48, -49, -50).

psig = pounds per square inch  
 in. WC = inches of water column  
 °F = Degrees Fahrenheit  
 NA = Not available  
 HE = Heat Exchanger  
 -- = Not applicable or not measured  
 \* = Operational values interpolated from chart recorder data or previous monitoring event.





**TABLE 11C**  
**Biosparge System Operations Summary - September**  
 DFSP Norwalk  
 15306 Norwalk Blvd., Norwalk, CA

Date	Data Source	Notes	Cumulative Blower Runtime (hours)	Blower Discharge Pressure (psig)	Blower Discharge Temperature (°F)	HE Outlet Temperature (°F)	Main Header Pressure (psig)	Sparge Total Flow (in WC)	Sparge Total Pressure (psig)	Sparge Total Temperature (°F)
09/01/22	Technician		23,473.1	--	--	--	--	--	--	--
09/02/22	Technician		23,475.5	14	275	150	11	7.5	--	--
09/03/22	*		23,481.6	--	--	--	--	--	--	--
09/04/22	*		23,487.8	--	--	--	--	--	--	--
09/05/22	*		23,493.9	--	--	--	--	--	--	--
09/06/22	*		23,500.0	--	--	--	--	--	--	--
09/07/22	*		23,506.2	--	--	--	--	--	--	--
09/08/22	Technician		23,512.3	26	285	134	21	--	--	--
09/09/22	*		23,532.5	--	--	--	--	--	--	--
09/10/22	*		23,552.7	--	--	--	--	--	--	--
09/11/22	*		23,572.9	--	--	--	--	--	--	--
09/12/22	*		23,593.1	--	--	--	--	--	--	--
09/13/22	*		23,613.3	--	--	--	--	--	--	--
09/14/22	*		23,633.5	--	--	--	--	--	--	--
09/15/22	*		23,653.7	--	--	--	--	--	--	--
09/16/22	*		23,673.9	--	--	--	--	--	--	--
09/17/22	*		23,694.1	--	--	--	--	--	--	--
09/18/22	*		23,714.3	--	--	--	--	--	--	--
09/19/22	*		23,734.6	--	--	--	--	--	--	--
09/20/22	*		23,754.8	--	--	--	--	--	--	--
09/21/22	*		23,775.0	--	--	--	--	--	--	--
09/22/22	*		23,795.2	--	--	--	--	--	--	--
09/23/22	*		23,815.4	--	--	--	--	--	--	--
09/24/22	*		23,835.6	--	--	--	--	--	--	--
09/25/22	*		23,855.8	--	--	--	--	--	--	--
09/26/22	*		23,876.0	--	--	--	--	--	--	--
09/27/22	*		23,896.2	--	--	--	--	--	--	--
09/28/22	*		23,916.4	--	--	--	--	--	--	--
09/29/22	Technician		23,936.6	15	235	122	12	8.0	12.0	120
09/30/22	*		23,961.0	--	--	--	--	--	--	--

**Legend / Notes:**

System operating under SCAQMD Various Locations Permit #G52288

Biosparge wells on line this month (grouped by location):

**Central Area** - (TFB-15, -16, 17, -18, -19, -25), (TFB-20, -23, -24, -30, -33), (TFB-29, -32, -35, -36, -37, -38), (TFB-7, -9, -10, -11, -12, -13, -14), (TFB-21, -26, -27, -28, -31, -34), (BSP-25, -26, -28, -29, -30), (BSP-21, -22, -23, -24, -27), (TFB-1, -2, -4, -5, -6, -8). **Eastern Area**- (RW-1, -6, -15, -16, -17), (BSP-10, -11, RW-2, -7, -11), (BSP-12, -13, RW-3, -8, -12, -18), (BSP-14, RW-4, -5, -9, -10, -13, -14). **Southern Area** - (BSP-17, -18, RW-30, -31, -32, -34), (BSP-15, -16, -19, -20, -25, -28), (RW-22, -24, -27, -29, -33, -43), (RW-40), (RW-36, -37, -41, -42, -46), (RW-47, -48, -49, -50).

psig = pounds per square inch

in. WC = inches of water column

°F = Degrees Fahrenheit

NA = Not available

HE = Heat Exchanger

-- = Not applicable or not measured

\* = Operational values interpolated from chart recorder data or previous monitoring event.



**APPENDIX A**

**LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS**



9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

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July 22, 2022

Neil Irish

The Source Group, Inc. (SH)  
1962 Freeman Ave.  
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013  
A5334593 / 2G12011**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 07/12/22 19:00 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile'.

Viorel Vasile  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334593  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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### VOCs BTEX/MTBE Vapor GC/MS

VES Carbon-Influent	2G12011-01	Vapor	5	07/12/22 10:05	07/12/22 19:00
VES Carbon-Effluent	2G12011-02	Vapor	5	07/12/22 10:30	07/12/22 19:00

### VOCs Gasoline Range Organics Vapor

VES Carbon-Influent	2G12011-01	Vapor	5	07/12/22 10:05	07/12/22 19:00
VES Carbon-Effluent	2G12011-02	Vapor	5	07/12/22 10:30	07/12/22 19:00

### VOCs in Vapor as Hexane

VES Carbon-Influent	2G12011-01	Vapor	5	07/12/22 10:05	07/12/22 19:00
VES Carbon-Effluent	2G12011-02	Vapor	5	07/12/22 10:30	07/12/22 19:00

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334593  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Sampled:** 07/12/22  
**Prepared:** 07/13/22  
**Analyzed:** 07/13/22

**VES Carbon-Influent**  
**2G12011-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	87.0 %	70-140
Dibromofluoromethane	87.8 %	70-140
Toluene-d8	87.7 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334593  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Sampled:** 07/12/22  
**Prepared:** 07/13/22  
**Analyzed:** 07/13/22

**VES Carbon-Effluent**  
**2G12011-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	86.0 %	70-140
Dibromofluoromethane	90.8 %	70-140
Toluene-d8	88.8 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334593  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Sampled:** 07/12/22  
**Prepared:** 07/14/22  
**Analyzed:** 07/14/22

**VES Carbon-Influent**  
**2G12011-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<b>100</b>	ug/L	20	<b>24</b>	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>				<b><u>%REC Limits</u></b>
a,a,a-Trifluorotoluene		100 %				70-130

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334593  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Sampled:** 07/12/22  
**Prepared:** 07/14/22  
**Analyzed:** 07/14/22

**VES Carbon-Effluent**  
**2G12011-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>			<b>%REC Limits</b>	
a,a,a-Trifluorotoluene		98.8 %			70-130	

**Viorel Vasile**  
 Operations Manager





### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334593  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Units:** ppmv

---

<b>Date Sampled:</b>	07/12/22	07/12/22	
<b>Date Prepared:</b>	07/14/22	07/14/22	
<b>Date Analyzed:</b>	07/14/22	07/14/22	
<b>AA ID No:</b>	2G12011-01	2G12011-02	
<b>Client ID No:</b>	VES	VES	
	Carbon-Influent	Carbon-Effluent	
<b>Matrix:</b>	Vapor	Vapor	
<b>Dilution Factor:</b>	1	1	MRL

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**VOCs in Vapor as Hexane (EPA 8015M)**

Total VOCs as Hexane	<b>18</b>	<4.9	4.9
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**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334593  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2G1319 - *** DEFAULT PREP ***</i>										
<b>Blank (B2G1319-BLK1)</b>				Prepared & Analyzed: 07/13/22						
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	43.6		ug/L	50.0		87.1	70-140			
<i>Surrogate: Dibromofluoromethane</i>	44.7		ug/L	50.0		89.3	70-140			
<i>Surrogate: Toluene-d8</i>	43.7		ug/L	50.0		87.5	70-140			
<b>LCS (B2G1319-BS1)</b>				Prepared & Analyzed: 07/13/22						
Benzene	<b>17.4</b>	0.50	ug/L	20.0		86.8	75-125			
Ethylbenzene	<b>21.4</b>	0.50	ug/L	20.0		107	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>32.1</b>	2.0	ug/L	40.0		80.4	75-125			
Toluene	<b>20.2</b>	0.50	ug/L	20.0		101	75-125			
o-Xylene	<b>21.1</b>	0.50	ug/L	20.0		105	75-125			
m,p-Xylenes	<b>43.8</b>	1.0	ug/L	40.0		109	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	41.9		ug/L	50.0		83.8	70-140			
<i>Surrogate: Dibromofluoromethane</i>	39.4		ug/L	50.0		78.8	70-140			
<i>Surrogate: Toluene-d8</i>	44.4		ug/L	50.0		88.8	70-140			
<b>LCS Dup (B2G1319-BSD1)</b>				Prepared & Analyzed: 07/13/22						
Benzene	<b>18.4</b>	0.50	ug/L	20.0		91.8	75-125	5.54	30	
Ethylbenzene	<b>22.2</b>	0.50	ug/L	20.0		111	75-125	3.85	30	
Methyl-tert-Butyl Ether (MTBE)	<b>37.9</b>	2.0	ug/L	40.0		94.7	75-125	16.4	30	
Toluene	<b>22.3</b>	0.50	ug/L	20.0		111	75-125	9.94	30	
o-Xylene	<b>22.6</b>	0.50	ug/L	20.0		113	75-125	7.28	30	
m,p-Xylenes	<b>46.3</b>	1.0	ug/L	40.0		116	75-125	5.68	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	42.7		ug/L	50.0		85.4	70-140			
<i>Surrogate: Dibromofluoromethane</i>	39.4		ug/L	50.0		78.7	70-140			
<i>Surrogate: Toluene-d8</i>	44.1		ug/L	50.0		88.2	70-140			
<b>Duplicate (B2G1319-DUP1)</b>				<b>Source: 2G12010-01</b> Prepared & Analyzed: 07/13/22						

**Viorel Vasile**  
 Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334593  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2G1319 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2G1319-DUP1) Continued Source: 2G12010-01 Prepared &amp; Analyzed: 07/13/22</b>										
Benzene	2.22	0.25	ug/L		1.76			23.2	30	
Ethylbenzene	1.44	0.25	ug/L		1.26			13.4	30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L						30	
Toluene	1.55	0.25	ug/L		1.41			9.46	30	
o-Xylene	1.67	0.25	ug/L		1.50			11.1	30	
m,p-Xylenes	5.09	0.50	ug/L		4.63			9.47	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	41.4		ug/L	50.0		82.8	70-140			
<i>Surrogate: Dibromofluoromethane</i>	50.4		ug/L	50.0		101	70-140			
<i>Surrogate: Toluene-d8</i>	41.4		ug/L	50.0		82.8	70-140			
<b>Gasoline Range Organics in Vapor by GC/FID - Quality Control</b>										
<i>Batch B2G1401 - *** DEFAULT PREP ***</i>										
<b>Blank (B2G1401-BLK1) Prepared &amp; Analyzed: 07/14/22</b>										
Gasoline Range Organics (GRO)	<20	20	ug/L							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	50.4		ug/L	50.0		101	70-130			
<b>LCS (B2G1401-BS1) Prepared &amp; Analyzed: 07/14/22</b>										
Gasoline Range Organics (GRO)	504	20	ug/L	500		101	75-125			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	58.2		ug/L	50.0		116	70-130			
<b>LCS Dup (B2G1401-BSD1) Prepared &amp; Analyzed: 07/14/22</b>										
Gasoline Range Organics (GRO)	503	20	ug/L	500		101	75-125	0.114	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	59.6		ug/L	50.0		119	70-130			
<b>Duplicate (B2G1401-DUP1) Source: 2G12011-01 Prepared &amp; Analyzed: 07/14/22</b>										
Gasoline Range Organics (GRO)	101	20	ug/L		100			1.24	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	53.4		ug/L	50.0		107	70-130			
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2G1401 - *** DEFAULT PREP ***</i>										
<b>Blank (B2G1401-BLK1) Prepared &amp; Analyzed: 07/14/22</b>										
Total VOCs as Hexane	<4.9	4.9	ppmv							
<b>Duplicate (B2G1401-DUP1) Source: 2G12011-01 Prepared &amp; Analyzed: 07/14/22</b>										

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334593  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2G1401 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2G1401-DUP1) Continued Source: 2G12011-01 Prepared &amp; Analyzed: 07/14/22</b>										
Total VOCs as Hexane	18.3	4.9	ppmv		18.1			1.24	30	

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334593  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

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### Special Notes

A handwritten signature in black ink, appearing to be 'AV' or similar initials.

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**Viorel Vasile**  
Operations Manager





9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

---

July 22, 2022

Neil Irish

The Source Group, Inc. (SH)  
1962 Freeman Ave.  
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013  
A5334594 / 2G12012**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 07/12/22 19:00 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile'.

Viorel Vasile  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334594  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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**VOCs BTEX/MTBE Vapor GC/MS**

VES After GAC-1	2G12012-01	Vapor	5	07/12/22 10:10	07/12/22 19:00
VES After GAC-2	2G12012-02	Vapor	5	07/12/22 10:20	07/12/22 19:00

**VOCs Gasoline Range Organics Vapor**

VES After GAC-1	2G12012-01	Vapor	5	07/12/22 10:10	07/12/22 19:00
VES After GAC-2	2G12012-02	Vapor	5	07/12/22 10:20	07/12/22 19:00

**VOCs in Vapor as Hexane**

VES After GAC-1	2G12012-01	Vapor	5	07/12/22 10:10	07/12/22 19:00
VES After GAC-2	2G12012-02	Vapor	5	07/12/22 10:20	07/12/22 19:00

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**Viorel Vasile**  
Operations Manager





### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334594  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Sampled:** 07/12/22  
**Prepared:** 07/13/22  
**Analyzed:** 07/13/22

**VES After GAC-1**  
**2G12012-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	86.9 %	70-140
Dibromofluoromethane	90.5 %	70-140
Toluene-d8	86.7 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334594  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Sampled:** 07/12/22  
**Prepared:** 07/13/22  
**Analyzed:** 07/13/22

**VES After GAC-2**  
**2G12012-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	86.6 %	70-140
Dibromofluoromethane	96.9 %	70-140
Toluene-d8	86.2 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334594  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Sampled:** 07/12/22  
**Prepared:** 07/14/22  
**Analyzed:** 07/14/22

**VES After GAC-1**

**2G12012-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>				<b>%REC Limits</b>
a,a,a-Trifluorotoluene		102 %				70-130

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334594  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Sampled:** 07/12/22  
**Prepared:** 07/14/22  
**Analyzed:** 07/14/22

**VES After GAC-2**

**2G12012-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>				<b><u>%REC Limits</u></b>
a,a,a-Trifluorotoluene		93.4 %				70-130

**Viorel Vasile**  
 Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334594  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Units:** ppmv

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<b>Date Sampled:</b>	07/12/22	07/12/22	
<b>Date Prepared:</b>	07/14/22	07/14/22	
<b>Date Analyzed:</b>	07/14/22	07/14/22	
<b>AA ID No:</b>	2G12012-01	2G12012-02	
<b>Client ID No:</b>	VES After GAC-1	VES After GAC-2	
<b>Matrix:</b>	Vapor	Vapor	
<b>Dilution Factor:</b>	1	1	MRL

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**VOCs in Vapor as Hexane (EPA 8015M)**

Total VOCs as Hexane	<4.9	<4.9	4.9
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**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334594  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2G1319 - *** DEFAULT PREP ***</i>										
<b>Blank (B2G1319-BLK1)</b>				Prepared & Analyzed: 07/13/22						
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	43.6		ug/L	50.0		87.1	70-140			
<i>Surrogate: Dibromofluoromethane</i>	44.7		ug/L	50.0		89.3	70-140			
<i>Surrogate: Toluene-d8</i>	43.7		ug/L	50.0		87.5	70-140			
<b>LCS (B2G1319-BS1)</b>				Prepared & Analyzed: 07/13/22						
Benzene	<b>17.4</b>	0.50	ug/L	20.0		86.8	75-125			
Ethylbenzene	<b>21.4</b>	0.50	ug/L	20.0		107	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>32.1</b>	2.0	ug/L	40.0		80.4	75-125			
Toluene	<b>20.2</b>	0.50	ug/L	20.0		101	75-125			
o-Xylene	<b>21.1</b>	0.50	ug/L	20.0		105	75-125			
m,p-Xylenes	<b>43.8</b>	1.0	ug/L	40.0		109	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	41.9		ug/L	50.0		83.8	70-140			
<i>Surrogate: Dibromofluoromethane</i>	39.4		ug/L	50.0		78.8	70-140			
<i>Surrogate: Toluene-d8</i>	44.4		ug/L	50.0		88.8	70-140			
<b>LCS Dup (B2G1319-BSD1)</b>				Prepared & Analyzed: 07/13/22						
Benzene	<b>18.4</b>	0.50	ug/L	20.0		91.8	75-125	5.54	30	
Ethylbenzene	<b>22.2</b>	0.50	ug/L	20.0		111	75-125	3.85	30	
Methyl-tert-Butyl Ether (MTBE)	<b>37.9</b>	2.0	ug/L	40.0		94.7	75-125	16.4	30	
Toluene	<b>22.3</b>	0.50	ug/L	20.0		111	75-125	9.94	30	
o-Xylene	<b>22.6</b>	0.50	ug/L	20.0		113	75-125	7.28	30	
m,p-Xylenes	<b>46.3</b>	1.0	ug/L	40.0		116	75-125	5.68	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	42.7		ug/L	50.0		85.4	70-140			
<i>Surrogate: Dibromofluoromethane</i>	39.4		ug/L	50.0		78.7	70-140			
<i>Surrogate: Toluene-d8</i>	44.1		ug/L	50.0		88.2	70-140			
<b>Duplicate (B2G1319-DUP1)</b>				<b>Source: 2G12010-01</b> Prepared & Analyzed: 07/13/22						

**Viorel Vasile**  
 Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334594  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control**

Batch B2G1319 - \*\*\* DEFAULT PREP \*\*\*

**Duplicate (B2G1319-DUP1) Continued** Source: 2G12010-01 Prepared & Analyzed: 07/13/22

Benzene	2.22	0.25	ug/L		1.76			23.2	30	
Ethylbenzene	1.44	0.25	ug/L		1.26			13.4	30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L						30	
Toluene	1.55	0.25	ug/L		1.41			9.46	30	
o-Xylene	1.67	0.25	ug/L		1.50			11.1	30	
m,p-Xylenes	5.09	0.50	ug/L		4.63			9.47	30	
Surrogate: 4-Bromofluorobenzene	41.4		ug/L	50.0		82.8	70-140			
Surrogate: Dibromofluoromethane	50.4		ug/L	50.0		101	70-140			
Surrogate: Toluene-d8	41.4		ug/L	50.0		82.8	70-140			

**Gasoline Range Organics in Vapor by GC/FID - Quality Control**

Batch B2G1401 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2G1401-BLK1)**

Prepared &amp; Analyzed: 07/14/22

Gasoline Range Organics (GRO)	<20	20	ug/L							
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Surrogate: a,a,a-Trifluorotoluene 50.4 ug/L 50.0 101 70-130

**LCS (B2G1401-BS1)**

Prepared &amp; Analyzed: 07/14/22

Gasoline Range Organics (GRO)	504	20	ug/L	500		101	75-125			
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Surrogate: a,a,a-Trifluorotoluene 58.2 ug/L 50.0 116 70-130

**LCS Dup (B2G1401-BSD1)**

Prepared &amp; Analyzed: 07/14/22

Gasoline Range Organics (GRO)	503	20	ug/L	500		101	75-125	0.114	30	
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Surrogate: a,a,a-Trifluorotoluene 59.6 ug/L 50.0 119 70-130

**Duplicate (B2G1401-DUP1)**

Source: 2G12011-01 Prepared &amp; Analyzed: 07/14/22

Gasoline Range Organics (GRO)	101	20	ug/L		100			1.24	30	
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Surrogate: a,a,a-Trifluorotoluene 53.4 ug/L 50.0 107 70-130

**VOCs in Vapor as Hexane - Quality Control**

Batch B2G1401 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2G1401-BLK1)**

Prepared &amp; Analyzed: 07/14/22

Total VOCs as Hexane	<4.9	4.9	ppmv							
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**Duplicate (B2G1401-DUP1)**

Source: 2G12011-01 Prepared &amp; Analyzed: 07/14/22

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334594  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2G1401 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2G1401-DUP1) Continued Source: 2G12011-01 Prepared &amp; Analyzed: 07/14/22</b>										
Total VOCs as Hexane	18.3	4.9	ppmv		18.1			1.24	30	

**Viorel Vasile**  
 Operations Manager





## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334594  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

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### Special Notes

A handwritten signature in black ink, appearing to be 'VA'.

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**Viorel Vasile**  
Operations Manager





9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

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August 23, 2022

Neil Irish

The Source Group, Inc. (SH)

1962 Freeman Ave.

Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013**

**A533621 / 2H08020**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 08/08/22 18:41 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile'.

Viorel Vasile

Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A533621  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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**VOCs BTEX/MTBE Vapor GC/MS**

VES After GAC-1	2H08020-01	Vapor	5	08/08/22 13:03	08/08/22 18:41
VES After GAC-2	2H08020-02	Vapor	5	08/08/22 13:02	08/08/22 18:41

**VOCs Gasoline Range Organics Vapor**

VES After GAC-1	2H08020-01	Vapor	5	08/08/22 13:03	08/08/22 18:41
VES After GAC-2	2H08020-02	Vapor	5	08/08/22 13:02	08/08/22 18:41

**VOCs in Vapor as Hexane**

VES After GAC-1	2H08020-01	Vapor	5	08/08/22 13:03	08/08/22 18:41
VES After GAC-2	2H08020-02	Vapor	5	08/08/22 13:02	08/08/22 18:41

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**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A533621  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**VES After GAC-1**  
**2H08020-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	109 %	70-140
Dibromofluoromethane	104 %	70-140
Toluene-d8	95.5 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A533621  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**VES After GAC-2**  
**2H08020-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	109 %	70-140
Dibromofluoromethane	106 %	70-140
Toluene-d8	93.8 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A533621  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**VES After GAC-1**  
**2H08020-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>				<b>%REC Limits</b>
a,a,a-Trifluorotoluene		87.3 %				70-130

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A533621  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**VES After GAC-2**  
**2H08020-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>			<b>%REC Limits</b>	
a,a,a-Trifluorotoluene		97.8 %			70-130	

**Viorel Vasile**  
 Operations Manager





### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A533621  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Units:** ppmv

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<b>Date Sampled:</b>	08/08/22	08/08/22	
<b>Date Prepared:</b>	08/09/22	08/09/22	
<b>Date Analyzed:</b>	08/09/22	08/09/22	
<b>AA ID No:</b>	2H08020-01	2H08020-02	
<b>Client ID No:</b>	VES After GAC-1	VES After GAC-2	
<b>Matrix:</b>	Vapor	Vapor	
<b>Dilution Factor:</b>	1	1	MRL

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**VOCs in Vapor as Hexane (EPA 8015M)**

Total VOCs as Hexane	<4.9	<4.9	4.9
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**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A533621  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2H0919 - *** DEFAULT PREP ***</i>										
<b>Blank (B2H0919-BLK1)</b>				Prepared & Analyzed: 08/09/22						
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	52.5		ug/L	50.0		105	70-140			
<i>Surrogate: Dibromofluoromethane</i>	50.5		ug/L	50.0		101	70-140			
<i>Surrogate: Toluene-d8</i>	47.9		ug/L	50.0		95.7	70-140			
<b>LCS (B2H0919-BS1)</b>				Prepared & Analyzed: 08/09/22						
Benzene	<b>16.8</b>	0.50	ug/L	20.0		83.8	75-125			
Ethylbenzene	<b>17.7</b>	0.50	ug/L	20.0		88.3	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>34.5</b>	2.0	ug/L	40.0		86.2	75-125			
Toluene	<b>17.0</b>	0.50	ug/L	20.0		84.8	75-125			
o-Xylene	<b>16.3</b>	0.50	ug/L	20.0		81.6	75-125			
m,p-Xylenes	<b>34.3</b>	1.0	ug/L	40.0		85.7	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	53.3		ug/L	50.0		107	70-140			
<i>Surrogate: Dibromofluoromethane</i>	45.9		ug/L	50.0		91.8	70-140			
<i>Surrogate: Toluene-d8</i>	46.9		ug/L	50.0		93.8	70-140			
<b>LCS Dup (B2H0919-BSD1)</b>				Prepared & Analyzed: 08/09/22						
Benzene	<b>20.4</b>	0.50	ug/L	20.0		102	75-125	19.5	30	
Ethylbenzene	<b>21.5</b>	0.50	ug/L	20.0		107	75-125	19.4	30	
Methyl-tert-Butyl Ether (MTBE)	<b>38.7</b>	2.0	ug/L	40.0		96.7	75-125	11.5	30	
Toluene	<b>21.1</b>	0.50	ug/L	20.0		105	75-125	21.6	30	
o-Xylene	<b>20.6</b>	0.50	ug/L	20.0		103	75-125	23.1	30	
m,p-Xylenes	<b>42.2</b>	1.0	ug/L	40.0		105	75-125	20.6	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	53.6		ug/L	50.0		107	70-140			
<i>Surrogate: Dibromofluoromethane</i>	46.0		ug/L	50.0		91.9	70-140			
<i>Surrogate: Toluene-d8</i>	47.8		ug/L	50.0		95.5	70-140			
<b>Duplicate (B2H0919-DUP1)</b>				Source: 2H08019-02 Prepared & Analyzed: 08/09/22						

**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A533621  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2H0919 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2H0919-DUP1) Continued Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22</b>										
Benzene	0.545	0.25	ug/L		0.560			2.71	30	
Ethylbenzene	0.825	0.25	ug/L		0.940			13.0	30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L						30	
Toluene	0.570	0.25	ug/L		0.715			22.6	30	
o-Xylene	0.630	0.25	ug/L		0.645			2.35	30	
m,p-Xylenes	2.38	0.50	ug/L		2.68			11.5	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	53.5		ug/L	50.0		107	70-140			
<i>Surrogate: Dibromofluoromethane</i>	52.6		ug/L	50.0		105	70-140			
<i>Surrogate: Toluene-d8</i>	49.0		ug/L	50.0		98.0	70-140			
<b>Gasoline Range Organics in Vapor by GC/FID - Quality Control</b>										
<i>Batch B2H0918 - *** DEFAULT PREP ***</i>										
<b>Blank (B2H0918-BLK1) Prepared &amp; Analyzed: 08/09/22</b>										
Gasoline Range Organics (GRO)	<20	20	ug/L							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	47.2		ug/L	50.0		94.4	70-130			
<b>LCS (B2H0918-BS1) Prepared &amp; Analyzed: 08/09/22</b>										
Gasoline Range Organics (GRO)	428	20	ug/L	500		85.7	75-125			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	50.4		ug/L	50.0		101	70-130			
<b>LCS Dup (B2H0918-BSD1) Prepared &amp; Analyzed: 08/09/22</b>										
Gasoline Range Organics (GRO)	562	20	ug/L	500		112	75-125	26.9	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	61.2		ug/L	50.0		122	70-130			
<b>Duplicate (B2H0918-DUP1) Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22</b>										
Gasoline Range Organics (GRO)	2440	20	ug/L		2500			2.60	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	52.1		ug/L	50.0		104	70-130			
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2H0918 - *** DEFAULT PREP ***</i>										
<b>Blank (B2H0918-BLK1) Prepared &amp; Analyzed: 08/09/22</b>										
Total VOCs as Hexane	<4.9	4.9	ppmv							
<b>Duplicate (B2H0918-DUP1) Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22</b>										

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A533621  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2H0918 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2H0918-DUP1) Continued Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22</b>										
Total VOCs as Hexane	441	4.9	ppmv		453			2.60	30	

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A533621  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

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### Special Notes

A handwritten signature in black ink, appearing to be 'VA'.

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**Viorel Vasile**  
Operations Manager





9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

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August 24, 2022

Neil Irish  
The Source Group, Inc. (SH)  
1962 Freeman Ave.  
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013  
A5334624 / 2H08023**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 08/08/22 18:41 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile', written in a cursive style.

Viorel Vasile  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334624  
**Date Received:** 08/08/22  
**Date Reported:** 08/24/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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#### VOCs BTEX/MTBE Vapor GC/MS

VES Carbon-Influent	2H08023-01	Vapor	5	08/08/22 12:39	08/08/22 18:41
VES Carbon-Effluent	2H08023-02	Vapor	5	08/08/22 12:34	08/08/22 18:41

#### VOCs Gasoline Range Organics Vapor

VES Carbon-Influent	2H08023-01	Vapor	5	08/08/22 12:39	08/08/22 18:41
VES Carbon-Effluent	2H08023-02	Vapor	5	08/08/22 12:34	08/08/22 18:41

#### VOCs in Vapor as Hexane

VES Carbon-Influent	2H08023-01	Vapor	5	08/08/22 12:39	08/08/22 18:41
VES Carbon-Effluent	2H08023-02	Vapor	5	08/08/22 12:34	08/08/22 18:41

**Viorel Vasile**  
Operations Manager





### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334624  
**Date Received:** 08/08/22  
**Date Reported:** 08/24/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**VES Carbon-Influent**  
**2H08023-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	106 %	70-140
Dibromofluoromethane	111 %	70-140
Toluene-d8	93.6 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334624  
**Date Received:** 08/08/22  
**Date Reported:** 08/24/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**VES Carbon-Effluent**  
**2H08023-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

Surrogates	%REC	%REC Limits
4-Bromofluorobenzene	107 %	70-140
Dibromofluoromethane	105 %	70-140
Toluene-d8	94.5 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334624  
**Date Received:** 08/08/22  
**Date Reported:** 08/24/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

**VES Carbon-Influent**  
**2H08023-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	87	ug/L	20	21	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>			<b>%REC Limits</b>	
a,a,a-Trifluorotoluene		96.0 %			70-130	

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334624  
**Date Received:** 08/08/22  
**Date Reported:** 08/24/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

**VES Carbon-Effluent**  
**2H08023-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>			<b><u>%REC Limits</u></b>	
a,a,a-Trifluorotoluene		92.7 %			70-130	

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334624  
**Date Received:** 08/08/22  
**Date Reported:** 08/24/22  
**Units:** ppmv

<b>Date Sampled:</b>	08/08/22	08/08/22	
<b>Date Prepared:</b>	08/10/22	08/10/22	
<b>Date Analyzed:</b>	08/10/22	08/10/22	
<b>AA ID No:</b>	2H08023-01	2H08023-02	
<b>Client ID No:</b>	VES	VES	
	Carbon-Influent	Carbon-Effluent	
<b>Matrix:</b>	Vapor	Vapor	
<b>Dilution Factor:</b>	1	1	MRL

### VOCs in Vapor as Hexane (EPA 8015M)

Total VOCs as Hexane	<b>16</b>	<4.9	4.9
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**Viorel Vasile**  
 Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334624  
**Date Received:** 08/08/22  
**Date Reported:** 08/24/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2H0919 - *** DEFAULT PREP ***</i>										
<b>Blank (B2H0919-BLK1)</b> Prepared & Analyzed: 08/09/22										
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	52.5		ug/L	50.0		105	70-140			
<i>Surrogate: Dibromofluoromethane</i>	50.5		ug/L	50.0		101	70-140			
<i>Surrogate: Toluene-d8</i>	47.9		ug/L	50.0		95.7	70-140			
<b>LCS (B2H0919-BS1)</b> Prepared & Analyzed: 08/09/22										
Benzene	<b>16.8</b>	0.50	ug/L	20.0		83.8	75-125			
Ethylbenzene	<b>17.7</b>	0.50	ug/L	20.0		88.3	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>34.5</b>	2.0	ug/L	40.0		86.2	75-125			
Toluene	<b>17.0</b>	0.50	ug/L	20.0		84.8	75-125			
o-Xylene	<b>16.3</b>	0.50	ug/L	20.0		81.6	75-125			
m,p-Xylenes	<b>34.3</b>	1.0	ug/L	40.0		85.7	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	53.3		ug/L	50.0		107	70-140			
<i>Surrogate: Dibromofluoromethane</i>	45.9		ug/L	50.0		91.8	70-140			
<i>Surrogate: Toluene-d8</i>	46.9		ug/L	50.0		93.8	70-140			
<b>LCS Dup (B2H0919-BSD1)</b> Prepared & Analyzed: 08/09/22										
Benzene	<b>20.4</b>	0.50	ug/L	20.0		102	75-125	19.5	30	
Ethylbenzene	<b>21.5</b>	0.50	ug/L	20.0		107	75-125	19.4	30	
Methyl-tert-Butyl Ether (MTBE)	<b>38.7</b>	2.0	ug/L	40.0		96.7	75-125	11.5	30	
Toluene	<b>21.1</b>	0.50	ug/L	20.0		105	75-125	21.6	30	
o-Xylene	<b>20.6</b>	0.50	ug/L	20.0		103	75-125	23.1	30	
m,p-Xylenes	<b>42.2</b>	1.0	ug/L	40.0		105	75-125	20.6	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	53.6		ug/L	50.0		107	70-140			
<i>Surrogate: Dibromofluoromethane</i>	46.0		ug/L	50.0		91.9	70-140			
<i>Surrogate: Toluene-d8</i>	47.8		ug/L	50.0		95.5	70-140			
<b>Duplicate (B2H0919-DUP1)</b> Source: 2H08019-02 Prepared & Analyzed: 08/09/22										

**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334624  
**Date Received:** 08/08/22  
**Date Reported:** 08/24/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control**

Batch B2H0919 - \*\*\* DEFAULT PREP \*\*\*

**Duplicate (B2H0919-DUP1) Continued** Source: 2H08019-02 Prepared & Analyzed: 08/09/22

Benzene	0.545	0.25	ug/L		0.560			2.71	30	
Ethylbenzene	0.825	0.25	ug/L		0.940			13.0	30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L						30	
Toluene	0.570	0.25	ug/L		0.715			22.6	30	
o-Xylene	0.630	0.25	ug/L		0.645			2.35	30	
m,p-Xylenes	2.38	0.50	ug/L		2.68			11.5	30	
Surrogate: 4-Bromofluorobenzene	53.5		ug/L	50.0		107	70-140			
Surrogate: Dibromofluoromethane	52.6		ug/L	50.0		105	70-140			
Surrogate: Toluene-d8	49.0		ug/L	50.0		98.0	70-140			

**Gasoline Range Organics in Vapor by GC/FID - Quality Control**

Batch B2H1010 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2H1010-BLK1)** Prepared & Analyzed: 08/10/22

Gasoline Range Organics (GRO)	<20	20	ug/L							
Surrogate: a,a,a-Trifluorotoluene	44.9		ug/L	50.0		89.8	70-130			

**LCS (B2H1010-BS1)** Prepared & Analyzed: 08/10/22

Gasoline Range Organics (GRO)	462	20	ug/L	500		92.4	75-125			
Surrogate: a,a,a-Trifluorotoluene	47.2		ug/L	50.0		94.3	70-130			

**LCS Dup (B2H1010-BSD1)** Prepared & Analyzed: 08/10/22

Gasoline Range Organics (GRO)	595	20	ug/L	500		119	75-125	25.2	30	
Surrogate: a,a,a-Trifluorotoluene	59.1		ug/L	50.0		118	70-130			

**Duplicate (B2H1010-DUP1)** Source: 2H08024-01 Prepared & Analyzed: 08/10/22

Gasoline Range Organics (GRO)	4530	100	ug/L		5030			10.6	30	
Surrogate: a,a,a-Trifluorotoluene	53.6		ug/L	50.0		107	70-130			

**VOCs in Vapor as Hexane - Quality Control**

Batch B2H1010 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2H1010-BLK1)** Prepared & Analyzed: 08/10/22

Total VOCs as Hexane	<4.9	4.9	ppmv							
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**Duplicate (B2H1010-DUP1)** Source: 2H08024-01 Prepared & Analyzed: 08/10/22

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334624  
**Date Received:** 08/08/22  
**Date Reported:** 08/24/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2H1010 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2H1010-DUP1) Continued Source: 2H08024-01 Prepared &amp; Analyzed: 08/10/22</b>										
Total VOCs as Hexane	818	24	ppmv		913			11.0	30	

**Viorel Vasile**  
Operations Manager





## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334624  
**Date Received:** 08/08/22  
**Date Reported:** 08/24/22

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### Special Notes

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A handwritten signature in black ink, appearing to be 'VA' or similar, written over a horizontal line.

**Viorel Vasile**  
Operations Manager





9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

---

October 05, 2022

Neil Irish

The Source Group, Inc. (SH)  
1962 Freeman Ave.  
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013  
A5334669 / 2I20013**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 09/20/22 16:18 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile'.

Viorel Vasile  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334669  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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### VOCs BTEX/MTBE Vapor GC/MS

VES Carbon-Influent	2I20013-01	Vapor	5	09/20/22 12:02	09/20/22 16:18
VES Carbon-Effluent	2I20013-02	Vapor	5	09/20/22 11:50	09/20/22 16:18

### VOCs Gasoline Range Organics Vapor

VES Carbon-Influent	2I20013-01	Vapor	5	09/20/22 12:02	09/20/22 16:18
VES Carbon-Effluent	2I20013-02	Vapor	5	09/20/22 11:50	09/20/22 16:18

### VOCs in Vapor as Hexane

VES Carbon-Influent	2I20013-01	Vapor	5	09/20/22 12:02	09/20/22 16:18
VES Carbon-Effluent	2I20013-02	Vapor	5	09/20/22 11:50	09/20/22 16:18

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334669  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

**VES Carbon-Influent**  
**2120013-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	101 %	70-140
Dibromofluoromethane	118 %	70-140
Toluene-d8	96.0 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334669  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

**VES Carbon-Effluent**  
**2120013-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	100 %	70-140
Dibromofluoromethane	116 %	70-140
Toluene-d8	98.3 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334669  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

**VES Carbon-Influent**  
**2120013-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	110	ug/L	20	27	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>			<b>%REC Limits</b>	
a,a,a-Trifluorotoluene		114 %			70-130	

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334669  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

**VES Carbon-Effluent**  
**2120013-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>			<b>%REC Limits</b>	
a,a,a-Trifluorotoluene		89.2 %			70-130	

**Viorel Vasile**  
 Operations Manager





### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334669  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Units:** ppmv

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<b>Date Sampled:</b>	09/20/22	09/20/22	
<b>Date Prepared:</b>	09/21/22	09/21/22	
<b>Date Analyzed:</b>	09/21/22	09/21/22	
<b>AA ID No:</b>	2I20013-01	2I20013-02	
<b>Client ID No:</b>	VES	VES	
	Carbon-Influent	Carbon-Effluent	
<b>Matrix:</b>	Vapor	Vapor	
<b>Dilution Factor:</b>	1	1	MRL

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**VOCs in Vapor as Hexane (EPA 8015M)**

Total VOCs as Hexane	<b>20</b>	<4.9	4.9
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**Viorel Vasile**  
Operations Manager



**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334669  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
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**VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control**

Batch B2I2127 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2I2127-BLK1)**

Prepared & Analyzed: 09/21/22

Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							

Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.0		100	70-140			
Surrogate: Dibromofluoromethane	53.6		ug/L	50.0		107	70-140			
Surrogate: Toluene-d8	48.9		ug/L	50.0		97.7	70-140			

**LCS (B2I2127-BS1)**

Prepared & Analyzed: 09/21/22

Benzene	<b>20.6</b>	0.50	ug/L	20.0		103	75-125			
Ethylbenzene	<b>24.0</b>	0.50	ug/L	20.0		120	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>41.3</b>	2.0	ug/L	40.0		103	75-125			
Toluene	<b>22.3</b>	0.50	ug/L	20.0		111	75-125			
o-Xylene	<b>22.8</b>	0.50	ug/L	20.0		114	75-125			
m,p-Xylenes	<b>47.0</b>	1.0	ug/L	40.0		117	75-125			

Surrogate: 4-Bromofluorobenzene	50.2		ug/L	50.0		100	70-140			
Surrogate: Dibromofluoromethane	47.6		ug/L	50.0		95.2	70-140			
Surrogate: Toluene-d8	50.0		ug/L	50.0		100	70-140			

**LCS Dup (B2I2127-bsd1)**

Prepared & Analyzed: 09/21/22

Benzene	<b>21.5</b>	0.50	ug/L	20.0		108	75-125	4.27	30	
Ethylbenzene	<b>23.7</b>	0.50	ug/L	20.0		118	75-125	1.34	30	
Methyl-tert-Butyl Ether (MTBE)	<b>44.4</b>	2.0	ug/L	40.0		111	75-125	7.28	30	
Toluene	<b>22.4</b>	0.50	ug/L	20.0		112	75-125	0.582	30	
o-Xylene	<b>22.8</b>	0.50	ug/L	20.0		114	75-125	0.0439	30	
m,p-Xylenes	<b>46.5</b>	1.0	ug/L	40.0		116	75-125	0.963	30	

Surrogate: 4-Bromofluorobenzene	49.5		ug/L	50.0		99.0	70-140			
Surrogate: Dibromofluoromethane	52.3		ug/L	50.0		105	70-140			
Surrogate: Toluene-d8	49.4		ug/L	50.0		98.9	70-140			

**Duplicate (B2I2127-DUP1)** Source: 2I19020-25 Prepared & Analyzed: 09/21/22

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334669  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control**

Batch B2I2127 - \*\*\* DEFAULT PREP \*\*\*

**Duplicate (B2I2127-DUP1) Continued**      **Source: 2I19020-25**      Prepared & Analyzed: 09/21/22

Benzene	<0.25	0.25	ug/L		0.170			42.9	30	
Ethylbenzene	<0.25	0.25	ug/L						30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L						30	
Toluene	<0.25	0.25	ug/L						30	
o-Xylene	<0.25	0.25	ug/L						30	
m,p-Xylenes	<0.50	0.50	ug/L						30	
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.0		101	70-140			
Surrogate: Dibromofluoromethane	56.2		ug/L	50.0		112	70-140			
Surrogate: Toluene-d8	50.0		ug/L	50.0		100	70-140			

**Gasoline Range Organics in Vapor by GC/FID - Quality Control**

Batch B2I2126 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2I2126-BLK1)**      Prepared & Analyzed: 09/21/22

Gasoline Range Organics (GRO)	<20	20	ug/L							
Surrogate: a,a,a-Trifluorotoluene	49.1		ug/L	50.0		98.1	70-130			

**LCS (B2I2126-BS1)**      Prepared & Analyzed: 09/21/22

Gasoline Range Organics (GRO)	480	20	ug/L	500		96.1	75-125			
Surrogate: a,a,a-Trifluorotoluene	49.9		ug/L	50.0		99.8	70-130			

**LCS Dup (B2I2126-BSD1)**      Prepared & Analyzed: 09/21/22

Gasoline Range Organics (GRO)	481	20	ug/L	500		96.1	75-125	0.0150	30	
Surrogate: a,a,a-Trifluorotoluene	52.7		ug/L	50.0		105	70-130			

**Duplicate (B2I2126-DUP1)**      **Source: 2I20013-01**      Prepared & Analyzed: 09/21/22

Gasoline Range Organics (GRO)	86.9	20	ug/L		109			22.9	30	
Surrogate: a,a,a-Trifluorotoluene	48.8		ug/L	50.0		97.7	70-130			

**VOCs in Vapor as Hexane - Quality Control**

Batch B2I2126 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2I2126-BLK1)**      Prepared & Analyzed: 09/21/22

Total VOCs as Hexane	<4.9	4.9	ppmv							
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**Duplicate (B2I2126-DUP1)**      **Source: 2I20013-01**      Prepared & Analyzed: 09/21/22

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334669  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B212126 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B212126-DUP1) Continued Source: 2I20013-01 Prepared &amp; Analyzed: 09/21/22</b>										
Total VOCs as Hexane	15.7	4.9	ppmv		19.7			22.7	30	

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334669  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

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### Special Notes

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A handwritten signature in black ink, appearing to be 'VA'.

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**Viorel Vasile**  
Operations Manager





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Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

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October 05, 2022

Neil Irish

The Source Group, Inc. (SH)  
1962 Freeman Ave.  
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013  
A5334670 / 2I20014**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 09/20/22 16:18 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile'.

Viorel Vasile  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334670  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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**VOCs BTEX/MTBE Vapor GC/MS**

VES After GAC-1	2I20014-01	Vapor	5	09/20/22 12:01	09/20/22 16:18
VES After GAC-2	2I20014-02	Vapor	5	09/20/22 12:00	09/20/22 16:18

**VOCs Gasoline Range Organics Vapor**

VES After GAC-1	2I20014-01	Vapor	5	09/20/22 12:01	09/20/22 16:18
VES After GAC-2	2I20014-02	Vapor	5	09/20/22 12:00	09/20/22 16:18

**VOCs in Vapor as Hexane**

VES After GAC-1	2I20014-01	Vapor	5	09/20/22 12:01	09/20/22 16:18
VES After GAC-2	2I20014-02	Vapor	5	09/20/22 12:00	09/20/22 16:18

**Viorel Vasile**  
Operations Manager



**LABORATORY ANALYSIS RESULTS****Client:** The Source Group, Inc. (SH)**Project No:** 04-NDLA-013**Project Name:** DFSP Norwalk VES AQMD**Matrix:** Vapor**Dilution:** 0.5**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M**AA Project No:** A5334670**Date Received:** 09/20/22**Date Reported:** 10/05/22**Sampled:** 09/20/22**Prepared:** 09/21/22**Analyzed:** 09/21/22**VES After GAC-1****2120014-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

**Surrogates****%REC****%REC Limits**

4-Bromofluorobenzene

101 %

70-140

Dibromofluoromethane

117 %

70-140

Toluene-d8

97.4 %

70-140

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334670  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

**VES After GAC-2**  
**2120014-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	100 %	70-140
Dibromofluoromethane	115 %	70-140
Toluene-d8	98.4 %	70-140

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334670  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

**VES After GAC-1**  
**2120014-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	26	ug/L	20	6.4	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>				<b><u>%REC Limits</u></b>
a,a,a-Trifluorotoluene		94.1 %				70-130

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334670  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

**VES After GAC-2**  
**2120014-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>				<b>%REC Limits</b>
a,a,a-Trifluorotoluene		97.2 %				70-130

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334670  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Units:** ppmv

<b>Date Sampled:</b>	09/20/22	09/20/22	
<b>Date Prepared:</b>	09/21/22	09/21/22	
<b>Date Analyzed:</b>	09/21/22	09/21/22	
<b>AA ID No:</b>	2I20014-01	2I20014-02	
<b>Client ID No:</b>	VES After GAC-1	VES After GAC-2	
<b>Matrix:</b>	Vapor	Vapor	
<b>Dilution Factor:</b>	1	1	MRL

#### VOCs in Vapor as Hexane (EPA 8015M)

Total VOCs as Hexane	<4.9	<4.9	4.9
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**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334670  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2I2127 - *** DEFAULT PREP ***</i>										
<b>Blank (B2I2127-BLK1)</b>				Prepared & Analyzed: 09/21/22						
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>50.0</i>		<i>ug/L</i>	<i>50.0</i>		<i>100</i>	<i>70-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>53.6</i>		<i>ug/L</i>	<i>50.0</i>		<i>107</i>	<i>70-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>48.9</i>		<i>ug/L</i>	<i>50.0</i>		<i>97.7</i>	<i>70-140</i>			
<b>LCS (B2I2127-BS1)</b>				Prepared & Analyzed: 09/21/22						
Benzene	<b>20.6</b>	0.50	ug/L	20.0		103	75-125			
Ethylbenzene	<b>24.0</b>	0.50	ug/L	20.0		120	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>41.3</b>	2.0	ug/L	40.0		103	75-125			
Toluene	<b>22.3</b>	0.50	ug/L	20.0		111	75-125			
o-Xylene	<b>22.8</b>	0.50	ug/L	20.0		114	75-125			
m,p-Xylenes	<b>47.0</b>	1.0	ug/L	40.0		117	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>50.2</i>		<i>ug/L</i>	<i>50.0</i>		<i>100</i>	<i>70-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>47.6</i>		<i>ug/L</i>	<i>50.0</i>		<i>95.2</i>	<i>70-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>50.0</i>		<i>ug/L</i>	<i>50.0</i>		<i>100</i>	<i>70-140</i>			
<b>LCS Dup (B2I2127-BSD1)</b>				Prepared & Analyzed: 09/21/22						
Benzene	<b>21.5</b>	0.50	ug/L	20.0		108	75-125	4.27	30	
Ethylbenzene	<b>23.7</b>	0.50	ug/L	20.0		118	75-125	1.34	30	
Methyl-tert-Butyl Ether (MTBE)	<b>44.4</b>	2.0	ug/L	40.0		111	75-125	7.28	30	
Toluene	<b>22.4</b>	0.50	ug/L	20.0		112	75-125	0.582	30	
o-Xylene	<b>22.8</b>	0.50	ug/L	20.0		114	75-125	0.0439	30	
m,p-Xylenes	<b>46.5</b>	1.0	ug/L	40.0		116	75-125	0.963	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>49.5</i>		<i>ug/L</i>	<i>50.0</i>		<i>99.0</i>	<i>70-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>52.3</i>		<i>ug/L</i>	<i>50.0</i>		<i>105</i>	<i>70-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>49.4</i>		<i>ug/L</i>	<i>50.0</i>		<i>98.9</i>	<i>70-140</i>			
<b>Duplicate (B2I2127-DUP1)</b>				<b>Source: 2I19020-25</b> Prepared & Analyzed: 09/21/22						

**Viorel Vasile**  
 Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334670  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2I2127 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2I2127-DUP1) Continued</b> Source: 2I19020-25 Prepared & Analyzed: 09/21/22										
Benzene	<0.25	0.25	ug/L		0.170			42.9	30	
Ethylbenzene	<0.25	0.25	ug/L						30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L						30	
Toluene	<0.25	0.25	ug/L						30	
o-Xylene	<0.25	0.25	ug/L						30	
m,p-Xylenes	<0.50	0.50	ug/L						30	
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.0		101	70-140			
Surrogate: Dibromofluoromethane	56.2		ug/L	50.0		112	70-140			
Surrogate: Toluene-d8	50.0		ug/L	50.0		100	70-140			
<b>Gasoline Range Organics in Vapor by GC/FID - Quality Control</b>										
<i>Batch B2I2126 - *** DEFAULT PREP ***</i>										
<b>Blank (B2I2126-BLK1)</b> Prepared & Analyzed: 09/21/22										
Gasoline Range Organics (GRO)	<20	20	ug/L							
Surrogate: a,a,a-Trifluorotoluene	49.1		ug/L	50.0		98.1	70-130			
<b>LCS (B2I2126-BS1)</b> Prepared & Analyzed: 09/21/22										
Gasoline Range Organics (GRO)	480	20	ug/L	500		96.1	75-125			
Surrogate: a,a,a-Trifluorotoluene	49.9		ug/L	50.0		99.8	70-130			
<b>LCS Dup (B2I2126-BSD1)</b> Prepared & Analyzed: 09/21/22										
Gasoline Range Organics (GRO)	481	20	ug/L	500		96.1	75-125	0.0150	30	
Surrogate: a,a,a-Trifluorotoluene	52.7		ug/L	50.0		105	70-130			
<b>Duplicate (B2I2126-DUP1)</b> Source: 2I20013-01 Prepared & Analyzed: 09/21/22										
Gasoline Range Organics (GRO)	86.9	20	ug/L		109			22.9	30	
Surrogate: a,a,a-Trifluorotoluene	48.8		ug/L	50.0		97.7	70-130			
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2I2126 - *** DEFAULT PREP ***</i>										
<b>Blank (B2I2126-BLK1)</b> Prepared & Analyzed: 09/21/22										
Total VOCs as Hexane	<4.9	4.9	ppmv							
<b>Duplicate (B2I2126-DUP1)</b> Source: 2I20013-01 Prepared & Analyzed: 09/21/22										

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334670  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B212126 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B212126-DUP1) Continued Source: 2I20013-01 Prepared &amp; Analyzed: 09/21/22</b>										
Total VOCs as Hexane	15.7	4.9	ppmv		19.7			22.7	30	

**Viorel Vasile**  
 Operations Manager





## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334670  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

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### Special Notes

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**Viorel Vasile**  
Operations Manager





9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

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July 22, 2022

Neil Irish

The Source Group, Inc. (SH)  
1962 Freeman Ave.  
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013  
A5334592 / 2G12010**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 07/12/22 19:00 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to read 'V. Vasile'.

Viorel Vasile  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334592  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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**VOCs BTEX/MTBE Vapor GC/MS**

VES Thermox-Influent	2G12010-01	Vapor	5	07/12/22 10:50	07/12/22 19:00
VES Thermox-Effluent	2G12010-02	Vapor	5	07/12/22 10:40	07/12/22 19:00

**VOCs Gasoline Range Organics Vapor**

VES Thermox-Influent	2G12010-01	Vapor	5	07/12/22 10:50	07/12/22 19:00
VES Thermox-Effluent	2G12010-02	Vapor	5	07/12/22 10:40	07/12/22 19:00

**VOCs in Vapor as Hexane**

VES Thermox-Influent	2G12010-01	Vapor	5	07/12/22 10:50	07/12/22 19:00
VES Thermox-Effluent	2G12010-02	Vapor	5	07/12/22 10:40	07/12/22 19:00

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**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334592  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Sampled:** 07/12/22  
**Prepared:** 07/13/22  
**Analyzed:** 07/13/22

**VES Thermax-Influent**  
**2G12010-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	1.8	ug/L	0.50	0.56	ppmv	0.16
Ethylbenzene	1.3	ug/L	0.50	0.30	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	1.4	ug/L	0.50	0.37	ppmv	0.13
o-Xylene	1.5	ug/L	0.50	0.35	ppmv	0.12
m,p-Xylenes	4.6	ug/L	1.0	1.1	ppmv	0.23

Surrogates	%REC	%REC Limits
4-Bromofluorobenzene	82.4 %	70-140
Dibromofluoromethane	88.0 %	70-140
Toluene-d8	86.5 %	70-140

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)

**Project No:** 04-NDLA-013

**Project Name:** DFSP Norwalk VES AQMD

**Matrix:** Vapor

**Dilution:** 0.5

**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334592

**Date Received:** 07/12/22

**Date Reported:** 07/22/22

**Sampled:** 07/12/22

**Prepared:** 07/13/22

**Analyzed:** 07/13/22

### VES Thermax-Effluent

#### 2G12010-02 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

#### Surrogates

4-Bromofluorobenzene

#### %REC

86.1 %

Dibromofluoromethane

94.9 %

Toluene-d8

87.0 %

#### %REC Limits

70-140

70-140

70-140

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)

**Project No:** 04-NDLA-013

**Project Name:** DFSP Norwalk VES AQMD

**Matrix:** Vapor

**Dilution:** 1

**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334592

**Date Received:** 07/12/22

**Date Reported:** 07/22/22

**Sampled:** 07/12/22

**Prepared:** 07/14/22

**Analyzed:** 07/14/22

### VES Thermax-Influent

#### 2G12010-01 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<b>2200</b>	ug/L	20	<b>540</b>	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>				<b><u>%REC Limits</u></b>
a,a,a-Trifluorotoluene		94.2 %				70-130

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334592  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Sampled:** 07/12/22  
**Prepared:** 07/14/22  
**Analyzed:** 07/14/22

**VES Thermax-Effluent**  
**2G12010-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>			<b>%REC Limits</b>	
a,a,a-Trifluorotoluene		81.7 %			70-130	

**Viorel Vasile**  
Operations Manager



**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334592  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22  
**Units:** ppmv

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<b>Date Sampled:</b>	07/12/22	07/12/22	
<b>Date Prepared:</b>	07/14/22	07/14/22	
<b>Date Analyzed:</b>	07/14/22	07/14/22	
<b>AA ID No:</b>	2G12010-01	2G12010-02	
<b>Client ID No:</b>	VES	VES	
	Thermox-Influent	Thermox-Effluent	
<b>Matrix:</b>	Vapor	Vapor	
<b>Dilution Factor:</b>	1	1	MRL

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**VOCs in Vapor as Hexane (EPA 8015M)**

Total VOCs as Hexane	<b>390</b>	<4.9	4.9
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**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334592  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2G1319 - *** DEFAULT PREP ***</i>										
<b>Blank (B2G1319-BLK1)</b> Prepared & Analyzed: 07/13/22										
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	43.6		ug/L	50.0		87.1	70-140			
<i>Surrogate: Dibromofluoromethane</i>	44.7		ug/L	50.0		89.3	70-140			
<i>Surrogate: Toluene-d8</i>	43.7		ug/L	50.0		87.5	70-140			
<b>LCS (B2G1319-BS1)</b> Prepared & Analyzed: 07/13/22										
Benzene	<b>17.4</b>	0.50	ug/L	20.0		86.8	75-125			
Ethylbenzene	<b>21.4</b>	0.50	ug/L	20.0		107	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>32.1</b>	2.0	ug/L	40.0		80.4	75-125			
Toluene	<b>20.2</b>	0.50	ug/L	20.0		101	75-125			
o-Xylene	<b>21.1</b>	0.50	ug/L	20.0		105	75-125			
m,p-Xylenes	<b>43.8</b>	1.0	ug/L	40.0		109	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	41.9		ug/L	50.0		83.8	70-140			
<i>Surrogate: Dibromofluoromethane</i>	39.4		ug/L	50.0		78.8	70-140			
<i>Surrogate: Toluene-d8</i>	44.4		ug/L	50.0		88.8	70-140			
<b>LCS Dup (B2G1319-BSD1)</b> Prepared & Analyzed: 07/13/22										
Benzene	<b>18.4</b>	0.50	ug/L	20.0		91.8	75-125	5.54	30	
Ethylbenzene	<b>22.2</b>	0.50	ug/L	20.0		111	75-125	3.85	30	
Methyl-tert-Butyl Ether (MTBE)	<b>37.9</b>	2.0	ug/L	40.0		94.7	75-125	16.4	30	
Toluene	<b>22.3</b>	0.50	ug/L	20.0		111	75-125	9.94	30	
o-Xylene	<b>22.6</b>	0.50	ug/L	20.0		113	75-125	7.28	30	
m,p-Xylenes	<b>46.3</b>	1.0	ug/L	40.0		116	75-125	5.68	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	42.7		ug/L	50.0		85.4	70-140			
<i>Surrogate: Dibromofluoromethane</i>	39.4		ug/L	50.0		78.7	70-140			
<i>Surrogate: Toluene-d8</i>	44.1		ug/L	50.0		88.2	70-140			
<b>Duplicate (B2G1319-DUP1)</b> Source: 2G12010-01 Prepared & Analyzed: 07/13/22										

**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334592  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control**

Batch B2G1319 - \*\*\* DEFAULT PREP \*\*\*

**Duplicate (B2G1319-DUP1) Continued** Source: 2G12010-01 Prepared & Analyzed: 07/13/22

Benzene	2.22	0.25	ug/L		1.76			23.2	30	
Ethylbenzene	1.44	0.25	ug/L		1.26			13.4	30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L		<1.0				30	
Toluene	1.55	0.25	ug/L		1.41			9.46	30	
o-Xylene	1.67	0.25	ug/L		1.50			11.1	30	
m,p-Xylenes	5.09	0.50	ug/L		4.63			9.47	30	
Surrogate: 4-Bromofluorobenzene	41.4		ug/L	50.0		82.8	70-140			
Surrogate: Dibromofluoromethane	50.4		ug/L	50.0		101	70-140			
Surrogate: Toluene-d8	41.4		ug/L	50.0		82.8	70-140			

**Gasoline Range Organics in Vapor by GC/FID - Quality Control**

Batch B2G1401 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2G1401-BLK1)**

Prepared &amp; Analyzed: 07/14/22

Gasoline Range Organics (GRO)	<20	20	ug/L							
Surrogate: a,a,a-Trifluorotoluene	50.4		ug/L	50.0		101	70-130			

**LCS (B2G1401-BS1)**

Prepared &amp; Analyzed: 07/14/22

Gasoline Range Organics (GRO)	504	20	ug/L	500		101	75-125			
Surrogate: a,a,a-Trifluorotoluene	58.2		ug/L	50.0		116	70-130			

**LCS Dup (B2G1401-BSD1)**

Prepared &amp; Analyzed: 07/14/22

Gasoline Range Organics (GRO)	503	20	ug/L	500		101	75-125	0.114	30	
Surrogate: a,a,a-Trifluorotoluene	59.6		ug/L	50.0		119	70-130			

**Duplicate (B2G1401-DUP1)**

Source: 2G12011-01 Prepared &amp; Analyzed: 07/14/22

Gasoline Range Organics (GRO)	101	20	ug/L		100			1.24	30	
Surrogate: a,a,a-Trifluorotoluene	53.4		ug/L	50.0		107	70-130			

**VOCs in Vapor as Hexane - Quality Control**

Batch B2G1401 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2G1401-BLK1)**

Prepared &amp; Analyzed: 07/14/22

Total VOCs as Hexane	<4.9	4.9	ppmv							
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**Duplicate (B2G1401-DUP1)**

Source: 2G12011-01 Prepared &amp; Analyzed: 07/14/22

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334592  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2G1401 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2G1401-DUP1) Continued Source: 2G12011-01 Prepared &amp; Analyzed: 07/14/22</b>										
Total VOCs as Hexane	18.3	4.9	ppmv		18.1			1.24	30	

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334592  
**Date Received:** 07/12/22  
**Date Reported:** 07/22/22

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### Special Notes

A handwritten signature in black ink, appearing to be 'AV' or similar initials.

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**Viorel Vasile**  
Operations Manager



# AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

9765 ETON AVE., CHATSWORTH, CA 91311  
Tel: 818-998-5547 FAX: 818-998-7258

25021

Page 1 of 1

**Client:** The Source Group, Inc.      **Project Name / No.:** DFSP - Norwalk / 091-NOR-001      **Sampler's Name:** Bill [Signature]

**Project Manager:** Neil Irish      **Site Address:** 15306 Norwalk Blvd      **Sampler's Signature:** [Signature]

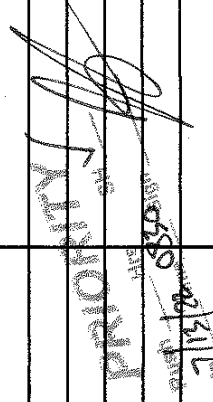
**Phone:** 562-597-1055      **City:** Norwalk      **P.O. No.:**

**Fax:** 569-597-1070      **State & Zip:** CA 90650      **Quote No.:**

### TAT Turnaround Codes \*\*

- ① = Same Day Rush
- ② = 24 Hour Rush
- ③ = 48 Hour Rush
- ④ = 72 Hour Rush
- ⑤ = 5 Day Rush
- X = 10 Working Days (Standard TAT)

### ANALYSIS REQUESTED (Test Name)

Client I.D.	Date	Time	Sample Matrix	No. of Cont	Please enter the TAT Turnaround Codes ** below		Special Instructions
					Total VOCs Gas 8018	Total VOCs Hexane 8515	
VES Thermox-Influent	7/12/22	1050	Air	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	*VOC's reported as GRO (detection limit = 4.9 ppmv) and *VOCs as Hexane (detection limit = 4.9 ppmv)
VES Thermox-Effluent	7/12/22	1040	Air	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	*Benzene (detection limit = 1 ppmv) *Ethyl benzene DL = 1 ppmv *MTBE (detection limit = 2 ppmv)
							
				Relinquished by [Signature]		Date	Received by
				Relinquished by [Signature]		7/12/22 1245 P	Received by [Signature]
				Relinquished by		Date	Received by
				Relinquished by		7/12/22 1900	Received by [Signature]
				Relinquished by		Date	Received by
				Relinquished by		22 JUL 12 19:00	Received by

AS334592/2912010

Note: By relinquishing samples to American Analytix, client agrees to pay for the services requested on this chain of custody form and any additional client-requested analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 45 days following the submittal of the sample(s) to American Analytix.



9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

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August 23, 2022

Neil Irish  
The Source Group, Inc. (SH)  
1962 Freeman Ave.  
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013  
A5334622 / 2H08021**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 08/08/22 18:41 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile', written in a cursive style.

Viorel Vasile  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334622  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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**VOCs BTEX/MTBE Vapor GC/MS**

VES Thermox-Influent	2H08021-01	Vapor	5	08/08/22 12:39	08/08/22 18:41
VES Thermox-Effluent	2H08021-02	Vapor	5	08/08/22 12:34	08/08/22 18:41

**VOCs Gasoline Range Organics Vapor**

VES Thermox-Influent	2H08021-01	Vapor	5	08/08/22 12:39	08/08/22 18:41
VES Thermox-Effluent	2H08021-02	Vapor	5	08/08/22 12:34	08/08/22 18:41

**VOCs in Vapor as Hexane**

VES Thermox-Influent	2H08021-01	Vapor	5	08/08/22 12:39	08/08/22 18:41
VES Thermox-Effluent	2H08021-02	Vapor	5	08/08/22 12:34	08/08/22 18:41

**Viorel Vasile**  
Operations Manager





### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334622  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**VES Thermax-Influent**  
**2H08021-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	1.3	ug/L	0.50	0.41	ppmv	0.16
Ethylbenzene	0.76	ug/L	0.50	0.18	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	0.69	ug/L	0.50	0.18	ppmv	0.13
o-Xylene	0.70	ug/L	0.50	0.16	ppmv	0.12
m,p-Xylenes	2.3	ug/L	1.0	0.53	ppmv	0.23

Surrogates	%REC	%REC Limits
4-Bromofluorobenzene	103 %	70-140
Dibromofluoromethane	103 %	70-140
Toluene-d8	94.5 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334622  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**VES Thermax-Effluent**  
**2H08021-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	108 %	70-140
Dibromofluoromethane	103 %	70-140
Toluene-d8	96.1 %	70-140

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334622  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

### VES Thermax-Influent

#### 2H08021-01 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<b>1200</b>	ug/L	20	<b>290</b>	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>				<b><u>%REC Limits</u></b>
a,a,a-Trifluorotoluene		114 %				70-130

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334622  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**VES Thermax-Effluent**  
**2H08021-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>			<b>%REC Limits</b>	
a,a,a-Trifluorotoluene		92.1 %			70-130	

**Viorel Vasile**  
 Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334622  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Units:** ppmv

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<b>Date Sampled:</b>	08/08/22	08/08/22	
<b>Date Prepared:</b>	08/09/22	08/09/22	
<b>Date Analyzed:</b>	08/09/22	08/09/22	
<b>AA ID No:</b>	2H08021-01	2H08021-02	
<b>Client ID No:</b>	VES	VES	
	Thermox-Influent	Thermox-Effluent	
<b>Matrix:</b>	Vapor	Vapor	
<b>Dilution Factor:</b>	1	1	MRL

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**VOCs in Vapor as Hexane (EPA 8015M)**

Total VOCs as Hexane	<b>220</b>	<4.9	4.9
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**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334622  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2H0919 - *** DEFAULT PREP ***</i>										
<b>Blank (B2H0919-BLK1)</b>				Prepared & Analyzed: 08/09/22						
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	52.5		ug/L	50.0		105	70-140			
<i>Surrogate: Dibromofluoromethane</i>	50.5		ug/L	50.0		101	70-140			
<i>Surrogate: Toluene-d8</i>	47.9		ug/L	50.0		95.7	70-140			
<b>LCS (B2H0919-BS1)</b>				Prepared & Analyzed: 08/09/22						
Benzene	<b>16.8</b>	0.50	ug/L	20.0		83.8	75-125			
Ethylbenzene	<b>17.7</b>	0.50	ug/L	20.0		88.3	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>34.5</b>	2.0	ug/L	40.0		86.2	75-125			
Toluene	<b>17.0</b>	0.50	ug/L	20.0		84.8	75-125			
o-Xylene	<b>16.3</b>	0.50	ug/L	20.0		81.6	75-125			
m,p-Xylenes	<b>34.3</b>	1.0	ug/L	40.0		85.7	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	53.3		ug/L	50.0		107	70-140			
<i>Surrogate: Dibromofluoromethane</i>	45.9		ug/L	50.0		91.8	70-140			
<i>Surrogate: Toluene-d8</i>	46.9		ug/L	50.0		93.8	70-140			
<b>LCS Dup (B2H0919-BSD1)</b>				Prepared & Analyzed: 08/09/22						
Benzene	<b>20.4</b>	0.50	ug/L	20.0		102	75-125	19.5	30	
Ethylbenzene	<b>21.5</b>	0.50	ug/L	20.0		107	75-125	19.4	30	
Methyl-tert-Butyl Ether (MTBE)	<b>38.7</b>	2.0	ug/L	40.0		96.7	75-125	11.5	30	
Toluene	<b>21.1</b>	0.50	ug/L	20.0		105	75-125	21.6	30	
o-Xylene	<b>20.6</b>	0.50	ug/L	20.0		103	75-125	23.1	30	
m,p-Xylenes	<b>42.2</b>	1.0	ug/L	40.0		105	75-125	20.6	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	53.6		ug/L	50.0		107	70-140			
<i>Surrogate: Dibromofluoromethane</i>	46.0		ug/L	50.0		91.9	70-140			
<i>Surrogate: Toluene-d8</i>	47.8		ug/L	50.0		95.5	70-140			
<b>Duplicate (B2H0919-DUP1)</b>				Source: 2H08019-02 Prepared & Analyzed: 08/09/22						

**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334622  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control**

Batch B2H0919 - \*\*\* DEFAULT PREP \*\*\*

**Duplicate (B2H0919-DUP1) Continued** Source: 2H08019-02 Prepared & Analyzed: 08/09/22

Benzene	0.545	0.25	ug/L		0.560			2.71	30	
Ethylbenzene	0.825	0.25	ug/L		0.940			13.0	30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L						30	
Toluene	0.570	0.25	ug/L		0.715			22.6	30	
o-Xylene	0.630	0.25	ug/L		0.645			2.35	30	
m,p-Xylenes	2.38	0.50	ug/L		2.68			11.5	30	
Surrogate: 4-Bromofluorobenzene	53.5		ug/L	50.0		107	70-140			
Surrogate: Dibromofluoromethane	52.6		ug/L	50.0		105	70-140			
Surrogate: Toluene-d8	49.0		ug/L	50.0		98.0	70-140			

**Gasoline Range Organics in Vapor by GC/FID - Quality Control**

Batch B2H0918 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2H0918-BLK1)**

Prepared &amp; Analyzed: 08/09/22

Gasoline Range Organics (GRO)	<20	20	ug/L							
Surrogate: a,a,a-Trifluorotoluene	47.2		ug/L	50.0		94.4	70-130			

**LCS (B2H0918-BS1)**

Prepared &amp; Analyzed: 08/09/22

Gasoline Range Organics (GRO)	428	20	ug/L	500		85.7	75-125			
Surrogate: a,a,a-Trifluorotoluene	50.4		ug/L	50.0		101	70-130			

**LCS Dup (B2H0918-BSD1)**

Prepared &amp; Analyzed: 08/09/22

Gasoline Range Organics (GRO)	562	20	ug/L	500		112	75-125	26.9	30	
Surrogate: a,a,a-Trifluorotoluene	61.2		ug/L	50.0		122	70-130			

**Duplicate (B2H0918-DUP1)**

Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22

Gasoline Range Organics (GRO)	2440	20	ug/L		2500			2.60	30	
Surrogate: a,a,a-Trifluorotoluene	52.1		ug/L	50.0		104	70-130			

**VOCs in Vapor as Hexane - Quality Control**

Batch B2H0918 - \*\*\* DEFAULT PREP \*\*\*

**Blank (B2H0918-BLK1)**

Prepared &amp; Analyzed: 08/09/22

Total VOCs as Hexane	<4.9	4.9	ppmv							
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**Duplicate (B2H0918-DUP1)**

Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334622  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2H0918 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2H0918-DUP1) Continued Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22</b>										
Total VOCs as Hexane	441	4.9	ppmv		453			2.60	30	

**Viorel Vasile**  
 Operations Manager





## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334622  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

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### Special Notes

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A handwritten signature in black ink, appearing to be 'VA' or similar, written over a horizontal line.

**Viorel Vasile**  
Operations Manager





9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

---

October 05, 2022

Neil Irish

The Source Group, Inc. (SH)  
1962 Freeman Ave.  
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013  
A5334671 / 2I20015**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 09/20/22 16:18 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to read 'V. Vasile', is written over a light blue horizontal line.

Viorel Vasile  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334671  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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**VOCs BTEX/MTBE Vapor GC/MS**

VES Thermox-Influent	2I20015-01	Vapor	5	09/20/22 11:59	09/20/22 16:18
VES Thermox-Effluent	2I20015-02	Vapor	5	09/20/22 11:55	09/20/22 16:18

**VOCs Gasoline Range Organics Vapor**

VES Thermox-Influent	2I20015-01	Vapor	5	09/20/22 11:59	09/20/22 16:18
VES Thermox-Effluent	2I20015-02	Vapor	5	09/20/22 11:55	09/20/22 16:18

**VOCs in Vapor as Hexane**

VES Thermox-Influent	2I20015-01	Vapor	5	09/20/22 11:59	09/20/22 16:18
VES Thermox-Effluent	2I20015-02	Vapor	5	09/20/22 11:55	09/20/22 16:18

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**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334671  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

**VES Thermax-Influent**  
**2120015-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	1.8	ug/L	0.50	0.56	ppmv	0.16
Ethylbenzene	0.80	ug/L	0.50	0.18	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	0.74	ug/L	0.50	0.20	ppmv	0.13
o-Xylene	0.87	ug/L	0.50	0.20	ppmv	0.12
m,p-Xylenes	2.4	ug/L	1.0	0.55	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	95.1 %	70-140
Dibromofluoromethane	117 %	70-140
Toluene-d8	97.9 %	70-140

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334671  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

**VES Thermax-Effluent**  
**2120015-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	98.7 %	70-140
Dibromofluoromethane	114 %	70-140
Toluene-d8	98.7 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334671  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

**VES Thermax-Influent**  
**2120015-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	1500	ug/L	20	370	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>			<b>%REC Limits</b>	
a,a,a-Trifluorotoluene		111 %			70-130	

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334671  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Sampled:** 09/20/22  
**Prepared:** 09/21/22  
**Analyzed:** 09/21/22

### VES Thermax-Effluent

#### 2120015-02 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>				<b><u>%REC Limits</u></b>
a,a,a-Trifluorotoluene		90.6 %				70-130

**Viorel Vasile**  
 Operations Manager





## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334671  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22  
**Units:** ppmv

<b>Date Sampled:</b>	09/20/22	09/20/22	
<b>Date Prepared:</b>	09/21/22	09/21/22	
<b>Date Analyzed:</b>	09/21/22	09/21/22	
<b>AA ID No:</b>	2I20015-01	2I20015-02	
<b>Client ID No:</b>	VES	VES	
	Thermox-Influent	Thermox-Effluent	
<b>Matrix:</b>	Vapor	Vapor	
<b>Dilution Factor:</b>	1	1	MRL

### VOCs in Vapor as Hexane (EPA 8015M)

Total VOCs as Hexane	<b>270</b>	<4.9	4.9
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**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334671  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2I2127 - *** DEFAULT PREP ***</i>										
<b>Blank (B2I2127-BLK1)</b>				Prepared & Analyzed: 09/21/22						
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>50.0</i>		<i>ug/L</i>	<i>50.0</i>		<i>100</i>	<i>70-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>53.6</i>		<i>ug/L</i>	<i>50.0</i>		<i>107</i>	<i>70-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>48.9</i>		<i>ug/L</i>	<i>50.0</i>		<i>97.7</i>	<i>70-140</i>			
<b>LCS (B2I2127-BS1)</b>				Prepared & Analyzed: 09/21/22						
Benzene	<b>20.6</b>	0.50	ug/L	20.0		103	75-125			
Ethylbenzene	<b>24.0</b>	0.50	ug/L	20.0		120	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>41.3</b>	2.0	ug/L	40.0		103	75-125			
Toluene	<b>22.3</b>	0.50	ug/L	20.0		111	75-125			
o-Xylene	<b>22.8</b>	0.50	ug/L	20.0		114	75-125			
m,p-Xylenes	<b>47.0</b>	1.0	ug/L	40.0		117	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>50.2</i>		<i>ug/L</i>	<i>50.0</i>		<i>100</i>	<i>70-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>47.6</i>		<i>ug/L</i>	<i>50.0</i>		<i>95.2</i>	<i>70-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>50.0</i>		<i>ug/L</i>	<i>50.0</i>		<i>100</i>	<i>70-140</i>			
<b>LCS Dup (B2I2127-BSD1)</b>				Prepared & Analyzed: 09/21/22						
Benzene	<b>21.5</b>	0.50	ug/L	20.0		108	75-125	4.27	30	
Ethylbenzene	<b>23.7</b>	0.50	ug/L	20.0		118	75-125	1.34	30	
Methyl-tert-Butyl Ether (MTBE)	<b>44.4</b>	2.0	ug/L	40.0		111	75-125	7.28	30	
Toluene	<b>22.4</b>	0.50	ug/L	20.0		112	75-125	0.582	30	
o-Xylene	<b>22.8</b>	0.50	ug/L	20.0		114	75-125	0.0439	30	
m,p-Xylenes	<b>46.5</b>	1.0	ug/L	40.0		116	75-125	0.963	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>49.5</i>		<i>ug/L</i>	<i>50.0</i>		<i>99.0</i>	<i>70-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>52.3</i>		<i>ug/L</i>	<i>50.0</i>		<i>105</i>	<i>70-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>49.4</i>		<i>ug/L</i>	<i>50.0</i>		<i>98.9</i>	<i>70-140</i>			
<b>Duplicate (B2I2127-DUP1)</b>				Source: 2I19020-25 Prepared & Analyzed: 09/21/22						

**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334671  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2I2127 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2I2127-DUP1) Continued</b> Source: 2I19020-25 Prepared & Analyzed: 09/21/22										
Benzene	<0.25	0.25	ug/L		0.170			42.9	30	
Ethylbenzene	<0.25	0.25	ug/L						30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L						30	
Toluene	<0.25	0.25	ug/L						30	
o-Xylene	<0.25	0.25	ug/L						30	
m,p-Xylenes	<0.50	0.50	ug/L						30	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>50.5</i>		<i>ug/L</i>	<i>50.0</i>		<i>101</i>	<i>70-140</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>56.2</i>		<i>ug/L</i>	<i>50.0</i>		<i>112</i>	<i>70-140</i>			
<i>Surrogate: Toluene-d8</i>	<i>50.0</i>		<i>ug/L</i>	<i>50.0</i>		<i>100</i>	<i>70-140</i>			
<b>Gasoline Range Organics in Vapor by GC/FID - Quality Control</b>										
<i>Batch B2I2126 - *** DEFAULT PREP ***</i>										
<b>Blank (B2I2126-BLK1)</b> Prepared & Analyzed: 09/21/22										
Gasoline Range Organics (GRO)	<20	20	ug/L							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>49.1</i>		<i>ug/L</i>	<i>50.0</i>		<i>98.1</i>	<i>70-130</i>			
<b>LCS (B2I2126-BS1)</b> Prepared & Analyzed: 09/21/22										
Gasoline Range Organics (GRO)	<b>480</b>	20	ug/L	500		96.1	75-125			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>49.9</i>		<i>ug/L</i>	<i>50.0</i>		<i>99.8</i>	<i>70-130</i>			
<b>LCS Dup (B2I2126-BSD1)</b> Prepared & Analyzed: 09/21/22										
Gasoline Range Organics (GRO)	<b>481</b>	20	ug/L	500		96.1	75-125	0.0150	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>52.7</i>		<i>ug/L</i>	<i>50.0</i>		<i>105</i>	<i>70-130</i>			
<b>Duplicate (B2I2126-DUP1)</b> Source: 2I20013-01 Prepared & Analyzed: 09/21/22										
Gasoline Range Organics (GRO)	<b>86.9</b>	20	ug/L		109			22.9	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	<i>48.8</i>		<i>ug/L</i>	<i>50.0</i>		<i>97.7</i>	<i>70-130</i>			
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2I2126 - *** DEFAULT PREP ***</i>										
<b>Blank (B2I2126-BLK1)</b> Prepared & Analyzed: 09/21/22										
Total VOCs as Hexane	<4.9	4.9	ppmv							
<b>Duplicate (B2I2126-DUP1)</b> Source: 2I20013-01 Prepared & Analyzed: 09/21/22										

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334671  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B212126 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B212126-DUP1) Continued Source: 2I20013-01 Prepared &amp; Analyzed: 09/21/22</b>										
Total VOCs as Hexane	15.7	4.9	ppmv		19.7			22.7	30	

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334671  
**Date Received:** 09/20/22  
**Date Reported:** 10/05/22

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### Special Notes

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**Viorel Vasile**  
Operations Manager





9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

---

August 23, 2022

Neil Irish  
The Source Group, Inc. (SH)  
1962 Freeman Ave.  
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013  
A5334623 / 2H08022**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 08/08/22 18:41 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to read 'V. Vasile'.

Viorel Vasile  
Operations Manager



**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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**VOCs BTEX/MTBE Vapor GC/MS**

HW-1	2H08022-01	Vapor	5	08/08/22 14:06	08/08/22 18:41
HW-5	2H08022-02	Vapor	5	08/08/22 14:09	08/08/22 18:41
HW-7	2H08022-03	Vapor	5	08/08/22 14:11	08/08/22 18:41
HW-9	2H08022-04	Vapor	5	08/08/22 14:13	08/08/22 18:41

**VOCs Gasoline Range Organics Vapor**

HW-1	2H08022-01	Vapor	5	08/08/22 14:06	08/08/22 18:41
HW-5	2H08022-02	Vapor	5	08/08/22 14:09	08/08/22 18:41
HW-7	2H08022-03	Vapor	5	08/08/22 14:11	08/08/22 18:41
HW-9	2H08022-04	Vapor	5	08/08/22 14:13	08/08/22 18:41

**VOCs in Vapor as Hexane**

HW-1	2H08022-01	Vapor	5	08/08/22 14:06	08/08/22 18:41
HW-5	2H08022-02	Vapor	5	08/08/22 14:09	08/08/22 18:41
HW-7	2H08022-03	Vapor	5	08/08/22 14:11	08/08/22 18:41
HW-9	2H08022-04	Vapor	5	08/08/22 14:13	08/08/22 18:41

**Viorel Vasile**  
Operations Manager





### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

HW-1

2H08022-01 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

Surrogates	%REC	%REC Limits
4-Bromofluorobenzene	107 %	70-140
Dibromofluoromethane	110 %	70-140
Toluene-d8	94.7 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**HW-5**

**2H08022-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	105 %	70-140
Dibromofluoromethane	109 %	70-140
Toluene-d8	93.5 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**HW-7**

**2H08022-03 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	105 %	70-140
Dibromofluoromethane	103 %	70-140
Toluene-d8	94.9 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

**HW-9**

**2H08022-04 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<b>0.28</b>	ug/L	0.50	<b>0.064</b>	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<b>0.60</b>	ug/L	1.0	<b>0.14</b>	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	98.5 %	70-140
Dibromofluoromethane	110 %	70-140
Toluene-d8	93.6 %	70-140

**Viorel Vasile**  
 Operations Manager



**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

HW-1

2H08022-01 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>			<b><u>%REC Limits</u></b>	
a,a,a-Trifluorotoluene		90.9 %			70-130	

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

HW-5

2H08022-02 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>			<b>%REC Limits</b>	
a,a,a-Trifluorotoluene		86.1 %			70-130	

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Sampled:** 08/08/22  
**Prepared:** 08/09/22  
**Analyzed:** 08/09/22

HW-7

2H08022-03 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	320	ug/L	20	78	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>				<b>%REC Limits</b>
a,a,a-Trifluorotoluene		101 %				70-130

**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

<b>Client:</b> The Source Group, Inc. (SH)	<b>AA Project No:</b> A5334623
<b>Project No:</b> 04-NDLA-013	<b>Date Received:</b> 08/08/22
<b>Project Name:</b> DFSP Norwalk VES AQMD	<b>Date Reported:</b> 08/23/22
<b>Matrix:</b> Vapor	<b>Sampled:</b> 08/08/22
<b>Dilution:</b> 1	<b>Prepared:</b> 08/09/22
<b>Method:</b> Gasoline Range Organics in Vapor by GC/FID	<b>Analyzed:</b> 08/09/22

**HW-9**

**2H08022-04 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<b>770</b>	ug/L	20	<b>190</b>	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>				<b><u>%REC Limits</u></b>
a,a,a-Trifluorotoluene		98.5 %				70-130

**Viorel Vasile**  
Operations Manager





## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22  
**Units:** ppmv

<b>Date Sampled:</b>	08/08/22	08/08/22	08/08/22	08/08/22
<b>Date Prepared:</b>	08/09/22	08/09/22	08/09/22	08/09/22
<b>Date Analyzed:</b>	08/09/22	08/09/22	08/09/22	08/09/22
<b>AA ID No:</b>	2H08022-01	2H08022-02	2H08022-03	2H08022-04
<b>Client ID No:</b>	HW-1	HW-5	HW-7	HW-9
<b>Matrix:</b>	Vapor	Vapor	Vapor	Vapor
<b>Dilution Factor:</b>	1	1	1	1
				MRL

### VOCs in Vapor as Hexane (EPA 8015M)

Total VOCs as Hexane	<4.9	<4.9	<b>59</b>	<b>140</b>	4.9
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**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>									
<i>Batch B2H0919 - *** DEFAULT PREP ***</i>									
<b>Blank (B2H0919-BLK1)</b>					Prepared & Analyzed: 08/09/22				
Benzene	<0.50	0.50	ug/L						
Ethylbenzene	<0.50	0.50	ug/L						
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L						
Toluene	<0.50	0.50	ug/L						
o-Xylene	<0.50	0.50	ug/L						
m,p-Xylenes	<1.0	1.0	ug/L						
<i>Surrogate: 4-Bromofluorobenzene</i>	52.5		ug/L	50.0		105 70-140			
<i>Surrogate: Dibromofluoromethane</i>	50.5		ug/L	50.0		101 70-140			
<i>Surrogate: Toluene-d8</i>	47.9		ug/L	50.0		95.7 70-140			
<b>LCS (B2H0919-BS1)</b>					Prepared & Analyzed: 08/09/22				
Benzene	<b>16.8</b>	0.50	ug/L	20.0		83.8 75-125			
Ethylbenzene	<b>17.7</b>	0.50	ug/L	20.0		88.3 75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>34.5</b>	2.0	ug/L	40.0		86.2 75-125			
Toluene	<b>17.0</b>	0.50	ug/L	20.0		84.8 75-125			
o-Xylene	<b>16.3</b>	0.50	ug/L	20.0		81.6 75-125			
m,p-Xylenes	<b>34.3</b>	1.0	ug/L	40.0		85.7 75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	53.3		ug/L	50.0		107 70-140			
<i>Surrogate: Dibromofluoromethane</i>	45.9		ug/L	50.0		91.8 70-140			
<i>Surrogate: Toluene-d8</i>	46.9		ug/L	50.0		93.8 70-140			
<b>LCS Dup (B2H0919-BSD1)</b>					Prepared & Analyzed: 08/09/22				
Benzene	<b>20.4</b>	0.50	ug/L	20.0		102 75-125	19.5	30	
Ethylbenzene	<b>21.5</b>	0.50	ug/L	20.0		107 75-125	19.4	30	
Methyl-tert-Butyl Ether (MTBE)	<b>38.7</b>	2.0	ug/L	40.0		96.7 75-125	11.5	30	
Toluene	<b>21.1</b>	0.50	ug/L	20.0		105 75-125	21.6	30	
o-Xylene	<b>20.6</b>	0.50	ug/L	20.0		103 75-125	23.1	30	
m,p-Xylenes	<b>42.2</b>	1.0	ug/L	40.0		105 75-125	20.6	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	53.6		ug/L	50.0		107 70-140			
<i>Surrogate: Dibromofluoromethane</i>	46.0		ug/L	50.0		91.9 70-140			
<i>Surrogate: Toluene-d8</i>	47.8		ug/L	50.0		95.5 70-140			
<b>Duplicate (B2H0919-DUP1)</b>					Source: 2H08019-02 Prepared & Analyzed: 08/09/22				

**Viorel Vasile**  
Operations Manager

**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2H0919 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2H0919-DUP1) Continued Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22</b>										
Benzene	0.545	0.25	ug/L		0.560			2.71	30	
Ethylbenzene	0.825	0.25	ug/L		0.940			13.0	30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L						30	
Toluene	0.570	0.25	ug/L		0.715			22.6	30	
o-Xylene	0.630	0.25	ug/L		0.645			2.35	30	
m,p-Xylenes	2.38	0.50	ug/L		2.68			11.5	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	53.5		ug/L	50.0		107	70-140			
<i>Surrogate: Dibromofluoromethane</i>	52.6		ug/L	50.0		105	70-140			
<i>Surrogate: Toluene-d8</i>	49.0		ug/L	50.0		98.0	70-140			
<b>Gasoline Range Organics in Vapor by GC/FID - Quality Control</b>										
<i>Batch B2H0918 - *** DEFAULT PREP ***</i>										
<b>Blank (B2H0918-BLK1) Prepared &amp; Analyzed: 08/09/22</b>										
Gasoline Range Organics (GRO)	<20	20	ug/L							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	47.2		ug/L	50.0		94.4	70-130			
<b>LCS (B2H0918-BS1) Prepared &amp; Analyzed: 08/09/22</b>										
Gasoline Range Organics (GRO)	428	20	ug/L	500		85.7	75-125			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	50.4		ug/L	50.0		101	70-130			
<b>LCS Dup (B2H0918-BSD1) Prepared &amp; Analyzed: 08/09/22</b>										
Gasoline Range Organics (GRO)	562	20	ug/L	500		112	75-125	26.9	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	61.2		ug/L	50.0		122	70-130			
<b>Duplicate (B2H0918-DUP1) Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22</b>										
Gasoline Range Organics (GRO)	2440	20	ug/L		2500			2.60	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	52.1		ug/L	50.0		104	70-130			
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2H0918 - *** DEFAULT PREP ***</i>										
<b>Blank (B2H0918-BLK1) Prepared &amp; Analyzed: 08/09/22</b>										
Total VOCs as Hexane	<4.9	4.9	ppmv							
<b>Duplicate (B2H0918-DUP1) Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22</b>										

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2H0918 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2H0918-DUP1) Continued Source: 2H08019-02 Prepared &amp; Analyzed: 08/09/22</b>										
Total VOCs as Hexane	441	4.9	ppmv		453			2.60	30	

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334623  
**Date Received:** 08/08/22  
**Date Reported:** 08/23/22

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### Special Notes

A handwritten signature in black ink, appearing to be 'VA' or similar, located below the 'Special Notes' section.

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**Viorel Vasile**  
Operations Manager





9765 Eton Avenue  
Chatsworth  
California 91311  
Tel: (818) 998-5547  
Fax: (818) 998-7258

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October 28, 2022

Neil Irish

The Source Group, Inc. (SH)  
1962 Freeman Ave.  
Signal Hill, CA 90755

**Re : DFSP Norwalk VES AQMD / 04-NDLA-013  
A5334625 / 2H08024**

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received on 08/08/22 18:41 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report or require additional information please call me at American Analytix.

Sincerely,

A handwritten signature in black ink, appearing to be 'V. Vasile'.

Viorel Vasile  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22

Sample ID	Laboratory ID	Matrix	TAT	Date Sampled	Date Received
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#### VOCs BTEX/MTBE Vapor GC/MS

Trunkline#1 (East)	2H08024-01	Vapor	5	08/08/22 13:52	08/08/22 18:41
Trunkline#2 (South)	2H08024-02	Vapor	5	08/08/22 13:54	08/08/22 18:41
Trunkline#3 (Central S)	2H08024-03	Vapor	5	08/08/22 13:58	08/08/22 18:41
Trunkline#4 (Central E)	2H08024-04	Vapor	5	08/08/22 14:00	08/08/22 18:41
Trunkline#5 (Central W)	2H08024-05	Vapor	5	08/08/22 13:56	08/08/22 18:41

#### VOCs Gasoline Range Organics Vapor

Trunkline#1 (East)	2H08024-01	Vapor	5	08/08/22 13:52	08/08/22 18:41
Trunkline#2 (South)	2H08024-02	Vapor	5	08/08/22 13:54	08/08/22 18:41
Trunkline#3 (Central S)	2H08024-03	Vapor	5	08/08/22 13:58	08/08/22 18:41
Trunkline#4 (Central E)	2H08024-04	Vapor	5	08/08/22 14:00	08/08/22 18:41
Trunkline#5 (Central W)	2H08024-05	Vapor	5	08/08/22 13:56	08/08/22 18:41

#### VOCs in Vapor as Hexane

Trunkline#1 (East)	2H08024-01	Vapor	5	08/08/22 13:52	08/08/22 18:41
Trunkline#2 (South)	2H08024-02	Vapor	5	08/08/22 13:54	08/08/22 18:41
Trunkline#3 (Central S)	2H08024-03	Vapor	5	08/08/22 13:58	08/08/22 18:41
Trunkline#4 (Central E)	2H08024-04	Vapor	5	08/08/22 14:00	08/08/22 18:41
Trunkline#5 (Central W)	2H08024-05	Vapor	5	08/08/22 13:56	08/08/22 18:41

**Viorel Vasile**  
Operations Manager





### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

**Trunkline#1 (East)**

**2H08024-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	0.71	ug/L	0.50	0.22	ppmv	0.16
Ethylbenzene	0.36	ug/L	0.50	0.083	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	0.37	ug/L	0.50	0.098	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	1.0	ug/L	1.0	0.23	ppmv	0.23

Surrogates	%REC	%REC Limits
4-Bromofluorobenzene	98.8 %	70-140
Dibromofluoromethane	101 %	70-140
Toluene-d8	91.8 %	70-140

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

**Trunkline#2 (South)**

**2H08024-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

<u>Surrogates</u>	<u>%REC</u>	<u>%REC Limits</u>
4-Bromofluorobenzene	102 %	70-140
Dibromofluoromethane	101 %	70-140
Toluene-d8	92.6 %	70-140

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

**Trunkline#3 (Central S)**  
**2H08024-03 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	3.4	ug/L	0.50	1.1	ppmv	0.16
Ethylbenzene	1.9	ug/L	0.50	0.44	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<2.0	ug/L	2.0	<0.55	ppmv	0.55
Toluene	<0.50	ug/L	0.50	<0.13	ppmv	0.13
o-Xylene	0.55	ug/L	0.50	0.13	ppmv	0.12
m,p-Xylenes	3.9	ug/L	1.0	0.90	ppmv	0.23

Surrogates	%REC	%REC Limits
4-Bromofluorobenzene	101 %	70-140
Dibromofluoromethane	104 %	70-140
Toluene-d8	91.7 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

**Trunkline#4 (Central E)**

**2H08024-04 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	3.6	ug/L	0.50	1.1	ppmv	0.16
Ethylbenzene	1.6	ug/L	0.50	0.37	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<2.0	ug/L	2.0	<0.55	ppmv	0.55
Toluene	4.5	ug/L	0.50	1.2	ppmv	0.13
o-Xylene	3.6	ug/L	0.50	0.83	ppmv	0.12
m,p-Xylenes	7.8	ug/L	1.0	1.8	ppmv	0.23

Surrogates	%REC	%REC Limits
4-Bromofluorobenzene	102 %	70-140
Dibromofluoromethane	94.5 %	70-140
Toluene-d8	92.4 %	70-140

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 0.5  
**Method:** VOCs BTEX/MTBE Vapor by GC/MS 8260M

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

**Trunkline#5 (Central W)**

**2H08024-05 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Benzene	<0.25	ug/L	0.50	<0.078	ppmv	0.16
Ethylbenzene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
Methyl-tert-Butyl Ether (MTBE)	<1.0	ug/L	2.0	<0.28	ppmv	0.55
Toluene	<0.25	ug/L	0.50	<0.066	ppmv	0.13
o-Xylene	<0.25	ug/L	0.50	<0.058	ppmv	0.12
m,p-Xylenes	<0.50	ug/L	1.0	<0.12	ppmv	0.23

Surrogates	%REC	%REC Limits
4-Bromofluorobenzene	105 %	70-140
Dibromofluoromethane	103 %	70-140
Toluene-d8	92.8 %	70-140

**Viorel Vasile**  
 Operations Manager



**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 5  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

**Trunkline#1 (East)**

**2H08024-01 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<b>5000</b>	ug/L	20	<b>1200</b>	ppmv	4.9
<b>Surrogates</b>		<b>%REC</b>			<b>%REC Limits</b>	
a,a,a-Trifluorotoluene		114 %			70-130	

**Viorel Vasile**  
Operations Manager



**LABORATORY ANALYSIS RESULTS**

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

**Trunkline#2 (South)**

**2H08024-02 (Vapor)**

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	500	ug/L	20	120	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>			<b><u>%REC Limits</u></b>	
a,a,a-Trifluorotoluene		98.6 %			70-130	

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 2  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

### Trunkline#3 (Central S)

### 2H08024-03 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<b>3800</b>	ug/L	20	<b>930</b>	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>				<b><u>%REC Limits</u></b>
a,a,a-Trifluorotoluene		93.9 %				70-130

**Viorel Vasile**  
 Operations Manager





## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)

**Project No:** 04-NDLA-013

**Project Name:** DFSP Norwalk VES AQMD

**Matrix:** Vapor

**Dilution:** 2

**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334625

**Date Received:** 08/08/22

**Date Reported:** 10/28/22

**Sampled:** 08/08/22

**Prepared:** 08/10/22

**Analyzed:** 08/10/22

### Trunkline#4 (Central E)

### 2H08024-04 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<b>3700</b>	ug/L	20	<b>900</b>	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>				<b><u>%REC Limits</u></b>
a,a,a-Trifluorotoluene		99.2 %				70-130

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Matrix:** Vapor  
**Dilution:** 1  
**Method:** Gasoline Range Organics in Vapor by GC/FID

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Sampled:** 08/08/22  
**Prepared:** 08/10/22  
**Analyzed:** 08/10/22

### Trunkline#5 (Central W)

### 2H08024-05 (Vapor)

Analyte	Result	(ug/L)	MRL	Result	(ppmv)	MRL
Gasoline Range Organics (GRO)	<20	ug/L	20	<4.9	ppmv	4.9
<b><u>Surrogates</u></b>		<b><u>%REC</u></b>				<b><u>%REC Limits</u></b>
a,a,a-Trifluorotoluene		98.5 %				70-130

**Viorel Vasile**  
 Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Units:** ppmv

<b>Date Sampled:</b>	08/08/22	08/08/22	08/08/22	08/08/22	
<b>Date Prepared:</b>	08/10/22	08/10/22	08/10/22	08/10/22	
<b>Date Analyzed:</b>	08/10/22	08/10/22	08/10/22	08/10/22	
<b>AA ID No:</b>	2H08024-01	2H08024-02	2H08024-03	2H08024-04	
<b>Client ID No:</b>	Trunkline#1 (East)	Trunkline#2 (South)	Trunkline#3 (Central S)	Trunkline#4 (Central E)	
<b>Matrix:</b>	Vapor	Vapor	Vapor	Vapor	
<b>Dilution Factor:</b>	5	1	2	2	MRL

#### VOCs in Vapor as Hexane (EPA 8015M)

Total VOCs as Hexane	<b>910</b>	<b>90</b>	<b>680</b>	<b>660</b>	4.9
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**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD  
**Method:** VOCs in Vapor as Hexane

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22  
**Units:** ppmv

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<b>Date Sampled:</b>	08/08/22	
<b>Date Prepared:</b>	08/10/22	
<b>Date Analyzed:</b>	08/10/22	
<b>AA ID No:</b>	2H08024-05	
<b>Client ID No:</b>	Trunkline#5 (Central W)	
<b>Matrix:</b>	Vapor	
<b>Dilution Factor:</b>	1	MRL

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### VOCs in Vapor as Hexane (EPA 8015M)

Total VOCs as Hexane	<4.9	4.9
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**Viorel Vasile**  
 Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2H1009 - *** DEFAULT PREP ***</i>										
<b>Blank (B2H1009-BLK1)</b>				Prepared & Analyzed: 08/10/22						
Benzene	<0.50	0.50	ug/L							
Ethylbenzene	<0.50	0.50	ug/L							
Methyl-tert-Butyl Ether (MTBE)	<2.0	2.0	ug/L							
Toluene	<0.50	0.50	ug/L							
o-Xylene	<0.50	0.50	ug/L							
m,p-Xylenes	<1.0	1.0	ug/L							
<i>Surrogate: 4-Bromofluorobenzene</i>	53.6		ug/L	50.0		107	70-140			
<i>Surrogate: Dibromofluoromethane</i>	52.3		ug/L	50.0		105	70-140			
<i>Surrogate: Toluene-d8</i>	47.0		ug/L	50.0		94.0	70-140			
<b>LCS (B2H1009-BS1)</b>				Prepared & Analyzed: 08/10/22						
Benzene	<b>19.4</b>	0.50	ug/L	20.0		96.9	75-125			
Ethylbenzene	<b>20.7</b>	0.50	ug/L	20.0		104	75-125			
Methyl-tert-Butyl Ether (MTBE)	<b>37.7</b>	2.0	ug/L	40.0		94.3	75-125			
Toluene	<b>20.2</b>	0.50	ug/L	20.0		101	75-125			
o-Xylene	<b>20.0</b>	0.50	ug/L	20.0		99.8	75-125			
m,p-Xylenes	<b>40.9</b>	1.0	ug/L	40.0		102	75-125			
<i>Surrogate: 4-Bromofluorobenzene</i>	52.8		ug/L	50.0		106	70-140			
<i>Surrogate: Dibromofluoromethane</i>	45.0		ug/L	50.0		89.9	70-140			
<i>Surrogate: Toluene-d8</i>	47.0		ug/L	50.0		94.0	70-140			
<b>LCS Dup (B2H1009-BSD1)</b>				Prepared & Analyzed: 08/10/22						
Benzene	<b>20.1</b>	0.50	ug/L	20.0		100	75-125	3.65	30	
Ethylbenzene	<b>20.4</b>	0.50	ug/L	20.0		102	75-125	1.56	30	
Methyl-tert-Butyl Ether (MTBE)	<b>36.3</b>	2.0	ug/L	40.0		90.8	75-125	3.84	30	
Toluene	<b>19.8</b>	0.50	ug/L	20.0		99.0	75-125	1.95	30	
o-Xylene	<b>19.5</b>	0.50	ug/L	20.0		97.6	75-125	2.33	30	
m,p-Xylenes	<b>40.2</b>	1.0	ug/L	40.0		100	75-125	1.87	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	52.6		ug/L	50.0		105	70-140			
<i>Surrogate: Dibromofluoromethane</i>	45.1		ug/L	50.0		90.3	70-140			
<i>Surrogate: Toluene-d8</i>	46.9		ug/L	50.0		93.9	70-140			
<b>Duplicate (B2H1009-DUP1)</b>				Source: 2H08024-01 Prepared & Analyzed: 08/10/22						

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs BTEX/MTBE Vapor by GC/MS 8260M - Quality Control</b>										
<i>Batch B2H1009 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2H1009-DUP1) Continued Source: 2H08024-01 Prepared &amp; Analyzed: 08/10/22</b>										
Benzene	0.705	0.25	ug/L		0.710			0.707	30	
Ethylbenzene	0.440	0.25	ug/L		0.365			18.6	30	
Methyl-tert-Butyl Ether (MTBE)	<1.0	1.0	ug/L		<1.0				30	
Toluene	0.430	0.25	ug/L		0.370			15.0	30	
o-Xylene	0.295	0.25	ug/L		0.245			18.5	30	
m,p-Xylenes	1.12	0.50	ug/L		0.995			11.8	30	
<i>Surrogate: 4-Bromofluorobenzene</i>	49.4		ug/L	50.0		98.7	70-140			
<i>Surrogate: Dibromofluoromethane</i>	48.6		ug/L	50.0		97.2	70-140			
<i>Surrogate: Toluene-d8</i>	46.6		ug/L	50.0		93.3	70-140			
<b>Gasoline Range Organics in Vapor by GC/FID - Quality Control</b>										
<i>Batch B2H1010 - *** DEFAULT PREP ***</i>										
<b>Blank (B2H1010-BLK1) Prepared &amp; Analyzed: 08/10/22</b>										
Gasoline Range Organics (GRO)	<20	20	ug/L							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	44.9		ug/L	50.0		89.8	70-130			
<b>LCS (B2H1010-BS1) Prepared &amp; Analyzed: 08/10/22</b>										
Gasoline Range Organics (GRO)	462	20	ug/L	500		92.4	75-125			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	47.2		ug/L	50.0		94.3	70-130			
<b>LCS Dup (B2H1010-BSD1) Prepared &amp; Analyzed: 08/10/22</b>										
Gasoline Range Organics (GRO)	595	20	ug/L	500		119	75-125	25.2	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	59.1		ug/L	50.0		118	70-130			
<b>Duplicate (B2H1010-DUP1) Source: 2H08024-01 Prepared &amp; Analyzed: 08/10/22</b>										
Gasoline Range Organics (GRO)	4530	100	ug/L		5030			10.6	30	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	53.6		ug/L	50.0		107	70-130			
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2H1010 - *** DEFAULT PREP ***</i>										
<b>Blank (B2H1010-BLK1) Prepared &amp; Analyzed: 08/10/22</b>										
Total VOCs as Hexane	<4.9	4.9	ppmv							
<b>Duplicate (B2H1010-DUP1) Source: 2H08024-01 Prepared &amp; Analyzed: 08/10/22</b>										

**Viorel Vasile**  
Operations Manager



### LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>VOCs in Vapor as Hexane - Quality Control</b>										
<i>Batch B2H1010 - *** DEFAULT PREP ***</i>										
<b>Duplicate (B2H1010-DUP1) Continued Source: 2H08024-01 Prepared &amp; Analyzed: 08/10/22</b>										
Total VOCs as Hexane	818	24	ppmv		913			11.0	30	

**Viorel Vasile**  
Operations Manager



## LABORATORY ANALYSIS RESULTS

**Client:** The Source Group, Inc. (SH)  
**Project No:** 04-NDLA-013  
**Project Name:** DFSP Norwalk VES AQMD

**AA Project No:** A5334625  
**Date Received:** 08/08/22  
**Date Reported:** 10/28/22

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### Special Notes

A handwritten signature in black ink, appearing to be 'AV' or similar initials.

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**Viorel Vasile**  
Operations Manager





# AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

9765 ETON AVE., CHATSWORTH, CA 91311  
 Tel: 818-998-5547 FAX: 818-998-7258

25159

**Client:** The Source Group, Inc.      **Project Name / No.:** DFSP - Norwalk / 091-NDLA      **Sampler's Name:** Glenn Androsko

**Project Manager:** Neil Irish      **Site Address:** 15306 Norwalk Blvd      **Sampler's Signature:** *Glenn Androsko*

**Phone:** 562-597-1055      **City:** Norwalk      **P.O. No.:**

**Fax:** 569-597-1070      **State & Zip:** CA 90650      **Quote No.:**

**TAT Turnaround Codes \*\***

- ① = Same Day Rush
- ④ = 72 Hour Rush
- ② = 24 Hour Rush
- ⑤ = 5 Day Rush
- ③ = 48 Hour Rush
- X = 10 Working Days (Standard TAT)

**ANALYSIS REQUESTED (Test Name)**

Client I.D.	Date	Time	Sample Matrix	No. of Cont	Please enter the TAT Turnaround Codes ** below			Special Instructions
					Total VOCs Gas 8019	Total VOCs Hexane 8015	BTEX/MTR 8260B	
Trunkline#1 (East)	8-8-22	1352	Air	1	✓	✓	✓	VOC's reported as
Trunkline#2 (South)		1254	Air	1	✓	✓	✓	GRO (detection limit
Trunkline#3 (Central S)		1358	Air	1	✓	✓	✓	=4.9 ppmv) and
Trunkline#4 (Central E)		1400	Air	1	✓	✓	✓	VOCs as Hexane
Trunkline#5 (Central W)		1256	Air	1	✓	✓	✓	(detection limit =
								4.9 ppmv)
								Benzene (detection
								limit = 0.15 ppmv)
<div style="border: 1px solid black; padding: 5px; display: inline-block;">           RELINQUISHED TO AMERICAN ANALYTICS            DATE: 8/17/22            TIME: 8:17 AM         </div>								
								22 AUG 8 1841

**Relinquished by:** *Glenn Androsko*      **Date:** 8-8-22      **Time:** 330

**Relinquished by:** *[Signature]*      **Date:** 8-8-22      **Time:** 1841

**Relinquished by:** \_\_\_\_\_      **Date:** \_\_\_\_\_      **Time:** \_\_\_\_\_

AS334625/2408024

Note: By relinquishing samples to American Analytcs, client agrees to pay for the services requested on this chain of custody form and any additional client-requested analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 45 days following the submittal of the sample(s) to American Analytcs.



**ENTHALPY**  
ANALYTICAL

Enthalpy Analytical  
931 West Barkley Ave  
Orange, CA 92868  
(714) 771-6900

enthalpy.com

Lab Job Number: 469799  
Report Level: II  
Report Date: 10/12/2022

**Analytical Report** *prepared for:*

Imelda Morales  
APEX - Signal Hill  
1962 Freeman Avenue  
Signal Hill, CA 90755

Project: PERMIT #22453\_WW - WW

*Authorized for release by:*

Diane Galvan, Project Manager  
714-771-9928  
[diane.galvan@enthalpy.com](mailto:diane.galvan@enthalpy.com)

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

## Sample Summary

---

Imelda Morales  
APEX - Signal Hill  
1962 Freeman Avenue  
Signal Hill, CA 90755

Lab Job #: 469799  
Project No: PERMIT #22453\_WW  
Location: WW  
Date Received: 09/28/22

---

Sample ID	Lab ID	Collected	Matrix
SURGE TANK_09-28-22	469799-001	09/28/22 11:32	Water
AFTER B-1_09-28-22	469799-002	09/28/22 11:28	Water
EFFLUENT_09-28-22	469799-003	09/28/22 11:00	Water

## Case Narrative

---

APEX - Signal Hill  
1962 Freeman Avenue  
Signal Hill, CA 90755  
Imelda Morales

Lab Job Number: 469799  
Project No: PERMIT #22453\_WW  
Location: WW  
Date Received: 09/28/22

---

This data package contains sample and QC results for three water samples, requested for the above referenced project on 09/28/22. The samples were received cold and intact.

### **TPH-Extractables by GC (EPA 8015B):**

- High RPD was observed for diesel C10-C28 in the BS/BSD for batch 297941.
- No other analytical problems were encountered.

469799

**CHAIN OF CUSTODY RECORD**  
 931 W. Barkley, Orange, CA 92668  
 Phone: (714) 771-6900 Fax: (714) 771-9933  
 Billing: Enthality Analytical  
 c/o Montrose Environmental Group Inc.  
 P.O. Box 741137, Los Angeles, CA 90074-1137

**ENTHALPY ANALYTICAL**  
 Lab Number: 15881  
 Client ID: 1 of 1  
 Page: 1

Preservative: 1=Na2S2O3 2=HCl 3=HNO3 4=H2SO4 5=NaOH 6=Other  
 Matrix: A=Air DW=Drinking Water FL=Food Liquid FS=Food Solid  
 L=Liquid PP=Pure Product S=Solid SW=Swab W=Water WP=Wipe O=Other

\*\*\*Turn around time will start the following day for samples received at the Lab after 3pm\*\*\*

**CUSTOMER INFORMATION**  
 Company: APEX  
 Report To: limelca.morales@apexcs.com, glenn.androsko@apexcs.com  
 Email: kav.nven@apexcs.com  
 Address: 1962 Freeman Ave  
 Signal Hill, CA 90755  
 Phone: 562-597-1055 Fax:

**PROJECT INFORMATION**  
 Name: WW  
 Number: Permit #22463  
 Address: 15306 Norwalk Blvd  
 Norwalk, CA 90650

**ENTHALPY ANALYTICAL**

Sample ID	Date	Time	Matrix	Container	Pres.	Analysis		Test Instruction & Comments
						8015 TPHD (DRO)	8015 TPHG (GRO)	
1	Surge Tank_09-28-22	1132	W	*	*	X	X	Enthalpy Quote No.: APEX_012120
2	After B-1_09-28-22	1128	W	*	*	X	X	*TPHD - 1L amber, unpreserved
3	Effluent_09-28-22	1100	W	*	*	X	X	*TPHG - 3x 40ml VOA vials w/HCl
4								*824-VOCs - 3x 40ml VOA vials w/HCl
5								*Metals (Total As only) - 250ml poly w/HNO3
6								
7								
8								
9								
10								
11								
12								
13								
14								

**Meter Readings**

1) Begin:	pH	Temp.	Time
End:			
2) Begin:			
End:			
3) Begin:			
End:			
4) Begin:			
End:			

Relinquished By: Glenn Androsko  
 Print Name: Glenn Androsko  
 Date: 9-28-22 Time: 1615

Relinquished By: Joshua Kim  
 Print Name: Joshua Kim  
 Date: 09/28/2022 Time: 1615

Relinquished By: [Signature]  
 Print Name: [Signature]  
 Date: [Signature] Time: [Signature]

Received By: [Signature]  
 Print Name: [Signature]  
 Date: [Signature] Time: [Signature]

6.2/1.9



# ENTHALPY ANALYTICAL

## SAMPLE ACCEPTANCE CHECKLIST

**Section 1**  
 Client: Apex Companies, LLC Project: WW Permit #22453 Surge Tank  
 Date Received: 09/28/22 Sampler's Name Present:  Yes  No

**Section 2**  
 Sample(s) received in a cooler?  Yes, How many? 1  No (skip section 2) Sample Temp (°C) (No Cooler) : \_\_\_\_\_  
 Sample Temp (°C), One from each cooler: #1: 6.2 #2: \_\_\_\_\_ #3: \_\_\_\_\_ #4: \_\_\_\_\_  
*(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)*  
 Shipping Information: \_\_\_\_\_

**Section 3**  
 Was the cooler packed with:  Ice  Ice Packs  Bubble Wrap  Styrofoam  
 Paper  None  Other \_\_\_\_\_  
 Cooler Temp (°C): #1: 1.9 #2: \_\_\_\_\_ #3: \_\_\_\_\_ #4: \_\_\_\_\_

Section 4	YES	NO	N/A
Was a COC received?	<input checked="" type="checkbox"/>		
Are sample IDs present?	<input checked="" type="checkbox"/>		
Are sampling dates & times present?	<input checked="" type="checkbox"/>		
Is a relinquished signature present?	<input checked="" type="checkbox"/>		
Are the tests required clearly indicated on the COC?	<input checked="" type="checkbox"/>		
Are custody seals present?		<input checked="" type="checkbox"/>	
If custody seals are present, were they intact?			<input checked="" type="checkbox"/>
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			<input checked="" type="checkbox"/>
Did all samples arrive intact? If no, indicate in Section 4 below.	<input checked="" type="checkbox"/>		
Did all bottle labels agree with COC? (ID, dates and times)	<input checked="" type="checkbox"/>		
Were the samples collected in the correct containers for the required tests?	<input checked="" type="checkbox"/>		
Are the containers labeled with the correct preservatives?	<input checked="" type="checkbox"/>		
Is there headspace in the VOA vials greater than 5-6 mm in diameter?		<input checked="" type="checkbox"/>	
Was a sufficient amount of sample submitted for the requested tests?	<input checked="" type="checkbox"/>		

**Section 5 Explanations/Comments**  
6 vials received for samples 1, 3

**Section 6**  
 For discrepancies, how was the Project Manager notified?  Verbal PM Initials: \_\_\_\_\_ Date/Time \_\_\_\_\_  
 Email (email sent to/on): \_\_\_\_\_ / \_\_\_\_\_  
 Project Manager's response: \_\_\_\_\_

Completed By: [Signature] Date: 9/28/22

## Analysis Results for 469799

Imelda Morales  
 APEX - Signal Hill  
 1962 Freeman Avenue  
 Signal Hill, CA 90755

Lab Job #: 469799  
 Project No: PERMIT #22453\_WW  
 Location: WW  
 Date Received: 09/28/22

<b>Sample ID: SURGE TANK_09-28-22</b>	<b>Lab ID: 469799-001</b>	<b>Collected: 09/28/22 11:32</b>
<b>Matrix: Water</b>		

469799-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.7									
Prep Method: EPA 200.7									
Arsenic	<b>0.062</b>		mg/L	0.010	1	297955	09/29/22	09/29/22	SBW
Method: EPA 624.1									
Prep Method: EPA 624.1									
MTBE	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
Isopropyl Ether (DIPE)	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
Ethyl tert-Butyl Ether (ETBE)	ND		ug/L	1.0	1	298117	10/01/22	10/01/22	ILK
Methyl tert-Amyl Ether (TAME)	ND		ug/L	1.0	1	298117	10/01/22	10/01/22	ILK
tert-Butyl Alcohol (TBA)	<b>49</b>		ug/L	10	1	298117	10/01/22	10/01/22	ILK
m,p-Xylenes	ND		ug/L	10	1	298117	10/01/22	10/01/22	ILK
o-Xylene	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
Benzene	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
Toluene	ND		ug/L	0.5	1	298117	10/01/22	10/01/22	ILK
Ethylbenzene	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
Xylene (total)	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
<b>Surrogates</b>			<b>Limits</b>						
Dibromofluoromethane	105%		%REC	70-140	1	298117	10/01/22	10/01/22	ILK
1,2-Dichloroethane-d4	102%		%REC	70-140	1	298117	10/01/22	10/01/22	ILK
Toluene-d8	98%		%REC	70-140	1	298117	10/01/22	10/01/22	ILK
Bromofluorobenzene	97%		%REC	70-140	1	298117	10/01/22	10/01/22	ILK
Method: EPA 8015B									
Prep Method: EPA 5030B									
TPH Gasoline	ND		ug/L	50	1	297987	10/03/22	10/03/22	EMW
<b>Surrogates</b>			<b>Limits</b>						
Bromofluorobenzene (FID)	99%		%REC	60-140	1	297987	10/03/22	10/03/22	EMW
Method: EPA 8015B									
Prep Method: EPA 3510C									
Diesel C10-C28	<b>0.34</b>		mg/L	0.096	0.96	297941	09/29/22	09/29/22	MES
<b>Surrogates</b>			<b>Limits</b>						
n-Triacontane	71%		%REC	35-130	0.96	297941	09/29/22	09/29/22	MES

## Analysis Results for 469799

<b>Sample ID:</b> AFTER B-1_09-28-22	<b>Lab ID:</b> 469799-002	<b>Collected:</b> 09/28/22 11:28
<b>Matrix:</b> Water		

469799-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.7									
Prep Method: EPA 200.7									
Arsenic	ND		mg/L	0.010	1	297955	09/29/22	09/29/22	SBW

<b>Sample ID:</b> EFFLUENT_09-28-22	<b>Lab ID:</b> 469799-003	<b>Collected:</b> 09/28/22 11:00
<b>Matrix:</b> Water		

469799-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: EPA 200.7									
Prep Method: EPA 200.7									
Arsenic	ND		mg/L	0.010	1	297955	09/29/22	09/29/22	SBW

Method: EPA 624.1									
Prep Method: EPA 624.1									
MTBE	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
Isopropyl Ether (DIPE)	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
Ethyl tert-Butyl Ether (ETBE)	ND		ug/L	1.0	1	298117	10/01/22	10/01/22	ILK
Methyl tert-Amyl Ether (TAME)	ND		ug/L	1.0	1	298117	10/01/22	10/01/22	ILK
tert-Butyl Alcohol (TBA)	ND		ug/L	10	1	298117	10/01/22	10/01/22	ILK
m,p-Xylenes	ND		ug/L	10	1	298117	10/01/22	10/01/22	ILK
o-Xylene	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
Benzene	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
Toluene	ND		ug/L	0.5	1	298117	10/01/22	10/01/22	ILK
Ethylbenzene	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK
Xylene (total)	ND		ug/L	5.0	1	298117	10/01/22	10/01/22	ILK

Surrogates	Limits								
Dibromofluoromethane	104%	%REC	70-140	1	298117	10/01/22	10/01/22	ILK	
1,2-Dichloroethane-d4	101%	%REC	70-140	1	298117	10/01/22	10/01/22	ILK	
Toluene-d8	98%	%REC	70-140	1	298117	10/01/22	10/01/22	ILK	
Bromofluorobenzene	96%	%REC	70-140	1	298117	10/01/22	10/01/22	ILK	

Method: EPA 8015B									
Prep Method: EPA 5030B									
TPH Gasoline	ND		ug/L	50	1	297987	10/03/22	10/03/22	EMW

Surrogates	Limits								
Bromofluorobenzene (FID)	96%	%REC	60-140	1	297987	10/03/22	10/03/22	EMW	

Method: EPA 8015B									
Prep Method: EPA 3510C									
Diesel C10-C28	ND		mg/L	0.094	0.94	297941	09/29/22	09/29/22	MES

Surrogates	Limits								
n-Triacontane	69%	%REC	35-130	0.94	297941	09/29/22	09/29/22	MES	

ND Not Detected



## Batch QC

<b>Type: Blank</b>	<b>Lab ID: QC1015949</b>	<b>Batch: 297955</b>
<b>Matrix: Water</b>	<b>Method: EPA 200.7</b>	<b>Prep Method: EPA 200.7</b>

QC1015949 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Arsenic	ND		mg/L	0.010	09/29/22	09/29/22

<b>Type: Lab Control Sample</b>	<b>Lab ID: QC1015952</b>	<b>Batch: 297955</b>
<b>Matrix: Water</b>	<b>Method: EPA 200.7</b>	<b>Prep Method: EPA 200.7</b>

QC1015952 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Arsenic	0.4528	0.4000	mg/L	113%		85-115

<b>Type: Matrix Spike</b>	<b>Lab ID: QC1015953</b>	<b>Batch: 297955</b>
<b>Matrix (Source ID): Water (469793-001)</b>	<b>Method: EPA 200.7</b>	<b>Prep Method: EPA 200.7</b>

QC1015953 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
Arsenic	0.4241	0.004348	0.4000	mg/L	105%		75-125	1

<b>Type: Matrix Spike Duplicate</b>	<b>Lab ID: QC1015954</b>	<b>Batch: 297955</b>
<b>Matrix (Source ID): Water (469793-001)</b>	<b>Method: EPA 200.7</b>	<b>Prep Method: EPA 200.7</b>

QC1015954 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
Arsenic	0.4304	0.004348	0.4000	mg/L	107%		75-125	1	20	1

## Batch QC

<b>Type: Lab Control Sample</b>	<b>Lab ID: QC1016456</b>	<b>Batch: 298117</b>
<b>Matrix: Water</b>	<b>Method: EPA 624.1</b>	<b>Prep Method: EPA 624.1</b>

QC1016456 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
MTBE	45.72	50.00	ug/L	91%		70-130
Isopropyl Ether (DIPE)	115.8	100.0	ug/L	116%		70-130
Ethyl tert-Butyl Ether (ETBE)	49.01	50.00	ug/L	98%		70-130
Methyl tert-Amyl Ether (TAME)	40.75	50.00	ug/L	81%		70-130
tert-Butyl Alcohol (TBA)	175.0	250.0	ug/L	70%		48-125
m,p-Xylenes	93.53	100.0	ug/L	94%		70-130
o-Xylene	46.57	50.00	ug/L	93%		70-130
Benzene	47.97	50.00	ug/L	96%		70-130
Toluene	47.11	50.00	ug/L	94%		70-130
Ethylbenzene	47.52	50.00	ug/L	95%		70-130
<b>Surrogates</b>						
Dibromofluoromethane	51.53	50.00	ug/L	103%		70-140
1,2-Dichloroethane-d4	46.50	50.00	ug/L	93%		70-140
Toluene-d8	48.83	50.00	ug/L	98%		70-140
Bromofluorobenzene	50.68	50.00	ug/L	101%		70-140

<b>Type: Lab Control Sample Duplicate</b>	<b>Lab ID: QC1016457</b>	<b>Batch: 298117</b>
<b>Matrix: Water</b>	<b>Method: EPA 624.1</b>	<b>Prep Method: EPA 624.1</b>

QC1016457 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim
MTBE	41.57	50.00	ug/L	83%		70-130	10	30
Isopropyl Ether (DIPE)	99.73	100.0	ug/L	100%		70-130	15	30
Ethyl tert-Butyl Ether (ETBE)	43.36	50.00	ug/L	87%		70-130	12	30
Methyl tert-Amyl Ether (TAME)	37.39	50.00	ug/L	75%		70-130	9	30
tert-Butyl Alcohol (TBA)	158.7	250.0	ug/L	63%		48-125	10	30
m,p-Xylenes	84.46	100.0	ug/L	84%		70-130	10	30
o-Xylene	41.80	50.00	ug/L	84%		70-130	11	30
Benzene	43.42	50.00	ug/L	87%		70-130	10	30
Toluene	43.26	50.00	ug/L	87%		70-130	9	30
Ethylbenzene	42.58	50.00	ug/L	85%		70-130	11	30
<b>Surrogates</b>								
Dibromofluoromethane	50.76	50.00	ug/L	102%		70-140		
1,2-Dichloroethane-d4	44.88	50.00	ug/L	90%		70-140		
Toluene-d8	49.66	50.00	ug/L	99%		70-140		
Bromofluorobenzene	50.00	50.00	ug/L	100%		70-140		

## Batch QC

<b>Type: Blank</b>	<b>Lab ID: QC1016460</b>	<b>Batch: 298117</b>
<b>Matrix: Water</b>	<b>Method: EPA 624.1</b>	<b>Prep Method: EPA 624.1</b>

QC1016460 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
MTBE	ND		ug/L	5.0	10/01/22	10/01/22
Isopropyl Ether (DIPE)	ND		ug/L	5.0	10/01/22	10/01/22
Ethyl tert-Butyl Ether (ETBE)	ND		ug/L	1.0	10/01/22	10/01/22
Methyl tert-Amyl Ether (TAME)	ND		ug/L	1.0	10/01/22	10/01/22
tert-Butyl Alcohol (TBA)	ND		ug/L	10	10/01/22	10/01/22
m,p-Xylenes	ND		ug/L	10	10/01/22	10/01/22
o-Xylene	ND		ug/L	5.0	10/01/22	10/01/22
Benzene	ND		ug/L	5.0	10/01/22	10/01/22
Toluene	ND		ug/L	0.5	10/01/22	10/01/22
Ethylbenzene	ND		ug/L	5.0	10/01/22	10/01/22
Xylene (total)	ND		ug/L	5.0	10/01/22	10/01/22
Surrogates				Limits		
Dibromofluoromethane	103%		%REC	70-140	10/01/22	10/01/22
1,2-Dichloroethane-d4	92%		%REC	70-140	10/01/22	10/01/22
Toluene-d8	99%		%REC	70-140	10/01/22	10/01/22
Bromofluorobenzene	99%		%REC	70-140	10/01/22	10/01/22

<b>Type: Blank</b>	<b>Lab ID: QC1015910</b>	<b>Batch: 297941</b>
<b>Matrix: Water</b>	<b>Method: EPA 8015B</b>	<b>Prep Method: EPA 3510C</b>

QC1015910 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
Diesel C10-C28	ND		mg/L	0.10	09/29/22	09/29/22
Surrogates				Limits		
n-Triacontane	66%		%REC	35-130	09/29/22	09/29/22

<b>Type: Lab Control Sample</b>	<b>Lab ID: QC1015911</b>	<b>Batch: 297941</b>
<b>Matrix: Water</b>	<b>Method: EPA 8015B</b>	<b>Prep Method: EPA 3510C</b>

QC1015911 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
Diesel C10-C28	1.065	1.000	mg/L	107%		42-120
Surrogates						
n-Triacontane	0.01407	0.02000	mg/L	70%		35-130

<b>Type: Lab Control Sample Duplicate</b>	<b>Lab ID: QC1015912</b>	<b>Batch: 297941</b>
<b>Matrix: Water</b>	<b>Method: EPA 8015B</b>	<b>Prep Method: EPA 3510C</b>

QC1015912 Analyte	Result	Spiked	Units	Recovery	Qual	Limits	RPD	Lim
Diesel C10-C28	0.7257	1.000	mg/L	73%		42-120	38*	36
Surrogates								
n-Triacontane	0.01329	0.02000	mg/L	66%		35-130		

## Batch QC

<b>Type: Lab Control Sample</b>	<b>Lab ID: QC1016519</b>	<b>Batch: 297987</b>
<b>Matrix: Water</b>	<b>Method: EPA 8015B</b>	<b>Prep Method: EPA 5030B</b>

QC1016519 Analyte	Result	Spiked	Units	Recovery	Qual	Limits
TPH Gasoline	536.7	500.0	ug/L	107%		70-130
<b>Surrogates</b>						
Bromofluorobenzene (FID)	213.2	200.0	ug/L	107%		60-140

<b>Type: Matrix Spike</b>	<b>Lab ID: QC1016520</b>	<b>Batch: 297987</b>
<b>Matrix (Source ID): Water (469846-025)</b>	<b>Method: EPA 8015B</b>	<b>Prep Method: EPA 5030B</b>

QC1016520 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	DF
TPH Gasoline	496.0	ND	500.0	ug/L	99%		70-130	1
<b>Surrogates</b>								
Bromofluorobenzene (FID)	219.1		200.0	ug/L	110%		60-140	1

<b>Type: Matrix Spike Duplicate</b>	<b>Lab ID: QC1016521</b>	<b>Batch: 297987</b>
<b>Matrix (Source ID): Water (469846-025)</b>	<b>Method: EPA 8015B</b>	<b>Prep Method: EPA 5030B</b>

QC1016521 Analyte	Result	Source Sample Result	Spiked	Units	Recovery	Qual	Limits	RPD	RPD Lim	DF
TPH Gasoline	532.7	ND	500.0	ug/L	107%		70-130	7	30	1
<b>Surrogates</b>										
Bromofluorobenzene (FID)	222.4		200.0	ug/L	111%		60-140			1

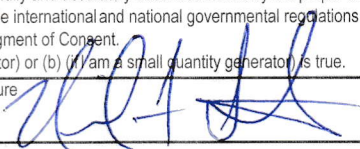

<b>Type: Blank</b>	<b>Lab ID: QC1016522</b>	<b>Batch: 297987</b>
<b>Matrix: Water</b>	<b>Method: EPA 8015B</b>	<b>Prep Method: EPA 5030B</b>

QC1016522 Analyte	Result	Qual	Units	RL	Prepared	Analyzed
TPH Gasoline	ND		ug/L	50	10/03/22	10/03/22
<b>Surrogates</b>						
Bromofluorobenzene (FID)	83%		%REC	60-140	10/03/22	10/03/22

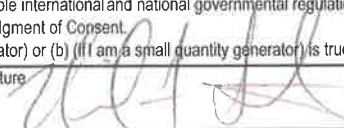
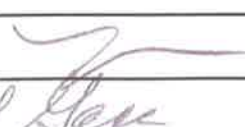
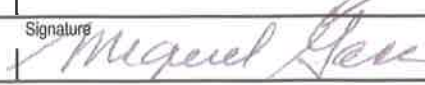

\* Value is outside QC limits  
 ND Not Detected

**APPENDIX B**

**LNAPL HAZARDOUS WASTE MANIFEST**

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>CA 8971524360</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>(714) 984-3162</b>	4. Manifest Tracking Number <b>017531056 FLE</b>		
5. Generator's Name and Mailing Address <b>Defense Logistics Agency - Energy 1962 Freeman Avenue Signal Hill, CA 90755</b>				Generator's Site Address (if different than mailing address) <b>Defense Fuel Support Point Norwalk 15306 Norwalk Blvd. Norwalk, CA 90650</b>			
Generator's Phone: <b>(562) 597-1055</b>				U.S. EPA ID Number <b>CAR000183913</b>			
6. Transporter 1 Company Name <b>BELSHIRE</b>				U.S. EPA ID Number			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address <b>World Oil Recycling 2000 N. Alameda St. Compton, CA 90222</b>				U.S. EPA ID Number <b>CAT080013352</b>			
Facility's Phone: <b>(310) 537-7100</b>							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
X	1. <b>UN1993, Flammable Liquid, n.o.s., 3, PG II (contains jet fuel and water)</b>	<b>001</b>	<b>DM</b>	<b>45</b>	<b>G</b>	<b>134</b>	
	2.						
	3.						
	4.						
14. Special Handling Instructions and Additional Information <b>ERG#:128/ Jet Fuel and Water WEAR ALL APPROPRIATE PROTECTIVE CLOTHING</b> <b>Apex / SGI Contact: Glenn Androsko</b> <b>714-608-1089</b> <span style="float:right"><b>BESI: 344498</b></span>							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name <b>ON BEHALF OF AND AS AN NEIL F. IRISH AGENT OF DLA-ENERGY</b>					Signature 		Month Day Year <b>07 26 22</b>
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Transporter signature (for exports only): _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name <b>Thomas Buck</b>				Signature 		Month Day Year <b>07 26 22</b>	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number: _____ U.S. EPA ID Number _____							
18b. Alternate Facility (or Generator) _____ U.S. EPA ID Number _____							
Facility's Phone: _____							
18c. Signature of Alternate Facility (or Generator)						Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1.		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name				Signature		Month Day Year	

FOLD LABEL A LINE. AFFIX SIDE OF MATERIAL BILL STICKS OUT  
LT196U © 1997 LA

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>CA 8 9 7 1 5 2 4 3 6 0</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>(714) 984-3162</b>	4. Manifest Tracking Number <b>017531056 FLE</b>	
5. Generator's Name and Mailing Address <b>Defense Logistics Agency - Energy 1962 Freeman Avenue Signal Hill, CA 90755</b>			Generator's Site Address (if different than mailing address) <b>Defense Fuel Support Point Norwalk 15306 Norwalk Blvd. Norwalk, CA 90650</b>			
Generator's Phone: <b>(562) 597-1055</b>			U.S. EPA ID Number <b>CAR000183913</b>			
6. Transporter 1 Company Name <b>BELSHIRE</b>			U.S. EPA ID Number <b>CAT080016116</b>			
7. Transporter 2 Company Name <b>Nieto and Sons Trucking, Inc.</b>			U.S. EPA ID Number <b>CAT080013352</b>			
8. Designated Facility Name and Site Address <b>World Oil Recycling 2000 N. Alameda St. Compton, CA 90222</b>			U.S. EPA ID Number <b>CAT080013352</b>			
Facility's Phone: <b>(310) 537-7100</b>						
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
<b>X</b>	<b>UN1993, Flammable Liquid, n.o.s., 3, PG II (contains jet fuel and water)</b>	<b>001</b>	<b>DM</b>	<b>45</b>	<b>G</b>	<b>134</b>
	<b>THIS WASTE STREAM HAS BEEN QUALIFIED FOR RECYCLING/TREATMENT AT THE DEMENNO KERDOON DBA WORLD OIL RECYCLING FACILITY IN COMPTON, CALIFORNIA. THIS FACILITY HAS THE NECESSARY PERMITS TO RECEIVE YOUR WASTE STREAM AS QUALIFIED. OUR EPA NUMBER IS CAT080013352</b>					
14. Special Handling Instructions and Additional Information <b>ERG# : 128 / Jet Fuel and Water Apex / SGI Contact: Glenn Androsko 714-608-1089</b>			<b>WEAR ALL APPROPRIATE PROTECTIVE CLOTHING</b>		<b>BESI : 344498</b>	
<b>IX55</b>						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offorer's Printed/Typed Name <b>ON BEHALF OF AND AS AN NEIL F. IRISH - AGENT OF DLA - ENERGY</b>			Signature 		Month Day Year <b>07   26   22</b>	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name <b>Thomas Buck</b>			Signature 		Month Day Year <b>07   26   22</b>	
Transporter 2 Printed/Typed Name <b>Miguel Garcia</b>			Signature 		Month Day Year <b>07   28   22</b>	
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
Manifest Reference Number: _____						
18b. Alternate Facility (or Generator)			U.S. EPA ID Number			
Facility's Phone: _____						
18c. Signature of Alternate Facility (or Generator)					Month Day Year	
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1. <b>11039</b>	2.	3.	4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
Printed/Typed Name <b>Emilio Morales</b>			Signature 		Month Day Year <b>07   28   22</b>	

# Certificate of Treatment/Recycling

ISSUED TO

DEFENSE FUEL SUPPORT POINT

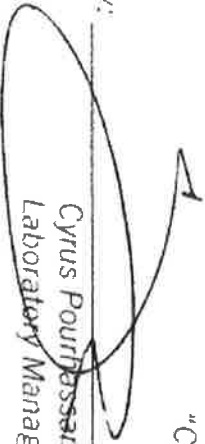
FOR

MANIFEST NUMBER 017531056FILE DATE RECEIVED 7/28/2022

The aqueous waste received on the above manifest will be treated to standards mandated by the FEDERAL CLEAN WATER ACT and to effluent requirements established by the Sanitation Districts of Los Angeles County. Waste treatment and recycling is performed under permits granted to DeMENNO/KERDOON, a California Corporation, by the California Department of Toxic Control (DTSC), in coordination with the Environmental Protection Agency, in accordance with the provisions of the Resource Conservation and Recovery Act (RCRA) of 1976, together with applicable federal and state regulations including but not limited to waste discharge requirements established by the Sanitation Districts of Los Angeles County.

When the above described waste material is accepted by DeMENNO/KERDOON and treated/recycled and the aqueous phase discharged for further treatment by the Sanitation Districts, the certificate holder's responsibility for the waste material is eliminated under both RCRA and Proposition 65. Upon request, DeMENNO/KERDOON will issue this certificate that all waste material has been handled in accordance with applicable permits and the certificate holder's liability has been terminated.

DeMENNO/KERDOON  
"Compliance Through Recycling"

By:   
Cyrus Pourfassanian  
Laboratory Manager

Date: 8/10/2022

2000 North Alameda Street  Compton  California  90222  
Telephone (310) 537-7100  Facsimile (310) 639-2946  
\*DeMENNO/KERDOON is d.b.a. World Oil Recycling



**APPENDIX C**

**PRELIMINARY TEMPERATURE MONITORING SUMMARY**



**APPENDIX C:  
PRELIMINARY TEMPERATURE MONITORING SUMMARY  
DFSP Norwalk  
15306 Norwalk Boulevard, Norwalk, California  
Source Group / Apex Project No. 091-NOR-001 Task 2-10**

## **INTRODUCTION**

Apex collected field measurements of subsurface temperatures from 38 existing monitoring and biosparge wells at the former Defense Fuel Support Point (DFSP) Norwalk facility located at 15306 Norwalk Boulevard, Norwalk, California (Site; Figure C1) on June 28<sup>th</sup>, June 29<sup>th</sup>, July 18<sup>th</sup>, July 19<sup>th</sup>, July 20<sup>th</sup>, and July 28<sup>th</sup>, 2022. As summarized in the recent *Natural Source Zone Depletion Work Plan* (SGI/Apex, 2022a), the purpose of the temperature monitoring was to evaluate where exothermic biological degradation of hydrocarbons is occurring, as indicated by elevated subsurface temperatures in the vadose zone relative to background (uncontaminated) locations. The biogenic heat flux calculated from the temperature measurements at each well is used to estimate hydrocarbon degradation rates.

Apex performed temperature monitoring on a total of 15 biosparge wells and 23 monitoring wells (38 total wells). The soil lithology at the screens of all test wells is described as silts, fine to medium sands, and coarse sands. For the heat flux calculations, the thermal conductivity for medium-fine textured soil was assumed (1.26 joule/meter-second-degree Kelvin [J/m-s-K]; Sweeney & Ririe, 2014). The enthalpy of methane oxidation (43.9 kilojoule/gram of methane [kJ/g CH<sub>4</sub>]; API, 2017) is assumed to approximate the heat released by biogenic activity from hydrocarbons. Additionally, the specific gravity of 0.79 for the light non aqueous-phase liquid (LNAPL) present at the Site is assumed for the degradation rate estimates, based on previously reported results (SGI, 2018). The degradation rates presented in this evaluation are considered preliminary, given the limited dataset of background subsurface temperature measurements and thermal influence from the ongoing soil vapor extraction and biosparging operations. The approach is based on the biogenic heat method presented in the document *Technical Measurement Guidance for LNAPL Natural Source Zone Depletion*, CRC CARE Technical Report no. 44 (CRCCARE, 2018).

The remediation system layout and selected wells for the temperature monitoring are presented in Figure C1. The preliminary biodegradation rate estimates are presented in Figure C2. The temperature monitoring well specifications are summarized in Table C1; temperature monitoring results and estimated biodegradation rates are presented in Table C2. The temperature profiles for the four representative background wells (GMW-43, MW-24, GMW-66R, and MW-13) and the average temperature profile is presented in Graph C1. The background-corrected temperature profiles for select wells with biogenic activity is presented in Graph C2.

## **SUMMARY OF TEMPERATURE MONITORING**

The following section summarizes the field protocols and temperature measurements collected at the Site. Field survey test results are presented in Table C2 and include stabilized temperature readings every 5 feet down to 50 feet in some wells. The soil vapor extraction and biosparge systems were shut down a minimum of 48 hours prior to each temperature monitoring event to allow the subsurface thermal conditions to stabilize. Temperature measurements were

taken using one of three probes: Heron Instruments Conductivity Plus probe, YSI Professional Multi-probe, or a Van Essen Cera Diver.

The following procedure was followed to collect the temperature monitoring data presented in Table C2:

1. Prior to each temperature monitoring event, temperature, barometric pressure, wind speed, and precipitation data was recorded from the closest weather station located at Whittier Hills (WTHC1; Latitude: 33.984°N, Longitude: 118.009431°W Elevation: 950 feet)
  - a. Weather conditions were confirmed to be normal/stable during all temperature monitoring events.
2. The temperature probe was confirmed to be calibrated per manufacturer's specifications.
3. For each temperature monitoring well:
  - a. Well vault was opened and the well cap (or j-plug) was inspected. The temperature probe with corresponding sealed cap was prepared, and the device was confirmed to be operational.
  - b. Ambient temperature was recorded immediately prior to deploying the temperature probe down-well.
  - c. The well cap was quickly opened, the temperature probe was deployed down well to the initial measurement point, and the cap was replaced with the sealed cap assembly to minimize any air exchange into the well.
  - d. Starting at 5 feet, temperatures were recorded every 5 feet down to 50 feet below top of casing (or shallower, depending on the well's total depth).
  - e. For each measurement, the readings were allowed to stabilize for up to 3 minutes before taking a temperature reading in the vadose zone, and 1 minute for readings in groundwater.
  - f. A confirmation temperature reading was collected (after 3 minutes) at 25 feet below TOC when retrieving the probe.
  - g. Depth to water was recorded before removing all equipment from the well and replacing the original well cap or j-plug.

Temperature measurements were collected on June 28th, June 29th, July 18th, July 19th, July 20th, and July 28th, 2022. Weather conditions during all field events were stable (sunny, minimal wind), and ambient temperatures ranged from 18.0 degrees Celsius (°C) to 33.0°C. Four wells (GMW-43, MW-24, GMW-66R, and MW 13) were identified as representative of background subsurface conditions, based on the observed temperature profiles and locations in low or undetectable contamination. Groundwater temperatures ranged from 22.0°C in well MW-13 to 22.8°C in well GMW-43. Vadose zone temperatures generally decreased with depth and profiles were similar for all four background wells (Graph C1).

A wider range of groundwater temperatures was observed in the monitoring and biosparge wells, likely due to the thermal influence from the air injected into nearby biosparge wells (injection air typically ranges from 38 to 43°C). Groundwater temperatures ranged from 22.5°C (GMW-47) to 31.5°C (TF-15). For clarification, on Table C2 and in Figure C2 wells with groundwater temperatures similar to background (<23°C) are color-coded green; wells with groundwater temperatures between 23°C and 24°C are shown in blue; and wells with groundwater temperatures elevated above 24°C are shown in red. In general, the groundwater temperatures appear to serve as a proxy for biosparge system influence: the red-coded wells are a mix of biosparge and monitoring wells located within the zone of influence (ZOI) for the

biosparge system; blue-coded wells are generally located on the perimeter of the ZOI, with the exception of wells TFB-19, RW-50, and TFB-31; and green wells are generally located outside of the ZOI, with the exception of GMW-43. It is notable that impacted areas near green-coded wells TF-19, GMW-43, GMW-47, and GMW-62, and blue-coded wells GMW-19, MW-27, GMW-12, and TFB-31 are targeted for additional treatment wells to be installed during the Fourth Quarter 2022 and First Quarter 2023 (SGI/Apex, 2022b).

For the vadose zone (upward) heat-flux calculations, the temperature measurements were corrected from the average background temperatures at each depth (Table C2). Downward heat flux into the groundwater was assumed negligible for this screening-level evaluation (e.g. Warren & Bekins, 2015). This assumption results in conservative degradation rate estimates, as groundwater temperatures were observed to be generally lower than temperatures in the vadose hydrocarbon oxidation zone, indicating additional downward heat flux from biogenic activity.

Background-corrected temperatures ranged from  $-1.0^{\circ}\text{C}$  below background (TF-24) to  $13.8^{\circ}\text{C}$  above background (GMW-04R, likely from biosparge influence). Temperature profiles for four wells (GMW-14R, GMW-19, GMW-10, and GMW-61) indicated that upward vadose zone heat flux was negligible at those locations (marked as NHF on Figure C2). The hydrocarbon oxidation zone for most locations appeared to be approximately 20 feet bgs, based on the maximum background-corrected temperature in the vadose zone; representative profiles indicative of biogenic activity for seven wells are presented in Graph C2.

Heat fluxes in wells not influenced by the biosparge system ranged from  $0.13\text{ Watts per square meter (W/m}^2\text{)}$  in well GMW-12 to  $0.49\text{ W/m}^2$  in well MW-15R (Table C2). Heat flux in wells with groundwater temperatures elevated above  $26^{\circ}\text{C}$  was assumed to be caused by the thermal influence from the biosparge system, and therefore biogenic degradation rates were not calculated for those wells (marked as HFB on Figure C2). The corrected temperatures used to calculate the upward heat flux for each well are shown in bold font on Table C2.

Natural source zone depletion (NSZD) rates estimated from biogenic heat flux ranged from  $0.25\text{ gram/square meter/day (g/m}^2\text{/day; 126 gallons/acre/year)}$  in well GMW-12 to  $0.97\text{ g/m}^2\text{/day (477 gallons/acre/year)}$  in well MW-15R (Table C2 and Figure C2). Several observations regarding the estimated NSZD rates:

- The NSZD rates are generally elevated above 200 gallons/acre/year within the biosparge system ZOI (e.g. well MW-15R) and/or immediately adjacent to areas with high dissolved TPH concentrations / residual LNAPL (e.g. well TF-24).
- The NSZD rates were greater than 100 gallons/acre/year at all locations with dissolved TPH impacts.
- Groundwater temperature did not correlate to NSZD rates, although it does appear to be a good indicator of biosparge influence.
- The range of NSZD rates observed is similar to the range of rates reported by Kinder Morgan (Jacobs, 2020) for the adjacent remediation site (11 to 489 gallons/acre/year), which were estimated from carbon dioxide efflux measurements via three different methods in May 2020.

## PRELIMINARY BIOGENIC HEAT FLUX MONITORING SUMMARY AND RECOMMENDATIONS

The temperature monitoring results indicate that NSZD is generally occurring in all areas with TPH impacts, and are elevated above 200 gallons/acre/year within the biosparge system ZOI (e.g. well MW-15R) and/or immediately adjacent to areas with high dissolved TPH concentrations / residual LNAPL (e.g. well TF-24).

In summary:

- The range of NSZD rates observed (126 to 477 gallons/acre/year) were similar to the range of rates reported for the adjacent Kinder Morgan remediation site, which were estimated via carbon dioxide efflux measurements using three different methods.
- Results indicate that appreciable bioactivity is occurring site-wide, even in impacted wells outside of the ZOI (e.g. downgradient wells MW-27, MW-11, and TF-24), suggesting contaminant plume mobility is limited by the ongoing degradation of dissolved TPH impacts in downgradient areas.
- Groundwater temperature did not correlate to NSZD rates, although it does appear to be a good indicator of biosparge influence. Elevated groundwater temperatures (>26°C) were generally present within the biosparge system ZOI, with some exceptions (e.g. wells TFB-19 and TFB-31).
- Results generally confirm that the “hot-spot” areas identified during the 2021 biosparge system influence testing (SGI/Apex, 2022c) are located in areas with lower groundwater temperatures and/or lower NSZD rates, beyond the biosparge system ZOI.

Moving forward, Apex recommends:

- Continuous monitoring of background temperatures via dedicated temperature monitoring points (TMP). Installation of five TMPs is tentatively scheduled in January 2023, and data collection is anticipated to begin in early Second Quarter 2023, as proposed in the recent NSZD Work Plan (SGI/Apex, 2022b). The data collected will validate and improve the accuracy of future NSZD rate estimates, and help establish technical justification for remedial system shutdown and transition to a passive NSZD remedy.
- Modifying the quarterly temperature monitoring plan for the Fourth Quarter 2022 period. Apex proposes a modified temperature monitoring plan focusing on the wells within the vicinity of the “hot-spots” targeted by the proposed system expansion, including:
  - 4 background wells (MW-24, GMW-43, GMW-66R, and MW-13),
  - 3 wells with no heat flux observed (GMW-10, GMW-19, and GMW-61), and
  - 13 wells in “hot-spot” areas (TF-23, MW-27, TF-9R, TF-15, TF-24, TFB-27, GMW-47, GMW-12, GMW-59, GMW-62, plus wells TF-18, GMW-49, and GW-14R which have not had previous temperature measurements).
  - Groundwater temperatures will be measured in a minimum of three depths for each well, in order to evaluate thermal stratification within the well screen and/or biosparge influence.
  - The 11 wells with elevated groundwater temperatures will not be monitored during the Fourth Quarter 2022, as it’s infeasible to estimate biogenic heat flux in those locations given the continued operation of the biosparge system.

**ATTACHMENTS:**

FIGURE C1 – Site Map with Temperature Monitoring Wells

FIGURE C2 – Preliminary Results of June/July 2022 Temperature Monitoring Survey

TABLE C1 – Temperature Monitoring Wells

TABLE C2 – Preliminary Temperature Monitoring Results

GRAPH C1 – Average Temperature vs. Background Wells GMW-43, MW-24, GMW-66R, and MW-13

GRAPH C2 – Background-Corrected Temperature Profiles

**REFERENCES**

CRC CARE, 2018. *Technical Measurement Guidance for LNAPL Natural Source Zone Depletion*, CRC CARE Technical Report no. 44, CRC for Contamination Assessment and Remediation of the Environment, Newcastle, Australia. August.  
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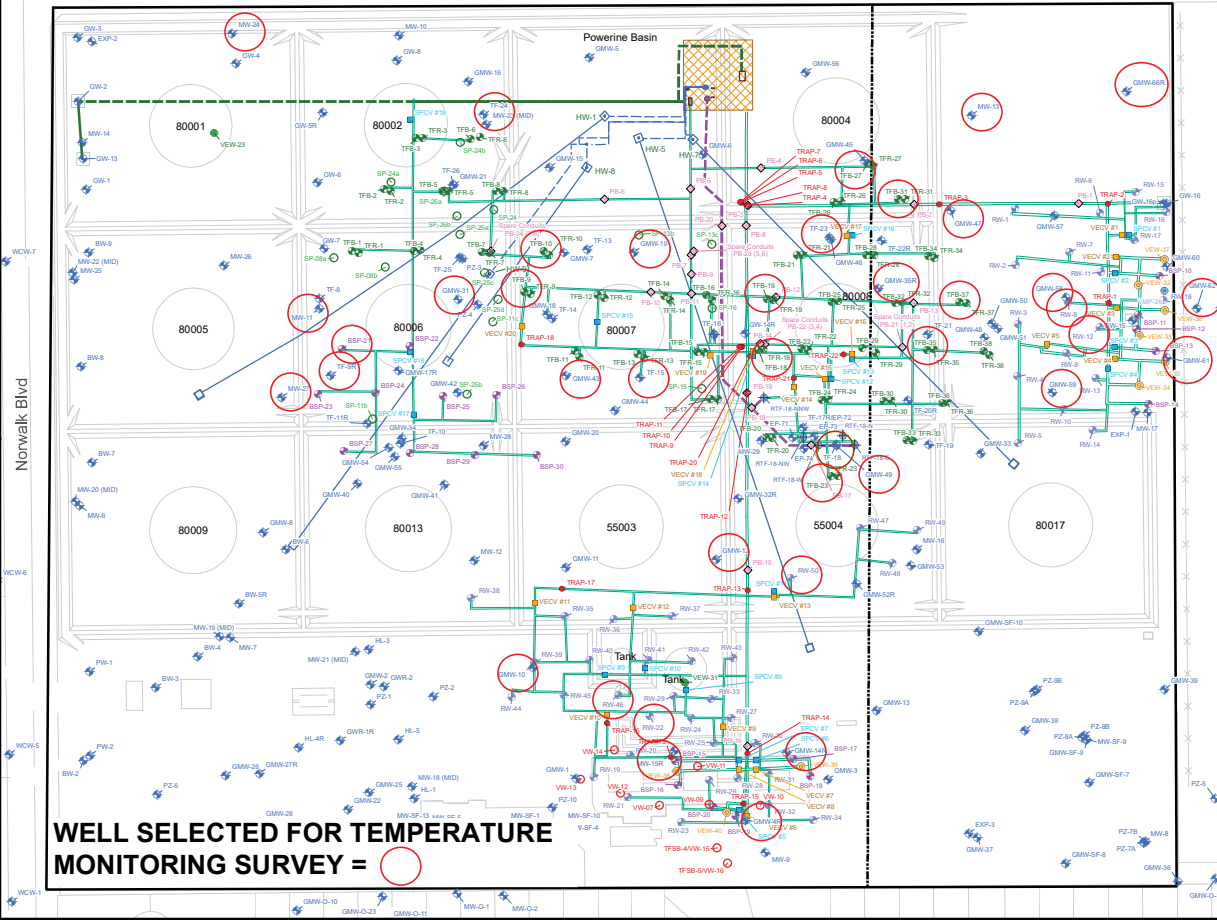
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Sweeney, R.E. and Ririe, G.T. 2014. *Temperature as a Tool to Evaluate Aerobic Biodegradation in Hydrocarbon Contaminated Soil*. Groundwater Monitoring & Remediation 34, no. 3: 41-50.

Warren, E & Bekins, BA 2015, *Relating Subsurface Temperature Changes to Microbial Activity at a Crude Oil-contaminated Site*, Journal of Contaminant Hydrology, vol. 182, pp. 183–193.

Document Path: B:\DLA\Norwalk\DLA\Norwalk\GSE\_Maps\Biosparging\_2016-2017\Fig2 - All Wells\Plan Connections\_01312020.mxd

Excelsior Dr



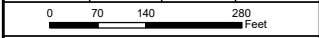
**WELL SELECTED FOR TEMPERATURE MONITORING SURVEY = [red circle]**

**Legend**

- 80001 Former Above Ground Storage Tanks
- DFSP Norwalk Border
- Fence
- Berm
- Treatment System Enclosure
- Below Grade Trenching and Piping to Remediation Wells
- Existing Horizontal Vapor Extraction Wells
- Below Grade Groundwater Extraction System Piping
- Above Grade Groundwater Extraction System Piping
- Product Recovery System Piping
- Horizontal Vapor Extraction System Piping
- Western Boundary of Eastern 15-Acre Parcel
- System Manifold within Treatment Enclosure
- + Total Fluid and Groundwater Monitoring Wells
- + TF-18 Area LNAPL Recovery Wells
- + Biosparging Wells
- + Vapor Extraction Wells (November 2016)
- + Biosparging and Vapor Extraction Wells
- + Co-Located Total Fluid and Biosparging Wells
- Vapor Extraction Wells (2004)
- Sparging Points (August 2004)
- ◇ Pull Box (for Wire or Tubing)
- PVC Condensate Trap for Vapor Extraction Piping
- Vapor Extraction System Control Vaults
- Biosparge System Control Vaults

**DFSP Norwalk**  
15306 Norwalk Boulevard  
Norwalk, California

Project Number:	Date:	Drawn By:	Approved By:
091-NDLA-026	01/15/2019	PW / SM	BT

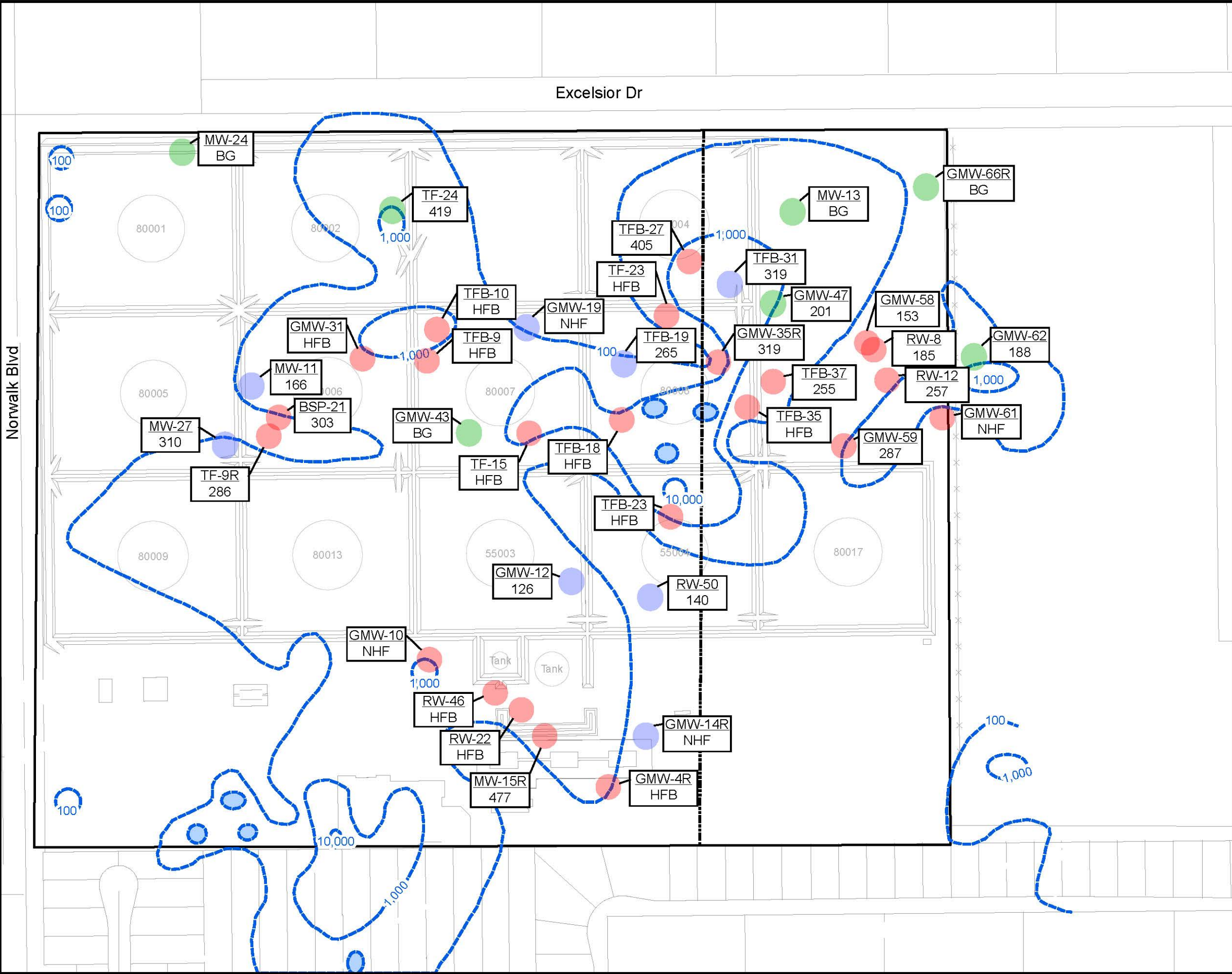


**Site Map Showing All Well and Piping Locations**

1962 Freeman Avenue Signal Hill, CA 90755  
(562) 597-1055

**Figure**  
**C1**

Document Path: Z:\GIS\_Repository\Signal Hill\DLA\_Norwalk\GIS\_Maps\Historical to Current Contamination\Fig. 7 Prelim\_2020.12\_CO2\_Flux\_Survey.mxd



**LEGEND**

- 80001 FORMER ABOVEGROUND STORAGE TANK
- DFSP NORWALK BORDER
- FENCE
- WESTERN BOUNDARY OF EASTERN 15-ACRE PARCEL
- LINES OF EQUAL TPH CONCENTRATION (µg/L) IN GROUNDWATER; DASHED WHERE INFERRED
- ESTIMATED EXTENT OF MEASURABLE LIGHT NON AQUEOUS PHASE LIQUID (LNAPL, FREE PRODUCT) ON GROUNDWATER; DASHED WHERE INFERRED
- WELL WITH MEASURED GROUNDWATER TEMPERATURE <23 DEGREES CELSIUS
- WELL WITH MEASURED GROUNDWATER TEMPERATURE >23 AND <24 DEGREES CELSIUS
- WELL WITH MEASURED GROUNDWATER TEMPERATURE >24 DEGREES CELSIUS

**GMW-47**  
132

ESTIMATED DEGRADATION RATE (GALLONS/ACRE/YEAR)

**BG** BACKGROUND TEMPERATURE MONITORING WELL  
**NHF** NO HEAT FLUX OBSERVED IN WELL  
**HFB** HEAT FLUX OBSERVED ASSUMED DUE TO BIOSPARGE

N

0 90 180 360  
Feet

SCALE: 1" = 175'

DATE: 10/2022	PROJECT NO: 091-NDLA-004	DRAWN BY: SM	APPROVED BY: BT
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**PRELIMINARY RESULTS OF  
JUNE / JULY 2022 TEMPERATURE  
MONITORING SURVEY**

DFSP NORWALK  
15306 NORWALK BLVD.  
NORWALK, CALIFORNIA 90650

<b>FIGURE C2</b>	



**TABLE C1 - TEMPERATURE MONITORING WELLS**

Defense Fuel Support Point-Norwalk  
15306 Nowalk Boulevard, Norwalk, California

Wells Proposed for 2022	Tested in 2018? (Y/N)	NSZD SURVEY TESTING LOCATION ID	Area of Site	Total Depth (feet)	Well Diameter (inches)	Wellhead Cap (J-plug or cam-lock male)
TFB-23	Y	1	Central/55004	46	2"	Cam-lock male
GMW-49 <sup>1</sup>	N			50.5	4"	J-Plug
TF-18	N			50.5	4"	J-Plug
RW-8	Y	2	Eastern	46.5	2"	Cam-lock male
RW-12	Y			46.5	2"	Cam-lock male
GMW-58	N			55	2"	J-Plug
TFB-35	Y	3	Central/80008	46	2"	Cam-lock male
TFB-37	Y			46	2"	Cam-lock male
TFB-18 <sup>1</sup>	Y	4	Central/80008	46	2"	Cam-lock male
TFB-19	Y			46	2"	Cam-lock male
TFB-9	Y	5	Central/80007	46	2"	Cam-lock male
TFB-10	Y			46	2"	Cam-lock male
MW-11	N	6	Western/80006	50	4"	J-Plug
BSP-21	Y			46	2"	Cam-lock male
RW-22	Y	7	Truck Rack	46.5	2"	Cam-lock male
RW-46	Y			46	2"	Cam-lock male
RW-50	Y	8	Central/55004	47	2"	Cam-lock male
GMW-12	N			50	4"	J-Plug
TFB-27	Y	9	Central/80004	46	2"	Cam-lock male
TFB-31	Y			46	2"	Cam-lock male
MW-24	N	10	Northwestern/80001	47	4"	J-Plug
GMW-66R	N	11	Eastern	46.5	4"	J-Plug
<b>Hotspot Wells (biosparge optimization)</b>						
MW-27	N	N/A	West/80006	52.3	4"	J-Plug
TF-9R	N	N/A	West/80006	50	4"	J-Plug
TF-15	N	N/A	West/80007	63	4"	J-Plug
GMW-43	N	N/A	West/80007	50.5	4"	J-Plug
GMW-19	N	N/A	West/80007	50	4"	J-Plug
GMW-31	N	N/A	West/80006	65	4"	J-Plug
TF-23	N	N/A	Central/80008	50.5	4"	J-Plug
GMW-35R	Y	N/A	Central/80008	50	4"	J-Plug
MW-13	N	N/A	East of 80004	50	4"	J-Plug
GMW-47	N	N/A	East of 80004	50.5	4"	J-Plug
GMW-61	N	N/A	East/Park	50	4"	J-Plug
GMW-62	N	N/A	East/Park	40.5	4"	J-Plug
GMW-59	N	N/A	East/north of 80017	55	2"	J-Plug
GMW-4R	N	N/A	Truck Rack	50	4"	J-Plug
GMW-10	N	N/A	Truck Rack	50	4"	J-Plug
MW-15R	Y	N/A	Truck Rack	50	4"	J-Plug
GMW-14R	N	N/A	Truck Rack	50	4"	J-Plug
TF-24R	N	N/A	West/80002	63	4"	J-Plug

- Wells with average temperature > 24 degrees C during 2018 test event
- Wells with average temperature between 23 and 24 degrees C during 2018 test event
- Wells with average temperature < 23 degrees C (background) during 2018 test event

1. Temperature monitoring in wells GMW-49 and TF-18 was not conducted during the Third Quarter 2022 reporting period.

**TABLE C2 - Preliminary Temperature Monitoring Results**  
 Defense Fuel Support Point-Norwalk  
 15306 Norwalk Boulevard, Norwalk, California

Well ID	Date	Time	Ambient Temperature (°C)	DTW (feet bgs)	Measurement Depth (feet)	Temperature (°C)	Background Corrected Temperature (°C)	Vadose Zone Heat Flux <sup>2</sup> (W/m <sup>2</sup> )	Estimated NSZD Rate <sup>3</sup> (g/m <sup>2</sup> /day)	Estimated NSZD Rate (gal/acre/year)
GMW-43 <sup>1</sup>	6/29/2022	1:40 PM	30.0	36.31	5	22.93	--	N/A (Background)		
					10	22.17	--			
					15	22.12	--			
					20	22.22	--			
					25	22.74	--			
					30	22.84	--			
					35	22.85	--			
					40	22.81	--			
					45	--	--			
50	--	--								
MW-24 <sup>1</sup>	7/18/2022	1:09 PM	29.0	38.10	5	24.40	0.6	N/A (Background)		
					10	23.60	0.7			
					15	23.30	0.7			
					20	23.20	0.7			
					25	23.10	0.4			
					30	23.00	0.3			
					35	22.80	0.2			
40	22.50	0.0								
MW-13 <sup>1</sup>	7/28/2022	8:57 AM	19.0	38.25	5	23.43	--	N/A (Background)		
					10	22.43	--			
					15	22.18	--			
					20	22.12	--			
					25	22.31	--			
					30	22.31	--			
					35	22.31	--			
					40	22.25	--			
					45	22.12	--			
50	22.00	--								
GMW-66R <sup>1</sup>	7/28/2022	9:36 AM	21.0	39.02	5	24.62	--	N/A (Background)		
					10	23.56	--			
					15	22.87	--			
					20	22.56	--			
					25	22.50	--			
					30	22.50	--			
					35	22.43	--			
					40	22.43	--			
					45	22.43	--			
Background Average Subsurface Temperatures From Wells GMW-43, MW-24, GMW-66R, and MW-13					5	23.85	--	N/A (Background)		
					10	22.94	--			
					15	22.62	--			
					20	22.53	--			
					25	22.66	--			
					30	22.66	--			
					35	22.60	--			
					40	22.50	--			
					45	22.28	--			
50	22.00	--								

**TABLE C2 - Preliminary Temperature Monitoring Results**  
 Defense Fuel Support Point-Norwalk  
 15306 Norwalk Boulevard, Norwalk, California

Well ID	Date	Time	Ambient Temperature (°C)	DTW (feet bgs)	Measurement Depth (feet)	Temperature (°C)	Background Corrected Temperature (°C)	Vadose Zone Heat Flux <sup>2</sup> (W/m <sup>2</sup> )	Estimated NSZD Rate <sup>3</sup> (g/m <sup>2</sup> /day)	Estimated NSZD Rate (gal/acre/year)
GMW-47	7/28/2022	10:07 AM	22.0	35.94	5	23.75	-0.1	0.2	0.4	201
					10	23.31	0.4			
					15	23.12	0.5			
					20	23.18	0.7			
					25	23.25	0.6			
					30	23.12	0.5			
					35	23.00	0.4			
					40	22.93	0.4			
					45	22.60	0.3			
50	22.50	0.5								
GMW-62	7/28/2022	3:00PM	29.0	35.7	5	22.93	-0.9	0.2	0.4	188
					10	22.37	-0.6			
					15	22.25	-0.4			
					20	22.31	-0.2			
					25	22.37	-0.3			
					30	22.50	-0.2			
					35	22.56	0.0			
					40	22.93	0.4			
TF-24	6/29/2022	9:56 AM	22.8	38.08	5	22.83	-1.0	0.4	0.8	419
					10	22.92	0.0			
					15	23.03	0.4			
					20	23.08	0.6			
					25	23.02	0.4			
					30	22.99	0.3			
					35	22.89	0.3			
					40	23.00	0.5			
					45	22.86	0.6			
50	22.73	0.7								
MW-27	6/29/2022	8:24 AM	19.4	38.97	5	23.53	-0.3	0.3	0.6	310
					10	23.34	0.4			
					15	23.19	0.6			
					20	23.37	0.8			
					25	23.83	1.2			
					30	24.01	1.3			
					35	24.04	1.4			
					40	23.98	1.5			
					45	23.64	1.4			
50	23.28	1.3								
GMW-12	7/18/2022	1:57 PM	31.0	35.18	5	24.20	0.4	0.1	0.3	126
					10	23.70	0.8			
					15	23.40	0.8			
					20	23.40	0.9			
					25	23.50	0.8			
					30	23.80	1.1			
					35	23.70	1.1			
					40	23.60	1.1			
GMW-14R	6/28/2022	9:49 AM	24.4	35.26	5	27.41	3.6	N/A	N/A (No Heat Flux Observed)	
					10	26.23	3.3			
					15	24.29	1.7			
					20	23.91	1.4			
					25	23.77	1.1			
					30	23.79	1.1			
					35	23.75	1.2			
					40	23.60	1.1			
					45	23.45	1.2			
50	23.32	1.3								
GMW-19	6/29/2022	4:20 PM	31.7	37.98	5	23.89	0.0	N/A	N/A (No Heat Flux Observed)	
					10	23.09	0.2			
					15	22.99	0.4			
					20	23.15	0.6			
					25	23.44	0.8			
					30	23.70	1.0			
					35	23.79	1.2			
					40	23.81	1.3			
					45	--	--			
50	--	--								

**TABLE C2 - Preliminary Temperature Monitoring Results**  
 Defense Fuel Support Point-Norwalk  
 15306 Norwalk Boulevard, Norwalk, California

Well ID	Date	Time	Ambient Temperature (°C)	DTW (feet bgs)	Measurement Depth (feet)	Temperature (°C)	Background Corrected Temperature (°C)	Vadose Zone Heat Flux <sup>2</sup> (W/m <sup>2</sup> )	Estimated NSZD Rate <sup>3</sup> (g/m <sup>2</sup> /day)	Estimated NSZD Rate (gal/acre/year)
MW-11	7/18/2022	10:14 AM	27.0	38.75	5	24.70	0.9	0.2	0.3	166
					10	24.20	1.3			
					15	24.10	1.5			
					20	24.00	1.5			
					25	24.10	1.4			
					30	24.00	1.3			
					35	23.90	1.3			
RW-50	7/20/2022	8:40 AM	23.0	34.34	5	25.25	1.4	0.1	0.3	140
					10	24.62	1.7			
					15	24.37	1.8			
					20	24.25	1.7			
					25	24.00	1.3			
					30	23.75	1.1			
					35	23.62	1.0			
TFB-19	7/20/2022	7:20 AM	20.0	36.09	5	27.50	3.7	0.3	0.5	265
					10	27.18	4.2			
					15	26.93	4.3			
					20	26.43	3.9			
					25	25.62	3.0			
					30	24.56	1.9			
					35	23.81	1.2			
TFB-31	7/28/2022	8:19 AM	19.0	35.64	5	25.00	1.2	0.3	0.6	319
					10	24.68	1.7			
					15	24.68	2.1			
					20	24.87	2.3			
					25	24.81	2.1			
					30	24.56	1.9			
					35	24.18	1.6			
BSP-21	7/19/2022	11:51 AM	30.0	35.00	5	24.56	0.7	0.3	0.6	303
					10	24.12	1.2			
					15	24.06	1.4			
					20	24.37	1.8			
					25	24.56	1.9			
					30	24.62	2.0			
					35	24.62	2.0			
GMW-04R <sup>4</sup>	6/28/2022	8:21 AM	21.1	35.04	5	28.84	5.0	1.8	N/A (Heat Flux Assumed From Biosparge)	
					10	30.48	7.5			
					15	33.52	10.9			
					20	35.55	13.0			
					25	36.46	13.8			
					30	34.99	12.3			
					35	31.22	8.6			
GMW-10	6/28/2022	12:37 PM	32.2	34.49	5	26.28	2.4	N/A	N/A (No Heat Flux Observed)	
					10	24.90	2.0			
					15	24.37	1.8			
					20	24.36	1.8			
					25	24.69	2.0			
					30	25.08	2.4			
					35	25.29	2.7			
	40	25.16	2.7							
	45	24.96	2.7							
	50	24.82	2.8							

**TABLE C2 - Preliminary Temperature Monitoring Results**  
 Defense Fuel Support Point-Norwalk  
 15306 Norwalk Boulevard, Norwalk, California

Well ID	Date	Time	Ambient Temperature (°C)	DTW (feet bgs)	Measurement Depth (feet)	Temperature (°C)	Background Corrected Temperature (°C)	Vadose Zone Heat Flux <sup>2</sup> (W/m <sup>2</sup> )	Estimated NSZD Rate <sup>3</sup> (g/m <sup>2</sup> /day)	Estimated NSZD Rate (gal/acre/year)
GMW-31	6/29/2022	11:11 AM	26.1	35.20	5	24.37	0.5	0.1	N/A (Heat Flux Assumed From Biosparge)	
					10	23.61	0.7			
					15	23.49	0.9			
					20	23.61	1.1			
					25	23.84	1.2			
					30	24.08	1.4			
					35	24.11	1.5			
					40	24.07	1.6			
					45	24.09	1.8			
50	24.34	2.3								
GMW-35R	7/28/2022	7:41 AM	18.0	35.83	5	27.06	3.2	0.3	0.6	319
					10	26.75	3.8			
					15	26.81	4.2			
					20	26.93	4.4			
					25	26.87	4.2			
					30	26.56	3.9			
					35	26.31	3.7			
					40	26.00	3.5			
					45	25.37	3.1			
50	24.50	2.5								
GMW-58	7/28/2022	10:45 AM	23.0	35.90	5	25.50	1.7	0.2	0.3	153
					10	24.81	1.9			
					15	24.68	2.1			
					20	24.75	2.2			
					25	24.87	2.2			
					30	24.81	2.1			
					35	24.75	2.2			
					40	24.62	2.1			
					45	24.43	2.2			
50	24.31	2.3								
55	24.31	--								
GMW-59	7/28/2022	2:11 PM	29.0	33.68	5	25.50	1.7	0.3	0.6	287
					10	25.12	2.2			
					15	25.06	2.4			
					20	25.25	2.7			
					25	25.56	2.9			
					30	25.93	3.3			
					35	26.06	3.5			
					40	26.06	3.6			
					45	26.06	3.8			
50	25.75	3.8								
MW-15R	6/28/2022	2:45 PM	32.2	34.89	5	25.31	1.5	0.5	1.0	477
					10	25.08	2.1			
					15	25.36	2.7			
					20	25.77	3.2			
					25	25.13	2.5			
					30	26.28	3.6			
					35	26.29	3.7			
					40	26.09	3.6			
					45	25.86	3.6			
50	25.61	3.6								
RW-8	7/28/2022	11:19 AM	24.0	33.55	5	25.56	1.7	0.2	0.4	185
					10	25.00	2.1			
					15	24.87	2.3			
					20	24.93	2.4			
					25	24.93	2.3			
					30	24.87	2.2			
					35	24.75	2.2			
					40	24.56	2.1			
					45	24.31	2.0			
RW-12	7/28/2022	1:06 PM	28.0	35.32	5	26.86	3.0	0.3	0.5	257
					10	26.31	3.4			
					15	26.30	3.7			
					20	26.50	4.0			
					25	26.56	3.9			
					30	26.56	3.9			
					35	26.37	3.8			
					40	26.12	3.6			
					45	25.93	3.7			

**TABLE C2 - Preliminary Temperature Monitoring Results**  
 Defense Fuel Support Point-Norwalk  
 15306 Norwalk Boulevard, Norwalk, California

Well ID	Date	Time	Ambient Temperature (°C)	DTW (feet bgs)	Measurement Depth (feet)	Temperature (°C)	Background Corrected Temperature (°C)	Vadose Zone Heat Flux <sup>2</sup> (W/m <sup>2</sup> )	Estimated NSZD Rate <sup>3</sup> (g/m <sup>2</sup> /day)	Estimated NSZD Rate (gal/acre/year)
RW-22 <sup>4</sup>	7/20/2022	9:49	26.0	34.18	5	27.12	3.3	0.4	N/A (Heat Flux Assumed From Biosparge)	
					10	27.00	4.1			
					15	27.31	4.7			
					20	27.43	4.9			
					25	27.43	4.8			
					30	27.25	4.6			
					35	27.00	4.4			
					40	26.31	3.8			
					45	25.87	3.6			
RW-46 <sup>4</sup>	7/20/2022	10:20 AM	26.0	33.98	5	27.93	4.1	0.6	N/A (Heat Flux Assumed From Biosparge)	
					10	28.00	5.1			
					15	28.56	5.9			
					20	29.31	6.8			
					25	29.62	7.0			
					30	29.43	6.8			
					35	29.18	6.6			
					40	27.75	5.3			
					45	27.00	4.7			
TF-9R	6/28/2022	4:23 PM	32.2	38.46	5	25.52	1.7	0.3	0.6	286
					10	26.09	3.2			
					15	25.35	2.7			
					20	25.71	3.2			
					25	26.03	3.4			
					30	26.12	3.5			
					35	25.98	3.4			
					40	25.82	3.3			
					45	25.76	3.5			
					50	25.30	3.3			
TF-15 <sup>4</sup>	6/29/2022	5:43 PM	31.1	35.68	5	27.75	3.9	1.1	N/A (Heat Flux Assumed From Biosparge)	
					10	28.13	5.2			
					15	28.99	6.4			
					20	30.28	7.8			
					25	31.79	9.1			
					30	33.13	10.5			
					35	33.45	10.9			
					40	31.48	9.0			
					45	30.00	7.7			
					50	28.81	6.8			
TFB-9 <sup>4</sup>	7/19/2022	12:41 PM	32.0	37.30	5	28.81	5.0	0.8	N/A (Heat Flux Assumed From Biosparge)	
					10	28.87	5.9			
					15	29.43	6.8			
					20	30.37	7.8			
					25	31.37	8.7			
					30	32.12	9.5			
					35	32.06	9.5			
					40	31.37	8.9			
					45	29.87	7.6			
TFB-10 <sup>4</sup>	7/19/2022	1:20 PM	32.0	37.72	5	26.25	2.4	0.4	N/A (Heat Flux Assumed From Biosparge)	
					10	26.00	3.1			
					15	26.25	3.6			
					20	26.56	4.0			
					25	26.87	4.2			
					30	26.93	4.3			
					35	27.00	4.4			
					40	26.87	4.4			
					45	26.87	4.6			
TFB-18 <sup>4</sup>	7/19/2022	2:46 PM	33.0	34.95	5	28.75	4.9	0.4	N/A (Heat Flux Assumed From Biosparge)	
					10	28.68	5.7			
					15	28.81	6.2			
					20	28.81	6.3			
					25	28.43	5.8			
					30	27.81	5.1			
					35	27.25	4.7			
					40	26.43	3.9			
					45	27.00	4.7			

**TABLE C2 - Preliminary Temperature Monitoring Results**  
 Defense Fuel Support Point-Norwalk  
 15306 Norwalk Boulevard, Norwalk, California

Well ID	Date	Time	Ambient Temperature (°C)	DTW (feet bgs)	Measurement Depth (feet)	Temperature (°C)	Background Corrected Temperature (°C)	Vadose Zone Heat Flux <sup>2</sup> (W/m <sup>2</sup> )	Estimated NSZD Rate <sup>3</sup> (g/m <sup>2</sup> /day)	Estimated NSZD Rate (gal/acre/year)
TFB-23 <sup>4</sup>	7/20/2022	8:03	22.0	34.55	5	26.25	2.4	0.4	N/A (Heat Flux Assumed From Biosparge)	
					10	25.93	3.0			
					15	26.06	3.4			
					20	26.37	3.8			
					25	26.62	4.0			
					30	26.68	4.0			
					35	26.68	4.1			
					40	26.25	3.8			
TFB-27	7/19/2022	1:55 PM	33.0	35.25	5	25.18	1.3	0.4	0.8	405
					10	24.93	2.0			
					15	25.06	2.4			
					20	25.37	2.8			
					25	25.56	2.9			
					30	25.50	2.8			
					35	25.25	2.7			
					40	24.81	2.3			
TFB-35 <sup>4</sup>	7/20/2022	12:28 PM	28.0	34.95	5	26.87	3.0	0.2	N/A (Heat Flux Assumed From Biosparge)	
					10	26.37	3.4			
					15	26.31	3.7			
					20	26.43	3.9			
					25	26.50	3.8			
					30	26.50	3.8			
					35	26.43	3.8			
					40	25.81	3.3			
TFB-37	7/20/2022	1:00 PM	29.0	35.6	5	25.87	2.0	0.3	0.5	255
					10	25.43	2.5			
					15	25.43	2.8			
					20	25.50	3.0			
					25	25.50	2.8			
					30	25.43	2.8			
					35	25.25	2.7			
					40	25.00	2.5			
TF-23 <sup>4</sup>	6/29/2022	3:00 PM	30.0	35.02	5	25.99	2.1	1.0	N/A (Heat Flux Assumed From Biosparge)	
					10	26.92	4.0			
					15	27.30	4.7			
					20	26.69	4.2			
					25	26.28	3.6			
					30	26.03	3.4			
					35	26.16	3.6			
					40	--	--			
GMW-61	7/28/2022	1:41 PM	29.0	35.06	5	26.50	2.7	N/A	N/A (No Heat Flux Observed)	
					10	25.25	2.3			
					15	24.68	2.1			
					20	24.56	2.0			
					25	24.50	1.8			
					30	24.50	1.8			
					35	24.62	2.0			

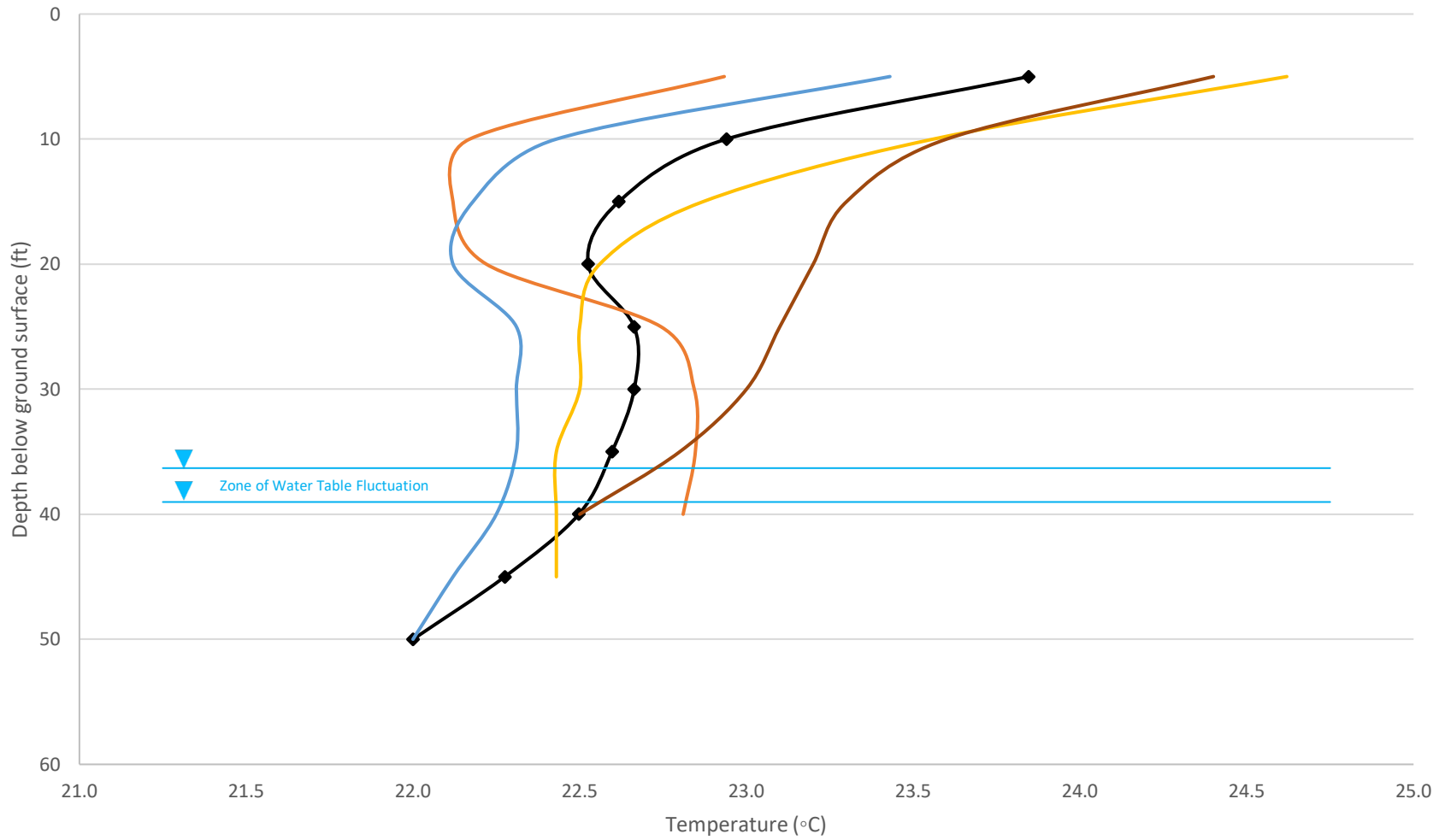
**Notes:**

°C = degrees Celsius      bgs = below ground surface      W = Watt      m = meter      g = gram      gal = gallons

1. Average temperatures from each depth interval in wells GMW-43, MW-24, MW-27, GMW-66R, and MW-13 were used to represent background conditions; assumes minimal biogenic activity or influence from remediation system occurring at those monitoring wells.
2. Vadose Heat Flux,  $qH = KT (\Delta T / \Delta z)$ , Where Thermal Conductivity,  $K_T = 1.26 \text{ J/(m*s*°K)}$ ,  $\Delta T / \Delta z$  = Upward thermal gradient
3. Rate of Natural Source Zone Depletion (NSZD),  $R_{NSZD} = qH / \Delta H^0$ , Where Heat Release,  $\Delta H^0 = 43,900 \text{ J/gCH}_4$
4. Elevated groundwater temperatures (> 26°C) assumed indicative of thermal influence from biosparge system injection air.
5. Wells are color coded by average groundwater temperature; red if temperatures >24°C, blue if temperatures are between 23°C and 24°C, green if temperatures are <23°C.



GRAPH C1:  
Average Temperature vs. Background Wells  
GMW-43, MW-24, GMW-66R, and MW-13



◆ Average    — GMW-43    — GMW-66R    — MW-13    — MW-241



GRAPH C2:  
BACKGROUND-CORRECTED TEMPERATURE PROFILES

