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SFPP Norwalk Pump Station
Norwalk, California

Fourth Quarter 2023 Remediation Progress Report

Final

February 15, 2024

Kinder Morgan, Inc.

SFPP Norwalk Pump Station

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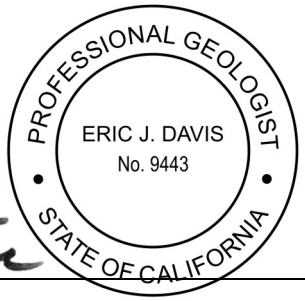
Certification

The material and data presented in this report were prepared consistent with current and generally accepted consulting principles and practices. This work was supervised by the following Jacobs licensed professional.



Eric Davis
California Professional Geologist, No. 9443

February 15, 2024
Date

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Acronyms and Abbreviations

µg/L	microgram(s) per liter
API	American Petroleum Institute
ASTM	ASTM International
$BaCO_3$	barium carbonate
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
^{14}C	Carbon-14 (radiocarbon)
CH2M	CH2M HILL, now part of Jacobs Engineering Group Inc.
CO_2	carbon dioxide
COPC	contaminant(s) of potential concern
DFSP	Defense Fuel Support Point
EPA	U.S. Environmental Protection Agency
EVS	Earth Volumetric Studio
ft	foot/feet
ft^2/day	square foot/feet per day
gal(s)/year	gallon(s) per year
GWE	groundwater extraction
HSVE	horizontal soil vapor extraction
IRAP	interim remedial action plan
ITRC	Interstate Technology and Regulatory Council
Jacobs	Jacobs Engineering Group Inc.
Kinder Morgan	Kinder Morgan, Inc.
lb(s)/day	pound(s) per day
lb(s)/yr	pound(s) per year
LNAPL	light nonaqueous phase liquid
MTBE	methyl tertiary butyl ether
No.	number
NSZD	natural source zone depletion
ppmv	parts per million by volume
Regional Board	California Regional Water Quality Control Board, Los Angeles Region
RSL	regional screening level
RTO	regenerative thermal oxidizer

scfm	standard cubic feet per minute
SFPP	SFPP, L.P., an indirect subsidiary of Kinder Morgan, Inc.
SGI	The Source Group, Inc.
site	SFPP, L.P. Norwalk Pump Station located within Defense Fuel Support Point Norwalk, at 15306 Norwalk Boulevard, Norwalk, California
SVE	soil vapor extraction
SVM	soil vapor monitoring
SVP	soil vapor probe
TFE	total fluids extraction
TPH-d	total petroleum hydrocarbons quantified as diesel
TPH-g	total petroleum hydrocarbons quantified as gasoline
VER	vacuum enhanced recovery
VOC	volatile organic compound

1. Introduction

This progress report summarizes remediation activities performed by Kinder Morgan, Inc. (Kinder Morgan) at the SFPP, L.P. (SFPP) Norwalk Pump Station located within the Defense Fuel Support Point (DFSP) Norwalk, at 15306 Norwalk Boulevard, Norwalk, California (the site; Figure 1) during the fourth quarter 2023 reporting period.

This progress report is being submitted pursuant to a request from the California Regional Water Quality Control Board, Los Angeles Region (Regional Board) in its letter dated October 25, 2006 (Regional Board, 2006). Additional site background information can be found in the *Conceptual Site Model and Proposed Alternate Interim Remedy for Soil, Groundwater, and Light Nonaqueous Phase Liquid* report and *Light Nonaqueous Phase Liquid Conceptual Site Model Update* (CH2M[1], 2013 and 2018), as well as the final *Interim Remedial Action Plan (IRAP) – Implementing a Natural Source Zone Depletion (NSZD) Remedy* (Jacobs, 2022). In addition, previously published quarterly remediation progress reports and semiannual groundwater monitoring reports, available for download on "GeoTracker," the Regional Board's internet-accessible database system, contain site background information, historical data, and updates on remedial activities.

This report summarizes the remediation systems and activities at the site for the period of October 1, 2023, through December 31, 2023, including:

- Operation and maintenance of active remediation systems performed by Kinder Morgan field personnel and outside subcontractors, including laboratory analysis of compliance and performance samples (Appendix A).
- Per the provisional approval of the *Sampling and Analysis Plan for Soil Vapor and Fixed Gases – SFPP Norwalk Pump Station* (Jacobs, 2023a) by the Regional Board (March 1, 2023), a semiannual soil vapor probe (SVP) sampling event was conducted in November 2023. The results will be presented in an annual report that will be published in February 2024.
- A *Revised Groundwater Sampling and Analysis Plan – SFPP Norwalk Pump Station* (Jacobs, 2023b), was submitted to the Regional Board (March 31, 2023). This plan is currently in review with the Regional Board.
- The second semiannual groundwater monitoring event of 2023 was conducted in November, and SGI-APEX will submit the monitoring report to the Regional Board in February 2024.
- Operation of offsite/south-central horizontal biosparge well BS-03 and horizontal soil vapor extraction (SVE) well HSVE-01 was suspended on October31 2023, as part of the remedy transition to NSZD monitoring.

[1] CH2M HILL (CH2M) is now part of Jacobs Engineering Group Inc. (Jacobs).

2. Description of Remediation Systems

Kinder Morgan has operated remediation systems consisting of HSVE, horizontal biosparge, and treatment of extracted soil vapors to address petroleum hydrocarbon impacts in the three primary treatment and monitoring areas, including the south-central area (located in the southern portion of the 36-acre parcel), the offsite/south-central area (located in the residential area to the south of the 36-acre parcel), and the southeastern area (located in the southern portion of the 15-acre parcel). These areas are labeled on Figure 2. In addition, NSZD monitoring has been implemented across the site as part of the ongoing NSZD performance monitoring pilot study using the ongoing collection of SVP data.

The objectives of the remediation systems are to reduce light nonaqueous phase liquid (LNAPL) saturation, change the LNAPL phase, and if necessary, contain hydrocarbon constituents in groundwater and soil vapor. The remediation systems consist of the following remediation wells:

South-central Area

- Currently inactive
  - 15 total fluids extraction (TFE) wells
  - 24 onsite vertical SVE wells
  - 1 horizontal biosparge well (BS-01)
- Currently active
  - 8 individual soil vapor monitoring (SVM) probes used for NSZD monitoring

Offsite/south-central Area

- Currently inactive
  - 4 TFE wells
  - 4 offsite vertical SVE wells (three are collocated with TFE wells)
  - 1 horizontal biosparge well (BS-03)
  - 1 horizontal SVE well (HSVE-01)
- Currently active
  - 9 individual SVM probes used for NSZD monitoring

Southeastern Area

- Currently inactive
  - 3 TFE wells (GMW-O-15, GMW-O-18, GMW-36)
  - 1 groundwater extraction (GWE) well (GMW-SF-10)
  - 9 vertical SVE wells (two SVE wells are co-located with TFE wells)
  - 1 horizontal biosparge well (BS-02)
- Currently active
  - 9 individual SVM probes used for NSZD monitoring

A summary of remediation systems and operational status at the end of the fourth quarter of 2023 is presented in Table 1. The remediation system layout is shown on Figure 2.

Operation of the offsite/south-central biosparging and SVE systems was suspended on October 31, 2023, as part of the remedy transition to NSZD monitoring. The south-central area and southeastern area transitioned from biosparging and SVE to NSZD in December 2019 and October 2022, respectively, and continue to meet remedial objectives as demonstrated by NSZD, groundwater, and soil gas monitoring.

2.1 Biosparge System

The layout of the horizontal biosparging wells at the site is illustrated on Figure 2. Each horizontal well is constructed of 4-inch-diameter polyvinyl chloride with varying screen lengths placed at approximately 45 feet below ground surface (bgs). All biosparging systems are interlocked with their respective SVE capture systems such that biosparging cannot operate without the SVE capture system also operating. Additional details regarding the operation and shutoff of BS-03 during the fourth quarter of 2023 are provided in Section 3.

2.1.1 Biosparge Well BS-01 (Not Operating)

Biosparge well BS-01 was installed in December 2014 in the south-central area of the site and operated from December 2016 until December 2019 when it was turned off to facilitate evaluation of NSZD performance. A summary of the performance of BS-01 is available in the *Biosparging Effectiveness Evaluation and Recommendations Report* (Jacobs, 2019).

2.1.2 Biosparge Well BS-02 (Not Operating)

A second biosparge well (BS-02) was installed in the southeastern area of the site in November 2017. The screen interval of BS-02 is 240 feet centered below the southeastern area hydrocarbon plume. BS-02 operated from May 2020 until October 6, 2022, when it was deactivated as part of the transition of the southeastern vertical SVE wells and horizontal biosparge treatment system to an NSZD remedy.

2.1.3 Biosparge Well BS-03 (Not Operating)

Biosparge well (BS-03) was installed in the offsite/south-central area in December 2019. The length of the BS-03 well screen is 500 feet, and the total length of the well is 770 feet. BS-03 is supplied with air by a 175-horsepower rotary screw compressor installed in the fourth quarter 2018. A horizontal SVE well (HSVE-01) was installed above BS-03 and is described in Section 3. BS-03 is centered below the offsite/south-central area hydrocarbon plume. Startup activities began at BS-03 in May 2021, shortly after startup and sustained operation of HSVE-01 in early April 2021 (see details of HSVE-01 startup and operation in Section 3).

During the fourth quarter of 2023, BS-03 was operative from October 1 to October 31. Prior to shutdown, BS-03 had an average uptime of approximately 99.2 percent (619 hours) and operated within a flow range between 503 and 512 standard cubic feet per minute (scfm) (Table 3).

2.2 Soil Vapor Extraction System

SVE is performed using a blower to remove soil vapors from the south-central area of the site. The extracted vapors are conveyed to a knock-out tank that separates entrained moisture (i.e., condensate) from the soil vapors. When the knock-out tank is full, the condensate water is hauled offsite for proper disposal. The soil vapors are treated in a regenerative thermal oxidizer (RTO) where volatile organic compounds (VOCs) are converted to carbon dioxide (CO_2) and water prior to being discharged to the atmosphere. Operation of the SVE system is conducted in accordance with Permits to Operate (Permit No. G46188 A/N 578779 and No. G46187 A/N 578777) issued by the South Coast Air Quality Management District.

The remaining active SVE well (HSVE-01), began operating in April 2021 and was shut down on October 31, 2023. Supplemental data from monitoring wells and vapor points in the offsite/south-central area were routinely collected to optimize the operation of both HSVE-01 and BS-03, until they were deactivated. From October 1 to October 31, HSVE-01 operated at a flow rate of approximately 625 scfm. Additional details regarding the operation of HSVE-01 during the fourth quarter of 2023 are discussed in Section 3.1. Table 2 is a summary of extracted vapor analytical results.

2.3 Monitoring Well and Soil Vapor Probe Modifications

No modifications were made to monitoring wells and/or SVPs during this reporting period.

3. Remediation Progress and Optimization

Remedial progress at the site is being evaluated against the performance metrics defined in the final IRAP (Jacobs, 2022), which are as follows:

- Recover LNAPL mass to the maximum hydraulic extent practicable using existing wells.
- Achieve an active LNAPL removal rate (e.g., through biosparging/SVE) that is below or of similar magnitude to the ambient NSZD degradation rate.
- Demonstrate a decrease in the ratio of more volatile to less volatile dissolved- and vapor-phase constituents over time.
- Demonstrate SVE systems have reached a transition point based on decline curve analysis.
- Demonstrate stable or decreasing dissolved-phase plume extents and concentrations across the site using spatial plume statistics.
- Ensure the dissolved- and vapor-phase extents and concentrations are stable or decreasing in extent on a sitewide scale.

As these metrics were achieved, a transition to NSZD was implemented on an area-by-area basis, along with contingency measures, as needed. While these metrics are important, the active mass removal rate relative to the NSZD mass removal rate has been the most significant proxy for all other remediation performance metrics. The overarching site management philosophy is that there are diminishing returns in operating active remedies when they are no longer capable of removing mass at a significantly greater rate than NSZD. Moreover, there are significant cost considerations in terms of environmental sustainability (i.e., carbon footprint) associated with long-term operation of energy intensive active treatment systems. The following sections present the remedial progress specifically related to each of these metrics and efforts that have been made to optimize the remedies. Section 3 focuses on remedial operation data evaluation and Section 4 focuses on the resulting trends in vapors and groundwater and their respective metrics.

3.1 Hydrocarbon Mass Removal from the Biosparge and Soil Vapor Extraction Systems

Exhibit 1, below, provides an overview of the VOC mass removal at the site collected weekly from the RTO combined header (i.e., it represents total SVE mass collected at the site as VOCs and may combine individual system data when biosparging systems overlap in operation). Narrative indicators are placed relative to the operation of each of the recent biosparging systems (BS-01, BS-02, and BS-03). The three biosparging systems at the site removed VOC mass at the highest rate during initial startup, followed by a predictable decline in VOC removal rate (pounds per day [lbs/day] as hexane) as the LNAPL adjacent to each system was depleted. Although the three biosparging systems are no longer operating, an overview of the mass removed from the operation of the systems is presented below.

- BS-01: Initially approximately 360,000 pounds per year (lbs/yr), and 3,600 lbs/yr at the end of operation
- BS-02: Initially approximately 36,000 lbs/yr, and 650 lbs/yr at the end of operation
- BS-03: Initially approximately 36,000 lbs/yr, and 150 lbs/yr at the end of operation

Supplemental data has also been collected from the SVE header for the vertical SVE wells in the southeastern area associated with BS-02 and HSVE-01 in the offsite/south-central area associated with BS-03 (Exhibit 1). Seasonal variations are apparent over the course of SVE operations, which accounts for the divergence in mass recovery rate near the beginning of BS-02 startup; however, later operation data indicate that mass removal rates are similar for the overall system mass removal and the offsite/south-central area mass removal (detailed data and analysis of BS-03 operations are described later in this section). The offsite/south-central area (BS-03) data

in Exhibit 1 illustrate alignment to overall system mass removal data, indicating that at the time of shutdown, BS-03 no longer contributed to mass recovery at the site beyond what could be achieved by NSZD (described later in Section 3.2). Similar to the trends observed at BS-01 and BS-02 (Exhibit 1), and subsequent remedy transitions from active to passive remediation, BS-03 arrived at the transition point in October 2023.

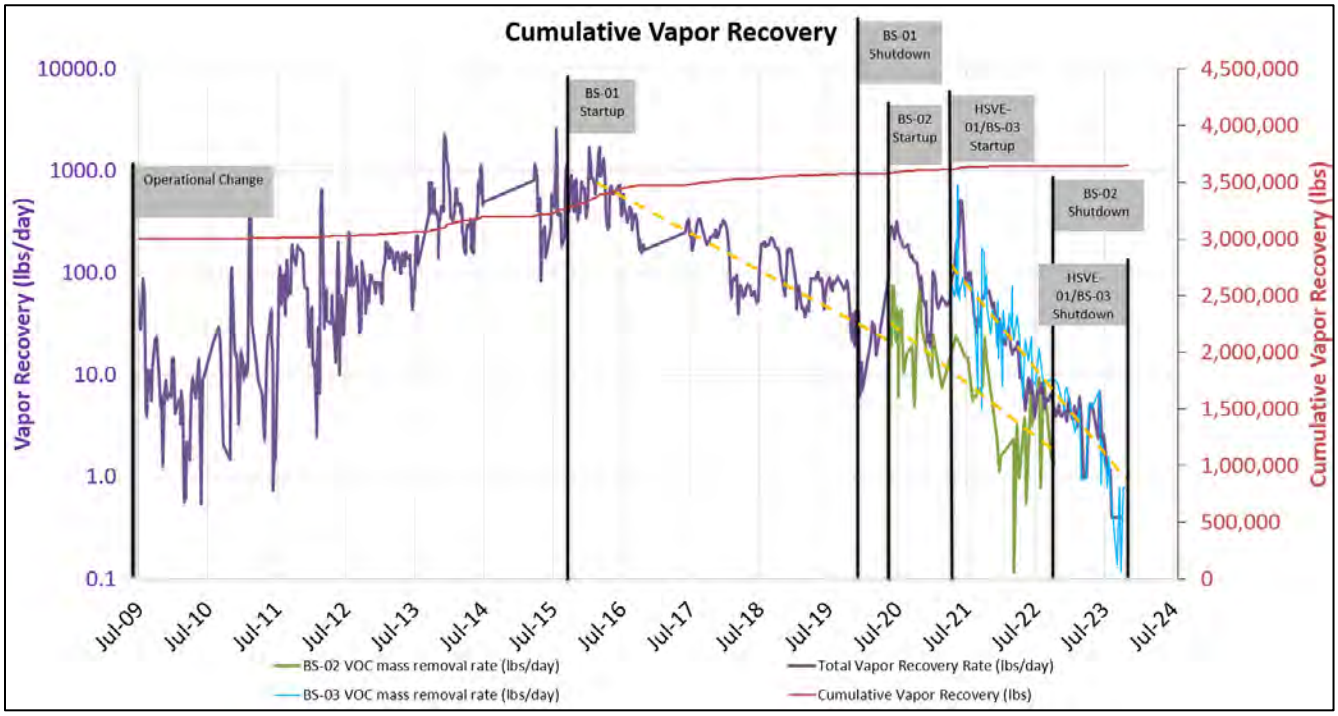

Exhibit 1. Cumulative SVE Vapor Mass Recovery Rate Over Time

In addition to VOC mass removal, the biosparging systems enhance the biodegradation of hydrocarbons. The calculation and trends of biodegradation of hydrocarbon removal as well as the resulting indicators of LNAPL phase change are discussed in detail in the following sections. The methods for estimating the biosparging biodegradation rates are defined in the *Biosparging Effectiveness Evaluation and Recommendations, South-Central Area* (Jacobs, 2019). Also, biosparging can affect the fluid levels (i.e., groundwater elevation and LNAPL thickness) at the site in the short term; however, during long-term operation, notable changes to site fluid levels have not been observed. A summary of these groundwater elevations and LNAPL thicknesses continue to be recorded, particularly around HSVE-01 and BS-03 and are summarized in Table 4.

Monthly vapor samples from the SVE system (influent, influent post-dilution, and effluent) were collected only in October 2023 in the fourth quarter, as the system was inoperative during the months of November and December. The vapor samples were delivered to Air Technology Laboratories in City of Industry, California, for the following analyses:

- Fixed gases (methane, CO_2, oxygen, and argon) using ASTM International (ASTM) D1946
- VOCs using U.S. Environmental Protection Agency (EPA) Method TO-15
- Total VOCs using EPA Method TO-3

The laboratory analytical reports and chain-of-custody documents for these samples are included in Appendix A.

Based on weekly monitoring of the influent vapor concentration, vapor extraction flow rate, and hours of operation, the total mass of VOCs removed by combined SVE systems was approximately 9 pounds during the fourth quarter of 2023. Total mass recovered by the SVE system has consistently decreased since the first quarter

of 2016 (where a high of 74,148 pounds of VOCs were recovered), when biosparging in the south-central area was implemented (see Figure 3). This finding is consistent with laboratory analytical data demonstrating that the influent VOC concentrations (benzene, toluene, ethylbenzene, and xylene [BTEX] and methyl tert butyl ether [MTBE]) have consistently decreased since initiating biosparging activities (Table 3, Figure 4), until startup of BS-02 (May 2020) and BS-03 (May 2021). The cumulative mass of VOCs removed since SVE was implemented in September 1995 is 3,645,343 pounds (Table 5). This cumulative mass removed by SVE does not include the mass removed by naturally occurring in-situ biodegradation which is discussed in later sections of this report.

Biosparge (BS-02)

The southeastern biosparge system (BS-02) did not operate during the fourth quarter of 2023 (Table 3). Operations were suspended on October 6, 2022, when the VOC removal rate averaged less than 650 lbs/yr (less than 2 lbs/day), below the ambient NSZD rate of 14.4 lbs/day. A detailed narrative of the southeastern biosparge system is provided in the BS-02 supplemental data in Appendix B. The BS-02 decline curve indicates a transition point to NSZD was reached prior to operation being suspended, as illustrated in Exhibit 2.

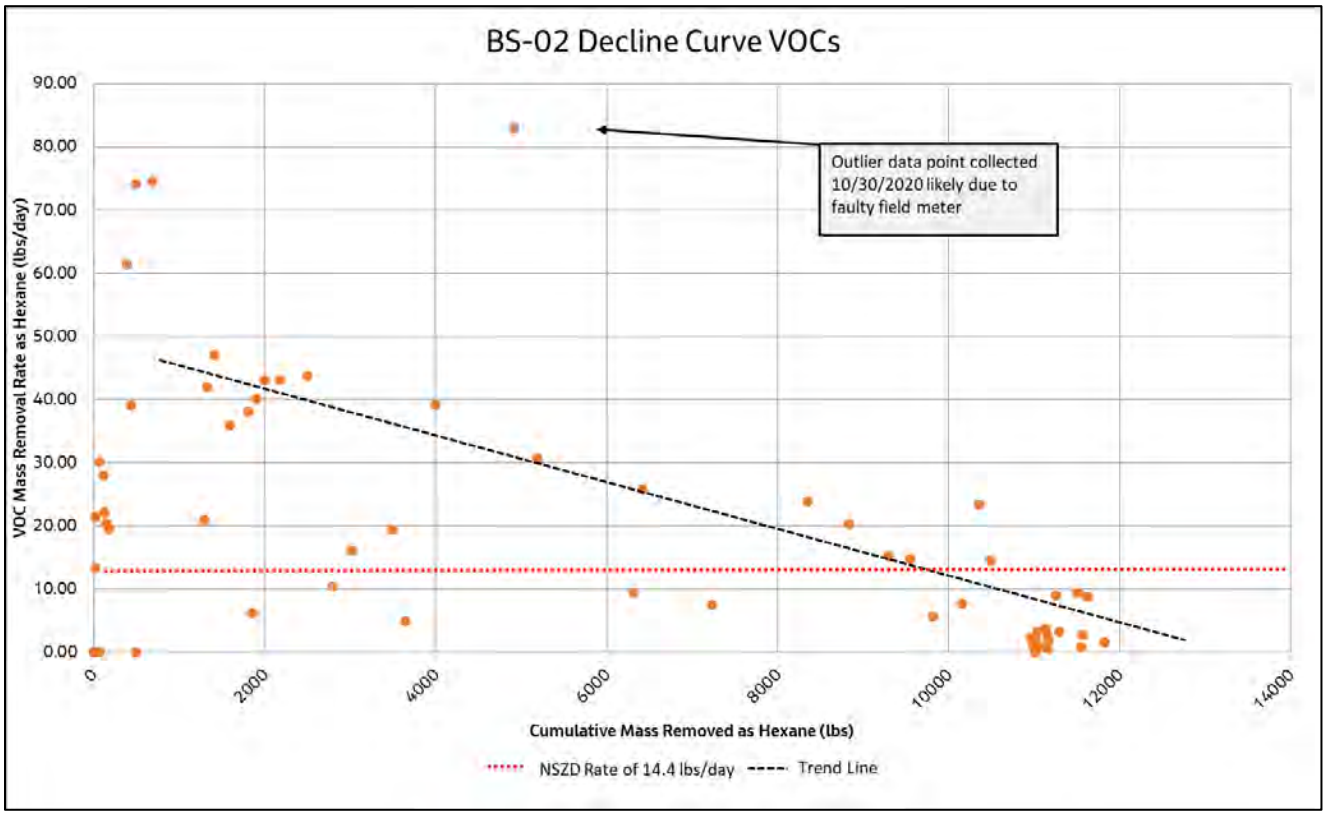

Exhibit 2. BS-02 Decline Curve

Soil Vapor Extraction Well (HSVE-01) and Biosparging Well BS-03

Operation of the offsite/south-central SVE system (HSVE-01) was initiated in the second quarter of 2021 and suspended on October 31, 2023. During the fourth quarter of 2023, while operational, HSVE-01 flow was on average 625 scfm. BS-03 operated for 619 hours with 99.2 percent uptime during the fourth quarter. The biosparge system flow (air injection) rate ranged from approximately 503 - 512 scfm. Higher flow rates achieved by both HSVE-01 and BS-03 are due to the ongoing depletion of hydrocarbons in the subsurface in these treatment areas leading to vapors being generated at a lower rate, which allows for a progressively increasing system radius of influence. A detailed data narrative for the offsite/south-central biosparge system is provided in Appendix C.

The flow rates, VOC mass removal, and VOC concentrations observed during operation of HSVE-01 historically to present are illustrated in Exhibit 3.

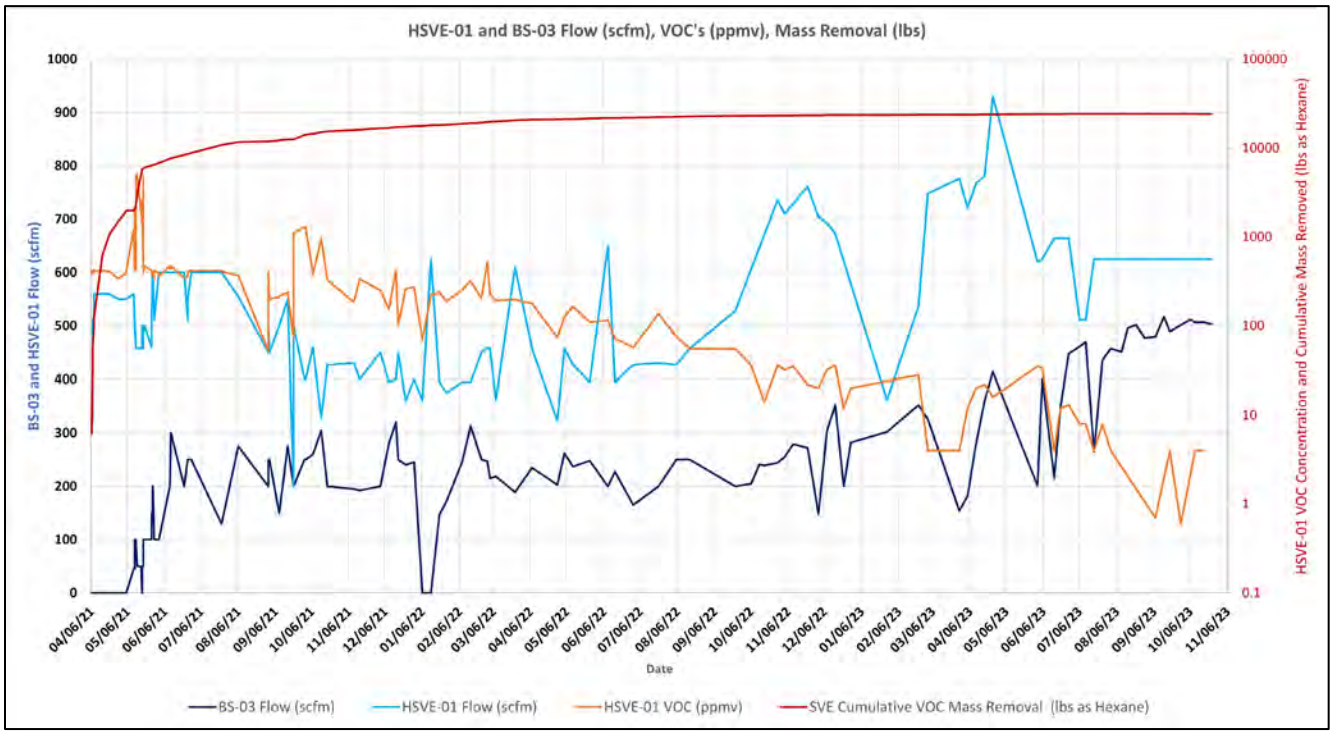

Exhibit 3. HSVE-01 and BS-03 Operations and Performance

Variation in flow and VOC concentrations in HSVE-01 are attributable to intermittent shutdown and restarts from various operational adjustments, as well as clearing of the five distributed drip legs, which was conducted approximately bi-weekly in 2023 until system shutdown on October 31. Drip legs are condensate collection pipes along the SVE conveyance line that trap and accumulate excess moisture from the air and prevent build-up in the line that would otherwise hinder SVE performance.

Cumulative VOCs captured by HSVE-01 from startup (April 2021) through October 2023, were calculated using the same method used for previous SVE mass removal estimates and were observed to be approximately 21,187 pounds. The average VOC removal rate was 0.4 lb/day over the 31-day operational period. With biodegradation included, HSVE-01 has removed approximately 139,000 pounds of mass in this area. The average biodegradation rate was 103 lbs/day over the 90-day operation period. See Appendix C for a detailed data and operations narrative.

Using the supplemental data from BS-03, a decline curve is illustrated in Exhibit 4 comparing VOC mass removal rate as well as mass biodegradation rate corrected with ^{14}C data collected from the HSVE-01 header over time. The decline curve illustrates the trend of the data towards the NSZD transition point where the biosparging well is effectively removing less mass than NSZD would remove. The NSZD rate prior to biosparging (operational endpoint) ranged from 4 to 12 lbs/day in the offsite/south-central area (Jacobs, 2022) compared to the current average VOC removal rate of approximately 1.0 lbs/day and the biodegradation rate of 124 lbs/day as illustrated in Exhibit 4. Biodegradation rates have remained nearly static since the end of 2021 partly due to the progressively expanding radius of influence of the biosparging and SVE wells. The implication is that these rates will not decline further with continued operation and the biodegradation mass being captured by the system is outside of the original area of influence of the system (i.e., the biodegradation rates are biased high by capturing ambient NSZD from the south-central area).

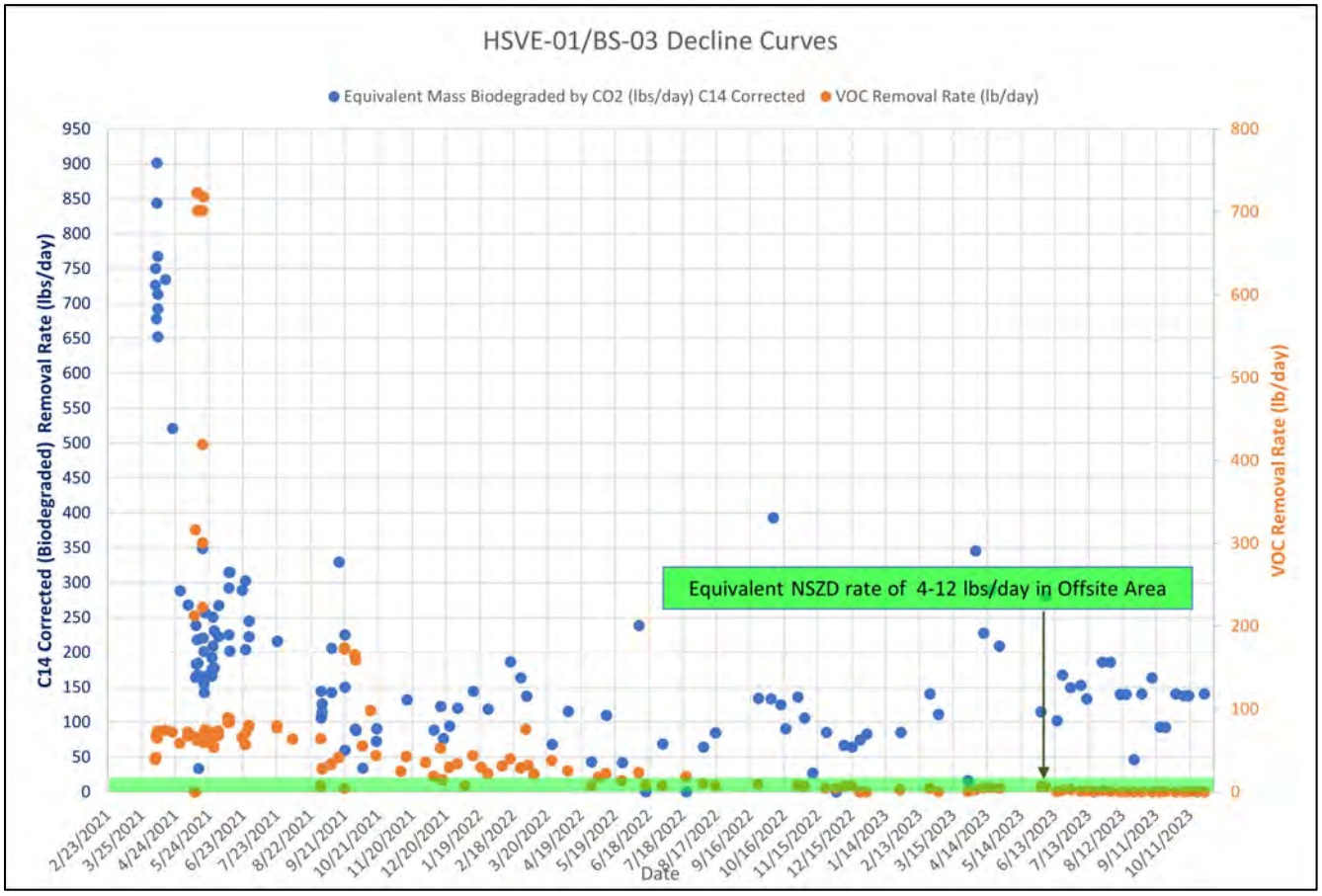

Exhibit 4. BS-03/HSVE-01 VOC Decline Curve

Exhibit 5 illustrates the VOCs and oxygen concentration at the SVE header in the offsite/south-central area for BS-03 are diverging as expected. Observed VOCs are declining from approximately 800 parts per million by volume (ppmv) to less than 10 ppmv and oxygen concentrations are increasing from approximately 18 to 20 percent; both trends support remaining petroleum hydrocarbon impacts in the area being depleted.

Soil vapor field monitoring data were not elevated (>50 ppmv) at any of the vapor monitoring points during the fourth quarter of 2023, either during operation of HSVE-01 and BS-03 or after they were turned off.

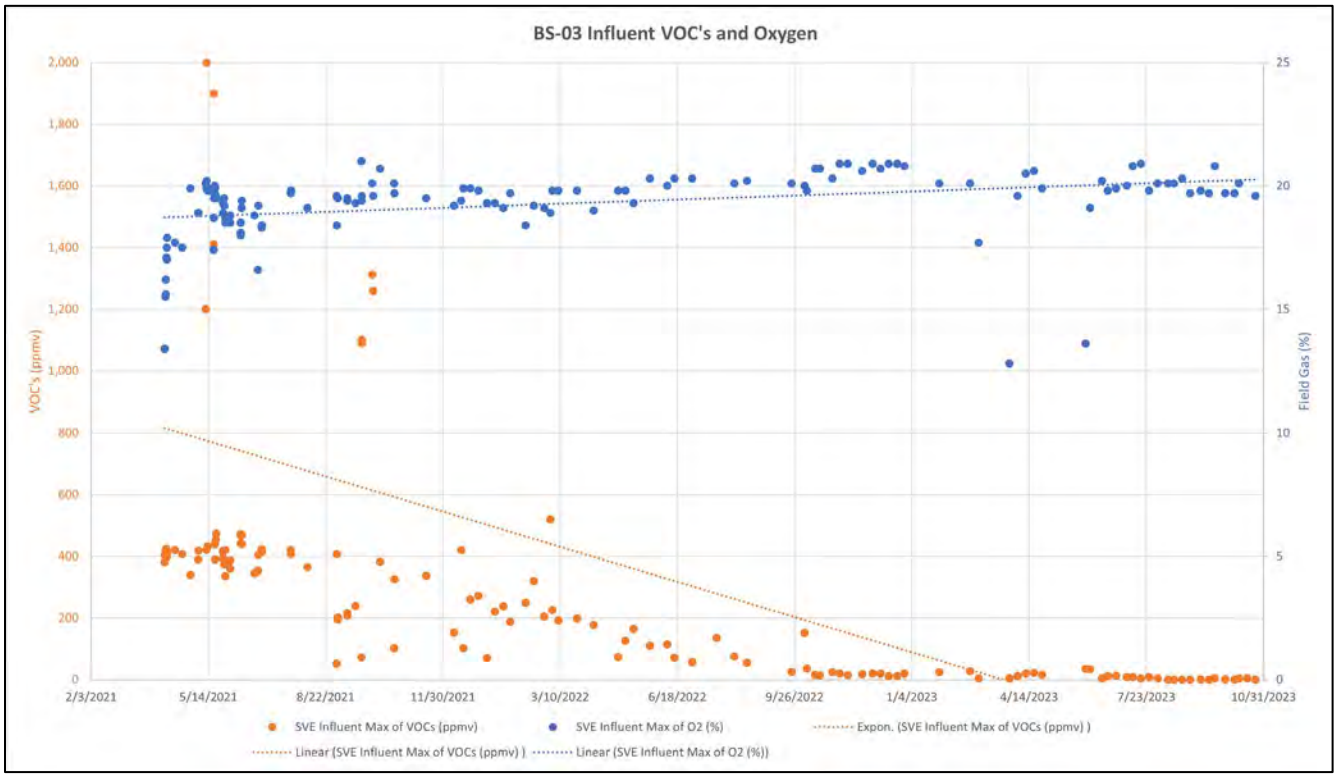

Exhibit 5. BS-03/HSVE-01 Influent VOCs and Oxygen Concentrations Over Time

Overall, the combination of SVM probes with limited VOC detections in the offsite/south-central area and the decrease in VOC mass recovery rates below the ambient NSZD degradation rates in this area supported transitioning from active operation of BS-03 and HSVE-01 to ambient NSZD monitoring in the same way both BS-01 and BS-02 have transitioned.

Additionally, offsite/south-central area data demonstrate the following remedial metrics have been met using biosparging and will likely continue to be met after the transition to NSZD monitoring:

- LNAPL mass has been recovered to the maximum hydraulic extent practicable (i.e., LNAPL removal rates are below ambient NSZD rates and remaining LNAPL transmissivities are less than 0.1 ft^2/day).
- VOC mass removal rate through biosparging/SVE is less than the ambient NSZD degradation rate (discussed further in Section 3.2).
- In general, the ratio of more volatile to less volatile vapor-phase constituents have decreased over time.
- Vapor-phase extents and concentrations are stable or decreasing (SVE wellfield gases).
- Additional improvements in dissolved-phase trends are discussed in a later section.

3.2 Natural Source Zone Depletion Assessment

Barium carbonate sampling from the HSVE-01 and southeastern area headers were conducted as part of the third round of NSZD sampling in September 2022. One additional barium carbonate sample was collected from HSVE-01 in September, before the treatment system was turned off. Results from the laboratory are pending but will be presented in a future quarterly remediation progress report.

Updated NSZD calculations and analysis, as detailed in the final IRAP (Jacobs, 2022), and discussed below, are also available to review in the *Natural Source Zone Depletion Preliminary Results* technical memorandum (Jacobs, 2020) provided as an attachment to previous remediation progress reports. That technical memorandum explains in detail the NSZD monitoring methodology used at the site. Additional NSZD evaluations are ongoing, and previous $BaCO_2$ sample results from January and September 2022, and the pending results from September 2023, will be incorporated into a future update on NSZD trends..

The comparative analysis of E-Flux trap and $Ba^{14}CO_3$ sampling techniques for the analysis of the ^{14}C signature of CO_2 efflux showed that both methods produce comparable results. Going forward, only $Ba^{14}CO_3$ sampling techniques will be used at the site as they allow collection of NSZD data in the offsite/south-central area where surface flux meters would not be effective because the area is mostly paved private (residential) property, and $Ba^{14}CO_3$ sampling techniques allow the collection of a higher density of samples across the site.

This NSZD evaluation assesses NSZD processes occurring in the subsurface with consideration of historical and future remedial activities (e.g., biosparging operation). In 2019, NSZD rates with active remedies temporarily suspended were measured at up to approximately 1,400 gallons per year (gals/year) (10,000 lbs/yr) in terms of biodegradation occurring in the subsurface.

The south-central area NSZD footprint is approximately 7 acres, the southeastern area is approximately 3 acres, and the offsite/south-central area is approximately 4 acres based on current dissolved-phase extents.
On average across the site, this equates to approximately 100 gallons per acre per year (700 pounds per acre per year), recognizing each area at the site is at a different remedial phase and those average degradation rates vary in each area accordingly.

These trends related to NSZD demonstrate the following transition metrics have been met or are in progress:

- The ambient NSZD degradation rate is of a similar magnitude as active biosparging mass removal rates, considering the depletion of LNAPL in biosparging areas. Specifically, the south-central area, southeastern area, and now, the offsite/south-central area have reached the remedy transition point.

4. Current Site Conditions, Trends, and Interpretation

Routine sampling and field monitoring of groundwater, groundwater elevations, soil gas, and SVE influent and effluent are performed to evaluate changes to the nature and extent of petroleum hydrocarbon impacts across the site because of ongoing remedial activities, including active treatment systems and natural biodegradation. Per the updated groundwater SAP, *Revised Groundwater Sampling and Analysis Plan – SFPP Norwalk Pump Station* (Jacobs, 2023b), sitewide groundwater monitoring will continue to be performed by Jacobs and The Source Group, Inc. (SGI) during the second quarter (first semiannual monitoring event) and fourth quarter (second semiannual monitoring event) of each year. The most recent sitewide groundwater report and data was presented in the *First Semiannual 2023 Groundwater Monitoring Report, Defense Fuel Support Point Norwalk, 15306 Norwalk Boulevard, Norwalk, California* (Jacobs, 2023c).

4.1 Groundwater Stability Trend Analysis

As discussed in the IRAP (Jacobs, 2022), groundwater monitoring data indicate that the dissolved-phase plumes are decreasing or stable across the site because of operating treatment systems and natural biodegradation (Figure 5).

A statistical analysis of site groundwater conditions is undertaken annually (typically in the fourth quarter). The most recent comprehensive data collected was through the fourth quarter of 2022. The statistical trend analysis was conducted for benzene, total petroleum hydrocarbons quantified as gasoline (TPH-g) and diesel (TPH-d), MTBE, and tertiary butyl alcohol (TBA), (Appendix E). Only TPH-g trend analysis is discussed in this report, as other contaminants of potential concern (COPCs) are similar to TPH-g results and TPH-g is a more useful (and conservative) proxy for evaluation of both sitewide dissolved phase hydrocarbons and LNAPL. The other, less prevalent COPCs are detailed in the semiannual groundwater monitoring reports (Jacobs, 2023c).

To summarize the statistical groundwater analysis for TPH-g, overall, 224 wells were analyzed, which have either nondetect, decreasing, or no trend (i.e., not significantly increasing or decreasing statistically at the given confidence level of 95%) for TPH-g when evaluated in the context of the entire dataset for each well (Appendix E). A subset of wells listed in Appendix E are noted as 'not stable', with no trend, for TPH-g simply due to a coefficient of variation (CV) greater than or equal to one, that is, these wells demonstrate outliers (historically) compared to most data from a particular well, along with other wells, comparatively, at the site.

The exceptions to these trends listed above are wells GMW-O-18 and MW-15 (GMW-O-18 is located in the southeastern area, while MW-15 is located in the south-central area). MW-15 has not been sampled since October 2014. This is because the well was replaced with MW-15R. The replacement well demonstrates nondetect results for TPH-g as of the November 2023 sampling event. In addition, the Mann-Kendall trends in the replacement well are no trend, due to >50% nondetect results collectively for the data from the well. GMW-O-18 shows an increasing trend with all data historically, however, a more in-depth statistical analysis, evaluating discrete time periods based on treatment implementations at the site (2016 to present), indicates that since 2016 this well conforms to more recent remedial operations influence, whereby the TPH-g concentration in GMW-O-18 has decreased. Moreover, the TPH-g concentration in GMW-O-18 has decreased by approximately 99 percent from its respective historical high concentration.

Overall, these statistical analyses and compilation of the TPH-g trends demonstrate that the dissolved-phase plumes are stable and decreasing, have been stable and decreasing, and will continue decreasing across the site because of ongoing remedial operations and NSZD processes. In addition, since the discontinued operation of BS-01 in December 2019 and BS-02 in October 2022, all downgradient wells in the south-central and southeastern area have remained stable or decreasing in trend. These downgradient wells are part of a group of contingency wells, specified in greater detail in the groundwater SAP (Jacobs, 2023b).

To support the understanding of stable and decreasing trends over time, a plume-scale spatial analysis is conducted annually (typically in the fourth quarter) using TPH-g data historically collected at the site, developed for the south-central area (including the offsite/south-central area) and the southeastern area.

Analysis was performed using CTech's Earth Volumetric Studio (EVS) to determine average normalized (relative to max) detectable dissolved volumes and dissolved phase chemical masses (pounds) over time. Groundwater data were interpolated (kriged) in 1-year increments using the average annual chemical concentrations for individual wells, including nondetect data. In cases where chemical concentrations were not available for a given well for the modeled period, the previous or most recent known concentration was used to estimate the likely concentration at a location during that time. Volumetrics were output from an iso-concentration threshold set at >100 micrograms per liter (µg/L) within the saturated zone.

Exhibit 6 illustrates the dissolved phase volume and dissolved phase chemical mass of TPH-g within the south-central area of the site (based on data historically through the fourth quarter 2023). Prior to remediation, increases in TPH-g were due to the expansion of the well network at the site during initial characterization. As remediation was implemented over time, the TPH-g groundwater plume stabilized and slowly began to decrease in extent and overall mass. More recent remediation (biosparging well BS-01 and BS-03 in this area, along with the transition to NSZD) of groundwater has resulted in more rapidly declining dissolved phase trends in both overall volume and mass.

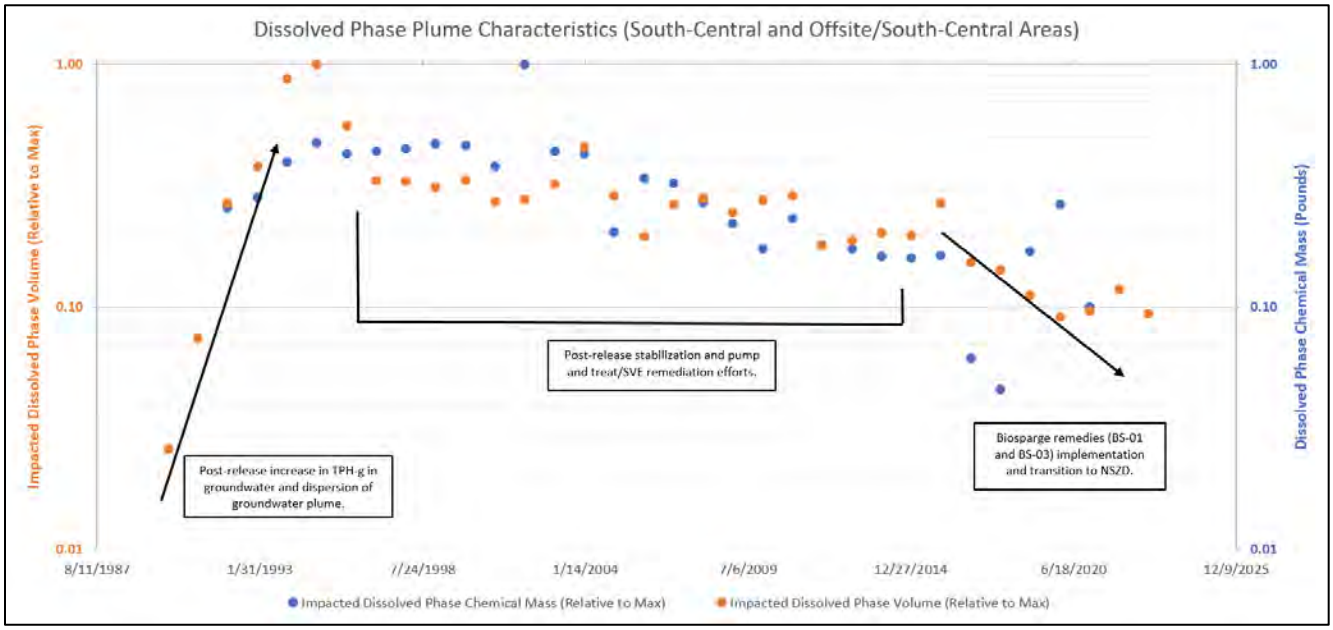

Exhibit 6. Dissolved-phase Plume Characteristics for TPH-g (South-Central and Offsite/South-Central Areas) Over Time, Set at an Iso-concentration Value of >100 µg/L, Representative of Saturated Soils in the Subsurface.

The southeast area plume saw similar trends in TPH-g throughout monitoring history through the fourth quarter 2023, however, some differences in the state of degradation are observed in this area as shown in Exhibit 7. Between 1994 and 2018, mass fluctuated two orders of magnitude over the 24-year period but has consistently been decreasing since installation and operation of horizontal biosparging well BS-02, as well as implementation of the NSZD remedy. Reductions in plume volume have also been observed in recent years and are consistently declining with only a limited footprint remaining.

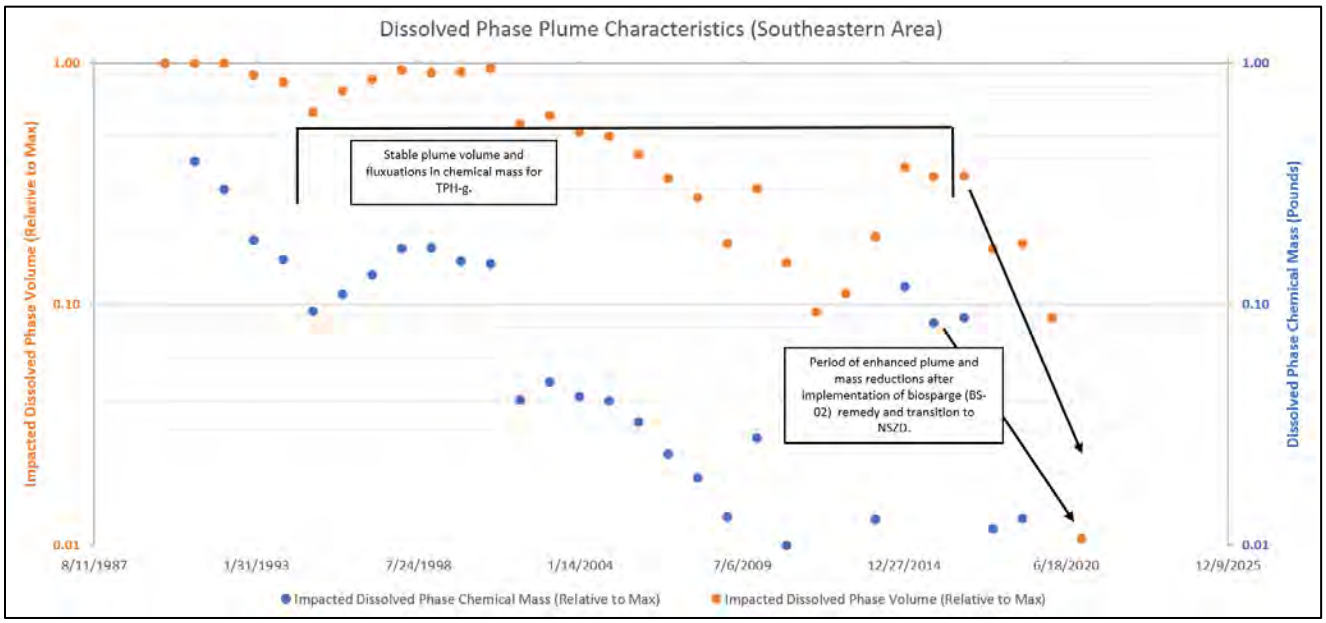

Exhibit 7. Dissolved-phase Plume Characteristics for TPH-g (Southeastern Area) Over Time, Set at an Iso-concentration Value of >100 µg/L, Representative of Saturated Soils in the Subsurface.

4.2 LNAPL Observations, Trends, and Analyses

Historical LNAPL thicknesses are presented in the most recent sitewide groundwater report (Jacobs, 2023c), with additional remedial operation wells listed in Table 4. During recent years, LNAPL has been detected in only four wells in the remedial areas described in this report (GMW-29, GMW-30, GMW-O-12, and GMW-23). GMW-O-12 did not contain LNAPL or sheen in the second, third, and fourth quarters of 2023. GMW-30 (0.06 foot) and GMW-29 (0.05 foot) contained less than 0.1 foot of LNAPL (Table 4). Thicknesses in these wells are highly dependent on water table fluctuations and are not an indication of increasing LNAPL mobility or recoverable LNAPL as demonstrated through recent mobility testing, discussed below.

GMW-23 (2.51 feet) is the only well with measurable LNAPL transmissivity and a baildown analysis in August 2021 determined LNAPL transmissivity at this well was less than 0.01 square foot per day (ft^2/day). Previous LNAPL behavior analysis and LNAPL transmissivity analysis were completed and summarized in the 2018 LNAPL CSM update (see Section 3) (CH2M, 2018) which concluded the LNAPL at the site typically exhibited exaggerated conditions due to the geology and fluctuations in the water table which create perched and confined conditions.

In a continuing effort to confirm the findings of the 2018 LNAPL CSM update, and further support the observations from the August 2021 baildown analysis, a vacuum enhanced recovery (VER) event was conducted in December 2022 to remove LNAPL from select wells. This test is used primarily at the low mobility and recoverability locations where minimal LNAPL remains in site wells. Jacobs and an outside subcontractor performed the VER event at GMW-23, GMW-29, GMW-30, and GMW-O-12. A vacuum truck equipped with vapor controls (i.e., carbon canisters) was mobilized to the site and set up at each well to recover LNAPL and water.

On December 19, 2022, before recovery began, Jacobs collected depth to product and depth to water measurements. After measurable LNAPL was removed from the wells, vacuum recovery continued at the surface of the water table (i.e., skimming) to maintain a depressed water table and recover any LNAPL mobilized into the wells. At the conclusion of this event, depth to water and depth to product measurements were collected and LNAPL thicknesses were calculated for each well. Operations data for this event are included in Appendix D. The total volume of LNAPL recovered was too small to be measured. At the conclusion of the recovery event, all wells had a sheen (0.00 foot) of LNAPL.

Continued gauging of these wells since the VER event illustrates LNAPL thicknesses have not returned to initial observations made pre-VER therefore the LNAPL transmissivity at each location is at least below 0.01 ft^2/day, the previous highest measurement in GMW-23. Tabulated gauging observations since the VER event and previously calculated transmissivity workbooks (GMW-23) are presented in Appendix D. Further illustration of the ongoing decrease in LNAPL presence at the site is illustrated on Figure 5. Overall, the horizontal and vertical distribution of LNAPL at this site is well defined and the wells containing LNAPL exhibit exaggerated LNAPL thickness and intermittent near residual LNAPL presence behavior due to changes in groundwater elevation/precipitation.

4.3 Groundwater and LNAPL Trend Observation Conclusions

The trends related to dissolved-phase groundwater and LNAPL (currently only present in GMW-23) at the site demonstrate the following transition metrics have been met:

- LNAPL mass recovery to the maximum hydraulic extent practicable:
  - Of the four wells that have recently contained LNAPL (GMW-23, GMW-29, GMW-30, and GMW-O-12) only one well contains measurable LNAPL above 0.1 foot in thickness (GMW-23). Given the LNAPL at wells GMW-29, GMW-30, and GMW-O-12 has not recovered to its original thickness post-VER events it is likely the remaining LNAPL at these locations is residual. LNAPL may occur intermittently in these wells due to local variations in groundwater levels.

Dissolved-phase groundwater data demonstrate:

- Decrease in the ratio of more volatile to less volatile dissolved-phase constituents over time
- Stable or decreasing dissolved-phase plume extents and concentrations across the site
  - Downgradient wells have been and remain nondetect
  - Detections of 1,2 DCA (e.g., in WCW wells in the western area of the site) are localized, not related to Kinder Morgan historical operations, are stable or decreasing and occur at relatively low concentrations. Detections of MTBE, along with the resulting byproduct of MTBE degradation, where they remain at the site, continue to be localized and exhibit decreasing concentrations. MTBE and TBA in well PZ-5 will decrease to non-detectable concentrations in the near future, based on current trends in monitoring data.

5. Transition Metric Summary, Planned 2024 Activities, and Recommendations

This section provides summary-level descriptions of the remedy transition metrics, planned first quarter 2024 activities, and recommendations for a path forward.

5.1 Transition Metric Summary

The primary observations in this report are as follows:

BS-01 (South-Central Area)

- BS-01 previously met all transition metrics as defined in the final IRAP and the NSZD remedy is operating.
- BS-01 continues to meet dissolved-phase groundwater and vapor contingency metrics:
  - All shallow SVM probes in the south-central area, which function as part of the contingency metrics defined in the final IRAP (Jacobs, 2022), remain below EPA regional screening levels (RSLs) (with and without active remediation) (EPA, 2021).
  - All downgradient groundwater wells continue to exhibit stable or decreasing concentration trends for TPH-g since BS-01 shutdown in December 2019.
- The LNAPL present in GMW-23, continues to meet the LNAPL contingency criteria (transmissivity of ≤0.01 ft^2/day, an order of magnitude below the ITRC effective recoverability endpoint):
  - Monitoring at GMW-23 will continue opportunistically during future site visits
  - Additional gauging at the two other wells historically containing less than 0.1 foot during this monitoring report (GMW-29 and GMW-30) will be performed opportunistically to confirm the LNAPL transmissivity at these wells is also below recoverability metrics.

BS-02 (Southeastern Area)

The trends related to BS-02 and the southeastern area demonstrate all transition metrics are being met:

- LNAPL mass has been recovered to the extent practicable.
  - No wells in this area had measurable LNAPL during the second quarter of 2023.
- Active LNAPL removal rate (e.g., through biosparging/SVE) was of similar magnitude at the time of shutdown, or less, to the ambient NSZD degradation rate.
- The ratio of more volatile to less volatile vapor-phase constituents has decreased over time.
- SVE and biosparging (BS-02) activities were discontinued on October 6, 2022.
  - As reported in the fourth quarter 2022 remediation progress report, SVE systems reached a transition point based on decline curve analysis.
  - The initial observation of BS-02 biosparging performance, with initial VOC mass removal rates of 36,000 lbs/yr, showed a steady decline similar to BS-01 to a final VOC mass removal rate less than 650 lbs/yr (less than 2 lbs/day), below the ambient NSZD removal rate, and well below the transition point for BS-01, which was at 3,600 lbs/yr. Biosparging at BS-02 was suspended and the area transitioned to an NSZD remedy.

- Vapor-phase extents and concentrations are stable or decreasing (SVE wellfield gases).
  - All shallow SVM probes in the southeastern area, which function as part of the contingency metrics defined in the final IRAP (Jacobs, 2022), have been and continue to be below EPA RSLs (with and without active remediation).
- Dissolved-phase groundwater data demonstrate:
  - A decrease in the ratio of more volatile to less volatile dissolved-phase constituents over time
  - Stable or decreasing dissolved-phase plume extents and concentrations across the site, specifically when analyzed from more recent remedial operation activity
- Contingencies in the southeastern area will be primarily based on dissolved-phase plume stability:
  - Downgradient concentrations in wells remain nondetect

HSVE-01 and BS-03 (Offsite/South-Central Area)

The trends related to HSVE-01/BS-03 and the offsite/south-central area demonstrate that the following transition metrics have been and will continue to be met, with this area transitioning to NSZD in the fourth quarter 2023:

- SVE systems exhibit a declining trend (similar to BS-01 and BS-02) based on decline curve analysis:
  - HSVE-01 has removed approximately 21,187 pounds of VOCs since startup (April 2021), averaging 0.4 lb/day over the 31-day operation period during the fourth quarter of 2023.
  - With biodegradation included, HSVE-01 has removed approximately 139,000 pounds of mass in this area, with an average biodegradation rate of 104 lbs/day for this reporting period.
- Volatile concentration of vapor-phase constituents will continue decreasing over time.
- Vapor-phase extents and concentrations are stable or decreasing in extent:
  - All shallow SVM probes in the offsite/south-central area, which function as part of the contingency metrics defined in the final IRAP (Jacobs, 2022), remain below EPA (RSLs (with and without active remediation) (EPA, 2021), for COPCs.
- There are no adverse conditions precluding the transition to NSZD in the offsite/south-central area.

NSZD

- NSZD observations relevant to each subarea are described above. Sitewide NSZD observations are summarized as follows:
  - Ongoing NSZD occurred under ambient conditions at rates of at least 600 gals/year and up to 1,800 gals/year (at least 4,000 lbs/yr and up to 12,000 lbs/yr) across the entire site.

5.2 Planned First Quarter 2024 Activities

The following maintenance activities and other tasks are planned for the first quarter of 2024:

- Continue conducting NSZD performance monitoring.
- Conduct first half 2024 semiannual groundwater monitoring event.
- Conduct the first semiannual soil vapor sampling event, which also provides ongoing data for NSZD monitoring.
- Receive and respond to comments from the Regional Board on the *Revised Groundwater Sampling and Analysis Plan – SFPP Norwalk Pump Station* (Jacobs, 2023b), as appropriate.

5.3 Recommendations and Path Forward

During the first quarter of 2024, Kinder Morgan plans to collect samples and field-based monitoring data to continue evaluating NSZD performance in all areas of the site. This data will be included in the first quarter 2024 remediation progress report to confirm that remedial objectives, as defined in the IRAP, continue to be achieved.

6. References

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Tables

Table 1. Remediation Well Construction and Status

SFPP Norwalk Pump Station, Norwalk, California

Remediation Area	Remediation Well ID	Installation Date	Top of Well Casing Elevation (feet msl)	Well Screen Interval (feet bgs)	Remediation Well Function	Well Operation Status During Fourth Quarter 2022	
						SVE/BS	TFE/GWE
South-Central	MW-SF-1	6/18/1990	78.93	25 - 40	SVE	OFF	OFF
	MW-SF-2	6/18/1990	78.53	25 - 40	SVE; TFE	OFF	OFF
	MW-SF-3	6/18/1990	78.12	25 - 40	SVE; TFE	OFF	OFF
	MW-SF-4	6/19/1990	79.38	25 - 40	SVE	OFF	--
	MW-SF-5	9/19/1990	79.74	23 - 38	SVE	OFF	--
	MW-SF-6	9/19/1990	76.80	25 - 40	SVE; TFE	OFF	OFF
	MW-SF-9	6/15/1995	74.10	--	SVE	OFF	--
	MW-SF-10	9/23/2003	76.53	10 - 30	SVE	OFF	--
	MW-SF-11	6/19/2007	78.56	20 - 40	SVE; TFE	OFF	OFF
	MW-SF-12	6/18/2007	78.07	20 - 40	SVE; TFE	OFF	OFF
	MW-SF-13	6/19/2007	73.40	20 - 40	SVE; TFE	OFF	OFF
	MW-SF-14	6/21/2007	78.16	20 - 40	SVE; TFE	OFF	OFF
	MW-SF-15	6/21/2007	78.27	20 - 40	SVE; TFE	OFF	OFF
	MW-SF-16	6/20/2007	78.21	20 - 40	SVE; TFE	OFF	OFF
	MW-SF-17	--	--	--	SVE	OFF	--
	MW-18 (MID)	6/10/1991	75.67	50 - 60	SVE	OFF	--
	GMW-9	7/8/1991	77.16	20 - 50	SVE; TFE	OFF	OFF
	GMW-10	7/8/1991	N/A	25 - 50	SVE; TFE	OFF	OFF
	GMW-22	8/2/1991	77.24	25 - 60	SVE; TFE	OFF	OFF
	GMW-24	8/5/1991	77.48	25 - 60	SVE; TFE	OFF	OFF
	GMW-25	1/10/1992	78.14	20 - 50	SVE; TFE	OFF	OFF
	GWR-3	1/10/1992	77.60	20 - 50	SVE; TFE	OFF	OFF
	VEW-1	09/19/90	--	5 - 25	SVE	OFF	--
	VEW-2	09/19/90	--	5 - 25	SVE	OFF	--
	BS-01	08/27/14	75.06	--	BIOSPARGE	OFF	--
South-Central Offsite	MW-O-1	1/22/1991	75.48	25 - 40	SVE; TFE	Abandoned August 2022	
	MW-O-2	1/23/1991	71.90	25 - 40	SVE; TFE	OFF	OFF
	GMW-O-11	5/20/1992	74.17	20 - 50	SVE; TFE	OFF	OFF
	GMW-O-12	5/21/1992	73.49	20 - 50	SVE	OFF	--
	GMW-O-20	6/15/1995	73.32	--	SVE; TFE	OFF	OFF
	GMW-O-21	10/1/1997	71.43	26 - 46	TFE	--	OFF
	GMW-O-23	6/25/2007	73.63	20 - 40	SVE; TFE	Abandoned June 2022	
	HSVE-01	12/17/2019	--	--	SVE	(OFF Oct. 2023)	--
	BS-03	12/13/2019	--	--	BIOSPARGE	(OFF Oct. 2023)	--
	HW-1	9/6/1992	--	--	SVE	Abandoned 2019	
	HW-2	9/6/1992	--	--	SVE	Abandoned 2019	

Table 1. Remediation Well Construction and Status

SFPP Norwalk Pump Station, Norwalk, California

Remediation Area	Remediation Well ID	Installation Date	Top of Well Casing Elevation (feet msl)	Well Screen Interval (feet bgs)	Remediation Well Function	Well Operation Status During Fourth Quarter 2022	
						SVE/BS	TFE/GWE
Southeastern	GMW-O-15	4/19/1994	74.23	20 - 50	SVE; TFE	OFF	OFF
	GMW-O-16	4/19/1994	74.10	20 - 50	SVE	OFF	--
	GMW-O-18	7/25/1994	74.36	21 - 40	SVE; TFE	OFF	OFF
	GMW-O-19	7/29/1994	74.46	20 - 40	SVE	OFF	--
	GMW-36	4/11/1994	76.66	20 - 50	SVE; TFE	OFF	OFF
	GMW-SF-9	4/1/2003	73.05	37 - 46	TFE	Abandoned June 2022	
	GMW-SF-10	4/2/2003	75.77	37 - 46	TFE	Abandoned June 2022	
	MW-8	8/24/1990	76.06	18 - 48	SVE	OFF	--
	VEW-3	3/7/2019	--	23 - 32.5	SVE	OFF	--
	VEW-4	3/8/2019	--	23 - 32.5	SVE	OFF	--
	VEW-5	3/8/2019	--	23 - 32.5	SVE	OFF	--
	BS-02	11/21/17	--	--	BIOSPARGE	OFF	--
West Side Barrier	BW-2	5/20/1996	73.57	27 - 47	GWE	--	OFF
	BW-3	5/17/1996	74.16	31 - 50	GWE	--	OFF
	BW-4	5/20/1996	74.61	28 - 47	GWE	--	OFF
	BW-5	5/23/1996	73.59	27 - 46	GWE	--	OFF
	BW-6	5/22/1996	73.48	28 - 47	GWE	--	OFF
	BW-7	5/22/1996	74.65	27 - 46	GWE	--	OFF
	BW-8	5/21/1996	75.08	27 - 46	GWE	--	OFF
	BW-9	5/21/1996	76.19	27 - 46	GWE	--	OFF

Notes:

-- = information not available or not applicable

bgs = below ground surface

BS = biosparge

GWE = groundwater extraction

HSVE = horizontal soil vapor extraction

msl = above mean sea level based on the National Geodetic Vertical Datum of 1929

SVE = soil vapor extraction

TFE = total fluids extraction

Table 2. Extracted Vapor Analytical Results

SFPP Norwalk Pump Station, Norwalk, California

	ASTM D-1946			EPA TO-3		SCAQMD 25.1	EPA TO-15 (VOCs)[b]				
Date Sampled	Methane (%v)	Carbon Dioxide (%v)	Oxygen and Argon (%v)	TPH-g (ppmv)	TVOC (ppmv)	TGNMOC (ppmv)	Benzene (ppbv)	Ethyl-benzene (ppbv)	Toluene (ppbv)	Xylenes (ppbv)	MTBE (ppbv)
8/3/2007	<0.5	<0.5	22.0	63	---	---	650	220	1,100	1,420	55
9/5/2007	<0.5	<0.5	22.0	9	---	---	32	48	140	320	18
10/2/2007	<0.5	<0.5	21.9	27	---	---	250	75	430	610	20
11/2/2007	<0.5	<0.5	22.1	5	---	---	40	10	74	95	7
2/1/2008	<0.5	<0.5	21.8	100	---	---	830	260	2,200	1,850	<50
3/4/2008	<0.5	<0.5	21.7	50	---	---	380	98	570	1,250	36
4/8/2008	<0.5	<0.5	22.2	69	---	---	290	110	480	1,040	41
5/23/2008	<0.5	<0.5	21.8	14	---	---	180	24	190	280	23
6/3/2008	<0.5	<0.5	21.7	30	---	---	380	42	400	330	70
7/2/2008	<0.5	<0.5	21.4	49	---	---	32	6	34	45	10
8/19/2008	<0.5	1.7	20.8	50	---	---	390	63	230	450	40
9/5/2008	<0.5	2.0	21.2	22	---	---	130	39	130	340	42
10/7/2008	<0.5	1.43	21.4	10	---	---	41	15	54	181	6.8
11/4/2008	<0.5	2.08	21.1	7.5	---	---	31	47	190	242	<2.0
3/6/2009	<0.5	<0.5	22.0	83	---	---	1,900	180	990	770	240
4/17/2009	<0.5	<0.5	22.2	3.1	---	---	140	8	37	68	26
5/29/2009	<0.5	1.08	21.0	130	---	---	1,700	640	3,700	3,100	100
8/18/2009	<0.5	0.78	21.7	28	---	---	380	37	290	310	33
8/25/2009	<0.5	0.87	20.6	37	---	---	500	44	320	293	20
9/18/2009	<0.5	0.37	21.6	11	---	---	75	11	39	107	3
10/29/2009	<0.5	1.80	18.2	77	---	---	350	45	250	440	4
11/25/2009	<0.5	<0.5	21.1	14	---	---	110	12	110	164	11
12/15/2009	<0.5	<0.5	21.7	7	---	---	28	3	20	47	<3.2
2/26/2010	<0.5	0.4	21.2	20	---	---	300	18	220	260	21
3/26/2010	<0.5	1.0	20.2	18	---	---	380	20	110	90	5
5/4/2010	<0.5	0.4	21.4	13	---	---	100	42	170	222	3
6/29/2010	<0.5	0.4	21.3	9	---	---	74	13	66	82	<5.0
8/3/2010	<0.5	0.6	20.4	29	---	---	210	13	64	85	9
8/31/2010	0.0039[c]	<0.5	21.4	11	---	---	72	12	66	87	8
9/14/2010	<0.5	<0.5	21.6	6	---	---	63	15	57	84	<3.2
11/2/2010	--	--	--	11	---	---	140	<10	31	28	<10
11/17/2010	0.00075	0.4	22.0	--	---	---	--	--	--	--	--
12/28/2010	0.0052	0.27	22.0	16	---	---	160	37	230	324	4.5
1/14/2011	0.016	0.20	22.0	68	---	---	340	34	89	183	<10
2/8/2011	0.026	0.24	21.0	210	---	---	3,000	1,700	11,000	7,400	110
3/29/2011	0.013	0.13	20.0	5	---	---	170	15	18	41.5	<2.5
4/26/2011	0.0011	0.079	20.0	1.9	---	---	16	2.4	8.8	7.7	<1.2
5/17/2011	0.021	0.65	22.0	90	---	---	2,600	140	2,200	1,100	220
6/17/2011	0.001	0.20	22.0	3	---	---	59	8.1	31	56	<0.25
7/19/2011	0.0056	0.49	22.0	80	---	---	1,800	130	2,200	1,000	<31
8/16/2011	0.0026	0.31	22.0	140	---	---	3,000	600	4,000	2,330	490
9/20/2011	--	--	--	100	---	---	2,100	740.0	2,700	2,040	660
11/22/2011	0.070	0.70	20.0	11	---	---	150	12.0	67	35	<5.0
12/20/2011	0.020	0.34	22.0	0	---	---	110	<25	260	216	<25
1/10/2012	0.010	0.66	20.0	11	---	---	150	14	86	160	<12
2/28/2012	0.0067	0.90	20.0	27	---	---	140	42	140	224	<25
3/13/2012	0.0044	0.71	20.0	27	---	---	440	38	450	241	<25
4/27/2012	0.0290	0.22	21.0	39	---	---	540	42	630	299	<25
5/22/2012	0.0100	0.31	20.0	65	---	---	590	350	770	2,070	<12
6/19/2012	0.0028	0.41	21.0	17	---	---	130	26	150	162	<12
7/27/2012	0.0059	0.40	21.0	13	---	---	46	<5	33	78	<5
8/30/2012	0.0049	0.56	21.0	69	---	---	150	<25	66	194	<25
9/25/2012	0.0073	0.80	21.0	57	---	---	190	19	120	283	<2.5
10/30/2012	0.0099	0.96	21.0	50	---	---	380	<50	230	130	<50
12/11/2012	0.0074	0.84	21.0	53	---	---	130	17	110	173	<5.0
1/29/2013	0.0028	0.29	22.0	1.4	---	---	8.7	<1.2	9.4	9.6	<1.2
2/12/2013	0.0057	0.88	21.0	60	---	---	500	<50	440	400	<50
3/19/2013	0.0058	0.80	21.0	77	---	---	560	66	490	520	<40
4/16/2013	0.0079	0.74	21.0	53	---	---	430	29	240	193	<25
5/14/2013	0.017	1.6	19	280	---	---	1,700	190	1,800	840	<12
6/28/2013	0.0068	<0.010	21	22	---	---	190	<25	130	131	<25
SVE system down for repair from July 16, 2013, to September 17, 2013.											
9/20/2013	0.014	1	21	590	---	---	4,200	520	3,600	2,830	<40
10/15/2013	0.011	0.68	21	410	---	---	3,500	360	2,800	1,970	<20
11/12/2013	0.012	0.66	21	430	---	---	2,900	440	2,600	1,930	<15
12/10/2013	0.013	0.92	21	910	---	---	8,400	920	7,200	5,500	<50

Table 2. Extracted Vapor Analytical Results

SFPP Norwalk Pump Station, Norwalk, California

	ASTM D-1946			EPA TO-3		SCAQMD 25.1	EPA TO-15 (VOCs)[b]				
Date Sampled	Methane (%v)	Carbon Dioxide (%v)	Oxygen and Argon (%v)	TPH-g (ppmv)	TVOC (ppmv)	TGNMOC (ppmv)	Benzene (ppbv)	Ethyl-benzene (ppbv)	Toluene (ppbv)	Xylenes (ppbv)	MTBE (ppbv)
1/17/2014	0.0077	0.57	21	350	---	---	6,600	6,800	8,200	23,300	3,000
2/11/2014	0.011	0.60	21	640	---	---	6,600	570	6,000	3,800	<100
3/21/2014	0.0050	0.40	21	390	---	---	4,500	290	4,000	1,930	<50
4/21/2014	0.011	0.65	21	700	---	---	6,900	370	6,900	3,400	<40
SVE system down for repair from April 29, 2014, to May 13, 2014.											
5/27/2014	0.011	0.56	21	530	---	---	6,600	570	8,900	3,820	<50
6/13/2014	0.0076	0.49	21	780	---	---	10,000	1,200	15,000	7,100	<80
SVE system down for repair and permit modification from July 1, 2014, to March 27, 2015.											
3/31/2015	0.090	1.3	20	1,400	---	1,300	12,000	1,000	11,000	7,400	<200
4/7/2015	0.014	0.56	21	---	---	710	8,200	8,200	610	3,260	<160
5/5/2015	---	---	---	---	---	760	6,100	1,100	9,600	7,200	<140
6/30/2015	0.0065	0.37	21	---	---	270	3,100	380	3,800	2,820	<160
7/14/2015	0.0094	0.62	21	---	---	650	7,000	950	7,900	6,100	<200
8/4/2015	0.0053	0.49	21	---	---	560	6,200	710	7,700	4,800	<0.097
8/17/2015[c]	---	---	---	---	---	470	4,800	500	5,400	3,600	<0.099
8/17/2015[c]	---	---	---	---	---	470	5,000	520	5,800	3,870	<0.100
8/17/2015[c]	---	---	---	---	---	480	5,100	580	6,100	4,000	<0.097
8/17/2015[c]	---	---	---	---	---	480	5,200	580	6,300	4,100	<0.099
9/1/2015[c]	---	---	---	---	---	670	7,000	850	8,700	6,900	<0.097
9/1/2015[c]	---	---	---	---	---	930	12,000	1,500	14,000	11,400	<0.140
9/1/2015[c]	---	---	---	---	---	890	12,000	2,300	20,000	14,300	<0.140
10/6/2015	0.0067	0.43	21	---	---	960	14,000	3,100	25,000	15,900	<200
11/10/2015	0.0028	0.30	21	---	860	---	9,100	1,800	15,000	9,400	<97
12/10/2015	0.004	0.41	21	---	580	---	6,400	1,200	10,000	7,600	<120
1/4/2016[c]	0.0059	0.27	22	---	750	---	9,600	2,400	20,000	13,500	<220
2/4/2016[c]	0.0038	0.58	21	---	2,000	---	16,000	2,600	29,000	19,300	<610
3/3/2016[c]	0.004	0.64	21	---	1,200	---	11,000	3,000	27,000	27,500	<130
4/5/2016	0.033	0.49	21	---	400	---	3,900	5,500	7,300	4,600	<63
5/13/2016	0.0034	0.50	21	---	290	---	2,200	300	4,300	810	<23
6/7/2016	0.0065	0.32	21	---	150	---	1,000	25 J	1,100	117 J	<36
7/7/2016	0.014	0.48	21	---	170	---	1,000	220	2,500	1,630	<51
8/2/2016	0.0047	0.54	21	---	260	---	1,900	720	5,000	7,400	<22
9/7/2016	0.0066	0.53	21	---	250	---	1,600	680	3,800	5,000	<21
10/13/2016	0.0096	0.67	21	---	250	---	2,700	680	3,800	5,200	<36
11/1/2016	0.0025	0.62	21	---	260	---	1,600	540	3,800	4,600	<40
SVE system was offline for installation of new RTO from November 1, 2016, to June 6, 2017.											
6/7/2017	0.029	1.1	21	--	190	--	960	220	1,200	1,170	<42
7/13/2017	0.055	1.3	20	---	550	---	6,800	1,100	6,600	9,900	<44
8/3/2017	0.013	0.85	21	---	340	--	4,200	750	5,600	7,500	<110
9/12/2017	0.0079	0.89	21	--	290	---	3,000	530	4,600	5,500	510
10/13/2017	0.0091	0.85	21	---	280	--	3,400	540	4,100	5,500	830
11/10/2017	0.0064	0.87	21	---	230	---	3,200	320	2,400	3,050	<84
12/8/2017	0.0040	0.77	21	---	250	---	3,600	350	3,000	3,700	<81
1/4/2018	0.0047	0.72	21	--	230	--	3,900	440	3,100	4,000	970
2/6/2018	0.0042	0.42	22	--	27	--	140	23	150	310	<5.1
3/13/2018	0.0038	0.74	21	--	79	--	680	110	460	1,150	<11
4/15/2018	0.0034	0.49	22	--	33	--	460	53	280	400	<2.0
5/11/2018	0.0046	0.72	21	--	64	--	660	74	410	850	<11
6/7/2018	0.0031	0.65	21	--	58	--	570	83	320	504	<9.7
7/3/2018	0.0063	0.78	21	--	210	--	4,700	570	2,700	3,940	1,100
8/2/2018	0.0048	0.69	22	--	160	--	3,000	320	2,300	2,380	<40
9/6/2018	0.0044	0.81	21	--	190	--	3,900	550	4,000	5,000	<42
10/5/2018	0.0034	0.85	22	--	180	--	1,200	180	1,400	1,850	<42
11/20/2018	0.0088	0.80	21	--	150	--	1,200	270	1,100	1,290	<11
12/7/2018	0.0038	0.75	22	--	190	--	1,700	360	2,100	2,140	<20
1/11/2019	0.0061	1.5	19	--	46	--	190	25	160	350	<11
2/7/2019	0.0023	0.82	21	--	74	--	240	67	280	990	<10
3/12/2019	<0.0034	0.58	22	--	31	--	110	31	130	570	<4.9
4/4/2019	0.0044	0.80	21	--	160	--	2,400	400	2,000	2,730	550
5/7/2019	0.023	0.78	21	--	120	--	1,900	330	1,500	2,520	410
6/4/2019	0.0037	0.64	21	--	110	--	1,000	260	880	1,550	<19
7/9/2019	0.036	0.64	21	--	99	--	860	190	820	1,210	400
8/18/2019	0.0037	0.64	21	--	97	--	850	220	940	1,630	230
9/12/2019	0.0019	0.0084	22	--	58[c]	--	640[c]	78[c]	520[c]	880[c]	200[c]
10/4/2019	0.0037	0.64	21	--	17	--	61	21	67	470	<3.6
11/7/2019	0.0067	0.67	21	--	19	--	66	26	56	480	<2.0

Table 2. Extracted Vapor Analytical Results

SFPP Norwalk Pump Station, Norwalk, California

	ASTM D-1946			EPA TO-3		SCAQMD 25.1	EPA TO-15 (VOCs)[b]				
Date Sampled	Methane (%v)	Carbon Dioxide (%v)	Oxygen and Argon (%v)	TPH-g (ppmv)	TVOC (ppmv)	TGNMOC (ppmv)	Benzene (ppbv)	Ethyl-benzene (ppbv)	Toluene (ppbv)	Xylenes (ppbv)	MTBE (ppbv)
12/12/2019	0.023	1.1	20	--	30	--	220	23	100	158	140
January-20	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]
2/14/2020	0.0360	1.1	21	--	17	--	63	7.7	12	480	<5.0
3/1/2020	0.0039	0.68	21	--	23	--	75	19	33	263	<2.8
April-20	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]	--[d]
5/21/2020	0.017	0.020	21	--	420	--	2,800	190	4,800	1,720	<40
6/2/2020	0.011	0.93	21	--	260	--	2,500	180	3,100	1,480	<40
7/2/2020	0.0088	1.4	21	--	180	--	1,200	130	1,200	1,470	930
8/1/2020	0.0058	0.90	21	--	250	--	1,300	1,000	4,500	9,100	770
9/1/2020	0.011	0.87	21	--	150	--	490	270	2,300	3,310	650
10/1/2020	0.015	0.82	21	--	93	--	320	200	1,700	2,790	470
11/1/2020	0.0084	1.1	21	--	130	--	560	340	2,300	3,440	540
12/4/2020	<0.0024	0.20	22	--	1.6	--	22	2.9	26	35	5.9
1/12/2021	<0.0024	0.60	21	--	54	--	280	120	510	1,720	220
2/2/2021	<0.0024	0.52	22	--	42	--	260	140	850	1,800	190
3/1/2021	<0.0027	0.80	21	--	58	--	470	100	970	2,280	170
4/1/2021	<0.0040	0.44	21	--	30	--	240	65	640	590	130
5/1/2021	<0.0025	1.2	21	--	160	--	520	560	2,100	3,410	<25
6/1/2021	<0.0024	1.2	21	--	320	--	1,400	970	2,900	3,540	<30
7/1/2021	<0.0024	0.73	21	--	110	--	800	520	1,400	1,900	<12
8/3/2021	<0.0025	1.0	21	--	100	--	850	380	1,700	2,390	<17
9/2/2021	<0.0025	0.94	21	--	74	--	490	300	940	2,210	<8
10/1/2021	<0.0024	0.95	21	--	49	--	230	270	810	2,600	31
11/9/2021	0.15	1.5	20	--	81	--	390	470	620	1,300	<24
12/2/2021	<0.0019	0.25	22	--	27	--	49	190	330	1,500	<3.9
1/6/2022[e]	<0.0020	0.34	22	--	8.7	--	21	21	60	175	<1.6
2/1/2022	<0.0025	0.97	21	--	79	--	120	310	430	2,830	<20
3/1/2022	<0.0025	0.65	21	--	43	--	72	120	200	1,190	<2.5
4/1/2022	<0.0024	0.84	21	--	28	--	46	51	110	590	<2.5
5/1/2022	0.005	0.86	21	--	26	--	37	32	76	590	<2.3
6/1/2022	<0.0021	0.41	21	--	14	--	22	17	56	530	<2.1
7/1/2022	<0.0020	0.31	22	--	12	--	14	15	34	370	<2.0
8/2/2022	<0.0024	0.64	22	--	23	--	33	23	61	370	<2.4
9/1/2022	<0.0026	0.57	21	--	25	--	39	23	78	330	<2.6
10/1/2022	0.0026	0.68	21	--	14	--	26	27	51	400	<0.77
11/1/2022	0.011J	0.67	20	--	19	--	29	27	56	290	<0.54
12/1/2022	0.006	0.6	20	--	23	--	27	20	45	209	<0.54
1/6/2023	0.00029J	1.1	20	--	28	--	21	11	34	198	<2.4
2/1/2023	0.00069J	0.95	20	--	27	--	17	13	53	190	<3.4
3/2/2023	0.00064J	1.5	18	--	16	--		180	460	450	<2.7
4/5/2023	0.00040J	1.3	19	--	16	--	13	18	40	181	<3.3
6/2/2023	0.015	1.5	19	--	7.6	--	9	82 J	10	15	<2.7
7/1/2023	0.00096J	1	19	--	9.5	--	3.5	31	64	57	<2.1
8/4/2023	0.00062J	0.97	20	--	22	--	1.6	1	4.4	0.45	31
9/1/2023	0.015	1.5	19	--	1.2 J	--	69	57	470	190	<2.1
10/1/2023	0.015J	1	20	--	4.4	--	.62 J	1.7 J	2.9	8.7	<2.1

Notes:

[a] Influent vapor samples were collected from the manifold conveying soil vapors extracted from the south-central and southeastern areas.

[b] Other detected VOCs are included in the laboratory analytical reports in Appendix A.

[c] Influent vapor samples were collected after dilution before entering the SVE combustion chamber.

[d] System was off for entire month.

[e] Influent vapor samples were inadvertently diluted, due to a large crack in Drip Leg 5 conveyance piping.

J = Resulting analyte concentration is between the reporting limit and the method detection limit

<0.5 = not detected at or above the laboratory reporting limit shown

EPA = U.S. Environmental Protection Agency

ASTM = ASTM International

%v = percent by volume

-- = not applicable

MTBE = methyl tertiary butyl ether

ppbv = parts per billion by volume

ppmv = parts per million by volume

RTO = regenerative thermal oxidizer

SCAQMD = South Coast Air Quality Management District

SVE = soil vapor extraction

TGNMOC = total gaseous nonmethane organic carbon

TPH-g = total petroleum hydrocarbons quantified as gasoline (C4-C12)

TVOC = total volatile organic compound

VOC = volatile organic compound

Table 3. Biosparge System Operation Summary

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Incremental Uptime (%)	BS-02 Run Meter (hours)	BS-02 Incremental Hours of Operation (hours)	BS-02 Incremental Uptime (%)	BS-03 Run Meter (hours)	BS-03 Incremental Hours of Operation (hours)	BS-03 Incremental Uptime (%)	BS-02 System Flow[a] (scfm)	BS-02 Sparge Leg Pressure (psi)	BS-03 System Flow (scfm)	BS-03 Sparge Leg Pressure (psi)
Fourth Quarter 2016 Totals	5,302	527	62.7	--	--	--	--	--	--	--	--	--	--
Fourth Quarter 2017 Totals	8,396	1,141	52.2	--	--	--	--	--	--	--	--	--	--
Fourth Quarter 2018 Totals	14,216	649	27.9	--	--	--	--	--	--	--	--	--	--
Fourth Quarter 2019 Totals	20,332	1,489	63.3	--	--	--	--	--	--	--	--	--	--
Fourth Quarter 2020 Totals	25,120	1,914	87.6	--	--	--	--	--	--	--	--	--	--
1/5/2021	25,291	171	100	--	--	--	--	--	--	171	2	--	--
1/12/2021	25,458	167	99	--	--	--	--	--	--	194	2	--	--
1/19/2021	25,627	169	100	--	--	--	--	--	--	180	2	--	--
1/26/2021	25,794	167	99	--	--	--	--	--	--	183	2	--	--
2/2/2021	25,961	167	99	--	--	--	--	--	--	178	2	--	--
2/9/2021	26,129	168	100	--	--	--	--	--	--	181	2	--	--
2/16/2021	26,297	168	100	--	--	--	--	--	--	180	2	--	--
2/23/2021	26,373	76	45	--	--	--	--	--	--	80	2	--	--
3/2/2021	26,494	121	72	--	--	--	--	--	--	192	2	--	--
3/9/2021	26,660	166	99	--	--	--	--	--	--	182	2	--	--
3/16/2021	26,825	165	98	--	--	--	--	--	--	193	3	--	--
3/23/2021	26,995	170	100	--	--	--	--	--	--	170	2	--	--
3/30/2021	27,162	167	99	--	--	--	--	--	--	186	2	--	--
First Quarter 2021 Totals	27,162	2,042	93.5	--	--	--	--	--	--	--	--	--	--

Table 3. Biosparge System Operation Summary

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Incremental Uptime (%)	BS-02 Run Meter (hours)	BS-02 Incremental Hours of Operation (hours)	BS-02 Incremental Uptime (%)	BS-03 Run Meter (hours)	BS-03 Incremental Hours of Operation (hours)	BS-03 Incremental Uptime (%)	BS-02 System Flow[a] (scfm)	BS-02 Sparge Leg Pressure (psi)	BS-03 System Flow (scfm)	BS-03 Sparge Leg Pressure (psi)
4/6/2021	27,331	169	100	--	--	--	--	--	--	189	2	--	--
4/13/2021	27,512	181	100	--	--	--	--	--	--	86	2	--	--
4/20/2021	27,634	122	73	--	--	--	--	--	--	176	2	--	--
4/29/2021	27,852	218	100	--	--	--	--	--	--	170	2	--	--
5/4/2021	27,973	121	100	--	--	--	--	--	--	185	2	--	--
5/11/2021	28,138	165	98	--	--	--	--	--	--	193	5	50	2
5/18/2021	--	--	--	--	--	--	--	--	--	--	--	--	--
5/25/2021	28,450	312	93	--	--	--	--	--	--	164	2	121	2
6/1/2021	28,617	167	99	--	--	--	--	--	--	189	2	125	2
6/8/2021	28,785	168	100	--	--	--	--	--	--	100	2	100	2
6/15/2021	28,954	169	100	--	--	--	--	--	--	180	2	94	2
6/22/2021	29,120	166	99	--	--	--	--	--	--	190	2	203	2
6/29/2021	29,289	169	100	--	--	--	--	--	--	189	2	265	4
Second Quarter 2021 Totals	29,289	2,127	97.4	--	--	--	--	--	--	--	--	--	
7/6/2021	29,453	164	98	--	--	--	--	--	--	90	2	113	2
7/13/2021	29,620	167	99	--	--	--	--	--	--	183	2	249	2
7/21/2021	29,712	92	48	--	--	--	--	--	--	--	--	--	--
7/27/2021	29,853	141	98	--	--	--	--	--	--	185	6	216	6
8/3/2021	30,021	168	100	--	--	--	--	--	--	186	4	219	4
8/12/2021	30,138	117	54	--	--	--	--	--	--	172	6	250	6
8/24/2021	30,218	80	28	--	--	--	--	--	--	--	--	208	5
8/31/2021	30,381	163	97	--	--	--	--	--	--	121	4	238	4
9/7/2021	30,445	64	38	--	--	--	--	--	--	0	0	0	0
9/14/2021	30,613	168	100	--	--	--	--	--	--	197	6	257	21
9/21/2021	30,781	168	100	--	--	--	--	--	--	188	4	199	4
9/30/2021	31,000	219	100	10,910	--	--	9,892	--	--	184	4	194	4
Third Quarter 2021 Totals	31,000	1,711	76.7	--	--	--	--	--	--	--	--	--	

Table 3. Biosparge System Operation Summary

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Incremental Uptime (%)	BS-02 Run Meter (hours)	BS-02 Incremental Hours of Operation (hours)	BS-02 Incremental Uptime (%)	BS-03 Run Meter (hours)	BS-03 Incremental Hours of Operation (hours)	BS-03 Incremental Uptime (%)	BS-02 System Flow[a] (scfm)	BS-02 Sparge Leg Pressure (psi)	BS-03 System Flow (scfm)	BS-03 Sparge Leg Pressure (psi)
10/5/2021	31,117	117	98	11,027	117	98	10,009	117	98	188	4	261	4
10/12/2021	31,285	168	100	11,194	167	100	10,176	167	100	183	4	260	4
10/19/2021	31,451	166	99	11,359	165	98	10,341	165	98	191	4	214	4
10/26/2021	31,614	163	97	11,521	162	97	10,503	162	97	188	4	215	4
11/9/2021	31,708	94	28	11,593	72	21	10,596	93	28	--	--	119	6
11/16/2021	31,877	169	95	11,593	0	0	10,764	167	94	--	--	198	4
11/23/2021	32,048	171	99	11,718	125	72	10,934	171	99	91	4	199	4
11/30/2021	32,209	161	100	11,878	160	100	11,094	160	100	90	4	209	4
12/2/2021	32,257	48	97	--	--	--	--	--	--	160	4	200	4
12/7/2021	32,374	117	100	12,042	164	100	11,258	164	100	165	4	200	4
12/14/2021	32,535	161	91	12,206	163	92	11,422	163	92	165	4	288	4
12/21/2021	32,669	134	78	12,371	166	97	11,588	166	97	161	4	237	4
12/28/2021	32,834	165	100	12,536	165	100	11,752	165	100	167	4	243	4
Fourth Quarter 2021 Totals	32,834	1,834	--	12,536	1,626	76	11,752	1,861	87	--	--	--	--
1/13/2022	32,885	51	13	12,585	48	13	11,800	48	13	0	0	152	4
1/18/2022	33,002	117	100	12,585	0	0	11,917	117	100	0	0	151	4
1/25/2022	33,170	168	99	12,585	0	0	12,084	167	98	0	0	204	4
2/1/2022	33,339	169	100	12,585	0	0	12,251	167	99	0	0	258	4
2/8/2022	33,491	152	96	12,585	0	0	12,403	151	96	0	0	251	4
2/15/2022	33,658	167	99	12,585	0	0	12,568	166	99	0	0	313	4
2/22/2022	33,824	166	99	12,585	0	0	12,734	166	99	0	0	255	4
3/1/2022	33,993	169	100	12,585	0	0	12,903	169	100	0	0	247	4
3/8/2022	34,160	167	99	12,705	120	71	13,068	166	99	54	2	210	4
3/17/2022	34,374	214	99	12,915	210	97	13,282	213	99	151	4	211	4
3/22/2022	34,494	120	100	13,037	122	102	13,401	119	99	162	4	211	4
3/29/2022	34,661	167	99	13,203	166	99	13,567	166	99	163	4	216	4
First Quarter 2022 Totals	34,661	1,827	84.0	13,203	667	31	13567	1,815	83	--	--	--	--

Table 3. Biosparge System Operation Summary

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Incremental Uptime (%)	BS-02 Run Meter (hours)	BS-02 Incremental Hours of Operation (hours)	BS-02 Incremental Uptime (%)	BS-03 Run Meter (hours)	BS-03 Incremental Hours of Operation (hours)	BS-03 Incremental Uptime (%)	BS-02 System Flow[a] (scfm)	BS-02 Sparge Leg Pressure (psi)	BS-03 System Flow (scfm)	BS-03 Sparge Leg Pressure (psi)
4/5/2022	34,789	128	76	13,330	127	75	13,694	127	75	158	4	238	4
4/12/2022	34,956	167	99	13,487	157	93	13,861	167	99	158	4	284	4
4/19/2022	35,047	91	54	13,587	100	59	13,951	90	54	150	4	150	4
4/26/2022	35,213	166	99	13,752	165	98	14,116	165	98	156	4	197	4
5/3/2022	35,381	168	100	13,919	167	99	14,283	167	99	159	4	268	2
5/10/2022	35,533	152	90	14,070	151	90	14,444	161	96	182	4	231	4
5/17/2022	35,699	166	99	14,235	165	98	14,609	165	98	181	4	250	4
5/24/2022	35,867	168	100	14,403	168	100	14,767	158	94	181	4	250	4
5/31/2022	36,036	169	100	14,571	168	100	14,935	168	100	180	4	225	4
6/2/2022	36,086	50	100	14,621	50	100	14,984	50	100	179	2	219	2
6/9/2022	36,251	165	98	14,785	165	98	15,149	165	98	181	4	175	4
6/14/2022	36,373	122	100	14,906	121	100	15,270	121	100	181	4	226	4
6/15/2022	36,397	24	100	14,930	24	99	15,293	23	96	181	3	225	3
6/21/2022	36,539	142	99	15,072	142	98	15,436	142	99	177	4	170	2
6/28/2022	36,684	145	86	15,216	144	86	15,580	144	86	180	4	162	2
Second Quarter 2022 Totals	36,684	2,023	92.6	15,216	2,013	92.2	15,580	2,013	92.2	--	--	--	--
7/7/2022	36,899	215	99.5	15,430	214	98.9	15794	213	98.8	182	4	166	2
7/12/2022	37,020	121	100	15,551	121	100	15,915	121	100	182	4	202	4
7/21/2022	37,235	215	99.5	15,765	214	99.0	16,129	214	99.0	179	4	200	4
7/28/2022	37,402	167	99.4	15,931	167	99.2	16,295	167	99.2	185	4	249	4
8/2/2022	37,523	121	100	16,052	121	100	16,416	121	100.0	179	4	248	4
8/11/2022	37,740	217	100	16,268	216	99.8	16,631	216	99.8	180	4	247	4
8/18/2022	37,907	167	99	16,434	167	99.3	16,798	167	99.3	178	4	193	4
8/25/2022	38,074	167	99	16,600	166	98.7	16,964	166	98.6	181	4	200	4
9/1/2022	38,243	169	100	16,769	169	100	17,133	169	100	174	4	212	4
9/8/2022	38,408	165	98	16,934	165	98	17,297	165	98	181	4	212	4
9/15/2022	38,562	154	92	17,086	153	91	17,450	153	91	180	4	220	4
9/20/2022	38,675	113	94	17,203	117	97	17,567	117	97	184	4	224	4
9/29/2022	38,896	221	100	17,419	217	100	17,783	217	100	180	4	232	4
Third Quarter 2022 Totals	38,896	2,212	99.1	17,419	2,203	98.7	17,783	2,203	98.7	--	--	--	--

Table 3. Biosparge System Operation Summary

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Incremental Uptime (%)	BS-02 Run Meter (hours)	BS-02 Incremental Hours of Operation (hours)	BS-02 Incremental Uptime (%)	BS-03 Run Meter (hours)	BS-03 Incremental Hours of Operation (hours)	BS-03 Incremental Uptime (%)	BS-02 System Flow[a] (scfm)	BS-02 Sparge Leg Pressure (psi)	BS-03 System Flow (scfm)	BS-03 Sparge Leg Pressure (psi)
10/6/2022	39,064	221	100	17,585	166	98.7	17950	167	99	183	4	205	4
10/13/2022	39,234	170	100	17,585	0	0.0	18120	170	101	0	0	241	11
10/17/2022	39,330	96	100	17,585	0	0.0	18215	95	99	0	0	239	4
10/28/2022	39,591	261	99	17,585	0	0.0	18474	259	98	0	0	244	4
11/3/2022	39,735	144	100	17,585	0	0.0	18619	144	100	0	0	255	4
11/10/2022	39,905	170	100	17,585	0	0.0	18787	168	100	0	0	279	4
11/22/2022	40,196	291	100	17,585	0	0.0	19077	290	101	0	0	272	10
12/1/2022	40,391	195	90	17,585	0	0.0	19270	194	90	0	0	148	10
12/8/2022	40,554	163	97	17,585	0	0.0	19433	162	97	0	0	305	10
12/15/2022	40,697	143	85	17,585	0	0.0	19574	142	84	0	0	352	18
12/22/2022	40,841	144	86	17,585	0	0.0	19718	144	86	0	0	200	8
12/28/2022	40,988	147	100	17,585	0	0.0	19865	146	102	0	0	282	9
Fourth Quarter 2022 Totals	40,988	2,145	99	17,585	166	7.7	19865	2,082	96.4	--	--	--	--
1/5/2023	41,174	186	97	17,585	0	0.0	20050	185	96	0	0	284	4
1/12/2023	41,346	172	100	17,585	0	0.0	20221	171	102	0	0	312	8
1/19/2023	41,512	166	99	17,585	0	0.0	20386	165	98	0	0	313	10
1/26/2023	41,663	151	90	17,585	0	0.0	20536	150	89	0	0	315	10
1/31/2023	41,784	121	100	17,585	0	0.0	20656	121	101	0	0	347	10
2/7/2023	41,951	167	99	17,585	0	0.0	20822	166	99	0	0	371	10
2/14/2023	42,088	137	82	17,585	0	0.0	20958	136	81	0	0	380	10
2/21/2023	42,257	169	100	17,585	0	0.0	21125	168	100	0	0	320	10
3/2/2023	42,334	77	36	17,585	0	0.0	21201	76	35	0	0	326	10
3/14/2023	42,336	2	1	17,585	0	0.0	21203	2	1	0	0	252	10
3/28/2023	42,342	6	2	17,585	0	0.0	21208	5	2	0	0	154	5
First Quarter 2023 Totals	42,342	1,354	63	17,585	0	0.0	21208	1,344	62.2	--	--	--	--
4/4/2023	42,461	119	71	17,585	0	0.0	21326	118	70	0	0	182	5
4/11/2023	42,628	167	99	17,585	0	0.0	21492	166	99	0	0	280	8
4/18/2023	42,795	167	99	17,585	0	0.0	21659	166	99	0	0	360	10
4/25/2023	42,963	168	100	17,585	0	0.0	21827	168	100	0	0	414	10
4/30/2023	BS-03 shutdown due to header break at dripleg #1. Repaired on 5/23, remained off until June.												

Table 3. Biosparge System Operation Summary

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Incremental Uptime (%)	BS-02 Run Meter (hours)	BS-02 Incremental Hours of Operation (hours)	BS-02 Incremental Uptime (%)	BS-03 Run Meter (hours)	BS-03 Incremental Hours of Operation (hours)	BS-03 Incremental Uptime (%)	BS-02 System Flow[a] (scfm)	BS-02 Sparge Leg Pressure (psi)	BS-03 System Flow (scfm)	BS-03 Sparge Leg Pressure (psi)
6/2/2023	43,104	141	15	17,585	0	0.0	21967	140	15	0	0	350	12
6/5/2023	43,181	77	100	17,585	0	0.0	22043	77	106	0	0	400	12
6/15/2023	43,378	197	82	17,585	0	0.0	22279	236	98	0	0	216	12
6/20/2023	43,493	115	96	17,585	0	0.0	22394	115	95	0	0	348	10
6/27/2023	43,661	168	100	17,585	0	0.0	22561	167	100	0	0	448	10
Second Quarter 2023 Totals	43,661	1,319	65.4	17,585	0	0	22561	1,353	54.3	--	--	--	--
7/6/2023	43,877	216	100	17,585	0	0.0	22776	215	100	0	0	461	10
7/11/2023	43,996	119	99	17,585	0	0.0	22895	119	99.4	0	0	470	12
7/18/2023	44,113	117	70	17,585	0	0.0	23011	116	68.9	0	0	265	10
7/25/2023	44,280	167	99	17,585	0	0.0	23178	167	99.4	0	0	436	10
8/1/2023	44,448	168	100	17,585	0	0.0	23345	167	99.2	--	--	457	19
8/10/2023	44,664	216	100	17,585	0	0.0	23560	215	99.7	0	0	451	20
8/15/2023	44,784	120	100	17,585	0	0.0	23680	120	99.6	0	0	496	10
8/22/2023	44,951	167	99.4	17,585	0	0.0	23846	167	99.2	--	--	502	10
8/29/2023	45,120	169	100	17,585	0	0.0	24014	168	100	0	0	477	10
9/7/2023	45,336	1,056	100	17,585	0	0.0	24230	1,052	100	0	0	479	20
9/14/2023	45,504	168	100	17,585	0	0.0	24397	167	100	0	0	517	20
9/19/2023	45,623	119	99	17,585	0	0.0	24516	119	99	0	0	489	20
9/28/2023	45,841	218	100	17,585	0	0.0	24732	216	100	0	0	501	21
Third Quarter 2023 Totals	45,841	4,896	100.0	17,585	0	0	24732	4,955	682.5	--	--	--	--
10/6/2023	46,030	189	98	17,585	0	0.0	24921	189	98	0	0	512	20
10/10/2023	46,125	95	99	17,585	0	0.0	25016	94.4	98	0	0	506	21
10/17/2023	46,294	169	100	17,585	0	0.0	25183	167.7	100	0	0	507	21
10/24/2023	46,462	168	100	17,585	0	0.0	25351	167.6	100	0	0	503	31
Fourth Quarter 2023 Totals	46,462	621	99.5	17,585	0	0	25351	619	99.2	--	--	--	--

Notes:

[a] Estimated system flow based on header flowmeter.

-- = not applicable or not available

psi = pounds per square inch

scfm = standard cubic feet per minute

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-9	4/30/2007	74.44	26.71	---	---	47.73	Secor
	11/12/2007	74.44	27.32	27.04	0.28	47.34	Secor
	8/8/2008	74.44	28.01	27.96	0.05	46.47	Envent
	10/16/2008	74.44	28.36	28.35	0.01	46.09	Envent
	12/17/2008	74.44	27.61	---	---	46.83	Envent
	1/15/2009	74.44	28.91	---	---	45.53	Envent
	3/27/2009	74.44	29.04	---	---	45.40	Envent
	4/21/2009	74.44	28.16	---	---	46.28	Envent
	7/21/2009	74.44	28.31	---	---	46.13	Envent
	10/19/2009	74.44	NM	---	---	NC	Blaine Tech
	5/24/2010	74.44	30.47	---	---	43.97	Blaine Tech
	5/28/2010	74.44	30.35	---	---	44.09	Blaine Tech
	10/4/2010	74.44	30.30	---	---	44.14	Blaine Tech
	1/10/2011	74.44	32.02	---	---	42.42	Blaine Tech
	4/11/2011	74.44	25.41	---	---	49.03	Blaine Tech
	7/11/2011	74.44	NM	---	---	NC	
	10/10/2011	74.44	28.91	---	---	45.53	Blaine Tech
	4/16/2012	74.44	31.15	---	---	43.29	Blaine Tech
	7/9/2012	---	31.64	---	---	NC	Blaine Tech
	10/15/2012	77.16	31.82	---	---	45.34	Blaine Tech
	1/14/2013	77.16	31.88	---	---	45.28	Blaine Tech
	4/8/2013	77.16	31.83	---	---	45.33	Blaine Tech
	10/7/2013	77.16	35.30	31.25	4.05	45.02	Blaine Tech
	4/14/2014	77.16	37.66	31.65	6.01	44.19	Blaine Tech
	5/5/2014	77.16	37.81	31.76	6.05	44.07	Nieto & Sons
	5/12/2014	77.16	37.39	31.83	5.56	44.11	Nieto & Sons
	5/20/2014	77.16	37.70	33.85	3.85	42.46	Nieto & Sons
	5/27/2014	77.16	32.41	28.84	3.57	47.53	Nieto & Sons
	6/4/2014	77.16	33.20	---	---	43.96	Nieto & Sons
	6/10/2014	77.16	37.51	32.77	4.74	43.35	Nieto & Sons
	7/3/2014	77.16	39.26	32.59	6.67	43.10	Nieto & Sons
	7/8/2014	77.16	38.59	32.45	6.14	43.36	Blaine Tech
	7/18/2014	77.16	37.15	32.73	4.42	43.46	Blaine Tech
	7/24/2014	77.16	37.78	32.48	5.30	43.51	Blaine Tech
	8/1/2014	77.16	36.72	32.30	4.42	43.89	Blaine Tech
	8/8/2014	77.16	36.55	32.26	4.29	43.96	Blaine Tech
	8/13/2014	77.16	36.25	32.33	3.92	43.97	Blaine Tech
	8/19/2014	77.16	36.04	32.38	3.66	43.97	Blaine Tech
	8/29/2014	77.16	36.23	32.33	3.90	43.97	Blaine Tech
	9/5/2014	77.16	36.26	32.35	3.91	43.95	Blaine Tech
	9/11/2014	77.16	36.27	32.33	3.94	43.96	Blaine Tech
	9/18/2014	77.16	36.42	32.37	4.05	43.90	Blaine Tech
	9/26/2014	77.16	36.39	32.35	4.04	43.92	Blaine Tech
	10/1/2014	77.16	36.11	32.42	3.69	43.93	Blaine Tech
	10/6/2014	77.16	35.99	32.42	3.57	43.95	Blaine Tech
	10/14/2014	77.16	36.24	32.34	3.90	43.96	Blaine Tech
	10/23/2014	77.16	36.32	32.35	3.97	43.94	Blaine Tech
	10/27/2014	77.16	36.04	32.42	3.62	43.94	Blaine Tech
	11/3/2014	77.16	36.40	32.35	4.05	43.92	Blaine Tech
	11/10/2014	77.16	36.32	32.41	3.91	43.89	Blaine Tech
	11/18/2014	77.16	36.28	32.43	3.85	43.88	Blaine Tech
	11/25/2014	77.16	36.21	32.49	3.72	43.85	Blaine Tech
	12/3/2014	77.16	36.18	32.43	3.75	43.90	Blaine Tech
	12/12/2014	77.16	36.58	32.74	3.84	43.58	Blaine Tech
	12/19/2014	77.16	37.05	32.76	4.29	43.46	Blaine Tech
	3/6/2015	77.16	39.40	33.13	6.27	42.65	Kinder Morgan
	4/20/2015	77.16	36.98	32.99	3.99	43.29	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-9	10/20/2015	77.16	34.61	34.37	0.24	42.74	Kinder Morgan
Continued	3/14/2016	77.16	36.10	---	---	41.06	Blaine Tech
	4/11/2016	77.16	36.20	---	---	40.96	Blaine Tech
	6/30/2016	77.16	31.02	---	---	46.14	Kinder Morgan
	8/22/2016	77.16	37.27	---	---	39.89	Kinder Morgan
	10/3/2016	77.16	38.02	---	---	39.14	Blaine Tech
	3/7/2017	77.16	35.13	---	---	42.03	CH2M
	4/17/2017	77.16	33.32	---	---	43.84	Blaine Tech
	10/2/2017	77.16	38.43	---	---	38.73	Blaine Tech
	4/16/2018	77.16	37.98	---	---	39.18	Blaine Tech
	11/5/2018	77.16	33.95	---	---	43.21	Blaine Tech
	4/23/2019	77.16	29.72	---	---	47.44	Blaine Tech
	10/28/2019	77.16	37.90	---	---	39.26	Blaine Tech
	5/4/2020	77.16	35.37	---	---	41.79	Blaine Tech
	11/2/2020	77.16	35.90	---	---	41.26	Blaine Tech
	5/3/2021	77.16	36.50	---	---	40.66	Blaine Tech
	11/1/2021	77.16	37.62	---	---	39.54	Blaine Tech
	5/9/2022	77.16	36.82	---	---	40.34	Blaine Tech
	10/31/22	77.16	36.96	---	---	40.20	
	05/01/23	77.16	37.16	---	---	40.00	
GMW-10	4/30/2007	74.67	25.90	---	---	48.77	Secor
	11/12/2007	74.67	25.02	25.82	0.83	50.33	Secor
	4/14/2008	74.67	25.38	25.44	0.06	49.34	Secor
	10/13/2008	74.67	24.16	---	---	50.51	Stantec
	4/20/2009	74.67	24.46	---	---	50.21	Blaine Tech
	10/19/2009	74.67	27.20	---	---	47.47	Blaine Tech
	5/24/2010	74.67	26.72	---	---	47.95	Blaine Tech
	5/28/2010	74.67	26.70	---	---	47.97	Blaine Tech
	10/4/2010	74.67	27.15	---	---	47.52	Blaine Tech
	4/11/2011	74.67	25.21	---	---	49.46	Blaine Tech
	10/10/2011	74.67	27.75	---	---	46.92	Blaine Tech
	4/27/2012	74.67	28.47	---	---	46.20	Blaine Tech
	7/9/2012	74.67	NM	---	---	NC	Blaine Tech
	10/15/2012	74.67	29.15	29.02	0.13	45.63	Blaine Tech
	4/8/2013	74.67	33.64	28.12	5.52	45.53	Blaine Tech
	9/26/2013	73.35	36.15	29.25	6.90	42.82	Blaine Tech
	10/7/2013	73.35	31.85	29.32	2.53	43.56	Blaine Tech
	4/14/2014	73.35	29.43	29.01	0.42	44.26	Blaine Tech
	8/19/2014	73.35	29.80	29.53	0.27	43.77	Blaine Tech
	8/29/2014	73.35	29.68	29.25	0.43	44.02	Blaine Tech
	9/26/2014	73.35	29.98	29.23	0.75	43.98	Blaine Tech
	10/1/2014	73.35	29.98	29.19	0.79	44.01	Blaine Tech
	10/6/2014	73.35	30.01	29.16	0.85	44.03	Blaine Tech
	10/14/2014	73.35	30.01	29.18	0.83	44.02	Blaine Tech
	10/23/2014	73.35	30.17	29.15	1.02	44.01	Blaine Tech
	10/27/2014	73.35	30.19	29.12	1.07	44.03	Blaine Tech
	11/3/2014	73.35	30.25	29.13	1.12	44.01	Blaine Tech
	11/10/2014	73.35	29.85	29.28	0.57	43.96	Blaine Tech
	11/18/2014	73.35	29.95	29.28	0.67	43.95	Blaine Tech
	11/25/2014	73.35	30.00	29.27	0.73	43.94	Blaine Tech
	12/3/2014	73.35	30.18	29.27	0.91	43.91	Blaine Tech
	12/12/2014	73.35	30.81	29.45	1.36	43.65	Blaine Tech
	12/19/2014	73.35	30.51	30.35	0.16	42.97	Blaine Tech
	4/20/2015	73.35	34.99	28.42	6.57	43.71	Blaine Tech
	7/17/2015	73.35	36.10	29.41	6.69	42.70	Blaine Tech
	10/20/2015	73.35	32.96	31.02	1.94	41.97	Kinder Morgan
	3/16/2016	73.35	34.47	33.42	1.05	39.74	Kinder Morgan
	4/11/2016	73.35	33.70	32.10	1.60	40.95	Blaine Tech
	6/29/2016	73.35	33.02	---	---	40.33	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-10	8/22/2016	73.35	33.82	32.93	0.89	40.26	Blaine Tech
Continued	10/3/2016	73.35	35.10	33.65	1.45	39.43	Blaine Tech
	3/8/2017	73.35	32.75	---	---	40.60	CH2M
	04/17/17	73.35	31.15	---	---	42.20	Blaine Tech
	10/2/2017	73.35	33.48	---	---	39.87	Blaine Tech
	4/16/2018	73.35	33.87	33.74	0.13	39.58	Blaine Tech
	11/5/2018	73.35	34.16	34.14	0.02	39.21	Blaine Tech
	4/16/2019	73.35	30.55	---	---	42.80	Blaine Tech
	10/28/2019	73.35	34.12	33.84	0.28	39.45	Blaine Tech
	5/4/2020	73.35	31.44	---	---	41.91	Blaine Tech
	11/2/2020	73.35	32.00	--	--	41.35	Blaine Tech
	2/24/2021	73.35	32.75	--	--	40.60	Blaine Tech
	5/3/2021	73.35	32.54	--	--	40.81	Blaine Tech
	8/31/2021	73.35	32.75	--	--	40.60	Blaine Tech
	11/1/2021	73.35	33.35	--	--	40.00	Blaine Tech
	3/10/2022	73.35	33.27	--	--	40.08	Blaine Tech
	5/9/2022	73.35	33.07	--	--	40.28	Blaine Tech
	8/24/2022	73.35	33.50	--	--	39.85	Blaine Tech
	10/31/22	73.35	33.80	---	---	39.55	
	05/01/23	73.35	32.12	---	---	41.23	BTS
	11/6/2023	73.35	33.65			39.7	BTS
GMW-22	4/30/2007	74.17	25.79	---	---	48.38	Secor
	11/12/2007	74.17	26.45	25.91	0.54	48.16	Stantec
	8/12/2008	74.17	26.70	---	---	47.47	Envent
	10/31/2008	74.17	28.25	27.04	1.21	46.91	Envent
	11/4/2008	74.17	26.97	---	---	47.20	Envent
	12/17/2008	74.17	26.65	---	---	47.52	Envent
	1/15/2009	74.17	27.18	---	---	46.99	Envent
	3/27/2009	74.17	27.86	---	---	46.31	Envent
	4/21/2009	74.17	27.30	27.20	0.10	46.95	Envent
	7/21/2009	74.17	27.70	---	---	46.47	Envent
	10/19/2009	74.17	NM	---	---	NC	Blaine Tech
	11/6/2009	74.17	28.12	---	---	46.05	Kinder Morgan
	9/3/2010	74.17	28.36	25.10	3.26	48.47	Kinder Morgan
	10/4/2010	74.17	27.65	---	---	46.52	Blaine Tech
	4/11/2011	74.17	26.45	---	---	47.72	Blaine Tech
	10/10/2011	74.17	29.68	---	---	44.49	Blaine Tech
	4/16/2012	74.17	31.15	---	---	43.02	Blaine Tech
	7/9/2012	---	NM	---	---	NC	Blaine Tech
	10/15/2012	77.24	31.05	---	---	46.19	Blaine Tech
	4/8/2013	77.24	31.92	---	---	45.32	Blaine Tech
	10/7/2013	77.24	34.28	31.65	2.63	45.10	Blaine Tech
	4/14/2014	77.24	35.59	32.30	3.29	44.33	Blaine Tech
	5/6/2014	77.24	35.87	32.35	3.52	44.24	Nieto & Sons
	5/12/2014	77.24	35.76	32.28	3.48	44.32	Nieto & Sons
	5/20/2014	77.24	37.90	32.70	5.20	43.58	Nieto & Sons
	5/27/2014	77.24	36.34	32.71	3.63	43.86	Nieto & Sons
	6/4/2014	77.24	33.36	---	---	43.88	Nieto & Sons
	6/10/2014	77.24	36.74	32.82	3.92	43.69	Nieto & Sons
	7/3/2014	77.24	37.66	32.91	4.75	43.45	Nieto & Sons
	7/8/2014	77.24	36.70	32.79	3.91	43.73	Blaine Tech
	7/18/2014	77.24	36.68	32.77	3.91	43.75	Blaine Tech
	7/24/2014	77.24	36.79	32.62	4.17	43.85	Blaine Tech
	8/1/2014	77.24	35.82	32.44	3.38	44.17	Blaine Tech
	8/8/2014	77.24	35.72	32.44	3.28	44.19	Blaine Tech
	8/13/2014	77.24	35.68	32.45	3.23	44.19	Blaine Tech
	8/19/2014	77.24	35.64	32.45	3.19	44.20	Blaine Tech
	8/29/2014	77.24	35.65	32.44	3.21	44.21	Blaine Tech
	9/5/2014	77.24	35.73	32.46	3.27	44.18	Blaine Tech
	9/11/2014	77.24	35.78	32.47	3.31	44.16	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-22	9/18/2014	77.24	35.85	32.49	3.36	44.13	Blaine Tech
Continued	9/26/2014	77.24	35.85	32.46	3.39	44.15	Blaine Tech
	10/1/2014	77.24	35.76	32.45	3.31	44.18	Blaine Tech
	10/6/2014	77.24	35.72	32.44	3.28	44.19	Blaine Tech
	10/14/2014	77.24	35.75	32.42	3.33	44.20	Blaine Tech
	10/23/2014	77.24	35.84	32.43	3.41	44.18	Blaine Tech
	10/27/2014	77.24	35.74	32.41	3.33	44.21	Blaine Tech
	11/3/2014	77.24	35.89	32.45	3.44	44.15	Blaine Tech
	11/10/2014	77.24	35.94	32.45	3.49	44.14	Blaine Tech
	11/18/2014	77.24	35.97	32.48	3.49	44.11	Blaine Tech
	11/25/2014	77.24	35.97	32.51	3.46	44.09	Blaine Tech
	12/3/2014	77.24	35.84	32.45	3.39	44.16	Blaine Tech
	12/12/2014	77.24	36.44	32.65	3.79	43.89	Blaine Tech
	12/19/2014	77.24	36.80	34.71	2.09	42.14	Blaine Tech
	4/20/2015	77.24	36.64	32.84	3.80	43.70	Blaine Tech
	7/24/2015	77.24	39.80	33.70	6.10	42.41	Northstar
	10/20/2015	77.24	36.10	34.92	1.18	42.10	Kinder Morgan
	3/16/2016	77.24	39.73	37.61	2.12	39.24	Kinder Morgan
	4/11/2016	77.24	38.59	35.50	3.09	41.17	Blaine Tech
	6/30/2016	77.24	36.55	---	---	40.69	Blaine Tech
	10/3/2016	77.24	37.70	---	---	39.54	Blaine Tech
	4/17/2017	77.24	34.47	---	---	42.77	Blaine Tech
	10/2/2017	77.24	38.45	---	---	38.79	Blaine Tech
	4/16/2018	77.24	38.23	---	---	39.01	Blaine Tech
	11/5/2018	77.24	38.02	---	---	39.22	Blaine Tech
	4/16/2019	77.24	36.19	---	---	41.05	Blaine Tech
	10/28/2019	77.24	38.65	---	---	38.59	Blaine Tech
	5/4/2020	77.24	35.64	---	---	41.60	Blaine Tech
	11/2/2020	77.24	36.08	---	---	41.16	Blaine Tech
	5/3/2021	77.24	36.66	---	---	40.58	Blaine Tech
	11/1/2021	77.24	37.70	---	---	39.54	Blaine Tech
	5/9/2022	77.24	36.78	---	---	40.46	Blaine Tech
	10/31/22	77.24	37.23	---	---	40.01	
	05/01/23	77.24	37.00	---	---	40.24	BTS
	11/6/2023	77.24	37.42	---	---	39.82	BTS
GMW-23	8/6/1991	74.85	---	---	---	---	Secor
	9/18/1991	74.85	---	30.15	4.54	40.16	Stantec
	12/9/1991	74.85	---	30.18	5.81	38.86	Envent
	6/21/1993	74.85	---	28.39	3.53	42.93	Envent
	1/6/1994	74.85	---	28.43	3.46	42.96	Envent
	8/28/1995	74.85	---	28.43	3.46	42.96	Envent
	5/28/1996	74.85	---	27.12	0.95	47.54	Envent
	11/20/1996	74.85	---	26.66	1.76	47.84	Envent
	7/1/1997	74.85	---	28.99	1.35	45.59	Envent
	12/31/1997	74.85	---	28.04	0.88	46.63	Envent
	5/1/1998	74.85	---	25.43	0.01	49.42	Blaine Tech
	5/4/1999	74.85	---	26.65	0.44	48.11	Kinder Morgan
	8/9/1999	74.85	---	26.39	2.13	48.03	Kinder Morgan
	11/15/1999	74.85	---	26.79	2.81	47.5	Blaine Tech
	5/15/2000	74.85	---	26.9	2.97	47.36	Blaine Tech
	11/13/2000	74.85	---	27	4.18	47.01	Blaine Tech
	5/7/2001	74.85	---	28.62	0.01	46.23	Blaine Tech
	8/7/2001	74.85	---	25.54	0.53	49.2	Blaine Tech
	11/5/2001	74.85	---	25.85	0.47	48.91	Blaine Tech
	4/8/2002	74.85	---	26.4	0.41	48.37	Blaine Tech
	10/21/2002	74.85	---	28.07	0.87	46.61	Blaine Tech
	4/7/2003	74.85	---	26.67	0.03	48.17	Blaine Tech
	10/6/2003	74.85	---	27.29	0.03	47.55	Nieto & Sons
	1/11/2004	74.85	---	---	---	---	Nieto & Sons
	4/19/2004	74.85	---	26.94	0.01	47.91	Nieto & Sons

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-23	5/2/2005	74.85	---	---	---	51.51	Nieto & Sons
Continued	10/31/2005	74.85	---	26.08	0.05	48.76	Nieto & Sons
	5/1/2006	74.85	---	---	---	50.86	Nieto & Sons
	12/4/2006	74.85	---	---	---	50.03	Nieto & Sons
	4/30/2007	74.85	---	---	---	49.87	Blaine Tech
	11/12/2007	74.85	---	---	---	49.44	Blaine Tech
	4/14/2008	74.85	---	---	---	49.23	Blaine Tech
	10/13/2008	74.85	---	---	---	48.64	Blaine Tech
	4/20/2009	74.85	---	---	---	48.56	Blaine Tech
	10/19/2009	74.85	---	---	---	47.34	Blaine Tech
	5/24/2010	74.85	---	---	---	47.53	Blaine Tech
	5/28/2010	74.85	---	---	---	47.58	Blaine Tech
	10/4/2010	74.85	---	---	---	47.54	Blaine Tech
	4/11/2011	74.85	---	---	---	48.45	Blaine Tech
	10/10/2011	74.85	---	---	---	48.28	Blaine Tech
	4/16/2012	74.85	---	---	---	46.12	Blaine Tech
	7/9/2012	74.85	---	---	---	---	Blaine Tech
	10/15/2012	74.85	---	---	---	46.4	Blaine Tech
	4/8/2013	74.85	---	---	---	45.54	Blaine Tech
	10/7/2013	74.85	---	---	---	44.58	Blaine Tech
	4/14/2014	74.85	---	---	---	44.62	Blaine Tech
	10/27/2014	74.85	---	---	---	43.77	Blaine Tech
	4/20/2015	74.85	---	---	---	42.91	Blaine Tech
	10/19/2015	74.85	---	31.84	0.96	42.82	Blaine Tech
	3/14/2016	74.85	---	---	---	38.5	Blaine Tech
	4/11/2016	74.85	---	34.1	0.02	40.75	Blaine Tech
	6/29/2016	74.85	---	---	---	39.6	Blaine Tech
	8/22/2016	74.85	---	---	---	39.27	Blaine Tech
	10/3/2016	74.85	---	---	---	38.7	Blaine Tech
	4/17/2017	74.85	---	31.91	1.49	42.64	Northstar
	10/2/2017	74.85	---	---	---	39.43	Kinder Morgan
	11/5/2018	74.85	---	36.18	0.02	38.666	Kinder Morgan
	4/16/2019	74.85	---	---	---	40.51	Blaine Tech
	11/1/2019	74.85	---	---	---	39.37	Blaine Tech
	5/4/2020	74.85	---	33.1	1.46	41.458	Blaine Tech
	11/2/2020	74.85	---	---	---	41.03	Blaine Tech
	5/3/2021	74.85	---	33.3	5.35	40.48	Blaine Tech
	8/31/2021	74.85	---	33.27	5.62	40.46	Blaine Tech
	11/1/2021	74.85	---	34.74	3.83	39.34	Blaine Tech
	3/10/2022	74.85	39.89	33.92	5.97	39.74	Blaine Tech
	5/9/2022	74.85	39.84	33.58	6.26	40.02	Blaine Tech
	8/24/2022	74.85	40.75	33.42	7.3	39.97	Blaine Tech
	10/31/2022	74.85	40.77	33.54	7.23	39.86	Blaine Tech
	3/2/2023	74.85	38.52	36.22	2.3		
	5/1/2023	74.85	36.86	34.87	1.99	39.58	
	7/12/2023	74.85	32.43	32.36	0.07		
	11/6/2023	74.85	37.7	35.19	1.96	39.16	
GMW-24	4/30/2007	74.04	27.07	---	---	46.97	Secor
	11/12/2007	74.04	27.50	27.46	0.04	46.57	Stantec
	8/12/2008	74.04	NM	---	---	NC	Envent
	8/19/2008	74.04	29.34	28.24	1.10	45.58	Envent
	10/17/2008	74.04	30.88	29.90	0.98	43.94	Envent
	10/21/2008	74.04	29.64	28.30	1.34	45.47	Envent
	12/18/2008	74.04	29.04	---	---	45.00	Envent
	1/15/2009	74.04	30.56	29.80	0.76	44.09	Envent
	3/20/2009	74.04	31.28	---	---	42.76	Envent
	3/27/2009	74.04	30.45	---	---	43.59	Envent
	4/21/2009	74.04	29.91	---	---	44.13	Envent
	7/21/2009	74.04	32.78	---	---	41.26	Envent
	10/19/2009	74.04	NM	---	---	NC	Blaine Tech
	2/4/2010	74.04	29.67	29.40	0.27	44.59	Kinder Morgan
	6/22/2010	74.04	29.47	---	---	44.57	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-24	9/3/2010	74.04	29.90	---	---	44.14	Kinder Morgan
Continued	10/4/2010	74.04	29.50	---	---	44.54	Blaine Tech
	4/11/2011	74.04	28.21	---	---	45.83	Blaine Tech
	10/10/2011	74.04	28.78	---	---	45.26	Blaine Tech
	4/16/2012	74.04	30.49	30.31	0.18	43.69	Blaine Tech
	7/9/2012	---	NM	---	---	NC	Blaine Tech
	10/15/2012	77.48	31.34	---	---	46.14	Blaine Tech
	4/8/2013	77.48	NM	---	---	NC	Blaine Tech
	6/14/2013	77.48	33.35	32.40	0.95	44.89	Blaine Tech
	10/7/2013	77.48	35.42	31.61	3.81	45.11	Blaine Tech
	4/14/2014	77.48	37.74	32.01	5.73	44.32	Blaine Tech
	5/5/2014	77.48	37.81	32.09	5.72	44.25	Nieto & Sons
	5/12/2014	77.48	37.52	32.14	5.38	44.26	Nieto & Sons
	5/20/2014	77.48	37.39	32.21	5.18	44.23	Nieto & Sons
	5/27/2014	77.48	37.95	32.90	5.05	43.57	Nieto & Sons
	6/4/2014	77.48	37.00	32.70	4.30	43.92	Nieto & Sons
	6/10/2014	77.48	37.85	32.98	4.87	43.53	Nieto & Sons
	7/3/2014	77.48	39.60	33.04	6.56	43.13	Nieto & Sons
	7/8/2014	77.48	38.67	32.89	5.78	43.43	Blaine Tech
	7/18/2014	77.48	38.64	32.86	5.78	43.46	Blaine Tech
	7/24/2014	77.48	38.27	32.82	5.45	43.57	Blaine Tech
	8/1/2014	77.48	37.00	32.55	4.45	44.04	Blaine Tech
	8/8/2014	77.48	36.97	32.51	4.46	44.08	Blaine Tech
	8/13/2014	77.48	36.82	32.54	4.28	44.08	Blaine Tech
	8/19/2014	77.48	36.92	32.55	4.37	44.06	Blaine Tech
	8/29/2014	77.48	36.92	32.51	4.41	44.09	Blaine Tech
	9/5/2014	77.48	36.97	32.55	4.42	44.05	Blaine Tech
	9/11/2014	77.48	37.99	32.57	5.42	43.83	Blaine Tech
	9/18/2014	77.48	36.89	32.60	4.29	44.02	Blaine Tech
	9/26/2014	77.48	36.86	32.58	4.28	44.04	Blaine Tech
	10/1/2014	77.48	36.64	32.61	4.03	44.06	Blaine Tech
	10/6/2014	77.48	36.93	32.92	4.01	43.76	Blaine Tech
	10/14/2014	77.48	36.92	32.88	4.04	43.79	Blaine Tech
	10/23/2014	77.48	37.00	32.90	4.10	43.76	Blaine Tech
	10/27/2014	77.48	36.82	32.91	3.91	43.79	Blaine Tech
	11/3/2014	77.48	37.01	32.99	4.02	43.69	Blaine Tech
	11/10/2014	77.48	37.33	33.95	3.38	42.85	Blaine Tech
	11/18/2014	77.48	36.96	33.01	3.95	43.68	Blaine Tech
	11/25/2014	77.48	36.91	33.55	3.36	43.26	Blaine Tech
	12/3/2014	77.48	36.87	32.99	3.88	43.71	Blaine Tech
	12/12/2014	77.48	37.36	33.25	4.11	43.41	Blaine Tech
	12/19/2014	77.48	37.75	33.31	4.44	43.28	Blaine Tech
	3/10/2015	77.48	36.25	---	---	41.23	Kinder Morgan
	4/20/2015	77.48	36.29	33.82	2.47	43.17	Blaine Tech
	7/24/2015	77.48	39.80	33.70	6.10	42.56	Blaine Tech
	10/20/2015	77.48	35.44	---	---	42.04	Kinder Morgan
	3/16/2016	77.48	38.83	---	---	38.65	Kinder Morgan
	4/11/2016	77.48	37.10	---	---	40.38	Blaine Tech
	6/29/2016	77.48	38.20	---	---	39.28	Blaine Tech
	8/22/2016	77.48	38.40	---	---	39.08	Blaine Tech
	10/3/2016	77.48	38.70	---	---	39.44	Blaine Tech
	4/17/2017	77.48	35.64	35.09	0.55	42.28	Blaine Tech
	10/2/2017	77.48	39.33	---	---	38.15	Blaine Tech
	4/16/2018	77.48	38.98	---	---	38.50	Blaine Tech
	11/5/2018	77.48	38.63	38.19	0.44	39.20	Blaine Tech
	4/16/2019	77.48	38.43	---	---	39.05	Blaine Tech
	10/28/2019	77.48	38.65	---	---	38.83	Blaine Tech
	5/4/2020	77.48	36.24	---	---	41.24	Blaine Tech
	11/2/2020	77.48	36.58	---	---	40.90	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-24	5/3/2021	77.48	37.18	---	---	40.30	Blaine Tech
Continued	11/1/2021	77.48	38.48	---	---	39.00	Blaine Tech
	5/9/2022	77.48	37.50	---	---	39.98	Blaine Tech
	10/31/22	77.48	37.52	---	---	39.96	
	05/01/23	77.48	38.03	---	---	39.45	
	11/6/2023	77.48	40	---	---	37.48	BTS
GMW-25	4/30/2007	74.29	26.60	---	---	47.69	Secor
	11/12/2007	74.29	27.30	27.25	0.05	47.03	Stantec
	8/12/2008	74.29	27.81	---	---	46.48	Envent
	10/17/2008	74.29	28.26	---	---	46.03	Envent
	12/18/2008	74.29	29.01	---	---	45.28	Envent
	1/15/2009	74.29	28.62	---	---	45.67	Envent
	3/24/2009	74.29	28.79	---	---	45.50	Envent
	4/21/2009	74.29	28.35	---	---	45.94	Envent
	7/21/2009	74.29	29.80	---	---	44.49	Envent
	10/19/2009	74.29	30.28	---	---	44.01	Blaine Tech
	6/22/2010	74.29	31.64	---	---	42.65	Blaine Tech
	10/4/2010	74.29	29.25	---	---	45.04	Blaine Tech
	4/11/2011	74.29	26.21	---	---	48.08	Blaine Tech
	10/10/2011	74.29	30.02	---	---	44.27	Blaine Tech
	4/16/2012	74.29	31.30	---	---	42.99	Blaine Tech
	7/9/2012	---	NM	---	---	NC	Blaine Tech
	10/15/2012	78.14	31.88	---	---	46.26	Blaine Tech
	4/8/2013	78.14	32.11	---	---	46.03	Blaine Tech
	10/7/2013	78.14	33.23	33.10	0.13	45.01	Blaine Tech
	4/14/2014	78.14	37.40	33.00	4.40	44.13	Blaine Tech
	5/5/2014	78.14	37.51	33.06	4.45	44.06	Nieto & Sons
	5/12/2014	78.14	34.97	33.73	1.24	44.12	Nieto & Sons
	5/20/2014	78.14	36.75	34.30	2.45	43.28	Nieto & Sons
	5/27/2014	78.14	34.64	34.44	0.20	43.65	Nieto & Sons
	6/4/2014	78.14	35.00	---	---	43.14	Nieto & Sons
	6/10/2014	78.14	36.67	34.18	2.49	43.39	Nieto & Sons
	7/3/2014	78.14	34.21	---	---	43.93	Nieto & Sons
	7/24/2014	78.14	34.29	---	---	43.85	Blaine Tech
	8/1/2014	78.14	35.02	33.99	1.03	43.91	Blaine Tech
	8/8/2014	78.14	34.54	34.06	0.48	43.97	Blaine Tech
	8/14/2014	78.14	34.48	34.06	0.42	43.98	Blaine Tech
	8/19/2014	78.14	34.51	34.07	0.44	43.97	Blaine Tech
	8/29/2014	78.14	34.65	33.96	0.69	44.02	Blaine Tech
	9/18/2014	78.14	35.21	34.01	1.20	43.85	Blaine Tech
	9/26/2014	78.14	34.87	34.06	0.81	43.89	Blaine Tech
	10/1/2014	78.14	34.92	33.98	0.94	43.94	Blaine Tech
	10/6/2014	78.14	34.93	33.99	0.94	43.93	Blaine Tech
	10/14/2014	78.14	35.10	33.91	1.19	43.96	Blaine Tech
	10/23/2014	78.14	35.34	33.91	1.43	43.90	Blaine Tech
	10/27/2014	78.14	34.78	33.95	0.83	44.00	Blaine Tech
	11/3/2014	78.14	34.92	33.98	0.94	43.94	Blaine Tech
	11/10/2014	78.14	35.12	34.02	1.10	43.87	Blaine Tech
	11/18/2014	78.14	34.90	34.11	0.79	43.85	Blaine Tech
	11/25/2014	78.14	35.07	34.07	1.00	43.84	Blaine Tech
	12/3/2014	78.14	35.10	33.98	1.12	43.90	Blaine Tech
	12/12/2014	78.14	35.22	34.30	0.92	43.63	Blaine Tech
	12/19/2014	78.14	35.05	34.50	0.55	43.51	Blaine Tech
	4/20/2015	78.14	35.19	34.47	0.72	43.50	Blaine Tech
	6/25/2015	78.14	36.35	35.40	0.95	42.52	Blaine Tech
	10/20/2015	78.14	35.40	35.38	0.02	42.76	Kinder Morgan
	3/16/2016	78.14	38.99	---	---	39.15	Kinder Morgan
	4/12/2016	78.14	37.15	---	---	40.99	Kinder Morgan
	6/29/2016	78.14	38.40	---	---	39.74	Blaine Tech
	8/22/2016	78.14	38.44	---	---	39.70	Blaine Tech
	10/3/2016	78.14	38.70	---	---	39.44	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-25	4/17/2017	78.14	35.23	---	---	42.91	Blaine Tech
Continued	10/2/2017	78.14	39.22	---	---	38.92	Blaine Tech
	4/16/2018	78.14	38.85	---	---	39.29	Blaine Tech
	11/5/2018	78.14	38.70	---	---	39.44	Blaine Tech
	4/16/2019	78.14	36.89	---	---	41.25	Blaine Tech
	10/28/2019	78.14	37.10	---	---	41.04	Blaine Tech
	5/4/2020	78.14	36.49	---	---	41.65	Blaine Tech
	11/2/2020	78.14	36.98	---	---	41.16	Blaine Tech
	5/3/2021	78.14	37.42	---	---	40.72	Blaine Tech
	11/1/2021	78.14	38.38	---	---	39.76	Blaine Tech
	5/9/2022	78.14	37.92	---	---	40.22	Blaine Tech
	10/31/22	78.14	38.10	---	---	40.04	Blaine Tech
	05/01/23	78.14	37.80	---	---	40.34	Blaine Tech
	11/6/2023	78.14	38.41	---	---	39.73	Blaine Tech
GMW-28	3/10/2022	74.68	34.63	---	---	40.05	Blaine Tech
	5/9/2022	74.68	34.48	---	---	40.20	Blaine Tech
	8/24/2022	74.68	34.60	---	---	40.08	Blaine Tech
	10/31/22	74.68	34.46	---	---	40.22	Blaine Tech
	05/01/23	74.68	34.30	---	---	40.38	Blaine Tech
	11/6/2023	74.68	35.98	---	---	38.70	Blaine Tech
GMW-29	3/10/2022	77.57	35.53	34.81	0.72	42.62	Blaine Tech
	5/9/2022	77.57	35.25	34.48	0.77	42.94	Blaine Tech
	8/24/2022	77.57	35.26	34.36	0.90	42.31	Blaine Tech
	10/31/2022	77.57	35.04	34.24	0.80	43.17	Blaine Tech
	3/2/2023	77.57	37.88	36.89	0.99		
	5/1/2023	77.57	34.47	34.39	0.08	43.16	Blaine Tech
	11/6/2023	77.57	36.64	36.59	0.05	40.97	Blaine Tech
GMW-36	3/12/2007	74.53	24.29	---	---	50.24	Secor
	4/30/2007	74.53	24.40	---	---	50.13	Secor
	8/28/2007	74.53	24.31	---	---	50.22	Stantec
	11/12/2007	74.53	24.86	24.85	0.01	49.68	Stantec
	2/19/2008	74.53	25.50	---	---	49.03	Stantec
	4/14/2008	74.53	24.61	---	---	49.92	Stantec
	8/8/2008	74.53	26.20	26.14	0.06	48.38	Envent
	10/16/2008	74.77	26.11	26.09	0.02	48.68	Envent
	12/18/2008	74.53	28.70	28.65	0.05	45.87	Envent
	1/15/2009	74.53	27.73	27.45	0.28	47.02	Envent
	2/20/2009	74.53	26.39	26.35	0.04	48.17	Envent
	2/23/2009	74.53	26.13	25.80	0.33	48.66	Blaine Tech
	3/24/2009	74.53	29.83	---	---	44.70	Envent
	4/20/2009	74.53	25.63	25.59	0.04	48.93	Blaine Tech
	7/17/2009	74.53	27.40	---	---	47.13	Envent
	7/20/2009	74.53	25.90	---	---	48.63	Blaine Tech
	7/21/2009	74.53	26.03	---	---	48.50	Envent
	7/22/2009	74.53	25.90	---	---	48.63	Blaine Tech
	10/19/2009	74.53	26.56	26.45	0.11	48.06	Blaine Tech
	2/4/2010	74.53	26.93	26.80	0.13	47.70	Kinder Morgan
	3/15/2010	74.53	26.80	---	---	47.73	Blaine Tech
	4/16/2010	74.53	26.90	---	---	47.63	Blaine Tech
	5/24/2010	74.53	25.96	25.90	0.06	48.62	Blaine Tech
	5/28/2010	74.53	25.94	25.88	0.06	48.64	Blaine Tech
	6/22/2010	74.53	25.94	25.91	0.03	48.61	Blaine Tech
	7/12/2010	74.53	NM	---	---	NC	
	8/12/2010	74.53	NM	---	---	NC	
	9/20/2010	74.53	NM	---	---	NC	
	10/4/2010	74.53	26.90	---	---	47.63	
	10/24/2010	74.53	26.90	---	---	47.63	Blaine Tech
	11/23/2010	74.53	27.35	27.10	0.25	47.38	Blaine Tech
	12/22/2010	74.53	28.35	26.84	1.51	47.39	Blaine Tech
	1/10/2011	74.53	29.10	27.70	1.40	46.55	Blaine Tech
	2/24/2011	74.53	NM	---	---	NC	Blaine Tech
	3/23/2011	74.53	NM	---	---	NC	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-36	4/12/2011	74.53	26.98	25.05	1.93	49.09	Blaine Tech
Continued	5/13/2011	74.53	NM	---	---	NC	Blaine Tech
	6/22/2011	74.53	NM	---	---	NC	
	7/11/2011	74.53	NM	---	---	NC	
	8/19/2011	74.53	NM	---	---	NC	
	9/22/2011	74.53	NM	---	---	NC	
	10/10/2011	74.53	25.96	---	---	48.57	Blaine Tech
	11/28/2011	74.53	NM	---	---	NC	
	12/2/2011	74.53	26.71	---	---	47.82	Kinder Morgan
	12/21/2011	74.53	28.17	---	---	46.36	Blaine Tech
	1/9/2012	74.53	27.26	---	---	47.27	Blaine Tech
	2/23/2012	74.53	27.85	---	---	46.68	Blaine Tech
	3/28/2012	74.53	NM	---	---	NC	Blaine Tech
	4/16/2012	74.53	27.34	---	---	47.19	Blaine Tech
	5/25/2012	74.53	NM	---	---	NC	Blaine Tech
	6/15/2012	---	33.27	---	---	NC	Blaine Tech
	7/9/2012	---	33.71	---	---	NC	Blaine Tech
	8/29/2012	---	NM	---	---	NC	Blaine Tech
	9/26/2012	---	NM	---	---	NC	Blaine Tech
	10/15/2012	76.66	32.11	---	---	44.55	Blaine Tech
	11/29/2012	76.66	33.93	31.68	2.25	44.53	Blaine Tech
	12/26/2012	76.66	34.86	30.36	4.50	45.40	Blaine Tech
	1/14/2013	76.66	34.12	30.42	3.70	45.50	Blaine Tech
	2/20/2013	76.66	NM	---	---	NC	Blaine Tech
	4/10/2013	76.66	32.42	29.75	2.67	46.38	Blaine Tech
	10/7/2013	76.66	34.65	30.72	3.93	45.15	Blaine Tech
	4/25/2014	76.66	34.71	31.12	3.59	44.82	Blaine Tech
	5/20/2014	76.66	34.95	31.50	3.45	44.47	Nieto & Sons
	5/27/2014	76.66	34.53	31.29	3.24	44.72	Nieto & Sons
	6/4/2014	76.66	34.93	31.50	3.43	44.47	Nieto & Sons
	8/13/2014	76.66	34.86	31.27	3.59	44.67	Blaine Tech
	8/19/2014	76.66	34.20	31.39	2.81	44.71	Blaine Tech
	8/29/2014	76.66	34.31	31.32	2.99	44.74	Blaine Tech
	9/5/2014	76.66	34.35	31.37	2.98	44.69	Blaine Tech
	9/11/2014	76.66	35.00	31.23	3.77	44.68	Blaine Tech
	9/18/2014	76.66	34.42	31.50	2.92	44.58	Blaine Tech
	9/26/2014	76.66	34.15	31.48	2.67	44.65	Blaine Tech
	10/1/2014	76.66	33.51	31.61	1.90	44.67	Blaine Tech
	10/6/2014	76.66	33.29	31.63	1.66	44.70	Blaine Tech
	10/14/2014	76.66	33.48	31.55	1.93	44.72	Blaine Tech
	10/23/2014	76.66	33.64	31.57	2.07	44.68	Blaine Tech
	10/27/2014	76.66	33.02	31.79	1.23	44.62	Blaine Tech
	11/3/2014	76.66	33.75	31.57	2.18	44.65	Blaine Tech
	11/18/2014	76.66	33.17	31.75	1.42	44.63	Blaine Tech
	11/25/2014	76.66	33.13	31.86	1.27	44.55	Blaine Tech
	12/3/2014	76.66	32.93	31.75	1.18	44.67	Blaine Tech
	4/20/2015	76.66	33.64	32.20	1.44	44.17	Blaine Tech
	10/21/2015	76.66	33.55	33.16	0.39	43.42	Blaine Tech
	4/12/2016	76.66	34.30	34.03	0.27	42.58	Kinder Morgan
	10/3/2016	76.66	35.05	34.65	0.40	41.93	Blaine Tech
	3/9/2017	76.66	33.45	---	---	43.21	CH2M
	4/17/2017	76.66	32.96	---	---	43.70	Blaine Tech
	10/2/2017	76.66	34.10	---	---	42.56	Blaine Tech
	4/16/2018	76.66	35.18	---	---	41.48	Blaine Tech
	11/5/2018	76.66	35.91	---	---	40.75	Blaine Tech
	4/23/2019	76.66	33.56	---	---	43.10	Blaine Tech
	10/28/2019	76.66	34.86	34.84	0.02	41.82	Blaine Tech
	5/4/2020	76.66	31.03	---	---	45.63	Blaine Tech
	11/2/2020	76.66	Sludge in well, unable to gauge				Blaine Tech
	2/24/2021	76.66	35.18	---	---	48.82	Blaine Tech
	5/3/2021	76.66	30.69	---	---	45.97	Blaine Tech
	8/31/2021	76.66	30.47	---	---	46.19	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-36	11/1/2021	76.66	37.95	---	---	46.19	Blaine Tech
Continued	3/10/2022	76.66	27.29	---	---	49.37	Blaine Tech
	5/9/2022	76.66	31.87	---	---	44.79	Blaine Tech
	8/24/2022	76.66	31.95	---	---	44.71	Blaine Tech
	10/31/22	76.66	33.34	---	---	43.32	Blaine Tech
	05/01/23	76.66	31.23	---	---	45.43	Blaine Tech
	11/6/2023	76.66	31	---	---	45.66	Blaine Tech
GMW-O-11	4/30/2007	74.17	23.91	23.90	0.01	50.27	Secor
	11/12/2007	74.17	24.40	---	---	49.77	Stantec
	8/15/2008	74.17	29.30	---	---	44.87	Envent
	10/17/2008	74.17	24.45	---	---	49.72	Envent
	12/19/2008	74.17	24.85	---	---	49.32	Envent
	1/15/2009	74.17	26.87	24.38	2.49	49.29	Envent
	2/24/2009	74.17	24.31	24.21	0.10	49.94	Envent
	3/27/2009	74.17	31.08	---	---	43.09	Envent
	4/21/2009	74.17	25.36	25.34	0.02	48.83	Envent
	7/21/2009	74.17	26.18	---	---	47.99	Envent
	10/19/2009	74.17	NM	---	---	NC	Blaine Tech
	11/6/2009	74.17	26.33	26.18	0.15	47.96	Kinder Morgan
	10/4/2010	74.17	30.00	---	---	44.17	Blaine Tech
	4/13/2011	74.17	24.19	---	---	49.98	Blaine Tech
	10/10/2011	74.17	24.38	---	---	49.79	Blaine Tech
	4/16/2012	74.17	NM	---	---	NC	Blaine Tech
	7/9/2012	74.17	NM	---	---	NC	Blaine Tech
	10/15/2012	74.17	28.12	---	---	46.05	Blaine Tech
	4/8/2013	74.17	NM	---	---	NC	Blaine Tech
	9/24/2013	74.17	31.25	28.15	3.10	45.40	Blaine Tech
	10/7/2013	74.17	31.19	27.69	3.50	45.78	Blaine Tech
	4/25/2014	74.17	28.96	28.62	0.34	45.48	Blaine Tech
	9/5/2014	74.17	31.13	27.89	3.24	45.63	Blaine Tech
	9/11/2014	74.17	31.12	27.85	3.27	45.67	Blaine Tech
	9/18/2014	74.17	31.22	27.85	3.37	45.65	Blaine Tech
	9/26/2014	74.17	31.34	27.91	3.43	45.57	Blaine Tech
	10/1/2014	74.17	31.19	27.84	3.35	45.66	Blaine Tech
	10/6/2014	74.17	32.19	27.84	4.35	45.46	Blaine Tech
	10/14/2014	74.17	31.18	28.85	2.33	44.85	Blaine Tech
	10/23/2014	74.17	31.34	27.85	3.49	45.62	Blaine Tech
	10/27/2014	74.17	31.28	28.89	2.39	44.80	Blaine Tech
	11/3/2014	74.17	32.34	27.83	4.51	45.44	Blaine Tech
	11/10/2014	74.17	31.46	27.97	3.49	45.50	Blaine Tech
	11/18/2014	74.17	31.41	27.88	3.53	45.58	Blaine Tech
	11/25/2014	74.17	31.48	27.87	3.61	45.58	Blaine Tech
	12/3/2014	74.17	33.34	29.95	3.39	43.54	Blaine Tech
	12/12/2014	74.17	33.25	29.08	4.17	44.26	Blaine Tech
	12/19/2014	74.17	32.52	28.09	4.43	45.19	Blaine Tech
	4/22/2015	74.17	31.54	28.10	3.44	45.38	Blaine Tech
	10/22/2015	74.17	33.08	29.23	3.85	44.17	Kinder Morgan
	3/16/2016	74.17	33.39	33.16	0.23	40.96	Kinder Morgan
	4/12/2016	74.17	33.33	33.12	0.21	41.01	Kinder Morgan
	6/30/2016	74.17	31.50	---	---	42.67	Kinder Morgan
	8/22/2016	74.17	32.75	32.74	0.01	41.43	Kinder Morgan
	10/3/2016	74.17	32.72	32.71	0.01	41.46	Kinder Morgan
	3/24/2017	74.17	31.50	30.45	1.05	43.51	CH2M
	4/17/2017	74.17	30.12	29.96	0.16	44.18	Blaine Tech
	10/2/2017	74.17	33.54	---	---	40.63	Blaine Tech
	4/16/2018	74.17	NM	---	---	NC	Blaine Tech
	11/5/2018	74.17	33.22	33.11	0.11	41.04	Blaine Tech
	4/16/2019	74.17	NM	---	---	NC	Blaine Tech
	10/28/2019	74.17	NM	---	---	NC	Blaine Tech
	5/4/2020	74.17	30.94	---	---	43.23	Blaine Tech
	8/20/2020	74.17	30.89	---	---	43.28	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-O-11	11/2/2020	74.17	30.30	---	---	43.87	Blaine Tech
Continued	2/24/2021	74.17	32.18	---	---	41.99	Blaine Tech
	5/3/2021	74.17	31.89	---	---	42.28	Blaine Tech
	8/31/2021	74.17	31.50	---	---	42.67	Blaine Tech
	11/1/2021	74.17	34.76	---	---	39.41	Blaine Tech
	3/10/2022	74.17	32.60	---	---	41.57	Blaine Tech
	5/9/2022	74.17	32.38	---	---	41.79	Blaine Tech
	8/24/2022	74.17	32.50	---	---	41.67	Blaine Tech
	10/31/22	74.17	NM	---	---	NC	Blaine Tech
	05/01/23	74.17	33.46	---	---	40.71	Blaine Tech
	11/6/2023	74.17	34.76	---	---	39.41	Blaine Tech
GMW-O-12	4/30/2007	73.49	22.81	---	---	50.68	Secor
	11/12/2007	73.49	23.13	---	---	50.36	Stantec
	4/14/2008	73.49	23.36	---	---	50.13	Stantec
	10/13/2008	73.49	24.20	---	---	49.29	Stantec
	4/20/2009	73.49	24.21	---	---	49.28	Blaine Tech
	10/19/2009	73.49	25.08	---	---	48.41	Blaine Tech
	5/24/2010	73.49	24.80	---	---	48.69	Blaine Tech
	5/28/2010	73.49	24.74	---	---	48.75	Blaine Tech
	10/4/2010	73.49	25.31	25.20	0.11	48.27	Blaine Tech
	1/10/2011	73.49	26.42	26.32	0.10	47.15	Blaine Tech
	4/11/2011	73.49	24.04	---	---	49.45	Blaine Tech
	7/11/2011	73.49	NM	---	---	NC	
	10/10/2011	73.49	24.68	---	---	48.81	Blaine Tech
	1/9/2012	73.49	25.12	---	---	48.37	Blaine Tech
	4/16/2012	73.49	25.40	---	---	48.09	Blaine Tech
	7/9/2012	73.49	26.96	---	---	46.53	Blaine Tech
	10/15/2012	73.49	25.48	25.44	0.04	48.04	Blaine Tech
	1/14/2013	73.49	25.62	25.58	0.04	47.90	Blaine Tech
	4/8/2013	73.49	26.60	26.51	0.09	46.96	Blaine Tech
	9/24/2013	73.49	27.90	27.74	0.16	45.72	Blaine Tech
	10/7/2013	73.49	27.34	27.28	0.06	46.20	Blaine Tech
	4/14/2014	73.49	30.34	26.80	3.54	45.96	Blaine Tech
	5/6/2014	73.49	30.93	26.74	4.19	45.89	Nieto & Sons
	5/12/2014	73.49	30.81	26.82	3.99	45.85	Nieto & Sons
	5/20/2014	73.49	31.78	27.32	4.46	45.26	Nieto & Sons
	5/27/2014	73.49	33.04	26.78	6.26	45.43	Nieto & Sons
	6/4/2014	73.49	33.00	27.75	5.25	44.66	Nieto & Sons
	6/10/2014	73.49	34.53	26.81	7.72	45.10	Nieto & Sons
	7/3/2014	73.49	34.27	26.94	7.33	45.05	Blaine Tech
	7/8/2014	73.49	33.87	26.87	7.00	45.19	Blaine Tech
	7/18/2014	73.49	33.36	27.07	6.29	45.13	Blaine Tech
	7/24/2014	73.49	33.00	26.98	6.02	45.28	Blaine Tech
	8/1/2014	73.49	31.80	26.83	4.97	45.64	Blaine Tech
	8/8/2014	73.49	31.26	26.91	4.35	45.69	Blaine Tech
	8/13/2014	73.49	31.18	26.88	4.30	45.73	Blaine Tech
	8/19/2014	73.49	31.01	26.86	4.15	45.78	Blaine Tech
	8/29/2014	73.49	31.03	26.89	4.14	45.75	Blaine Tech
	9/5/2014	73.49	31.19	26.88	4.31	45.73	Blaine Tech
	9/18/2014	73.49	31.30	26.82	4.48	45.75	Blaine Tech
	9/26/2014	73.49	31.33	26.89	4.44	45.69	Blaine Tech
	10/1/2014	73.49	31.21	26.85	4.36	45.75	Blaine Tech
	10/6/2014	73.49	31.20	29.84	1.36	43.37	Blaine Tech
	10/14/2014	73.49	31.14	26.86	4.28	45.75	Blaine Tech
	10/23/2014	73.49	31.30	26.85	4.45	45.73	Blaine Tech
	10/27/2014	73.49	31.28	26.90	4.38	45.69	Blaine Tech
	11/3/2014	73.49	32.30	26.84	5.46	45.53	Blaine Tech
	11/10/2014	73.49	31.45	26.91	4.54	45.65	Blaine Tech
	11/18/2014	73.49	32.34	26.90	5.44	45.47	Blaine Tech
	11/25/2014	73.49	31.57	27.87	3.70	44.86	Blaine Tech
	12/3/2014	73.49	33.87	28.81	5.06	43.64	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-O-12	12/19/2014	73.49	32.78	26.97	5.81	45.33	Blaine Tech
Continued	4/20/2015	73.49	33.35	26.91	6.44	45.26	Blaine Tech
	4/22/2015	73.49	33.35	26.91	6.44	45.26	Blaine Tech
	5/21/2015	73.49	34.31	27.35	6.96	44.71	Northstar
	5/29/2015	73.49	34.15	27.24	6.91	44.83	Northstar
	6/2/2015	73.49	34.00	27.27	6.73	44.84	Northstar
	6/5/2015	73.49	34.00	27.50	6.50	44.66	Northstar
	6/12/2015	73.49	33.96	27.35	6.61	44.78	Northstar
	6/19/2015	73.49	33.98	27.58	6.40	44.60	Northstar
	6/26/2015	73.49	33.97	28.15	5.82	44.15	Northstar
	7/2/2015	73.49	33.83	28.20	5.63	44.14	Northstar
	7/7/2015	73.49	33.60	27.93	5.67	44.40	Northstar
	7/17/2015	73.49	33.57	27.85	5.72	44.47	Northstar
	7/24/2015	73.49	33.15	28.25	4.90	44.24	Northstar
	7/29/2015	73.49	33.02	28.10	4.92	44.38	Northstar
	8/11/2015	73.49	33.00	28.90	4.10	43.75	Northstar
	8/18/2015	73.49	32.65	28.23	4.42	44.35	Northstar
	8/28/2015	73.49	32.41	28.17	4.24	44.45	Kinder Morgan
	9/1/2015	73.49	33.18	28.65	4.53	43.91	Kinder Morgan
	9/25/2015	73.49	34.69	28.03	6.66	44.09	Kinder Morgan
	10/16/2015	73.49	34.63	27.83	6.80	44.27	Kinder Morgan
	10/19/2015	73.49	34.65	27.82	6.83	44.27	Blaine Tech
	10/30/2015	73.49	39.38	28.11	11.27	43.07	Kinder Morgan
	3/14/2016	73.49	32.40	31.60	0.80	41.73	Blaine Tech
	4/11/2016	73.49	33.35	26.86	6.49	45.30	Blaine Tech
	6/29/2016	73.49	33.90	33.10	0.80	40.23	Blaine Tech
	8/22/2016	73.49	33.56	31.07	2.49	41.91	Blaine Tech
	10/3/2016	73.49	34.20	31.90	2.30	41.12	Blaine Tech
	4/17/2017	73.49	32.90	28.70	4.20	43.95	Blaine Tech
	10/2/2017	73.49	33.20	32.00	1.20	41.25	Blaine Tech
	4/16/2018	73.49	33.04	31.89	1.15	41.37	Blaine Tech
	11/5/2018	73.49	32.65	32.31	0.34	41.11	Blaine Tech
	4/16/2019	73.49	31.62	31.21	0.41	42.20	Blaine Tech
	10/28/2019	73.49	32.45	31.85	0.60	41.52	Blaine Tech
	5/4/2020	73.49	30.35	30.04	0.31	43.39	Blaine Tech
	8/20/2020	73.49	31.98	31.75	0.23	41.69	Blaine Tech
	11/2/2020	73.49	31.65	30.27	1.38	42.94	Blaine Tech
	2/24/2021	73.49	31.97	31.45	0.52	41.94	Blaine Tech
	5/3/2021	73.49	31.66	31.05	0.61	41.83	Blaine Tech
	8/31/2021	73.49	25.89	25.89	0.00	47.60	Blaine Tech
	11/1/2021	73.49	34.89	33.18	1.71	39.96	Blaine Tech
	3/10/2022	73.49	NM	---	---	NC	Blaine Tech
	5/9/2022	73.49	35.16	34.21	0.95	39.09	Blaine Tech
	8/24/2022	73.49	31.90	31.80	0.10	41.67	Blaine Tech
	10/31/22	73.49	29.60	---	---	43.89	Blaine Tech
	05/01/23	73.49	34.10	---	---	39.39	Blaine Tech
	11/8/2023	75.21	34.53	---	---	40.68	Blaine Tech
GMW-O-14	3/10/2022	74.08	29.35	---	---	44.73	Blaine Tech
	5/9/2022	74.08	39.64	---	---	34.44	Blaine Tech
	8/24/2022	74.08	30.66	---	---	43.42	Blaine Tech
	10/31/22	74.08	29.25	---	---	44.83	Blaine Tech
	05/01/23	74.08	40.69	---	---	33.39	Blaine Tech
	11/6/2023	74.08	35.74	---	---	38.34	Blaine Tech
GMW-O-15	4/30/2007	74.23	23.41	23.30	0.11	50.91	Secor
	11/12/2007	74.23	23.95	23.85	0.10	50.36	Stantec
	4/14/2008	74.23	23.64	---	---	50.59	Stantec
	8/8/2008	74.23	24.60	---	---	49.63	Envent
	8/11/2008	74.23	24.40	24.34	0.06	49.88	Stantec
	10/16/2008	74.23	24.53	---	---	49.70	Envent
	12/18/2008	74.23	24.86	---	---	49.37	Envent

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-O-15	1/2/2009	74.23	24.82	---	---	49.41	Envent
Continued	1/15/2009	74.23	26.01	---	---	48.22	Envent
	2/20/2009	74.23	24.80	---	---	49.43	Envent
	2/23/2009	74.23	24.76	24.74	0.02	49.49	Blaine Tech
	3/24/2009	74.23	25.55	---	---	48.68	Envent
	4/20/2009	74.23	24.66	24.61	0.05	49.61	Blaine Tech
	7/17/2009	74.23	25.01	---	---	49.22	Envent
	7/20/2009	74.23	24.99	24.94	0.05	49.28	Blaine Tech
	7/22/2009	74.23	24.99	24.94	0.05	49.28	Blaine Tech
	10/19/2009	74.23	25.55	25.43	0.12	48.78	Blaine Tech
	2/4/2010	74.23	25.50	25.48	0.02	48.75	Kinder Morgan
	3/15/2010	74.23	NM	---	---	NC	
	4/16/2010	74.23	23.10	---	---	51.13	Blaine Tech
	5/24/2010	74.23	25.67	---	---	48.56	Blaine Tech
	5/28/2010	74.23	25.35	---	---	48.88	Blaine Tech
	6/22/2010	74.23	25.81	---	---	48.42	Blaine Tech
	7/12/2010	74.23	NM	---	---	NC	
	8/12/2010	74.23	NM	---	---	NC	
	9/20/2010	74.23	NM	---	---	NC	
	10/4/2010	74.23	25.85	25.80	0.05	48.42	Blaine Tech
	11/23/2010	74.23	NM	---	---	NC	Blaine Tech
	12/22/2010	74.23	26.31	---	---	47.92	Blaine Tech
	1/10/2011	74.23	25.97	---	---	48.26	Blaine Tech
	2/24/2011	74.23	NM	---	---	NC	Blaine Tech
	3/23/2011	74.23	NM	---	---	NC	Blaine Tech
	4/12/2011	74.23	22.55	22.53	0.02	51.70	Blaine Tech
	5/13/2011	74.23	NM	---	---	NC	Blaine Tech
	6/22/2011	74.23	NM	---	---	NC	
	7/11/2011	74.23	NM	---	---	NC	
	8/19/2011	74.23	NM	---	---	NC	
	9/22/2011	74.23	NM	---	---	NC	
	10/10/2011	74.23	23.79	23.22	0.57	50.90	Blaine Tech
	11/28/2011	74.23	NM	---	---	NC	
	12/2/2011	74.23	23.92	23.86	0.06	50.36	Kinder Morgan
	12/21/2011	74.23	31.13	---	---	43.10	Blaine Tech
	1/9/2012	74.23	27.67	---	---	46.56	Blaine Tech
	2/23/2012	74.23	31.82	---	---	42.41	Blaine Tech
	3/28/2012	74.23	30.30	---	---	43.93	Blaine Tech
	4/16/2012	74.23	26.56	26.51	0.05	47.71	Blaine Tech
	5/25/2012	74.23	26.64	---	---	47.59	Blaine Tech
	6/15/2012	74.23	26.93	---	---	47.30	Blaine Tech
	7/9/2012	74.23	25.47	---	---	48.76	Blaine Tech
	8/29/2012	74.23	NM	---	---	NC	Blaine Tech
	9/26/2012	74.23	30.64	---	---	43.59	Blaine Tech
	10/15/2012	74.23	31.82	---	---	42.41	Blaine Tech
	11/29/2012	74.23	NM	---	---	NC	Blaine Tech
	12/26/2012	74.23	27.41	---	---	46.82	Blaine Tech
	1/14/2013	74.23	27.62	---	---	46.61	Blaine Tech
	2/20/2013	74.23	NM	---	---	NC	Blaine Tech
	4/10/2013	74.23	NM	---	---	NC	Blaine Tech
	4/26/2013	74.23	27.90	---	---	46.33	Kinder Morgan
	10/7/2013	74.23	29.03	28.26	0.77	45.82	Blaine Tech
	4/18/2014	74.23	28.40	28.08	0.32	46.09	Blaine Tech
	8/14/2014	74.23	32.59	28.26	4.33	45.10	Blaine Tech
	8/19/2014	74.23	32.34	28.23	4.11	45.18	Blaine Tech
	8/29/2014	74.23	31.84	28.25	3.59	45.26	Blaine Tech
	9/5/2014	74.23	31.91	28.29	3.62	45.22	Blaine Tech
	9/11/2014	74.23	32.16	28.79	3.37	44.77	Blaine Tech
	9/18/2014	74.23	32.50	28.23	4.27	45.15	Blaine Tech
	9/26/2014	74.23	32.20	28.27	3.93	45.17	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-O-15	10/1/2014	74.23	31.93	28.28	3.65	45.22	Blaine Tech
Continued	10/6/2014	74.23	31.91	28.27	3.64	45.23	Blaine Tech
	10/14/2014	74.23	31.85	28.29	3.56	45.23	Blaine Tech
	10/23/2014	74.23	32.10	28.30	3.80	45.17	Blaine Tech
	10/27/2014	74.23	31.89	28.30	3.59	45.21	Blaine Tech
	11/18/2014	74.23	31.86	28.39	3.47	45.15	Blaine Tech
	11/25/2014	74.23	32.36	28.35	4.01	45.08	Blaine Tech
	12/3/2014	74.23	31.73	28.36	3.37	45.20	Blaine Tech
	12/12/2014	74.23	32.61	28.54	4.07	44.88	Blaine Tech
	12/19/2014	74.23	32.62	28.37	4.25	45.01	Blaine Tech
	4/20/2015	74.23	31.93	28.82	3.11	44.79	Blaine Tech
	10/19/2015	74.23	31.91	28.89	3.02	44.74	Blaine Tech
	4/12/2016	74.23	29.78	---	---	44.45	Kinder Morgan
	10/3/2016	74.86	31.00	30.92	0.08	43.92	Kinder Morgan
	3/9/2017	74.86	29.94	---	---	44.92	CH2M
	4/17/2017	74.86	29.65	29.52	0.13	45.31	Blaine Tech
	10/2/2017	74.86	31.92	30.33	1.59	44.21	Blaine Tech
	4/16/2018	74.86	31.79	31.67	0.12	43.17	Blaine Tech
	11/5/2018	74.86	32.38	---	---	42.48	Blaine Tech
	4/23/2019	74.86	29.84	29.84	0.00	45.02	Blaine Tech
	10/31/2019	74.86	29.28	---	---	45.58	Blaine Tech
	5/4/2020	74.86	31.13	---	---	43.73	Blaine Tech
	11/2/2020	74.86	26.89	---	---	47.97	Blaine Tech
	5/3/2021	74.86	28.62	---	---	46.24	Blaine Tech
	11/1/2021	Inaccessible, pump stuck in well					Blaine Tech
	5/9/2022	Inaccessible, pump stuck in well					Blaine Tech
	10/31/22	74.86	NM	---	---	NC	
GMW-O-18	4/30/2007	74.36	24.21	---	---	50.15	Secor
	11/12/2007	74.36	22.46	---	---	51.90	Secor
	4/14/2008	74.36	24.50	---	---	49.86	Secor
	10/13/2008	74.36	25.46	---	---	48.90	Stantec
	4/20/2009	74.36	25.59	---	---	48.77	Blaine Tech
	10/19/2009	74.36	26.31	---	---	48.05	Blaine Tech
	3/15/2010	74.36	26.54	---	---	47.82	Blaine Tech
	4/16/2010	74.36	24.25	---	---	50.11	Blaine Tech
	5/24/2010	74.36	26.26	---	---	48.10	Blaine Tech
	5/28/2010	74.36	26.03	---	---	48.33	Blaine Tech
	6/22/2010	74.36	26.41	---	---	47.95	
	7/12/2010	74.36	NM	---	---	NC	
	8/12/2010	74.36	NM	---	---	NC	
	9/20/2010	74.36	NM	---	---	NC	
	10/4/2010	74.36	29.95	---	---	44.41	Blaine Tech
	11/16/2010	74.36	NM	---	---	NC	
	12/22/2010	74.36	NM	---	---	NC	
	1/10/2011	74.36	NM	---	---	NC	
	2/24/2011	74.36	NM	---	---	NC	Blaine Tech
	3/23/2011	74.36	NM	---	---	NC	Blaine Tech
	4/12/2011	74.36	NM	---	---	NC	Blaine Tech
	5/13/2011	74.36	NM	---	---	NC	Blaine Tech
	6/22/2011	74.36	NM	---	---	NC	
	7/11/2011	74.36	NM	---	---	NC	
	8/19/2011	74.36	NM	---	---	NC	
	9/22/2011	74.36	NM	---	---	NC	
	10/10/2011	74.36	23.68	---	---	50.68	Blaine Tech
	11/28/2011	74.36	NM	---	---	NC	
	12/2/2011	74.36	24.22	---	---	50.14	Blaine Tech
	12/21/2011	74.36	27.14	---	---	47.22	Blaine Tech
	2/23/2012	74.36	31.18	---	---	43.18	Blaine Tech
	3/28/2012	74.36	NM	---	---	NC	Blaine Tech
	4/16/2012	74.36	27.10	---	---	47.26	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-O-18	5/25/2012	74.36	27.31	---	---	47.05	Blaine Tech
Continued	6/15/2012	74.36	35.13	---	---	39.23	Blaine Tech
	7/9/2012	74.36	29.51	---	---	44.85	Blaine Tech
	8/29/2012	74.36	NM	---	---	NC	Blaine Tech
	9/26/2012	74.36	30.83	---	---	43.53	Blaine Tech
	10/15/2012	74.36	29.73	---	---	44.63	Blaine Tech
	11/29/2012	74.36	NM	---	---	NC	Blaine Tech
	12/26/2012	74.36	28.87	---	---	45.49	Blaine Tech
	1/14/2013	74.36	28.92	---	---	45.44	Blaine Tech
	2/20/2013	74.36	NM	---	---	NC	Blaine Tech
	4/10/2013	74.36	28.10	---	---	46.26	Blaine Tech
	10/7/2013	74.36	26.67	---	---	47.69	Blaine Tech
	4/18/2014	74.36	29.43	29.37	0.06	44.98	Blaine Tech
	8/14/2014	74.36	29.87	29.45	0.42	44.83	Blaine Tech
	8/19/2014	74.36	29.97	29.58	0.39	44.70	Blaine Tech
	8/29/2014	74.36	29.77	29.34	0.43	44.93	Blaine Tech
	9/11/2014	74.36	29.96	29.61	0.35	44.68	Blaine Tech
	9/18/2014	74.36	29.95	29.56	0.39	44.72	Blaine Tech
	9/26/2014	74.36	29.97	29.55	0.42	44.73	Blaine Tech
	10/1/2014	74.36	29.90	29.52	0.38	44.76	Blaine Tech
	10/6/2014	74.36	29.94	29.56	0.38	44.72	Blaine Tech
	10/14/2014	74.36	29.94	29.58	0.36	44.71	Blaine Tech
	10/23/2014	74.36	30.00	29.62	0.38	44.66	Blaine Tech
	10/27/2014	74.36	29.95	29.52	0.43	44.75	Blaine Tech
	4/20/2015	74.36	28.53	---	---	45.83	Blaine Tech
	10/19/2015	74.36	30.90	---	---	43.46	Blaine Tech
	4/12/2016	74.36	31.63	---	---	42.73	Blaine Tech
	12/13/2016	74.32	35.95	31.01	4.94	42.32	Blaine Tech
	12/14/2016	74.32	32.60	---	---	41.72	Blaine Tech
	3/6/2017	74.32	33.40	32.60	0.80	41.56	CH2M
	4/17/2017	74.32	31.83	31.80	0.03	42.51	Blaine Tech
	10/2/2017	74.32	31.32	31.30	0.02	43.02	Blaine Tech
	4/16/2018	74.32	NM	---	---	NC	Blaine Tech
	11/5/2018	74.32	33.03	32.90	0.13	41.39	Blaine Tech
	4/16/2019	74.32	30.89	---	---	43.43	Blaine Tech
	10/28/2019	74.32	32.05	---	---	42.27	Blaine Tech
	5/4/2020	74.32	31.68	---	---	42.64	Blaine Tech
	11/2/2020	74.32	27.25	---	---	47.07	Blaine Tech
	5/3/2021	74.32	29.77	---	---	44.55	Blaine Tech
	11/1/2021	74.32	36.39	---	---	37.93	Blaine Tech
	5/9/2022	74.32	29.62	---	---	44.70	Blaine Tech
	10/31/22	74.32	34.00	---	---	40.32	
	05/01/23	74.32	32.11	---	---	42.21	
	11/6/2023	74.32	31.53	---	---	42.79	
GMW-O-20	8/15/2008	73.32	25.90	---	---	47.42	Envent
	10/17/2008	73.32	25.82	---	---	47.50	Envent
	12/19/2008	73.32	27.15	---	---	46.17	Envent
	1/15/2009	73.32	26.53	26.09	0.44	47.15	Envent
	2/24/2009	73.32	27.85	---	---	45.47	Envent
	3/20/2009	73.32	28.81	---	---	44.51	Envent
	3/27/2009	73.32	27.84	---	---	45.48	Envent
	4/21/2009	73.32	28.70	---	---	44.62	Envent
	7/21/2009	73.32	24.10	---	---	49.22	Envent
	10/19/2009	73.32	NM	---	---	NC	Blaine Tech
	11/9/2009	73.32	25.60	25.40	0.20	47.88	Kinder Morgan
	6/22/2010	73.32	24.76	24.66	0.10	48.64	Blaine Tech
	10/4/2010	73.32	31.20	31.10	0.10	42.20	Blaine Tech
	1/10/2011	73.32	26.62	26.48	0.14	46.81	Blaine Tech
	4/11/2011	73.32	23.82	---	---	49.50	Blaine Tech
	7/11/2011	73.32	NM	---	---	NC	
	10/10/2011	73.32	24.05	---	---	49.27	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-O-20	1/9/2012	73.32	24.68	---	---	48.64	Blaine Tech
Continued	4/16/2012	73.32	26.18	---	---	47.14	Blaine Tech
	7/9/2012	73.32	32.92	---	---	40.40	Blaine Tech
	10/15/2012	73.32	32.97	32.95	0.02	40.37	Blaine Tech
	1/14/2013	73.32	32.98	32.93	0.05	40.38	Blaine Tech
	4/8/2013	73.32	29.63	26.46	3.17	46.27	Blaine Tech
	9/24/2013	73.32	31.10	27.20	3.90	45.40	Blaine Tech
	10/7/2013	73.32	32.09	27.06	5.03	45.33	Blaine Tech
	4/25/2014	73.32	28.48	28.40	0.08	44.91	Blaine Tech
	9/18/2014	73.32	30.71	27.72	2.99	45.05	Blaine Tech
	9/26/2014	73.32	30.87	27.75	3.12	44.99	Blaine Tech
	10/1/2014	73.32	30.52	27.65	2.87	45.14	Blaine Tech
	10/6/2014	73.32	30.50	27.66	2.84	45.13	Blaine Tech
	10/14/2014	73.32	30.63	27.62	3.01	45.14	Blaine Tech
	10/23/2014	73.32	30.80	27.70	3.10	45.05	Blaine Tech
	10/27/2014	73.32	30.70	27.76	2.94	45.02	Blaine Tech
	11/3/2014	73.32	30.81	27.62	3.19	45.11	Blaine Tech
	11/10/2014	73.32	30.94	27.75	3.19	44.98	Blaine Tech
	11/18/2014	73.32	30.91	27.65	3.26	45.07	Blaine Tech
	11/25/2014	73.32	30.95	27.65	3.30	45.06	Blaine Tech
	12/3/2014	73.32	32.56	27.83	4.73	44.61	Blaine Tech
	12/19/2014	73.32	31.72	27.93	3.79	44.69	Blaine Tech
	4/22/2015	73.32	32.25	27.98	4.27	44.55	Blaine Tech
	10/22/2015	73.32	31.36	29.38	1.98	43.57	Kinder Morgan
	3/16/2016	73.32	32.54	---	---	40.78	Kinder Morgan
	4/12/2016	73.32	32.48	---	---	40.84	Kinder Morgan
	6/29/2016	73.32	32.50	---	---	40.82	Blaine Tech
	8/22/2016	73.32	32.18	---	---	41.14	Blaine Tech
	10/3/2016	73.32	33.12	---	---	40.20	Blaine Tech
	3/23/2017	73.32	30.35	---	---	42.97	CH2M
	4/17/2017	73.32	29.70	---	---	43.62	Blaine Tech
	10/2/2017	73.32	33.03	---	---	40.29	Blaine Tech
	4/16/2018	73.32	32.67	---	---	40.65	Blaine Tech
	11/5/2018	73.32	32.92	---	---	40.40	Blaine Tech
	4/23/2019	73.32	30.55	---	---	42.77	Blaine Tech
	11/1/2019	73.32	32.53	32.50	0.03	40.81	Blaine Tech
	5/4/2020	73.32	30.70	---	---	42.62	Blaine Tech
	8/20/2020	73.32	31.58	---	---	41.74	Blaine Tech
	11/2/2020	73.32	30.97	---	---	42.35	Blaine Tech
	2/24/2021	73.32	31.99	---	---	37.16	Blaine Tech
	5/3/2021	73.32	32.67	---	---	40.65	Blaine Tech
	8/31/2021	73.32	31.06	---	---	42.26	Blaine Tech
	11/1/2021	73.32	34.90	---	---	38.42	Blaine Tech
	3/10/2022	73.32	32.34	---	---	40.98	Blaine Tech
	5/9/2022	73.32	32.11	---	---	41.21	Blaine Tech
	8/24/2022	73.32	32.20	---	---	41.12	Blaine Tech
	10/31/22	73.32	NM	---	---	NC	Blaine Tech
	05/01/23	73.32	33.94	---	---	39.38	Blaine Tech
	11/6/2023	73.32	34.71	---	---	38.61	Blaine Tech
GMW-O-21	12/28/2007	71.43	27.67	---	---	43.76	Geomatrix
	8/15/2008	73.94	NM	---	---	NC	Envent
	10/17/2008	71.43	26.00	---	---	45.43	Envent
	12/19/2008	71.43	24.82	---	---	46.61	Envent
	3/27/2009	71.43	26.41	---	---	45.02	Envent
	7/21/2009	71.43	24.88	---	---	46.55	Envent
	10/19/2009	71.43	NM	---	---	NC	Blaine Tech
	11/9/2009	71.43	25.02	---	---	46.41	Kinder Morgan
	10/4/2010	71.43	25.40	---	---	46.03	Blaine Tech
	4/13/2011	71.43	23.72	---	---	47.71	Blaine Tech
	10/10/2011	71.43	24.65	---	---	46.78	Blaine Tech
	4/16/2012	71.43	NM	---	---	NC	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-O-21	7/9/2012	71.43	NM	---	---	NC	Blaine Tech
Continued	10/15/2012	71.43	32.50	---	---	38.93	Blaine Tech
	4/8/2013	71.43	NM	---	---	NC	Blaine Tech
	9/25/2013	71.43	29.25	---	---	42.18	Blaine Tech
	10/7/2013	71.43	NM	---	---	NC	Blaine Tech
	4/14/2014	71.43	28.65	28.61	0.04	42.81	Blaine Tech
	9/5/2014	71.43	29.61	28.78	0.83	42.48	Blaine Tech
	9/26/2014	71.43	29.85	28.77	1.08	42.44	Blaine Tech
	10/1/2014	71.43	29.79	28.64	1.15	42.56	Blaine Tech
	10/6/2014	71.43	29.40	28.72	0.68	42.57	Blaine Tech
	10/27/2014	71.43	29.75	28.93	0.82	42.34	Blaine Tech
	11/10/2014	71.43	29.98	28.95	1.03	42.27	Blaine Tech
	11/18/2014	71.43	30.05	28.92	1.13	42.28	Blaine Tech
	11/25/2014	71.43	29.73	28.85	0.88	42.40	Blaine Tech
	12/12/2014	71.43	30.61	29.02	1.59	42.09	Blaine Tech
	12/19/2014	71.43	30.62	29.04	1.58	42.07	Blaine Tech
	4/20/2015	71.43	30.15	28.99	1.16	42.21	Blaine Tech
	6/10/2015	71.43	31.00	30.70	0.30	40.67	Blaine Tech
	7/2/2015	71.43	32.30	29.88	2.42	41.07	Northstar
	7/7/2015	71.43	30.65	30.06	0.59	41.25	Northstar
	7/17/2015	71.43	30.40	30.10	0.30	41.27	Northstar
	7/29/2015	71.43	30.40	30.10	0.30	41.27	Northstar
	8/11/2015	71.43	31.00	30.70	0.30	40.67	Northstar
	10/19/2015	71.43	31.43	31.20	0.23	40.18	Blaine Tech
	3/14/2016	71.43	33.20	33.17	0.03	38.25	Blaine Tech
	4/11/2016	71.43	32.17	31.84	0.33	39.52	Blaine Tech
	6/29/2016	71.43	33.03	32.83	0.20	38.56	Blaine Tech
	8/22/2016	71.43	33.72	---	---	37.71	Blaine Tech
	10/3/2016	71.43	33.45	---	---	37.98	Blaine Tech
	4/17/2017	71.43	30.48	---	---	40.95	Blaine Tech
	10/2/2017	71.43	33.45	---	---	37.98	Blaine Tech
	4/16/2018	71.43	33.13	---	---	38.30	Blaine Tech
	11/5/2018	71.43	33.68	---	---	37.75	Blaine Tech
	4/16/2019	71.43	32.34	---	---	39.09	Blaine Tech
	11/1/2019	71.43	33.00	---	---	38.43	Blaine Tech
	5/4/2020	71.43	31.24	---	---	40.19	Blaine Tech
	8/20/2020	71.43	31.93	---	---	39.50	Blaine Tech
	11/2/2020	71.43	30.30	---	---	41.13	Blaine Tech
	2/24/2021	71.43	32.57	---	---	42.70	Blaine Tech
	5/3/2021	71.43	32.17	---	---	39.26	Blaine Tech
	8/31/2021	71.43	31.39	---	---	40.04	Blaine Tech
	11/1/2021	71.43	32.96	---	---	38.47	Blaine Tech
	3/10/2022	71.43	32.60	---	---	38.83	Blaine Tech
	5/9/2022	71.43	32.83	---	---	38.60	Blaine Tech
	8/24/2022	71.43	32.75	---	---	38.68	Blaine Tech
	10/31/22	71.43	30.85	---	---	40.58	Blaine Tech
	05/01/23	71.43	33.68	---	---	37.75	Blaine Tech
	11/6/2023	71.43	34.91	---	---	36.52	Blaine Tech
GMW-O-23	8/14/2007	73.63	23.33	---	---	50.30	Geomatrix
	8/21/2007	73.63	23.31	---	---	50.32	Geomatrix
	8/28/2007	73.63	23.00	---	---	50.63	Stantec
	9/11/2007	73.63	23.42	---	---	50.21	Geomatrix
	10/5/2007	73.63	27.79	---	---	45.84	Geomatrix
	11/2/2007	73.63	25.15	---	---	48.48	Geomatrix
	11/13/2007	73.63	23.90	---	---	49.73	Stantec
	12/28/2007	73.63	24.91	---	---	48.72	Geomatrix
	8/15/2008	73.63	26.28	---	---	47.35	Envent
	10/17/2008	73.63	27.16	---	---	46.47	Envent
	12/19/2008	73.63	27.60	---	---	46.03	Envent
	1/15/2009	73.63	27.54	---	---	46.09	Envent
	2/24/2009	73.63	26.19	---	---	47.44	Envent

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-O-23	3/27/2009	73.63	23.74	---	---	49.89	Envent
Continued	4/21/2009	73.63	27.30	---	---	46.33	Envent
	10/19/2009	73.63	NM	---	---	NC	Blaine Tech
	11/9/2009	73.63	27.50	---	---	46.13	Kinder Morgan
	6/22/2010	73.63	32.10	---	---	41.53	Blaine Tech
	10/4/2010	73.63	25.92	---	---	47.71	Blaine Tech
	1/10/2011	73.63	27.45	---	---	46.18	Blaine Tech
	4/11/2011	73.63	25.03	---	---	48.60	Blaine Tech
	7/11/2011	73.63	NM	---	---	NC	
	10/10/2011	73.63	25.25	---	---	48.38	Blaine Tech
	1/9/2012	73.63	25.91	---	---	47.72	Blaine Tech
	4/16/2012	73.63	27.38	---	---	46.25	Blaine Tech
	7/9/2012	73.63	27.41	---	---	46.22	Blaine Tech
	10/15/2012	73.63	26.48	---	---	47.15	Blaine Tech
	1/14/2013	73.63	29.35	---	---	44.28	Blaine Tech
	4/8/2013	73.63	29.81	27.74	2.07	45.48	Blaine Tech
	9/23/2013	73.63	29.90	---	---	43.73	Blaine Tech
	10/7/2013	73.63	32.86	28.30	4.56	44.42	Blaine Tech
	4/25/2014	73.63	29.81	29.66	0.15	43.94	Blaine Tech
	9/5/2014	73.63	32.57	28.76	3.81	44.11	Blaine Tech
	9/11/2014	73.63	32.94	28.63	4.31	44.14	Blaine Tech
	9/18/2014	73.63	32.80	28.65	4.15	44.15	Blaine Tech
	9/26/2014	73.63	32.87	28.70	4.17	44.10	Blaine Tech
	10/1/2014	73.63	32.56	28.75	3.81	44.12	Blaine Tech
	10/6/2014	73.63	32.50	28.73	3.77	44.15	Blaine Tech
	10/14/2014	73.63	32.75	28.20	4.55	44.52	Blaine Tech
	10/23/2014	73.63	32.80	28.69	4.11	44.12	Blaine Tech
	10/27/2014	73.63	32.51	28.80	3.71	44.09	Blaine Tech
	11/3/2014	73.63	32.82	29.68	3.14	43.32	Blaine Tech
	11/10/2014	73.63	32.80	28.78	4.02	44.05	Blaine Tech
	11/18/2014	73.63	32.78	29.78	3.00	43.25	Blaine Tech
	11/25/2014	73.63	32.64	28.78	3.86	44.08	Blaine Tech
	12/3/2014	73.63	33.25	28.94	4.31	43.83	Blaine Tech
	12/12/2014	73.63	32.58	29.33	3.25	43.65	Blaine Tech
	12/19/2014	73.63	32.71	29.37	3.34	43.59	Blaine Tech
	3/17/2015	73.63	30.40	30.00	0.40	43.55	Kinder Morgan
	4/22/2015	73.63	33.08	30.36	2.72	42.73	Blaine Tech
	10/22/2015	73.63	32.82	30.46	2.36	42.70	Kinder Morgan
	3/16/2016	73.63	34.43	---	---	39.20	Kinder Morgan
	4/12/2016	73.63	32.59	---	---	41.04	Kinder Morgan
	6/29/2016	73.63	33.90	---	---	39.73	Blaine Tech
	8/22/2016	73.63	33.89	---	---	39.74	Blaine Tech
	10/3/2016	73.63	34.90	---	---	38.73	Blaine Tech
	3/23/2017	73.63	31.65	---	---	41.98	CH2M
	4/17/2017	73.63	30.88	---	---	42.75	Blaine Tech
	10/2/2017	73.63	34.70	---	---	38.93	Blaine Tech
	4/16/2018	73.63	34.05	---	---	39.58	Blaine Tech
	11/5/2018	73.63	34.31	---	---	39.32	Blaine Tech
	4/16/2019	73.63	32.99	---	---	40.64	Blaine Tech
	10/28/2019	73.63	34.40	34.39	0.01	39.24	Blaine Tech
	5/4/2020	73.63	31.92	---	---	41.71	Blaine Tech
	8/20/2020	73.63	32.05	---	---	41.58	Blaine Tech
	11/2/2020	73.63	32.24	---	---	41.39	Blaine Tech
	2/24/2021	73.63	33.19	---	---	40.44	Blaine Tech
	5/3/2021	73.63	32.91	---	---	40.72	Blaine Tech
	8/31/2021	73.63	32.50	---	---	41.13	Blaine Tech
	11/1/2021	73.63	33.75	---	---	39.88	Blaine Tech
	3/10/2022	73.63	33.58	---	---	40.05	Blaine Tech
	5/9/2022	73.63	33.40	---	---	40.23	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GMW-O-24	3/10/2022	74.39	31.15	---	---	43.24	Blaine Tech
	5/9/2022	74.39	33.36	---	---	41.03	Blaine Tech
	8/24/2022	74.39	33.93	---	---	40.46	Blaine Tech
	10/31/22	74.39	34.21	---	---	40.18	
	05/01/23	74.39	32.62	---	---	41.77	
	11/6/2023	74.39	31.95	---	---	42.44	
GMW-SF-9	4/21/2009	73.00	24.19	---	---	48.81	Envent
	5/24/2010	73.00	28.31	---	---	44.69	Blaine Tech
	5/28/2010	73.00	28.37	---	---	44.63	Blaine Tech
	10/4/2010	73.00	25.28	---	---	47.72	Blaine Tech
	4/11/2011	73.00	23.90	---	---	49.10	Blaine Tech
	10/10/2011	73.00	24.70	---	---	48.30	Blaine Tech
	4/16/2012	73.00	26.99	---	---	46.01	Blaine Tech
	7/9/2012	73.00	NM	---	---	NC	Blaine Tech
	10/15/2012	73.05	34.21	---	---	38.84	Blaine Tech
	1/14/2013	73.05	34.32	---	---	38.73	Blaine Tech
	4/10/2013	73.05	27.37	---	---	45.68	Blaine Tech
	8/14/2014	73.05	29.35	28.37	0.98	44.48	Blaine Tech
	8/19/2014	73.05	28.46	28.44	0.02	44.61	Blaine Tech
	8/29/2014	73.05	29.32	28.31	1.01	44.54	Blaine Tech
	9/5/2014	73.05	29.33	28.29	1.04	44.55	Blaine Tech
	9/11/2014	73.05	29.49	28.47	1.02	44.38	Blaine Tech
	9/18/2014	73.05	28.95	28.91	0.04	44.13	Blaine Tech
	9/26/2014	73.05	28.93	28.59	0.34	44.39	Blaine Tech
	4/20/2015	73.05	29.01	---	---	44.04	Blaine Tech
	10/21/2015	73.05	29.69	---	---	43.36	Blaine Tech
	3/6/2017	73.05	28.88	---	---	44.17	CH2M
GMW-SF-10	4/21/2009	75.77	27.10	---	---	48.67	Envent
	10/4/2010	75.77	28.03	---	---	47.74	Blaine Tech
	4/11/2011	75.77	26.80	---	---	48.97	Blaine Tech
	10/10/2011	75.77	27.60	---	---	48.17	Blaine Tech
	4/16/2012	75.77	28.81	---	---	46.96	Blaine Tech
	7/9/2012	75.77	NM	---	---	NC	Blaine Tech
	10/15/2012	75.77	29.88	---	---	45.89	Blaine Tech
	4/8/2013	75.77	DRY	---	---	NC	Blaine Tech
GWR-3	4/30/2007	74.93	27.97	---	---	46.96	Secor
	11/12/2007	74.93	27.90	---	---	47.03	Stantec
	10/17/2008	74.93	29.88	---	---	45.05	Envent
	12/17/2008	74.93	19.71	---	---	55.22	Envent
	1/15/2009	74.93	29.27	29.26	0.26	45.88	Envent
	3/27/2009	74.93	27.18	---	---	47.75	Envent
	4/21/2009	74.93	29.97	---	---	44.96	Envent
	7/21/2009	74.93	28.77	---	---	46.16	Envent
	10/19/2009	74.93	NM	---	---	NC	Blaine Tech
	10/4/2010	74.93	30.67	---	---	44.26	Blaine Tech
	4/11/2011	74.93	29.94	---	---	44.99	Blaine Tech
	10/10/2011	74.93	29.22	---	---	45.71	Blaine Tech
	4/16/2012	74.93	29.56	---	---	45.37	Blaine Tech
	7/9/2012	---	NM	---	---	NC	Blaine Tech
	10/15/2012	77.6	31.21	---	---	46.39	Blaine Tech
	4/8/2013	77.6	29.21	29.18	0.03	48.41	Blaine Tech
	10/7/2013	77.6	36.20	31.67	4.53	45.16	Blaine Tech
	4/14/2014	77.6	38.80	32.23	6.57	44.25	Blaine Tech
	5/5/2014	77.6	38.81	32.31	6.50	44.18	Nieto & Sons
	5/12/2014	77.6	36.34	32.77	3.57	44.22	Nieto & Sons
	5/27/2014	77.6	36.11	33.20	2.91	43.91	Nieto & Sons
	6/4/2014	77.6	34.57	31.61	2.96	45.49	Nieto & Sons
	8/8/2014	77.6	37.92	33.38	4.54	43.45	Blaine Tech
	8/13/2014	77.6	35.38	33.18	2.20	44.05	Blaine Tech
	8/19/2014	77.6	35.28	33.25	2.03	44.00	Blaine Tech
	8/29/2014	77.6	35.72	33.12	2.60	44.04	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
GWR-3	9/5/2014	77.6	35.68	33.19	2.49	43.99	Blaine Tech
Continued	9/11/2014	77.6	36.05	33.04	3.01	44.05	Blaine Tech
	9/18/2014	77.60	35.34	33.27	2.07	43.98	Blaine Tech
	9/26/2014	77.60	35.25	33.24	2.01	44.02	Blaine Tech
	10/1/2014	77.60	36.44	34.01	2.43	43.18	Blaine Tech
	10/6/2014	77.60	34.71	33.33	1.38	44.04	Blaine Tech
	10/14/2014	77.60	35.15	33.20	1.95	44.07	Blaine Tech
	10/23/2014	77.60	35.36	33.20	2.16	44.03	Blaine Tech
	10/27/2014	77.60	34.68	33.49	1.19	43.91	Blaine Tech
	11/3/2014	77.60	35.43	33.18	2.25	44.04	Blaine Tech
	11/10/2014	77.60	35.02	33.32	1.70	43.99	Blaine Tech
	11/18/2014	77.60	35.05	33.34	1.71	43.97	Blaine Tech
	11/25/2014	77.60	35.04	33.36	1.68	43.95	Blaine Tech
	12/3/2014	77.60	34.95	33.34	1.61	43.99	Blaine Tech
	12/12/2014	77.60	35.11	33.64	1.47	43.71	Blaine Tech
	12/19/2014	77.60	35.55	33.67	1.88	43.61	Blaine Tech
	4/20/2015	77.60	37.25	33.34	3.91	43.60	Blaine Tech
	7/24/2015	77.60	41.30	33.95	7.35	42.40	Northstar
	8/12/2015	77.60	37.03	34.42	2.61	42.74	Northstar
	10/20/2015	77.60	35.98	34.65	1.33	42.72	Blaine Tech
	3/16/2016	77.60	38.60	---	---	39.00	Kinder Morgan
	4/11/2016	77.60	36.90	---	---	40.70	Blaine Tech
	6/29/2016	77.60	37.77	---	---	39.83	Blaine Tech
	8/22/2016	77.60	38.24	---	---	39.36	Blaine Tech
	10/3/2016	77.60	39.20	39.15	0.05	38.44	Blaine Tech
	3/7/2017	77.60	35.62	---	---	41.98	CH2M
	4/17/2017	77.60	34.88	---	---	42.72	Blaine Tech
	10/2/2017	77.60	38.92	---	---	38.68	Blaine Tech
	4/16/2018	77.60	38.73	---	---	38.87	Blaine Tech
	11/5/2018	77.60	38.42	---	---	39.18	Blaine Tech
	4/16/2019	77.60	37.16	---	---	40.44	Blaine Tech
	10/28/2019	77.60	38.58	---	---	39.02	Blaine Tech
	5/4/2020	77.60	36.02	---	---	41.58	Blaine Tech
	11/2/2020	77.60	35.51	---	---	42.09	Blaine Tech
	5/3/2021	77.60	36.18	---	---	41.42	Blaine Tech
	11/1/2021	77.60	38.07	---	---	39.53	Blaine Tech
	5/9/2022	77.60	37.21	---	---	40.39	Blaine Tech
	10/31/22	77.60	37.43	---	---	40.17	Blaine Tech
	05/01/23	77.60	37.34	---	---	40.26	Blaine Tech
	11/6/2023	77.6	38.5	---	---	39.10	Blaine Tech
MW-18 (MID)	4/30/2007	75.67	29.77	---	---	45.90	Secor
	11/12/2007	75.67	30.23	---	---	45.44	Secor
	4/14/2008	75.67	30.45	---	---	45.22	Secor
	10/13/2008	75.67	31.15	---	---	44.52	Stantec
	4/20/2009	75.67	31.49	---	---	44.18	Blaine Tech
	10/19/2009	75.67	32.62	---	---	43.05	Blaine Tech
	5/24/2010	75.67	32.26	---	---	43.41	Blaine Tech
	5/28/2010	75.67	32.17	---	---	43.50	Blaine Tech
	10/4/2010	75.67	32.30	---	---	43.37	Blaine Tech
	4/11/2011	75.67	31.28	---	---	44.39	Blaine Tech
	10/10/2011	75.67	31.51	---	---	44.16	Blaine Tech
	4/16/2012	75.67	31.75	---	---	43.92	Blaine Tech
	7/9/2012	75.67	NM	---	---	NC	Blaine Tech
	10/15/2012	75.67	33.41	---	---	42.26	Blaine Tech
	4/8/2013	75.67	30.68	---	---	44.99	Blaine Tech
	10/7/2013	75.67	35.33	---	---	40.34	Blaine Tech
	4/14/2014	75.67	35.40	---	---	40.27	Blaine Tech
	10/27/2014	75.67	35.81	---	---	39.86	Blaine Tech
	4/20/2015	75.67	36.29	---	---	39.38	Blaine Tech
	10/19/2015	75.67	36.99	---	---	38.68	Blaine Tech
	3/14/2016	75.67	40.70	---	---	34.97	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-18 (MID)	4/11/2016	75.67	38.89	---	---	36.78	Blaine Tech
Continued	6/29/2016	75.67	39.94	---	---	35.73	Blaine Tech
	8/22/2016	75.67	40.14	---	---	35.53	Blaine Tech
	10/3/2016	75.67	40.93	---	---	34.74	Blaine Tech
	4/17/2017	75.67	37.50	---	---	38.17	Blaine Tech
	10/2/2017	75.67	40.26	---	---	35.41	Blaine Tech
	4/16/2018	75.67	40.46	---	---	35.21	Blaine Tech
	11/5/2018	75.67	40.50	---	---	35.17	Blaine Tech
	4/16/2019	75.67	38.39	---	---	37.28	Blaine Tech
	10/28/2019	75.67	40.42	---	---	35.25	Blaine Tech
	5/4/2020	75.67	37.96	---	---	37.71	Blaine Tech
	11/2/2020	75.67	34.83	---	---	40.84	Blaine Tech
	5/3/2021	75.67	38.57	---	---	37.10	Blaine Tech
	11/1/2021	75.67	40.02	---	---	35.65	Blaine Tech
	5/9/2022	75.67	29.62	---	---	46.05	Blaine Tech
	10/31/22	75.67	39.70	---	---	35.97	
	05/01/23	75.67	39.86	---	---	35.81	
	11/6/2023	75.67	39.88	---	---	35.79	
MW-O-1	4/30/2007	75.48	24.10	23.98	0.12	51.48	Secor
	8/14/2007	75.48	25.31	23.78	1.53	51.39	Geomatrix
	8/21/2007	75.48	23.84	23.58	0.26	51.85	Geomatrix
	8/28/2007	75.48	23.07	23.06	0.01	52.42	Stantec
	9/11/2007	75.48	23.86	23.48	0.38	51.92	Geomatrix
	10/5/2007	75.48	24.67	---	---	50.81	Geomatrix
	11/2/2007	75.48	24.25	---	---	51.23	Geomatrix
	11/12/2007	75.48	24.27	24.25	0.02	51.23	Stantec
	12/28/2007	75.48	25.54	25.51	0.03	49.96	Geomatrix
	8/15/2008	75.48	NM	---	---	NC	Envent
	8/19/2008	75.48	25.18	25.13	0.05	50.34	Envent
	10/17/2008	75.48	25.30	---	---	50.18	Envent
	12/19/2008	75.48	26.31	---	---	49.17	Envent
	1/15/2009	75.48	25.84	---	---	49.64	Envent
	4/21/2009	75.48	25.41	---	---	50.07	Envent
	10/19/2009	75.48	26.30	---	---	49.18	Blaine Tech
	10/4/2010	75.48	26.90	---	---	48.58	Blaine Tech
	4/11/2011	75.48	25.59	---	---	49.89	Blaine Tech
	10/10/2011	75.48	26.52	---	---	48.96	Blaine Tech
	4/16/2012	75.48	27.25	---	---	48.23	Blaine Tech
	7/9/2012	75.48	NM	---	---	NC	Blaine Tech
	10/15/2012	75.48	28.94	---	---	46.54	Blaine Tech
	4/8/2013	75.48	28.81	---	---	46.67	Blaine Tech
	10/7/2013	75.48	29.21	---	---	46.27	Blaine Tech
	4/14/2014	75.48	29.82	---	---	45.66	Blaine Tech
	10/27/2014	75.48	29.92	---	---	45.56	Blaine Tech
	4/20/2015	75.48	30.39	---	---	45.09	Blaine Tech
	10/27/2015	75.48	27.67	---	---	47.81	Blaine Tech
	3/14/2016	75.48	DRY	---	---	NC	Blaine Tech
	4/11/2016	75.48	DRY	---	---	NC	Blaine Tech
	6/29/2016	75.48	DRY	---	---	NC	Blaine Tech
	8/22/2016	75.48	DRY	---	---	NC	Blaine Tech
	10/3/2016	75.48	DRY	---	---	NC	Blaine Tech
	4/17/2017	75.48	DRY	---	---	NC	Blaine Tech
	10/2/2017	75.48	DRY	---	---	NC	Blaine Tech
	4/16/2018	75.48	DRY	---	---	NC	Blaine Tech
	11/5/2018	75.48	DRY	---	---	NC	Blaine Tech
	4/16/2019	75.48	32.09	---	---	43.39	Blaine Tech
	10/28/2019	75.48	DRY	---	---	NC	Blaine Tech
	5/4/2020	75.48	31.98	---	---	43.50	Blaine Tech
	8/20/2020	75.48	32.86	---	---	42.62	Blaine Tech
	11/2/2020	75.48	DRY	---	---	NC	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-O-1	2/24/2021	75.48	33.02	---	---	34.37	Blaine Tech
Continued	5/3/2021	75.48	DRY	---	---	NC	Blaine Tech
	8/31/2021	75.48	DRY	---	---	NC	Blaine Tech
	11/1/2021	75.48	DRY	---	---	NC	Blaine Tech
	3/10/2022	75.48	DRY	---	---	NC	Blaine Tech
	5/9/2022	75.48	DRY	---	---	NC	Blaine Tech
MW-O-2	4/30/2007	74.31	22.53	---	---	51.78	Secor
	11/12/2007	71.90	23.10	---	---	48.80	Stantec
	8/15/2008	71.90	NM	---	---	NC	Envent
	10/17/2008	71.90	24.85	---	---	47.05	Envent
	12/19/2008	71.90	25.51	---	---	46.39	Envent
	3/27/2009	71.90	25.22	---	---	46.68	Envent
	4/21/2009	71.90	NM	---	---	NC	Envent
	7/21/2009	71.90	23.63	---	---	48.27	Envent
	10/19/2009	71.90	NM	---	---	NC	Blaine Tech
	11/9/2009	71.90	25.39	---	---	46.51	Kinder Morgan
	10/4/2010	71.90	26.05	---	---	45.85	Blaine Tech
	4/13/2011	71.90	23.31	---	---	48.59	Blaine Tech
	10/10/2011	71.90	27.53	---	---	44.37	Blaine Tech
	1/9/2012	71.90	28.13	---	---	43.77	Blaine Tech
	4/16/2012	71.90	NM	---	---	NC	Blaine Tech
	7/9/2012	71.90	26.53	---	---	45.37	Blaine Tech
	10/15/2012	71.90	26.89	---	---	45.01	Blaine Tech
	1/14/2013	71.90	26.93	---	---	44.97	Blaine Tech
	4/8/2013	71.90	NM	---	---	NC	Blaine Tech
	6/6/2013	71.90	28.99	---	---	42.91	Blaine Tech
	10/7/2013	71.90	29.06	---	---	42.84	Blaine Tech
	4/14/2014	71.90	29.36	---	---	42.54	Blaine Tech
	10/27/2014	71.90	29.81	29.65	0.16	42.22	Blaine Tech
	4/20/2015	71.90	30.94	29.34	1.60	42.24	Blaine Tech
	5/21/2015	71.90	32.50	27.31	5.19	43.55	Northstar
	5/29/2015	71.90	31.52	30.20	1.32	41.44	Northstar
	6/5/2015	71.90	31.45	30.57	0.88	41.15	Northstar
	6/12/2015	71.90	31.05	30.60	0.45	41.21	Northstar
	6/19/2015	71.90	31.10	30.90	0.20	40.96	Northstar
	6/26/2015	71.90	31.66	31.37	0.29	40.47	Northstar
	10/19/2015	71.90	32.39	30.53	1.86	41.00	Blaine Tech
	3/14/2016	71.90	35.49	34.86	0.63	36.91	Blaine Tech
	4/11/2016	71.90	33.03	32.54	0.49	39.26	Blaine Tech
	6/30/2016	71.90	34.20	---	---	37.70	Kinder Morgan
	8/22/2016	71.90	33.93	---	---	37.97	Kinder Morgan
	10/3/2016	71.90	34.30	34.22	0.08	37.66	Blaine Tech
	4/17/2017	71.90	30.91	30.85	0.06	41.04	Blaine Tech
	10/2/2017	71.90	34.67	---	---	37.23	Blaine Tech
	4/16/2018	71.90	34.18	34.16	0.02	37.74	Blaine Tech
	11/5/2018	71.90	34.30	---	---	37.60	Blaine Tech
	4/16/2019	71.90	31.44	---	---	40.46	Blaine Tech
	10/28/2019	71.90	NM	---	---	NC	Blaine Tech
	5/4/2020	71.90	31.87	---	---	40.03	Blaine Tech
	8/20/2020	71.90	32.08	---	---	39.82	Blaine Tech
	11/2/2020	71.90	30.60	---	---	41.30	Blaine Tech
	2/24/2021	71.90	33.16	---	---	38.74	Blaine Tech
	5/3/2021	71.90	32.94	---	---	38.96	Blaine Tech
	8/31/2021	71.90	32.60	---	---	39.30	Blaine Tech
	11/1/2021	71.90	33.61	---	---	38.29	Blaine Tech
	3/10/2022	71.90	33.52	---	---	38.38	Blaine Tech
	5/9/2022	71.90	33.36	---	---	38.54	Blaine Tech
	8/24/2022	71.90	33.70	---	---	38.20	Blaine Tech
	11/6/2023	71.9	33.14	---	---	38.76	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-1	3/12/2007	78.93	28.71	---	---	50.22	Secor
	4/30/2007	78.93	28.44	---	---	50.49	Secor
	8/28/2007	78.93	27.94	---	---	50.99	Stantec
	11/12/2007	78.93	28.76	---	---	50.17	Stantec
	2/19/2008	78.93	29.50	---	---	49.43	Stantec
	4/14/2008	78.93	29.16	---	---	49.77	Stantec
	8/11/2008	78.93	29.75	---	---	49.18	Stantec
	10/13/2008	78.93	29.86	---	---	49.07	Stantec
	2/23/2009	78.93	30.00	---	---	48.93	Blaine Tech
	4/20/2009	78.93	29.97	---	---	48.96	Blaine Tech
	7/20/2009	78.93	30.98	---	---	47.95	Blaine Tech
	7/22/2009	78.93	30.98	---	---	47.95	Blaine Tech
	10/19/2009	78.93	31.11	---	---	47.82	Blaine Tech
	3/15/2010	78.93	31.74	---	---	47.19	Blaine Tech
	5/24/2010	78.93	30.79	---	---	48.14	Blaine Tech
	5/28/2010	78.93	30.57	---	---	48.36	Blaine Tech
	6/22/2010	78.93	30.84	---	---	48.09	Blaine Tech
	7/12/2010	78.93	30.51	---	---	48.42	Blaine Tech
	10/4/2010	78.93	30.88	---	---	48.05	Blaine Tech
	1/10/2011	78.93	32.51	---	---	46.42	Blaine Tech
	4/11/2011	78.93	29.87	---	---	49.06	Blaine Tech
	7/11/2011	78.93	29.84	---	---	49.09	Blaine Tech
	10/10/2011	78.93	29.60	---	---	49.33	Blaine Tech
	1/9/2012	78.93	31.25	---	---	47.68	Blaine Tech
	4/16/2012	78.93	32.59	---	---	46.34	Blaine Tech
	7/9/2012	78.93	31.24	---	---	47.69	Blaine Tech
	10/15/2012	78.93	32.23	---	---	46.70	Blaine Tech
	1/14/2013	78.93	33.88	---	---	45.05	Blaine Tech
	4/8/2013	78.93	33.38	---	---	45.55	Blaine Tech
	10/7/2013	78.93	37.14	31.72	5.42	46.13	Blaine Tech
	4/14/2014	78.93	37.40	32.69	4.71	45.30	Blaine Tech
	5/6/2014	78.93	39.99	32.82	7.17	44.68	Nieto & Sons
	5/12/2014	78.93	37.31	33.55	3.76	44.63	Nieto & Sons
	5/20/2014	78.93	37.10	34.60	2.50	43.83	Nieto & Sons
	5/27/2014	78.93	36.62	34.30	2.32	44.17	Nieto & Sons
	6/4/2014	78.93	35.98	35.27	0.71	43.52	Nieto & Sons
	6/10/2014	78.93	36.91	34.48	2.43	43.96	Nieto & Sons
	7/3/2014	78.93	36.72	34.71	2.01	43.82	Nieto & Sons
	7/8/2014	78.93	36.60	34.45	2.15	44.05	Blaine Tech
	7/18/2014	78.93	35.18	34.77	0.41	44.08	Blaine Tech
	7/24/2014	78.93	35.30	34.62	0.68	44.17	Blaine Tech
	8/1/2014	78.93	34.74	34.44	0.30	44.43	Blaine Tech
	8/14/2014	78.93	34.75	34.41	0.34	44.45	Blaine Tech
	8/19/2014	78.93	34.66	34.37	0.29	44.50	Blaine Tech
	8/29/2014	78.93	35.65	35.38	0.27	43.50	Blaine Tech
	9/18/2014	78.93	34.85	34.49	0.36	44.37	Blaine Tech
	9/26/2014	78.93	34.78	34.45	0.33	44.41	Blaine Tech
	10/1/2014	78.93	34.77	34.41	0.36	44.45	Blaine Tech
	10/6/2014	78.93	34.78	34.42	0.36	44.44	Blaine Tech
	10/14/2014	78.93	34.65	34.41	0.24	44.47	Blaine Tech
	10/23/2014	78.93	34.84	34.45	0.39	44.40	Blaine Tech
	10/27/2014	78.93	34.80	34.43	0.37	44.43	Blaine Tech
	11/10/2014	78.93	34.91	34.51	0.40	44.34	Blaine Tech
	11/18/2014	78.93	34.80	34.43	0.37	44.43	Blaine Tech
	11/25/2014	78.93	34.53	34.51	0.02	44.42	Blaine Tech
	12/12/2014	78.93	35.18	34.78	0.40	44.07	Blaine Tech
	12/19/2014	78.93	35.34	34.88	0.46	43.96	Blaine Tech
	4/20/2015	78.93	34.89	34.48	0.41	44.37	Blaine Tech
	5/19/2015	78.93	38.45	34.55	3.90	43.60	Northstar
	5/29/2015	78.93	36.36	35.22	1.14	43.48	Northstar

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-1	6/5/2015	78.93	36.50	35.43	1.07	43.29	Northstar
Continued	6/12/2015	78.93	35.80	35.41	0.39	43.44	Northstar
	6/19/2015	78.93	36.02	35.42	0.60	43.39	Northstar
	6/26/2015	78.93	36.60	36.45	0.15	42.45	Northstar
	10/19/2015	78.93	36.35	35.53	0.82	43.24	Blaine Tech
	11/17/2015	78.93	35.65	---	---	43.28	Kinder Morgan
	3/14/2016	78.93	40.40	---	---	38.53	Blaine Tech
	4/11/2016	78.93	37.96	---	---	40.97	Blaine Tech
	6/29/2016	78.93	39.05	---	---	39.88	Blaine Tech
	8/22/2016	78.93	39.04	---	---	39.87	Blaine Tech
	10/3/2016	78.93	39.20	---	---	39.73	Blaine Tech
	4/17/2017	78.93	35.75	---	---	43.18	Blaine Tech
	10/2/2017	78.93	39.98	---	---	38.95	Blaine Tech
	4/16/2018	78.93	39.43	---	---	39.50	Blaine Tech
	11/5/2018	78.93	39.20	---	---	39.73	Blaine Tech
	4/16/2019	78.93	37.94	---	---	40.99	Blaine Tech
	10/28/2019	78.93	39.41	---	---	39.52	Blaine Tech
	5/4/2020	78.93	36.65	---	---	42.28	Blaine Tech
	11/2/2020	78.93	37.39	---	---	41.54	Blaine Tech
	5/3/2021	78.93	38.03	---	---	40.90	Blaine Tech
	11/1/2021	78.93	39.29	---	---	39.64	Blaine Tech
	5/9/2022	78.93	38.52	---	---	40.41	Blaine Tech
	10/31/22	78.93	38.68	---	---	40.25	Blaine Tech
	05/01/23	78.93	DRY	---	---	NC	Blaine Tech
	11/6/2023	71.9	33.14	---	---	38.76	Blaine Tech
MW-SF-2	4/30/2007	78.45	28.35	28.34	0.01	50.11	Secor
	11/12/2007	78.45	29.18	28.71	0.47	49.65	Stantec
	8/12/2008	78.45	31.11	---	---	47.34	Envent
	10/17/2008	78.45	31.55	31.50	0.05	46.94	Envent
	12/18/2008	78.53	32.75	32.55	0.20	45.94	Envent
	1/15/2009	78.53	30.84	30.57	0.27	47.91	Envent
	3/24/2009	78.53	28.85	---	---	49.68	Envent
	4/21/2009	78.53	29.98	---	---	48.55	Envent
	7/21/2009	78.53	29.85	---	---	48.68	Envent
	10/19/2009	78.53	NM	---	---	NC	Blaine Tech
	12/9/2009	78.53	31.45	---	---	47.08	Kinder Morgan
	10/4/2010	78.53	30.96	30.75	0.21	47.74	Blaine Tech
	1/10/2011	78.53	32.62	32.50	0.12	46.01	Blaine Tech
	4/11/2011	78.53	29.83	---	---	48.70	Blaine Tech
	7/11/2011	78.53	NM	---	---	NC	
	10/10/2011	78.53	29.82	---	---	48.71	Blaine Tech
	1/9/2012	78.53	30.52	---	---	48.01	Blaine Tech
	4/16/2012	78.53	31.28	---	---	47.25	Blaine Tech
	7/9/2012	78.53	33.18	---	---	45.35	Blaine Tech
	10/15/2012	78.53	32.11	---	---	46.42	Blaine Tech
	1/14/2013	78.53	33.59	---	---	44.94	Blaine Tech
	4/8/2013	78.53	33.32	---	---	45.21	Blaine Tech
	10/7/2013	78.53	34.58	33.08	1.50	45.15	Blaine Tech
	4/14/2014	78.53	37.50	33.27	4.23	44.41	Blaine Tech
	5/6/2014	78.53	37.71	33.24	4.47	44.40	Nieto & Sons
	5/12/2014	78.53	37.53	33.34	4.19	44.35	Nieto & Sons
	5/20/2014	78.53	37.62	33.51	4.11	44.20	Nieto & Sons
	5/27/2014	78.53	38.24	33.77	4.47	43.87	Nieto & Sons
	6/4/2014	78.53	34.63	---	---	43.90	Nieto & Sons
	6/10/2014	78.53	38.49	34.00	4.49	43.63	Nieto & Sons
	8/8/2014	78.53	36.23	33.82	2.41	44.23	Blaine Tech
	8/13/2014	78.53	36.75	33.59	3.16	44.31	Blaine Tech
	8/19/2014	78.53	36.90	33.60	3.30	44.27	Blaine Tech
	8/29/2014	78.53	37.11	33.53	3.58	44.28	Blaine Tech
	9/5/2014	78.53	37.09	33.51	3.58	44.30	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-2	9/11/2014	78.53	37.12	33.51	3.61	44.30	Blaine Tech
Continued	9/18/2014	78.53	36.89	33.60	3.29	44.27	Blaine Tech
	9/26/2014	78.53	37.28	33.54	3.74	44.24	Blaine Tech
	10/1/2014	78.53	37.18	33.56	3.62	44.25	Blaine Tech
	10/6/2014	78.53	37.16	33.59	3.57	44.23	Blaine Tech
	10/14/2014	78.53	37.15	33.64	3.51	44.19	Blaine Tech
	10/23/2014	78.53	37.24	33.61	3.63	44.19	Blaine Tech
	10/27/2014	78.53	37.04	33.54	3.50	44.29	Blaine Tech
	11/3/2014	78.53	37.14	33.55	3.59	44.26	Blaine Tech
	11/10/2014	78.53	37.33	33.56	3.77	44.22	Blaine Tech
	11/18/2014	78.53	37.21	33.64	3.57	44.18	Blaine Tech
	11/25/2014	78.53	37.40	33.69	3.71	44.10	Blaine Tech
	12/3/2014	78.53	37.16	33.60	3.56	44.22	Blaine Tech
	12/12/2014	78.53	38.05	33.91	4.14	43.79	Blaine Tech
	12/19/2014	78.53	38.40	33.95	4.45	43.69	Blaine Tech
	4/20/2015	78.53	36.15	34.73	1.42	43.52	Blaine Tech
	6/25/2015	78.53	38.95	35.57	3.38	42.28	Blaine Tech
	10/21/2015	78.53	36.32	36.13	0.19	42.36	Kinder Morgan
	3/16/2016	78.53	39.27	---	---	39.26	Kinder Morgan
	4/11/2016	78.53	37.47	---	---	41.06	Blaine Tech
	6/29/2016	78.53	38.08	---	---	40.45	Blaine Tech
	8/22/2016	78.53	38.83	---	---	39.70	Blaine Tech
	10/3/2016	78.53	39.60	---	---	38.93	Blaine Tech
	3/10/2017	78.53	36.47	---	---	42.06	CH2M
	4/17/2017	78.53	35.78	---	---	42.75	Blaine Tech
	10/2/2017	78.53	39.68	---	---	38.85	Blaine Tech
	4/16/2018	78.53	39.47	---	---	39.06	Blaine Tech
	11/5/2018	78.53	39.55	---	---	38.98	Blaine Tech
	4/16/2019	78.53	37.95	---	---	40.58	Blaine Tech
	10/28/2019	78.53	39.26	---	---	39.27	Blaine Tech
	5/4/2020	78.53	36.66	---	---	41.87	Blaine Tech
	11/2/2020	78.53	37.14	---	---	41.39	Blaine Tech
	5/3/2021	78.53	37.82	---	---	40.71	Blaine Tech
	11/1/2021	78.53	39.30	---	---	39.23	Blaine Tech
	5/9/2022	78.53	38.17	---	---	40.36	Blaine Tech
	05/01/23	78.53	38.17	---	---	40.36	Blaine Tech
	11/6/2023	78.53	39.63	---	---	38.90	Blaine Tech
MW-SF-3	4/30/2007	77.62	27.72	27.45	0.27	50.12	Secor
	11/12/2007	77.62	29.34	28.28	1.06	49.13	Stantec
	8/12/2008	77.62	30.30	29.05	1.25	48.32	Envent
	10/17/2008	77.62	29.45	---	---	48.17	Envent
	12/18/2008	78.12	31.08	30.82	0.26	47.25	Envent
	1/15/2009	78.12	29.96	29.94	0.02	48.18	Envent
	3/20/2009	78.12	31.10	---	---	47.02	Envent
	3/24/2009	78.12	27.82	---	---	50.30	Envent
	4/21/2009	78.12	29.51	29.50	0.01	48.62	Envent
	7/21/2009	78.12	30.07	---	---	48.05	Envent
	10/19/2009	78.12	NM	---	---	NC	Blaine Tech
	11/6/2009	78.12	30.37	30.35	0.02	47.77	Kinder Morgan
	12/9/2009	78.12	30.53	---	---	47.59	Kinder Morgan
	9/3/2010	78.12	30.97	30.42	0.55	47.59	Kinder Morgan
	10/4/2010	78.12	30.88	30.30	0.58	47.70	Blaine Tech
	4/12/2011	78.12	29.44	---	---	48.68	Blaine Tech
	10/10/2011	78.12	30.75	---	---	47.37	Blaine Tech
	4/16/2012	78.12	NM	---	---	NC	Blaine Tech
	7/9/2012	78.12	NM	---	---	NC	Blaine Tech
	10/15/2012	78.12	32.47	---	---	45.65	Blaine Tech
	5/24/2013	78.12	33.35	32.51	0.84	45.44	Blaine Tech
	9/25/2013	78.12	34.40	---	---	43.72	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-3	10/7/2013	78.12	NM	---	---	NC	Blaine Tech
Continued	11/14/2013	78.12	33.26	---	---	44.86	Blaine Tech
	4/18/2014	78.12	33.72	33.62	0.10	44.48	Blaine Tech
	8/8/2014	78.12	34.07	33.71	0.36	44.34	Blaine Tech
	10/14/2014	78.12	34.55	33.92	0.63	44.07	Blaine Tech
	10/23/2014	78.12	34.57	33.94	0.63	44.05	Blaine Tech
	10/27/2014	78.12	34.49	33.85	0.64	44.14	Blaine Tech
	11/10/2014	78.12	34.65	33.94	0.71	44.04	Blaine Tech
	11/18/2014	78.12	34.62	33.88	0.74	44.09	Blaine Tech
	11/25/2014	78.12	34.22	33.94	0.28	44.12	Blaine Tech
	12/12/2014	78.12	34.89	34.38	0.51	43.64	Blaine Tech
	12/19/2014	78.12	35.04	34.43	0.61	43.57	Blaine Tech
	4/20/2015	78.12	34.52	---	---	43.60	Blaine Tech
	10/21/2015	78.12	35.18	---	---	42.94	Kinder Morgan
	3/14/2016	78.12	39.43	39.40	0.03	38.71	Blaine Tech
	4/11/2016	78.12	37.17	---	---	40.95	Blaine Tech
	6/30/2016	78.12	38.28	---	---	39.84	Kinder Morgan
	8/22/2016	78.12	38.33	---	---	39.79	Kinder Morgan
	10/3/2016	78.12	39.40	---	---	38.72	Kinder Morgan
	3/8/2017	78.12	35.75	---	---	42.37	CH2M
	4/17/2017	78.12	35.15	---	---	42.97	Blaine Tech
	10/2/2017	78.12	39.20	---	---	38.92	Blaine Tech
	4/16/2018	78.12	38.81	---	---	39.31	Blaine Tech
	11/5/2018	78.12	38.69	---	---	39.43	Blaine Tech
	4/16/2019	78.12	NM	---	---	NC	Blaine Tech
	10/28/2019	78.12	38.77	---	---	39.35	Blaine Tech
	5/4/2020	78.12	36.19	---	---	41.93	Blaine Tech
	11/2/2020	78.12	36.55	---	---	41.57	Blaine Tech
	5/3/2021	78.12	37.51	---	---	40.61	Blaine Tech
	11/1/2021	78.12	38.59	---	---	39.53	Blaine Tech
	5/9/2022	78.12	37.75	---	---	40.37	Blaine Tech
	05/01/23	78.12	38.02	---	---	40.10	Blaine Tech
	11/6/2023	78.12	38.64	---	---	39.48	Blaine Tech
MW-SF-4	3/12/2007	79.38	30.01	29.41	0.60	49.85	Secor
	4/30/2007	79.38	29.96	29.11	0.85	50.10	Secor
	8/14/2007	79.38	30.34	28.38	1.96	50.60	Geomatrix
	8/28/2007	79.38	29.95	28.30	1.65	50.74	Stantec
	9/11/2007	79.38	29.98	28.43	1.55	50.63	Geomatrix
	10/5/2007	79.38	30.68	28.85	1.83	50.15	Geomatrix
	10/12/2007	79.38	30.27	29.96	0.31	49.36	Geomatrix
	10/19/2007	79.38	30.28	---	---	49.10	Geomatrix
	10/26/2007	79.38	30.52	---	---	48.86	Geomatrix
	11/2/2007	79.38	30.68	---	---	48.70	Geomatrix
	11/12/2007	79.38	29.70	29.69	0.01	49.69	Stantec
	12/21/2007	79.38	30.69	---	---	48.69	Geomatrix
	2/19/2008	79.38	30.22	---	---	49.16	Stantec
	3/21/2008	79.38	30.07	---	---	49.31	Envent
	4/14/2008	79.38	29.95	---	---	49.43	Stantec
	8/8/2008	79.38	30.51	---	---	48.87	Envent
	8/11/2008	79.38	30.57	---	---	48.81	Stantec
	10/16/2008	79.38	30.77	---	---	48.61	Envent
	1/15/2009	79.38	31.14	---	---	48.24	Envent
	2/20/2009	79.38	30.84	---	---	48.54	Envent
	2/23/2009	79.38	30.96	---	---	48.42	Blaine Tech
	4/20/2009	79.38	30.02	29.94	0.08	49.42	Blaine Tech
	4/28/2009	79.38	30.78	---	---	48.60	Envent
	7/17/2009	79.38	31.85	---	---	47.53	Envent
	7/20/2009	79.38	31.65	31.61	0.04	47.76	Blaine Tech
	7/22/2009	79.38	31.65	31.61	0.04	47.76	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-4	10/19/2009	79.38	31.93	31.90	0.03	47.47	Blaine Tech
Continued	3/15/2010	79.38	31.95	31.91	0.04	47.46	Blaine Tech
	5/24/2010	79.38	31.60	---	---	47.78	Blaine Tech
	5/28/2010	79.38	26.40	---	---	52.98	Blaine Tech
	6/22/2010	79.38	31.63	---	---	47.75	Blaine Tech
	7/12/2010	79.38	31.37	---	---	48.01	Blaine Tech
	10/4/2010	79.38	31.81	---	---	47.57	Blaine Tech
	1/10/2011	79.38	32.99	---	---	46.39	Blaine Tech
	4/11/2011	79.38	30.85	---	---	48.53	Blaine Tech
	7/11/2011	79.38	30.35	---	---	49.03	Blaine Tech
	10/10/2011	79.38	NM	---	---	NC	Blaine Tech
	1/9/2012	79.38	32.07	---	---	47.31	Blaine Tech
	4/16/2012	79.38	33.35	---	---	46.03	Blaine Tech
	7/9/2012	79.38	32.11	---	---	47.27	Blaine Tech
	10/15/2012	79.38	34.04	---	---	45.34	Blaine Tech
	1/14/2013	79.38	34.52	---	---	44.86	Blaine Tech
	4/8/2013	79.38	DRY	---	---	NC	Blaine Tech
	10/7/2013	79.38	DRY	---	---	NC	Blaine Tech
	4/25/2014	79.38	40.03	34.23	5.80	43.96	Blaine Tech
	5/6/2014	79.38	39.78	33.91	5.87	44.27	Nieto & Sons
	5/12/2014	79.38	37.02	34.64	2.38	44.25	Nieto & Sons
	5/20/2014	79.38	36.60	35.60	1.00	43.58	Nieto & Sons
	5/27/2014	79.38	36.12	35.45	0.67	43.79	Nieto & Sons
	6/4/2014	79.38	36.54	35.91	0.63	43.34	Nieto & Sons
	6/10/2014	79.38	37.02	35.38	1.64	43.66	Nieto & Sons
	7/3/2014	79.38	36.98	35.63	1.35	43.47	Nieto & Sons
	7/8/2014	79.38	36.78	35.34	1.44	43.74	Blaine Tech
	7/18/2014	79.38	35.88	35.55	0.33	43.76	Blaine Tech
	7/24/2014	79.38	35.98	35.42	0.56	43.85	Blaine Tech
	8/1/2014	79.38	35.57	35.30	0.27	44.02	Blaine Tech
	8/14/2014	79.38	35.42	35.23	0.19	44.11	Blaine Tech
	8/19/2014	79.38	35.36	35.21	0.15	44.14	Blaine Tech
	8/29/2014	79.38	35.32	35.20	0.12	44.16	Blaine Tech
	9/18/2014	79.38	35.55	35.30	0.25	44.03	Blaine Tech
	9/26/2014	79.38	35.56	35.30	0.26	44.03	Blaine Tech
	10/1/2014	79.38	35.56	35.24	0.32	44.07	Blaine Tech
	10/6/2014	79.38	35.48	35.22	0.26	44.11	Blaine Tech
	10/14/2014	79.38	35.33	35.20	0.13	44.15	Blaine Tech
	10/23/2014	79.38	35.51	35.22	0.29	44.10	Blaine Tech
	10/27/2014	79.38	35.54	35.25	0.29	44.07	Blaine Tech
	11/18/2014	79.38	35.56	35.25	0.31	44.07	Blaine Tech
	11/25/2014	79.38	35.66	35.32	0.34	43.99	Blaine Tech
	12/12/2014	79.38	35.81	35.58	0.23	43.75	Blaine Tech
	12/19/2014	79.38	35.75	35.62	0.13	43.73	Blaine Tech
	4/20/2015	79.38	37.78	35.29	2.49	43.58	Blaine Tech
	5/19/2015	79.38	39.22	35.28	3.94	43.29	Northstar
	5/29/2015	79.38	37.10	35.80	1.30	43.31	Northstar
	6/5/2015	79.38	36.85	36.15	0.70	43.09	Northstar
	6/12/2015	79.38	36.55	36.15	0.40	43.15	Northstar
	6/19/2015	79.38	36.68	36.42	0.26	42.91	Northstar
	6/26/2015	79.38	37.23	36.96	0.27	42.36	Northstar
	10/19/2015	79.38	38.12	36.25	1.87	42.75	Blaine Tech
	11/17/2015	79.38	37.83	35.98	1.85	43.02	Kinder Morgan
	3/14/2016	79.38	40.80	---	---	38.58	Kinder Morgan
	4/11/2016	79.38	37.76	---	---	41.62	Blaine Tech
	6/29/2016	79.38	39.54	---	---	39.84	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-4	8/22/2016	79.38	39.76	---	---	39.62	Blaine Tech
Continued	10/3/2016	79.38	41.05	---	---	38.33	Blaine Tech
	4/17/2017	79.38	36.67	---	---	42.71	Blaine Tech
	10/2/2017	79.38	40.07	---	---	39.31	Blaine Tech
	4/16/2018	79.38	39.90	---	---	39.48	Blaine Tech
	11/5/2018	79.38	39.78	---	---	39.60	Blaine Tech
	4/16/2019	79.38	38.45	---	---	40.93	Blaine Tech
	10/28/2019	79.38	39.75	---	---	39.63	Blaine Tech
	5/4/2020	79.38	37.13	---	---	42.25	Blaine Tech
	11/2/2020	79.38	37.46	---	---	41.92	Blaine Tech
	5/3/2021	79.38	38.30	---	---	41.08	Blaine Tech
	11/1/2021	79.38	39.75	---	---	39.63	Blaine Tech
	5/9/2022	79.38	38.69	---	---	40.69	Blaine Tech
	05/01/23	79.38	39.65	---	---	39.73	Blaine Tech
	11/6/2023	79.38	39.5	---	---	39.88	Blaine Tech
MW-SF-5	4/30/2007	79.74	29.54	---	---	50.20	Secor
	8/21/2007	79.74	28.36	---	---	51.38	Geomatrix
	8/28/2007	79.74	28.84	---	---	50.90	Stantec
	10/5/2007	79.74	29.50	---	---	50.24	Geomatrix
	11/2/2007	79.74	31.50	---	---	48.24	Geomatrix
	11/12/2007	79.74	29.93	---	---	49.81	Stantec
	12/21/2007	79.74	31.00	---	---	48.74	Geomatrix
	4/14/2008	79.74	30.20	---	---	49.54	Stantec
	8/11/2008	79.74	30.85	---	---	48.89	Stantec
	10/13/2008	79.74	30.93	---	---	48.81	Stantec
	4/20/2009	79.74	30.99	---	---	48.75	Blaine Tech
	10/19/2009	79.74	NM	---	---	NC	Blaine Tech
	5/24/2010	79.74	31.55	---	---	48.19	Blaine Tech
	5/28/2010	79.74	31.44	---	---	48.30	Blaine Tech
	6/22/2010	79.74	31.57	---	---	48.17	Blaine Tech
	10/4/2010	79.74	31.39	---	---	48.35	Blaine Tech
	1/10/2011	79.74	33.80	---	---	45.94	Blaine Tech
	4/11/2011	79.74	31.03	---	---	48.71	Blaine Tech
	7/11/2011	79.74	NM	---	---	NC	
	10/10/2011	79.74	31.28	---	---	48.46	Blaine Tech
	1/9/2012	79.74	32.12	---	---	47.62	Blaine Tech
	4/16/2012	79.74	33.30	---	---	46.44	Blaine Tech
	7/9/2012	79.74	34.45	---	---	45.29	Blaine Tech
	10/15/2012	79.74	33.28	---	---	46.46	Blaine Tech
	1/14/2013	79.74	33.37	---	---	46.37	Blaine Tech
	4/8/2013	79.74	34.28	---	---	45.46	Blaine Tech
	10/7/2013	79.74	34.58	---	---	45.16	Blaine Tech
	4/14/2014	79.74	35.33	---	---	44.41	Blaine Tech
	10/27/2014	79.74	35.48	---	---	44.26	Blaine Tech
	4/20/2015	79.74	36.05	---	---	43.69	Blaine Tech
	10/19/2015	79.74	36.82	---	---	42.92	Blaine Tech
	3/14/2016	79.74	DRY	---	---	NC	Blaine Tech
	4/11/2016	79.74	DRY	---	---	NC	Blaine Tech
	6/29/2016	79.74	DRY	---	---	NC	Blaine Tech
	8/22/2016	79.74	DRY	---	---	NC	Blaine Tech
	10/3/2016	79.74	DRY	---	---	NC	Blaine Tech
	4/17/2017	79.74	36.88	---	---	42.86	Blaine Tech
	10/2/2017	79.74	DRY	---	---	NC	Blaine Tech
	4/16/2018	79.74	DRY	---	---	NC	Blaine Tech
	11/5/2018	79.74	DRY	---	---	NC	Blaine Tech
	4/16/2019	79.74	DRY	---	---	NC	Blaine Tech
	10/28/2019	79.74	DRY	---	---	NC	Blaine Tech
	5/4/2020	79.74	37.86	---	---	41.88	Blaine Tech
	11/2/2020	79.74	DRY	---	---	NC	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-5	5/3/2021	79.74	DRY	---	---	NC	Blaine Tech
Continued	11/1/2021	79.74	DRY	---	---	NC	Blaine Tech
	5/9/2022	79.74	DRY	---	---	NC	Blaine Tech
	05/01/23	79.74	DRY	---	---	NC	Blaine Tech
	11/6/2023	79.74	DRY	---	---	NC	Blaine Tech
MW-SF-6	4/30/2007	79.96	27.44	27.20	0.24	52.71	Secor
	11/12/2007	79.96	27.14	---	---	52.82	Stantec
	8/12/2008	79.96	29.82	---	---	50.14	Envent
	10/17/2008	79.96	29.75	---	---	50.21	Envent
	12/18/2008	76.8	30.73	---	---	46.07	Envent
	1/15/2009	76.8	31.35	---	---	45.45	Envent
	3/24/2009	76.80	30.50	---	---	46.30	Envent
	4/21/2009	76.80	28.45	---	---	48.35	Envent
	7/21/2009	76.80	27.22	---	---	49.58	Envent
	10/19/2009	76.80	NM	---	---	NC	Blaine Tech
	11/6/2009	76.80	29.10	---	---	47.70	Kinder Morgan
	12/9/2009	76.80	31.35	---	---	45.45	Kinder Morgan
	10/4/2010	76.80	29.09	---	---	47.71	Blaine Tech
	1/10/2011	76.80	30.87	---	---	45.93	Blaine Tech
	4/11/2011	76.80	28.16	---	---	48.64	Blaine Tech
	7/11/2011	76.80	NM	---	---	NC	
	10/10/2011	76.80	28.21	---	---	48.59	Blaine Tech
	1/9/2012	76.80	29.03	---	---	47.77	Blaine Tech
	4/16/2012	76.80	29.66	---	---	47.14	Blaine Tech
	7/9/2012	76.80	31.46	---	---	45.34	Blaine Tech
	10/15/2012	76.80	31.44	---	---	45.36	Blaine Tech
	1/14/2013	76.80	31.53	---	---	45.27	Blaine Tech
	4/8/2013	76.80	30.21	28.81	1.40	47.71	Blaine Tech
	10/7/2013	76.80	NM	---	---	NC	Blaine Tech
	11/14/2013	76.80	31.90	---	---	44.90	Blaine Tech
	4/18/2014	76.80	33.30	32.15	1.15	44.42	Blaine Tech
	8/8/2014	76.80	34.50	33.31	1.19	43.25	Blaine Tech
	8/13/2014	76.80	32.95	32.54	0.41	44.18	Blaine Tech
	8/19/2014	76.80	32.87	32.62	0.25	44.13	Blaine Tech
	8/29/2014	76.80	32.79	32.56	0.23	44.19	Blaine Tech
	9/5/2014	76.80	32.81	32.59	0.22	44.17	Blaine Tech
	9/18/2014	76.80	32.95	32.65	0.30	44.09	Blaine Tech
	9/26/2014	76.80	32.94	32.61	0.33	44.12	Blaine Tech
	10/1/2014	76.80	32.91	32.60	0.31	44.14	Blaine Tech
	10/6/2014	76.80	32.90	32.61	0.29	44.13	Blaine Tech
	10/14/2014	76.80	33.72	33.60	0.12	43.18	Blaine Tech
	10/23/2014	76.80	34.57	33.94	0.63	42.73	Blaine Tech
	10/27/2014	76.80	32.92	32.58	0.34	44.15	Blaine Tech
	11/18/2014	76.80	32.99	32.62	0.37	44.11	Blaine Tech
	11/25/2014	76.80	32.66	32.58	0.08	44.20	Blaine Tech
	12/12/2014	76.80	33.45	33.07	0.38	43.65	Blaine Tech
	12/19/2014	76.80	33.60	33.15	0.45	43.56	Blaine Tech
	4/20/2015	76.80	33.23	33.11	0.12	43.67	Blaine Tech
	10/21/2015	76.80	34.28	---	---	42.52	Kinder Morgan
	3/14/2016	76.80	38.10	38.08	0.02	38.72	Blaine Tech
	4/11/2016	76.80	35.83	---	---	40.97	Blaine Tech
	6/29/2016	76.80	36.89	---	---	39.91	Blaine Tech
	8/22/2016	76.80	37.11	---	---	39.69	Blaine Tech
	10/3/2016	76.80	38.45	---	---	38.35	Blaine Tech
	4/17/2017	76.80	34.03	---	---	42.77	Blaine Tech
	10/2/2017	76.80	37.89	---	---	38.91	Blaine Tech
	4/16/2018	76.80	37.65	---	---	39.15	Blaine Tech
	11/5/2018	76.80	37.70	---	---	39.10	Blaine Tech
	4/16/2019	76.80	36.13	---	---	40.67	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-6	10/28/2019	76.80	37.41	---	---	39.39	Blaine Tech
Continued	5/4/2020	76.80	34.90	---	---	41.90	Blaine Tech
	11/2/2020	76.80	35.35	---	---	41.45	Blaine Tech
	5/3/2021	76.80	35.86	---	---	40.94	Blaine Tech
	11/1/2021	76.80	37.50	---	---	39.30	Blaine Tech
	5/9/2022	76.80	36.47	---	---	40.33	Blaine Tech
	05/01/23	76.80	37.30	---	---	39.50	Blaine Tech
	11/6/2023	76.8	37.94	---	---	38.86	Blaine Tech
MW-SF-9	4/30/2007	74.1	22.66	---	---	51.44	Secor
	8/14/2007	74.1	28.73	28.61	0.12	45.47	Geomatrix
	8/21/2007	74.1	26.55	---	---	47.55	Geomatrix
	8/28/2007	74.1	20.55	---	---	53.55	Stantec
	9/11/2007	74.1	19.40	---	---	54.70	Geomatrix
	10/5/2007	74.1	26.84	---	---	47.26	Geomatrix
	11/2/2007	74.1	22.76	---	---	51.34	Geomatrix
	11/12/2007	74.1	22.96	---	---	51.14	Stantec
	12/21/2007	74.1	24.05	---	---	50.05	Geomatrix
	4/14/2008	74.1	24.23	---	---	49.87	Stantec
	10/13/2008	74.1	24.83	---	---	49.27	Stantec
	4/20/2009	74.10	25.27	---	---	48.83	Blaine Tech
	10/19/2009	74.10	26.45	---	---	47.65	Blaine Tech
	5/24/2010	74.10	25.80	---	---	48.30	Blaine Tech
	5/28/2010	74.10	25.66	---	---	48.44	Blaine Tech
	6/22/2010	74.10	25.84	---	---	48.26	Blaine Tech
	10/4/2010	74.10	26.10	---	---	48.00	Blaine Tech
	1/10/2011	74.10	27.41	---	---	46.69	Blaine Tech
	4/11/2011	74.10	24.16	---	---	49.94	Blaine Tech
	7/11/2011	74.10	NM	---	---	NC	
	10/10/2011	74.10	25.02	---	---	49.08	Blaine Tech
	1/9/2012	74.10	25.98	---	---	48.12	Blaine Tech
	4/16/2012	74.10	25.92	---	---	48.18	Blaine Tech
	7/9/2012	74.10	26.44	---	---	47.66	Blaine Tech
	10/15/2012	74.10	NM	---	---	NC	Blaine Tech
	4/8/2013	74.10	DRY	---	---	NC	Blaine Tech
	6/6/2013	74.10	28.53	---	---	45.57	Blaine Tech
	10/7/2013	74.10	28.95	---	---	45.15	Blaine Tech
	4/25/2014	74.10	34.75	27.95	6.80	44.89	Blaine Tech
	5/5/2014	74.10	37.81	31.76	6.05	41.22	Nieto & Sons
	5/12/2014	74.10	32.32	29.11	3.21	44.40	Nieto & Sons
	5/20/2014	74.10	30.75	29.95	0.80	44.00	Nieto & Sons
	5/27/2014	74.1	38.08	32.32	5.76	40.71	Nieto & Sons
	6/4/2014	74.1	32.19	28.61	3.58	44.83	Nieto & Sons
	6/10/2014	74.1	36.27	28.85	7.42	43.88	Nieto & Sons
	7/3/2014	74.1	39.26	32.59	6.67	40.28	Nieto & Sons
	7/8/2014	74.1	36.40	28.60	7.80	44.06	Blaine Tech
	7/18/2014	74.1	31.04	29.66	1.38	44.18	Blaine Tech
	7/24/2014	74.1	31.15	29.85	1.30	44.01	Blaine Tech
	8/1/2014	74.1	30.25	29.85	0.40	44.18	Blaine Tech
	8/14/2014	74.1	30.13	29.82	0.31	44.22	Blaine Tech
	8/19/2014	74.1	30.08	29.85	0.23	44.21	Blaine Tech
	8/29/2014	74.1	30.10	29.81	0.29	44.24	Blaine Tech
	9/5/2014	74.1	30.13	29.84	0.29	44.21	Blaine Tech
	9/11/2014	74.1	29.49	28.47	1.02	45.44	Blaine Tech
	9/18/2014	74.1	30.29	29.90	0.39	44.13	Blaine Tech
	9/26/2014	74.1	30.25	29.84	0.41	44.18	Blaine Tech
	10/1/2014	74.1	30.24	29.84	0.40	44.19	Blaine Tech
	10/6/2014	74.1	30.24	29.83	0.41	44.19	Blaine Tech
	10/14/2014	74.1	30.12	29.81	0.31	44.23	Blaine Tech
	10/23/2014	74.1	30.27	29.85	0.42	44.17	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-9	10/27/2014	74.1	30.29	29.89	0.40	44.14	Blaine Tech
Continued	11/18/2014	74.1	30.35	29.86	0.49	44.15	Blaine Tech
	11/25/2014	74.1	30.42	29.91	0.51	44.10	Blaine Tech
	12/12/2014	74.1	30.65	30.10	0.55	43.90	Blaine Tech
	12/19/2014	74.1	30.80	30.13	0.67	43.85	Blaine Tech
	4/20/2015	74.1	36.69	27.67	9.02	44.76	Blaine Tech
	5/19/2015	74.1	35.68	26.83	8.85	45.63	Blaine Tech
	5/21/2015	74.1	32.50	27.31	5.19	45.83	Northstar
	5/29/2015	74.1	32.95	30.10	2.85	43.47	Northstar
	6/2/2015	74.1	31.67	30.45	1.22	43.42	Northstar
	6/5/2015	74.10	31.85	30.60	1.25	43.27	Northstar
	6/12/2015	74.10	31.28	30.75	0.53	43.25	Northstar
	6/19/2015	74.10	31.30	31.00	0.30	43.04	Northstar
	6/26/2015	74.10	31.20	29.50	1.70	44.29	Northstar
	8/11/2015	74.10	36.90	29.90	7.00	42.90	Northstar
	8/18/2015	74.10	35.19	30.25	4.94	42.94	Northstar
	8/28/2015	74.10	31.60	30.75	0.85	43.19	Kinder Morgan
	9/1/2015	74.10	31.78	30.90	0.88	43.04	Kinder Morgan
	10/16/2015	74.10	31.60	31.09	0.51	42.92	Blaine Tech
	10/19/2015	74.10	31.44	31.04	0.40	42.99	Kinder Morgan
	10/30/2015	74.10	32.60	32.06	0.54	41.94	Kinder Morgan
	11/17/2015	74.10	31.71	31.68	0.03	42.41	Kinder Morgan
	3/14/2016	74.10	34.14	---	---	39.96	Blaine Tech
	4/11/2016	74.10	32.89	---	---	41.21	Blaine Tech
	6/29/2016	74.10	34.00	---	---	40.10	Blaine Tech
	5/4/2020	74.10	DRY	---	---	NC	Blaine Tech
	11/2/2020	74.10	DRY	---	---	NC	Blaine Tech
	5/3/2021	74.10	DRY	---	---	NC	Blaine Tech
	11/1/2021	74.10	DRY	---	---	NC	Blaine Tech
	11/1/2021	74.10	NA	---	---	NA	Blaine Tech
	05/09/22	74.10	NM	---	---	NC	
MW-SF-10	10/17/2008	76.53	27.49	---	---	49.04	Envent
	10/19/2009	76.53	28.61	---	---	47.92	Blaine Tech
	10/4/2010	76.53	28.50	28.36	0.14	48.14	Blaine Tech
	4/11/2011	76.53	27.41	27.37	0.04	49.15	Blaine Tech
	10/10/2011	76.53	27.60	---	---	48.93	Blaine Tech
	4/16/2012	76.53	28.81	---	---	47.72	Blaine Tech
	7/9/2012	76.53	NM	---	---	NC	Blaine Tech
	10/15/2012	76.53	29.27	---	---	47.26	Blaine Tech
	4/8/2013	76.53	DRY	---	---	NC	Blaine Tech
	10/7/2013	76.53	DRY	---	---	NC	Blaine Tech
	4/14/2014	76.53	DRY	---	---	NC	Blaine Tech
	10/27/2014	76.53	DRY	---	---	NC	Blaine Tech
	4/20/2015	76.53	DRY	---	---	NC	Blaine Tech
	10/19/2015	76.53	DRY	---	---	NC	Blaine Tech
	3/14/2016	76.53	DRY	---	---	NC	Blaine Tech
	4/11/2016	76.53	DRY	---	---	NC	Blaine Tech
	6/29/2016	76.53	DRY	---	---	NC	Blaine Tech
	8/22/2016	76.53	DRY	---	---	NC	Blaine Tech
	10/3/2016	76.53	DRY	---	---	NC	Blaine Tech
	4/17/2017	76.53	DRY	---	---	NC	Blaine Tech
	10/2/2017	76.53	DRY	---	---	NC	Blaine Tech
	4/16/2018	76.53	DRY	---	---	NC	Blaine Tech
	11/5/2018	76.53	DRY	---	---	NC	Blaine Tech
	4/16/2019	76.53	DRY	---	---	NC	Blaine Tech
	10/28/2019	76.53	DRY	---	---	NC	Blaine Tech
	5/4/2020	76.53	DRY	---	---	NC	Blaine Tech
	11/2/2020	76.53	DRY	---	---	NC	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-10	5/3/2021	76.53	DRY	---	---	NC	Blaine Tech
Continued	11/1/2021	76.53	DRY	---	---	NC	Blaine Tech
	5/9/2022	76.53	DRY	---	---	NC	Blaine Tech
	10/31/22	76.53	DRY	---	---	NC	Blaine Tech
	05/01/23	76.53	DRY	---	---	NC	Blaine Tech
	11/6/2023	76.53	DRY	---	---	NC	Blaine Tech
MW-SF-11	8/14/2007	78.56	28.58	28.30	0.28	50.20	Geomatrix
	8/21/2007	78.56	28.76	28.63	0.13	49.90	Geomatrix
	8/28/2007	78.56	28.22	---	---	50.34	Stantec
	9/11/2007	78.56	26.90	---	---	51.66	Geomatrix
	10/5/2007	78.56	28.43	---	---	50.13	Geomatrix
	11/2/2007	78.56	29.48	29.38	0.10	49.16	Geomatrix
	11/12/2007	78.56	29.03	---	---	49.53	Stantec
	8/15/2008	78.56	30.13	---	---	48.43	Envent
	10/17/2008	78.56	30.50	---	---	48.06	Envent
	12/18/2008	78.56	29.92	---	---	48.64	Envent
	1/15/2009	78.56	30.32	---	---	48.24	Envent
	3/24/2009	78.56	31.05	---	---	47.51	Envent
	4/21/2009	78.56	30.03	---	---	48.53	Envent
	7/21/2009	78.56	30.89	---	---	47.67	Envent
	10/19/2009	78.56	NM	---	---	NC	Blaine Tech
	11/9/2009	78.56	31.00	---	---	47.56	Kinder Morgan
	9/3/2010	78.56	31.22	---	---	47.34	Kinder Morgan
	10/4/2010	78.56	30.94	---	---	47.62	Blaine Tech
	4/12/2011	78.56	30.82	---	---	47.74	Blaine Tech
	10/10/2011	78.56	30.10	---	---	48.46	Blaine Tech
	4/16/2012	78.56	NM	---	---	NC	Blaine Tech
	7/9/2012	78.56	NM	---	---	NC	Blaine Tech
	10/15/2012	78.56	33.28	---	---	45.28	Blaine Tech
	4/8/2013	78.56	33.11	---	---	45.45	Blaine Tech
	10/7/2013	78.56	33.91	---	---	44.65	Blaine Tech
	4/14/2014	78.56	35.20	34.95	0.25	43.56	Blaine Tech
	5/5/2014	78.56	36.52	33.71	2.81	44.29	Nieto & Sons
	5/12/2014	78.56	35.45	33.87	1.58	44.37	Nieto & Sons
	5/27/2014	78.56	35.38	34.65	0.73	43.76	Nieto & Sons
	6/4/2014	78.56	35.40	35.32	0.08	43.22	Nieto & Sons
	8/8/2014	78.56	36.22	33.11	3.11	44.83	Blaine Tech
	8/13/2014	78.56	36.22	33.47	2.75	44.54	Blaine Tech
	8/19/2014	78.56	36.46	33.94	2.52	44.12	Blaine Tech
	8/29/2014	78.56	36.68	33.83	2.85	44.16	Blaine Tech
	9/5/2014	78.56	36.62	33.80	2.82	44.20	Blaine Tech
	9/11/2014	78.56	37.15	33.78	3.37	44.11	Blaine Tech
	9/18/2014	78.56	36.79	33.93	2.86	44.06	Blaine Tech
	9/26/2014	78.56	36.89	33.88	3.01	44.08	Blaine Tech
	10/1/2014	78.56	34.95	33.32	1.63	44.91	Blaine Tech
	10/6/2014	78.56	36.36	33.95	2.41	44.13	Blaine Tech
	10/14/2014	78.56	36.67	33.86	2.81	44.14	Blaine Tech
	10/23/2014	78.56	36.86	33.86	3.00	44.10	Blaine Tech
	10/27/2014	78.56	36.20	33.99	2.21	44.13	Blaine Tech
	11/3/2014	78.56	36.91	33.84	3.07	44.11	Blaine Tech
	11/18/2014	78.56	36.78	33.95	2.83	44.04	Blaine Tech
	11/25/2014	78.56	36.65	34.03	2.62	44.01	Blaine Tech
	12/3/2014	78.56	36.71	33.94	2.77	44.07	Blaine Tech
	12/12/2014	78.56	37.29	34.08	3.21	43.84	Blaine Tech
	12/19/2014	78.56	38.03	34.04	3.99	43.72	Blaine Tech
	3/17/2015	78.56	35.94	35.50	0.44	42.97	Kinder Morgan
	4/20/2015	78.56	38.89	34.86	4.03	42.89	Kinder Morgan
	10/20/2015	78.56	37.42	35.38	2.04	42.77	Kinder Morgan
	3/16/2016	78.56	39.56	---	---	39.00	Kinder Morgan
	4/11/2016	78.56	37.62	---	---	40.94	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-11	6/29/2016	78.56	37.06	---	---	41.50	Blaine Tech
Continued	8/22/2016	78.56	39.25	---	---	39.31	Blaine Tech
	10/3/2016	78.56	40.05	---	---	38.51	Blaine Tech
	3/10/2017	78.56	36.56	---	---	42.00	CH2M
	4/17/2017	78.56	35.91	---	---	42.65	Blaine Tech
	10/2/2017	78.56	40.09	---	---	38.47	Blaine Tech
	4/16/2018	78.56	39.90	---	---	38.66	Blaine Tech
	11/5/2018	78.56	39.52	---	---	39.04	Blaine Tech
	4/16/2019	78.56	38.52	---	---	40.04	Blaine Tech
	10/28/2019	78.56	39.13	---	---	39.43	Blaine Tech
	5/4/2020	78.56	36.95	---	---	41.61	Blaine Tech
	11/2/2020	78.56	37.18	---	---	41.38	Blaine Tech
	5/3/2021	78.56	37.38	---	---	41.18	Blaine Tech
	11/1/2021	78.56	38.97	---	---	39.59	Blaine Tech
	5/9/2022	78.56	38.14	---	---	40.42	Blaine Tech
	10/31/22	78.56	38.17	---	---	40.39	Blaine Tech
	05/01/23	78.56	38.22	---	---	40.34	Blaine Tech
	11/6/2023	78.56	40.08	---	---	38.48	Blaine Tech
MW-SF-12	8/14/2007	78.07	27.76	---	---	50.31	Geomatrix
	8/21/2007	78.07	27.43	---	---	50.64	Geomatrix
	8/28/2007	78.07	27.58	---	---	50.49	Stantec
	9/11/2007	78.07	27.73	---	---	50.34	Geomatrix
	10/5/2007	78.07	28.06	---	---	50.01	Geomatrix
	11/2/2007	78.07	29.59	---	---	48.48	Geomatrix
	11/12/2007	78.07	28.33	---	---	49.74	Stantec
	8/12/2008	78.07	30.02	---	---	48.05	Envent
	10/17/2008	78.07	30.42	---	---	47.65	Envent
	12/18/2008	78.07	31.55	---	---	46.52	Envent
	1/15/2009	78.07	30.11	---	---	47.96	Envent
	3/24/2009	78.07	29.41	---	---	48.66	Envent
	4/21/2009	78.07	29.52	---	---	48.55	Envent
	7/21/2009	78.07	28.58	---	---	49.49	Envent
	10/19/2009	78.07	NM	---	---	NC	Blaine Tech
	11/4/2009	78.07	30.36	---	---	47.71	Kinder Morgan
	2/4/2010	78.07	29.20	---	---	48.87	Kinder Morgan
	10/4/2010	78.07	30.70	---	---	47.37	Blaine Tech
	4/11/2011	78.07	29.47	---	---	48.60	Blaine Tech
	10/10/2011	78.07	26.60	---	---	51.47	Blaine Tech
	4/16/2012	78.07	31.40	---	---	46.67	Blaine Tech
	7/9/2012	78.07	NM	---	---	NC	Blaine Tech
	10/15/2012	78.07	32.12	---	---	45.95	Blaine Tech
	4/8/2013	78.07	DRY	---	---	NC	Blaine Tech
	10/7/2013	78.07	NM	---	---	NC	Blaine Tech
	4/14/2014	78.07	38.04	32.67	5.37	44.33	Blaine Tech
	5/20/2014	78.07	37.80	32.90	4.90	44.19	Nieto & Sons
	5/27/2014	78.07	33.27	---	---	44.80	Nieto & Sons
	6/4/2014	78.07	32.78	---	---	45.29	Nieto & Sons
	6/10/2014	78.07	33.76	---	---	44.31	Nieto & Sons
	7/3/2014	78.07	NM	33.58	---	NC	Nieto & Sons
	7/24/2014	78.07	NM	33.35	3.97	NC	Blaine Tech
	8/1/2014	78.07	37.20	33.17	4.03	44.09	Blaine Tech
	9/5/2014	78.07	38.52	32.93	5.59	44.02	Blaine Tech
	9/11/2014	78.07	38.56	32.98	5.58	43.97	Blaine Tech
	9/18/2014	78.07	38.25	33.09	5.16	43.95	Blaine Tech
	9/26/2014	78.07	38.03	33.03	5.00	44.04	Blaine Tech
	10/1/2014	78.07	37.82	33.08	4.74	44.04	Blaine Tech
	10/6/2014	78.07	37.63	33.07	4.56	44.09	Blaine Tech
	10/14/2014	78.07	37.56	33.13	4.43	44.05	Blaine Tech
	10/23/2014	78.07	37.56	33.06	4.50	44.11	Blaine Tech
	10/27/2014	78.07	37.40	33.08	4.32	44.13	Blaine Tech

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-12	11/3/2014	78.07	37.48	33.09	4.39	44.10	Blaine Tech
Continued	11/18/2014	78.07	37.44	33.15	4.29	44.06	Blaine Tech
	11/25/2014	78.07	37.35	33.21	4.14	44.03	Blaine Tech
	12/3/2014	78.07	37.31	33.12	4.19	44.11	Blaine Tech
	12/12/2014	78.07	37.92	33.45	4.47	43.73	Blaine Tech
	12/19/2014	78.07	38.25	33.50	4.75	43.62	Blaine Tech
	3/17/2015	78.07	36.42	34.05	2.37	43.55	Kinder Morgan
	4/20/2015	78.07	36.42	34.05	2.37	43.55	Blaine Tech
	10/20/2015	78.07	36.78	34.84	1.94	42.84	Kinder Morgan
	3/16/2016	78.07	39.03	---	---	39.04	Kinder Morgan
	4/11/2016	78.07	37.13	---	---	40.94	Blaine Tech
	6/29/2016	78.07	38.34	38.28	0.06	39.78	Blaine Tech
	8/22/2016	78.07	38.60	---	---	39.47	Blaine Tech
	10/3/2016	78.07	39.45	---	---	38.62	Blaine Tech
	3/10/2017	78.07	36.09	---	---	41.98	CH2M
	4/17/2017	78.07	35.12	---	---	42.95	Blaine Tech
	10/2/2017	78.07	39.31	---	---	38.76	Blaine Tech
	4/16/2018	78.07	39.09	---	---	38.98	Blaine Tech
	11/5/2018	78.07	38.96	---	---	39.11	Blaine Tech
	4/16/2019	78.07	37.53	---	---	40.54	Blaine Tech
	10/28/2019	78.07	38.78	---	---	39.29	Blaine Tech
	5/4/2020	78.07	36.36	---	---	41.71	Blaine Tech
	11/2/2020	78.07	36.53	---	---	41.54	Blaine Tech
	5/3/2021	78.07	36.19	---	---	41.88	Blaine Tech
	11/1/2021	78.07	38.69	---	---	39.38	Blaine Tech
	5/9/2022	78.07	37.36	---	---	40.71	Blaine Tech
	10/31/22	78.07	37.42	---	---	40.65	Blaine Tech
	05/01/23	78.07	38.09	---	---	39.98	Blaine Tech
	11/6/2023	78.07	39.15	---	---	38.92	Blaine Tech
MW-SF-13	8/14/2007	73.40	22.98	---	---	50.42	Geomatrix
	8/21/2007	73.40	23.11	---	---	50.29	Geomatrix
	8/28/2007	73.40	22.85	---	---	50.55	Stantec
	9/11/2007	73.40	23.10	---	---	50.30	Geomatrix
	10/5/2007	73.40	28.11	---	---	45.29	Geomatrix
	11/2/2007	73.40	25.43	25.41	0.02	47.99	Geomatrix
	11/12/2007	73.40	23.70	---	---	49.70	Stantec
	12/21/2007	73.40	24.45	24.42	0.03	48.97	Geomatrix
	8/15/2008	73.40	27.38	24.11	3.27	48.47	Envent
	10/17/2008	73.40	27.28	24.33	2.95	48.33	Envent
	10/21/2008	73.40	27.14	24.26	2.88	48.42	Envent
	12/17/2008	73.40	26.21	24.70	1.51	48.32	Envent
	1/15/2009	73.40	26.90	24.80	2.10	48.08	Envent
	3/27/2009	73.40	26.46	25.49	0.97	47.67	Envent
	4/21/2009	73.40	24.86	24.78	0.08	48.60	Envent
	7/21/2009	73.40	25.72	25.48	0.24	47.86	Envent
	10/19/2009	73.40	NM	---	---	NC	Blaine Tech
	11/6/2009	73.40	25.72	---	---	47.68	Kinder Morgan
	2/4/2010	73.40	25.43	25.30	0.13	48.07	Kinder Morgan
	9/3/2010	73.40	27.40	25.71	1.69	47.27	Kinder Morgan
	10/4/2010	73.40	26.95	25.92	1.03	47.22	Blaine Tech
	4/12/2011	73.40	24.79	24.78	0.01	48.62	Blaine Tech
	10/10/2011	73.40	26.00	---	---	47.40	Blaine Tech
	4/16/2012	73.40	27.19	---	---	46.21	Blaine Tech
	7/9/2012	73.40	NM	---	---	NC	Blaine Tech
	10/15/2012	73.40	27.01	---	---	46.39	Blaine Tech
	4/8/2013	73.40	27.90	---	---	45.50	Blaine Tech
	10/7/2013	73.40	NM	---	---	NC	Blaine Tech
	11/14/2013	73.40	29.95	28.25	1.70	44.73	Blaine Tech
	4/14/2014	73.40	31.36	28.47	2.89	44.21	Blaine Tech
	5/5/2014	73.40	31.62	28.49	3.13	44.13	Nieto & Sons

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-13	5/12/2014	73.40	30.02	28.88	1.14	44.24	Nieto & Sons
Continued	5/20/2014	73.40	31.10	29.77	1.33	43.30	Nieto & Sons
	5/27/2014	73.40	30.17	29.48	0.69	43.75	Nieto & Sons
	6/4/2014	73.40	30.22	---	---	43.18	Nieto & Sons
	6/10/2014	73.40	30.20	29.76	0.44	43.53	Nieto & Sons
	7/3/2014	73.40	30.49	29.88	0.61	43.37	Nieto & Sons
	7/24/2014	73.40	30.50	29.54	0.96	43.62	Blaine Tech
	8/1/2014	73.40	29.82	29.25	0.57	44.01	Blaine Tech
	8/8/2014	73.40	34.07	33.71	0.36	39.60	Blaine Tech
	8/14/2014	73.40	29.96	29.13	0.83	44.06	Blaine Tech
	8/19/2014	73.40	29.91	29.15	0.76	44.06	Blaine Tech
	8/29/2014	73.40	30.15	29.02	1.13	44.10	Blaine Tech
	9/5/2014	73.40	30.19	29.08	1.11	44.04	Blaine Tech
	9/11/2014	73.40	30.66	28.91	1.75	44.05	Blaine Tech
	9/18/2014	73.40	30.41	29.15	1.26	43.94	Blaine Tech
	9/26/2014	73.40	30.18	29.14	1.04	44.00	Blaine Tech
	10/1/2014	73.40	30.38	29.05	1.33	44.02	Blaine Tech
	10/6/2014	73.40	30.10	29.12	0.98	44.04	Blaine Tech
	10/13/2014	73.40	30.28	29.07	1.21	44.03	Blaine Tech
	10/23/2014	73.40	30.72	28.95	1.77	44.01	Blaine Tech
	10/27/2014	73.40	30.21	29.06	1.15	44.05	Blaine Tech
	11/3/2014	73.40	30.62	28.93	1.69	44.05	Blaine Tech
	11/18/2014	73.40	30.54	29.11	1.43	43.93	Blaine Tech
	11/25/2014	73.40	29.48	29.14	0.34	44.18	Blaine Tech
	12/3/2014	73.40	31.02	28.93	2.09	43.95	Blaine Tech
	12/12/2014	73.40	31.05	29.40	1.65	43.59	Blaine Tech
	12/19/2014	73.40	31.11	29.40	1.71	43.57	Blaine Tech
	4/20/2015	73.40	32.44	29.04	3.40	43.51	Blaine Tech
	10/19/2015	73.40	35.16	29.31	5.85	42.63	Blaine Tech
	3/14/2016	73.40	34.72	---	---	38.68	Blaine Tech
	4/11/2016	73.40	32.28	---	---	41.12	Blaine Tech
	6/29/2016	73.40	33.62	---	---	39.78	Blaine Tech
	8/22/2016	73.40	33.66	---	---	39.74	Blaine Tech
	10/3/2016	73.40	34.20	---	---	39.20	Blaine Tech
	3/24/2017	73.40	31.25	---	---	42.15	CH2M
	4/17/2017	73.40	30.40	---	---	43.00	Blaine Tech
	10/2/2017	73.40	34.52	---	---	38.88	Blaine Tech
	4/16/2018	73.40	34.26	---	---	39.14	Blaine Tech
	11/5/2018	73.40	34.43	---	---	38.97	Blaine Tech
	4/16/2019	73.40	32.29	---	---	41.11	Blaine Tech
	11/1/2019	73.40	33.76	---	---	39.64	Blaine Tech
	5/4/2020	73.40	31.52	---	---	41.88	Blaine Tech
	11/2/2020	73.40	32.05	---	---	41.35	Blaine Tech
	5/3/2021	73.40	32.48	---	---	40.92	Blaine Tech
	11/1/2021	73.40	33.82	---	---	39.58	Blaine Tech
	5/9/2022	73.40	33.52	---	---	39.88	Blaine Tech
	05/01/23	73.40	33.00	---	---	40.40	Blaine Tech
	11/6/2023	73.4	33.9	---	---	39.50	Blaine Tech
MW-SF-14	8/14/2007	78.16	27.68	---	---	50.48	Geomatrix
	8/21/2007	78.16	27.60	---	---	50.56	Geomatrix
	8/28/2007	78.16	27.53	---	---	50.63	Stantec
	9/11/2007	78.16	27.66	---	---	50.50	Geomatrix
	10/5/2007	78.16	27.75	---	---	50.41	Geomatrix
	11/2/2007	78.16	29.83	---	---	48.33	Geomatrix
	11/12/2007	78.16	NM	---	---	NC	Secor
	8/15/2008	78.16	29.77	29.24	0.53	48.81	Envent
	10/17/2008	78.16	29.52	29.50	0.02	48.66	Envent
	12/18/2008	78.16	30.62	---	---	47.54	Envent
	1/15/2009	78.16	30.08	---	---	48.08	Envent

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-14	3/24/2009	78.16	29.73	---	---	48.43	Envent
Continued	4/21/2009	78.16	29.61	---	---	48.55	Envent
	7/21/2009	78.16	29.20	---	---	48.96	Envent
	10/19/2009	78.16	NM	---	---	NC	Blaine Tech
	11/6/2009	78.16	30.48	---	---	47.68	Kinder Morgan
	12/9/2009	78.16	30.68	---	---	47.48	Kinder Morgan
	6/22/2010	78.16	26.17	---	---	51.99	Blaine Tech
	10/4/2010	78.16	30.54	---	---	47.62	Blaine Tech
	4/12/2011	78.16	29.55	---	---	48.61	Blaine Tech
	10/10/2011	78.16	29.84	---	---	48.32	Blaine Tech
	4/16/2012	78.16	NM	---	---	NC	Blaine Tech
	7/9/2012	78.16	NM	---	---	NC	Blaine Tech
	10/15/2012	78.16	30.02	---	---	48.14	Blaine Tech
	4/8/2013	78.16	32.75	---	---	45.41	Blaine Tech
	5/24/2013	78.16	32.75	---	---	45.41	Blaine Tech
	9/26/2013	78.16	34.50	34.25	0.25	43.86	Blaine Tech
	10/7/2013	78.16	NM	---	---	NC	Blaine Tech
	11/14/2013	78.16	33.57	33.19	0.38	44.89	Blaine Tech
	4/14/2014	78.16	34.81	33.56	1.25	44.35	Blaine Tech
	8/8/2014	78.16	34.24	33.98	0.26	44.13	Blaine Tech
	10/14/2014	78.16	34.36	33.80	0.56	44.25	Blaine Tech
	10/23/2014	78.16	34.49	34.43	0.06	43.72	Blaine Tech
	10/27/2014	78.16	34.40	33.97	0.43	44.10	Blaine Tech
	11/18/2014	78.16	34.27	34.07	0.20	44.05	Blaine Tech
	4/20/2015	78.16	34.48	---	---	43.68	Blaine Tech
	10/21/2015	78.16	35.25	---	---	42.91	Blaine Tech
	3/14/2016	78.16	36.21	---	---	41.95	Blaine Tech
	4/11/2016	78.16	37.14	---	---	41.02	Blaine Tech
	6/29/2016	78.16	37.36	---	---	40.80	Blaine Tech
	8/22/2016	78.16	DRY	---	---	NC	Blaine Tech
	10/3/2016	78.16	DRY	---	---	NC	Blaine Tech
	4/17/2017	78.16	35.40	---	---	42.76	Blaine Tech
	10/2/2017	78.16	DRY	---	---	NC	Blaine Tech
	4/16/2018	78.16	DRY	---	---	NC	Blaine Tech
	11/5/2018	78.16	DRY	---	---	NC	Blaine Tech
	4/16/2019	78.16	DRY	---	---	NC	Blaine Tech
	10/28/2019	78.16	DRY	---	---	NC	Blaine Tech
	5/4/2020	78.16	DRY	---	---	NC	Blaine Tech
	11/2/2020	78.16	DRY	---	---	NC	Blaine Tech
	5/3/2021	78.16	DRY	---	---	NC	Blaine Tech
	11/1/2021	78.16	DRY	---	---	NC	Blaine Tech
	5/9/2022	78.16	DRY	---	---	NC	Blaine Tech
	05/01/23	78.16	DRY	---	---	NC	
	11/06/23	78.16	DRY	---	---	NC	
MW-SF-15	8/14/2007	78.27	27.78	27.75	0.03	50.51	Geomatrix
	8/21/2007	78.27	27.69	27.65	0.04	50.61	Geomatrix
	8/28/2007	78.27	27.65	27.61	0.04	50.65	Stantec
	9/11/2007	78.27	27.62	---	---	50.65	Geomatrix
	10/5/2007	78.27	28.15	---	---	50.12	Geomatrix
	11/2/2007	78.27	30.45	30.20	0.25	48.02	Geomatrix
	11/12/2007	78.27	28.75	---	---	49.52	Stantec
	8/15/2008	78.27	30.12	29.35	0.77	48.77	Envent
	10/17/2008	78.27	30.80	29.44	1.36	48.56	Envent
	10/21/2008	78.27	30.80	29.31	1.49	48.66	Envent
	12/18/2008	78.27	32.11	30.56	1.55	47.40	Envent
	1/15/2009	78.27	31.75	29.70	2.05	48.16	Envent
	3/24/2009	78.27	30.32	29.93	0.39	48.26	Envent
	4/21/2009	78.27	29.96	29.60	0.36	48.60	Envent
	7/21/2009	78.27	30.45	---	---	47.82	Envent

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-15	10/19/2009	78.27	NM	---	---	NC	Blaine Tech
Continued	11/4/2009	78.27	31.10	30.45	0.36	47.46	Kinder Morgan
	12/9/2009	78.27	30.87	---	---	47.40	Kinder Morgan
	10/4/2010	78.27	30.66	30.65	0.01	47.62	Blaine Tech
	4/12/2011	78.27	30.50	29.40	1.10	48.65	Blaine Tech
	10/10/2011	78.27	29.60	---	---	48.67	Blaine Tech
	12/2/2011	78.27	31.40	30.05	1.35	47.95	Blaine Tech
	4/16/2012	78.27	32.48	32.39	0.09	45.86	Blaine Tech
	7/9/2012	78.27	NM	---	---	NC	Blaine Tech
	10/15/2012	78.16	33.04	---	---	45.12	Blaine Tech
	4/8/2013	78.27	33.90	---	---	44.37	Blaine Tech
	5/24/2013	78.27	33.90	---	---	44.37	Blaine Tech
	10/7/2013	78.27	NM	---	---	NC	Blaine Tech
	11/14/2013	78.27	33.41	33.38	0.03	44.88	Blaine Tech
	4/18/2014	78.27	33.85	---	---	44.42	Blaine Tech
	8/8/2014	78.27	34.87	33.96	0.91	44.13	Blaine Tech
	8/13/2014	78.27	34.89	33.95	0.94	44.13	Blaine Tech
	8/19/2014	78.27	34.90	33.94	0.96	44.14	Blaine Tech
	8/29/2014	78.27	35.65	35.38	0.27	42.84	Blaine Tech
	10/27/2014	78.27	35.82	---	---	42.45	Blaine Tech
	4/20/2015	78.27	36.63	34.12	2.51	43.65	Blaine Tech
	10/19/2015	78.27	37.90	34.87	3.03	42.79	Blaine Tech
	11/17/2015	78.27	37.71	35.36	2.35	42.44	Kinder Morgan
	3/14/2016	78.27	39.70	---	---	38.57	Blaine Tech
	4/11/2016	78.27	37.24	---	---	41.03	Blaine Tech
	6/29/2016	78.27	38.70	---	---	39.57	Blaine Tech
	8/22/2016	78.27	38.78	---	---	39.49	Blaine Tech
	10/3/2016	78.27	39.56	---	---	38.71	Blaine Tech
	3/23/2017	78.27	36.10	---	---	42.17	CH2M
	4/17/2017	78.27	35.39	---	---	42.88	Blaine Tech
	10/2/2017	78.27	39.40	---	---	38.87	Blaine Tech
	4/16/2018	78.27	39.10	---	---	39.17	Blaine Tech
	11/5/2018	78.27	39.00	---	---	39.27	Blaine Tech
	4/23/2019	78.27	36.15	---	---	42.12	Blaine Tech
	10/28/2019	78.27	38.92	---	---	39.35	Blaine Tech
	5/4/2020	78.27	36.37	---	---	41.90	Blaine Tech
	11/2/2020	78.27	36.72	---	---	41.55	Blaine Tech
	5/3/2021	78.27	37.53	---	---	40.74	Blaine Tech
	11/1/2021	78.27	38.82	---	---	39.45	Blaine Tech
	5/9/2022	78.27	37.86	---	---	40.41	Blaine Tech
	05/01/23	78.27	33.82	---	---	44.45	
	11/6/2023	78.27	39.02	---	---	39.25	
MW-SF-16	8/14/2007	78.21	27.68	---	---	50.53	Geomatrix
	8/21/2007	78.21	27.33	---	---	50.88	Geomatrix
	8/28/2007	78.21	27.51	---	---	50.70	Stantec
	9/11/2007	78.21	27.59	---	---	50.62	Geomatrix
	10/5/2007	78.21	28.10	---	---	50.11	Geomatrix
	11/2/2007	78.21	29.81	---	---	48.40	Geomatrix
	11/12/2007	78.21	28.40	---	---	49.81	Stantec
	8/15/2008	78.21	29.36	---	---	48.85	Envent
	10/17/2008	78.21	29.51	---	---	48.70	Envent
	12/18/2008	78.21	30.94	---	---	47.27	Envent
	1/15/2009	78.21	30.01	30.00	0.01	48.21	Envent
	3/24/2009	78.21	29.82	---	---	48.39	Envent
	4/21/2009	78.21	29.60	---	---	48.61	Envent
	7/21/2009	78.21	30.36	---	---	47.85	Envent
	10/19/2009	78.21	NM	---	---	NC	Blaine Tech
	11/4/2009	78.21	30.58	---	---	47.63	Kinder Morgan
	2/4/2010	78.21	30.36	---	---	47.85	Kinder Morgan

Table 4. Groundwater and Product Measurements, and Elevations for Total Fluids, Groundwater, and Soil Vapor Extraction Wells

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date Gauged	Top of Well Casing Elevation (feet msl)	Measured Depth to Groundwater (feet btoc)	Measured Depth to Product (feet btoc)	Apparent Product Thickness (feet)	Corrected Groundwater Elevation (feet msl)	Gauged By
MW-SF-16	9/3/2010	78.21	30.25	---	---	47.96	Kinder Morgan
continued	10/4/2010	78.21	30.49	---	---	47.72	Blaine Tech
	4/12/2011	78.21	29.52	---	---	48.69	Blaine Tech
	10/10/2011	78.21	29.85	---	---	48.36	Blaine Tech
	4/16/2012	78.21	NM	---	---	NC	Blaine Tech
	7/9/2012	78.21	NM	---	---	NC	Blaine Tech
	10/15/2012	78.21	32.47	---	---	45.74	Blaine Tech
	4/8/2013	78.21	32.97	32.73	0.24	45.43	Blaine Tech
	5/24/2013	78.21	32.97	32.73	0.24	45.43	Blaine Tech
	10/7/2013	78.21	NM	---	---	NC	Blaine Tech
	11/14/2013	78.21	33.80	33.21	0.59	44.88	Blaine Tech
	4/18/2014	78.21	34.20	33.65	0.55	44.45	Blaine Tech
	8/8/2014	78.21	34.06	34.05	0.01	44.16	Blaine Tech
	10/27/2014	78.21	34.25	---	---	43.96	Blaine Tech
	4/20/2015	78.21	34.52	---	---	43.69	Blaine Tech
	6/8/2015	78.21	35.17	35.00	0.17	43.18	Blaine Tech
	10/21/2015	78.21	34.56	---	---	43.65	Kinder Morgan
	3/14/2016	78.21	39.60	---	---	38.61	Blaine Tech
	4/11/2016	78.21	37.15	---	---	41.06	Blaine Tech
	6/29/2016	78.21	38.35	---	---	39.86	Blaine Tech
	8/22/2016	78.21	38.51	---	---	39.70	Blaine Tech
	10/3/2016	78.21	39.35	---	---	38.86	Blaine Tech
	4/17/2017	78.21	35.20	---	---	43.01	Blaine Tech
	10/2/2017	78.21	DRY	---	---	NC	Blaine Tech
	4/16/2018	78.21	DRY	---	---	NC	Blaine Tech
	11/5/2018	78.21	DRY	---	---	NC	Blaine Tech
	4/16/2019	78.21	DRY	---	---	NC	Blaine Tech
	10/28/2019	78.21	DRY	---	---	NC	Blaine Tech
	5/4/2020	78.21	DRY	---	---	NC	Blaine Tech
	11/2/2020	78.21	DRY	---	---	NC	Blaine Tech
	5/3/2021	78.21	DRY	---	---	NC	Blaine Tech
	11/1/2021	78.21	DRY	---	---	NC	Blaine Tech
	5/9/2022	78.21	DRY	---	---	NC	Blaine Tech
	05/01/23	78.21	DRY	---	---	NC	Blaine Tech
	11/06/23	78.21	DRY	---	---	NC	Blaine Tech

Notes:

Corrected groundwater elevations are based on specific gravity data collected during baildown testing, or a default value of 0.8 foot msl was used for wells not tested.

--- = not detected or not applicable

DRY = no measurable water observed in the well

feet btoc = feet below top of casing

feet msl = feet above mean sea level based on National Geodetic Vertical Datum of 1929

NC = not calculated

NM = not measured

Table 5. Vapor Remediation System Operation Summary

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Influent PID Reading (ppmv as hexane)	System Flow (scfm)	Header Vacuum (in. H_2O)	Mass Removed (pounds)[a]
1995 Totals	1,240		--	--	--	281,065
1996 Totals	7,208	5,968	--	--	--	516,717
1997 Totals	12,865	5,657	--	--	--	435,631
1998 Totals	17,877	5,012	--	--	--	276,950
1999 Totals	23,600	5,723	--	--	--	390,836
2000 Totals	29,690	6,090	--	--	--	359,092
2001 Totals	33,671	3,981	--	--	--	224,091
2002 Totals	36,358	2,687	--	--	--	79,363
2003 Totals	39,676	3,319	--	--	--	64,671
2004 Totals	44,193	4,517	--	--	--	120,240
2005 Totals	49,750	5,557	--	--	--	212,175
2006 Totals	52,735	2,985	--	--	--	17,263
2007 Totals	58,319	2,058	--	--	--	7,378
2008 Totals	64,233	5,915	--	--	--	5,878
2009 Totals	68,858	4,625	--	--	--	9,387
2010 Totals	72,369	3,511	--	--	--	1,502
2011 Totals	77,489	5,120	--	--	--	14,664
2012 Totals	84,173	6,684	--	--	--	22,260
2013 Totals	90,414	6,241	--	--	--	90,880
2014 Totals	94,083	3,688	--	--	--	67,744
2015 Totals	98,408	4,325	--	--	--	122,706
2016 Totals	104,405	7,694	--	--	--	156,193
2017 Totals	108,262	3,857	--	--	--	42,194
2018 Totals	115,346	7,084	--	--	--	38,999
2019 Totals	122,413	7,067	--	--	--	19,583
2020 Totals	127,703	1,675	--	--	--	32,070
1/1/2021	127,773	70	--	--	--	--
1/5/2021	127,872	99	252	1,411	50	425
1/12/2021	128,040	168	196	1,513	50	601
1/19/2021	128,210	170	146	1,559	50	467
1/26/2021	128,376	166	96	1,458	50	280
2/2/2021	128,543	167	116	1,508	50	352
2/9/2021	128,711	168	108	1,464	50	320
2/16/2021	128,878	167	146	1,435	50	422
2/23/2021	129,023	145	138	1,391	50	336
3/2/2021	129,164	141	134	1,319	50	301
3/9/2021	129,334	170	126	1,491	50	385
3/16/2021	129,501	167	108	1,354	50	295
3/23/2021	129,668	167	126	1,481	50	376
3/30/2021	129,835	167	108	1,604	50	349
First Quarter 2021 Total	**129,835**	**2,132**	--	--	--	**4,908**
4/6/2021	130,004	169	184	1,609	50	447
4/13/2021	130,141	137	268	1,561	50	528
4/20/2021	130,306	165	402	1,483	56	703
4/29/2021	130,526	220	288	1,960	55	911
5/4/2021	130,647	121	448	1,602	56	1,047
5/11/2021	130,812	165	394	1,626	56	1,275
5/18/2021	130,978	166	318	1,835	55	1,168
5/25/2021	131,147	169	914	1,760	55	3,279
6/1/2021	131,314	167	1,314	1,479	55	3,914
6/8/2021	131,485	171	1,040	1,445	55	3,099
6/15/2021	131,651	166	498	1,799	55	1,046
6/22/2021	131,820	169	398	1,806	55	761
6/29/2021	131,987	167	210	1,797	55	367
Second Quarter 2021 Total	**131,987**	**2,152**	--	--	--	**18,546**

Table 5. Vapor Remediation System Operation Summary

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Influent PID Reading (ppmv as hexane)	System Flow (scfm)	Header Vacuum (in. H_2O)	Mass Removed (pounds)[a]
7/6/2021	132,152	165	336	1,644	55	671
7/13/2021	132,319	167	330	1,524	55	727
7/21/2021	132,511	192	284	1,688	55	797
7/27/2021	132,657	146	279	1,747	55	443
8/3/2021	132,824	167	214	1,700	55	318
8/12/2021	132,943	119	104	1,838	55	161
8/24/2021	133,023	80	62	1,794	55	63
8/31/2021	133,187	164	180	1,663	55	361
9/7/2021	133,354	167	68	1,671	55	141
9/14/2021	133,523	169	138	1,620	55	280
9/21/2021	133,693	170	246	1,603	55	497
9/30/2021	133,909	216	172	1,579	55	435
Third Quarter 2021 Total	**133,909**	**1,922**	--	--	--	**4,894**
10/5/2021	134,027	118	214	1,740	55	326
10/12/2021	134,195	168	204	1,774	55	451
10/19/2021	134,361	166	226	1,756	55	488
10/26/2021	134,524	163	218	1,681	55	443
11/9/2021	134,620	96	184	1,627	55	176
11/16/2021	134,786	166	209	1,603	55	328
11/23/2021	134,957	171	222	1,740	55	389
11/30/2021	135,118	161	112	1,669	55	170
12/2/2021	135,166	48	225	1,668	56	97
12/7/2021	135,282	116	120	1,676	55	131
12/14/2021	135,446	164	116	1,668	55	181
12/21/2021	135,613	167	146	1,754	55	308
12/28/2021	135,778	165	104	1,548	55	143
Fourth Quarter 2021 Total	**135,778**	**1,869**	--	--	--	**3,630**
1/6/2022	135,847	69	52	1,840	55	56
1/13/2022	136,011	164	116	1,659	55	181
1/18/2022	136,130	119	116	1,509	55	73
1/25/2022	136,299	169	112	1,656	55	176
2/1/2022	136,466	167	126	1,532	55	198
2/8/2022	136,619	153	125	1,531	55	189
2/15/2022	136,786	167	92	1,565	55	142
2/22/2022	136,952	166	74	1,468	55	114
3/1/2022	137,121	169	58	1,701	55	110
3/8/2022	137,288	167	70	1,823	55	145
3/17/2022	137,501	213	62	1,664	55	143
3/22/2022	137,621	120	66	1,752	55	93
3/29/2022	137,790	169	84	1,788	55	167
First Quarter 2022 Total	**137,790**	**2,012**	--	--	--	**1,785**
04/05/22	137,914	124	28	1,958	55	43
04/12/22	138,083	169	36	1,888	55	73
04/19/22	138,194	111	32	2,045	55	40
04/26/22	138,358	164	28	2,163	55	49
05/03/22	138,526	168	24	2,032	55	48
05/10/22	138,679	153	8	1,935	55	14
05/17/22	138,845	166	36	2,164	55	71
05/24/22	139,013	168	36	2,260	55	59
05/31/22	139,181	168	20	2,498	55	35
06/02/22	139,232	51	49	1,780	55	27
06/09/22	139,397	165	16	1,623	55	30
06/14/22	139,519	122	36	1,746	55	52
06/21/22	139,684	165	8	1,772	55	16
06/28/22	139,829	145	24	1,694	55	38
Second Quarter 2022 Total	**139,829**	**2,039**	--	--	--	**595**

Table 5. Vapor Remediation System Operation Summary

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Influent PID Reading (ppmv as hexane)	System Flow (scfm)	Header Vacuum (in. H_2O)	Mass Removed (pounds)[a]
07/07/22	140,044	215	16	1,619	55	39
07/12/22	140,166	122	32	1,735	55	49
07/21/22	140,380	214	20	1,641	55	41
07/28/22	140,548	168	28	1,640	55	61
08/02/22	140,669	121	28	1,704	55	39
08/11/22	140,885	216	21	1,741	55	53
08/18/22	141,052	167	12	1,863	55	24
08/25/22	141,219	167	24	1,670	55	49
09/01/22	141,389	170	16	1,799	55	35
09/08/22	141,555	166	18	1,638	55	42
09/15/22	141,708	153	20	1,798	55	40
09/20/22	141,825	117	22	1,727	55	32
09/21/22	142,042	217	20	1,705	55	50
Third Quarter 2022 Total	**142,042**	**2,213**	--	--	--	**554**
10/6/2022	142,209	167	16	1,641	55	29
10/13/2022	142,380	171	16	1,583	55	31
10/17/2022	142,476	96	14	1,641	55	15
10/28/0222	142,736	260	24	1,531	55	62
11/3/2022	142,881	145	20	1,531	55	28
11/10/2022	143,050	169	15	1,519	55	24
11/22/2022	143,341	291	18	1,603	55	53
12/1/2022	143,596	255	20	1,640	55	48
12/8/2022	143,700	104	20	1,445	55	19
12/15/2022	143,843	143	12	1,511	55	15
12/22/2022	143,986	143	36	1,550	55	45
12/28/2022	144,133	147	20	1,500	55	27
Fourth Quarter 2022 Total	**144,133**	**2,091**	--	--	--	**396**
1/5/2023	144,320	2,278	21	1,520	55	35
1/12/2023	144,491	171	16	1,735	55	21
1/19/2023	144,657	166	20	1,531	55	30
1/26/2023	144,808	151	24	1,778	55	35
1/31/2023	144,928	120	16	1,820	55	16
2/7/2023	145,095	167	12	1,525	55	20
2/14/2023	145,231	136	20	1,563	55	30
2/21/2023	145,400	169	28	1,593	55	48
3/2/2023	145,475	75	4	1,845	55	3
3/14/2023	145,478	3	4	1,639	55	0.1
3/28/2023	145,483	5	4	1,677	55	0.2
First Quarter 2023 Total	**145,483**	**3,441**	--	--	--	**239**
4/4/2023	145,601	1,468	12	1,636	55	14
4/11/2023	145,768	167	20	1,720	55	34
4/18/2023	145,935	167	22	1,694	57	38
4/25/2023	146,104	169	16	1,594	54	34
5/2/2023	146,222	118	16	1,594		24
5/30/2023						
6/1/2023	146,228	6	35	1,610	55	2
6/5/2023	146,325	97	34	1,670	56	27
6/15/2023	146,562	237	4	1,617	57	8
6/20/2023	146,678	116	12	1,743	55	12.4
6/27/2023	146,846	168	13	1,617	55	19.4
Second Quarter 2023 Total	**146,846**	**2,713**	--	--	--	**213**

Table 5. Vapor Remediation System Operation Summary

SFPP Norwalk Pump Station, Norwalk, California

System Inspection Date	Cumulative Hours of Operation (hours)	Incremental Hours of Operation (hours)	Influent PID Reading (ppmv as hexane)	System Flow (scfm)	Header Vacuum (in. H_2O)	Mass Removed (pounds)[a]
7/6/2023	147,062	216	8	1503	58	11.8
7/11/2023	147,181	119	9	1546	55	7.3
7/18/2023	147,298	117	4	1639	55	3.9
7/25/2023	147,465	167	8	1625	57	11.2
8/1/2023	147,633	168	4	1567	50	5.6
8/10/2023	147,849	216	0	1635	55	0.0
8/15/2023	147,969	120	0	1455	56	0.0
8/22/2023	148,136	167	0	1431	56	0.0
8/29/2023	148,305	169	0	1704	53	0.0
9/7/2023	148,521	216	0	1630	54	0.0
9/14/2023	148,689	168	0	1666	53	0.0
9/19/2023	148,808	119	4	1476	57	4.0
9/28/2023	149,025	217	0	1509	53	0.0
Third Quarter 2023 Totals	149,025	2,179	--	--	--	**44**
10/06/23	149,216	191	0	1598	56	0.0
10/10/23	149,310	94	4	1550	56	3.1
10/17/23	149,479	169	4	1528	57	5.7
10/24/23	149,647	168	0	1404	55	0.0
10/31/23	149,814	167	0	--	--	0.0
Fourth Quarter 2023 Totals	149,814	789	--	--	--	**9**
Cumulative Totals	**149,814**	--	--	--	--	**3,645,343**

Notes:

[a] The total mass removed is based on influent FID or PID readings, hours of operation, and flow rate.

-- = not applicable or not available

FID = flame ionization detector

in. H_2O = inches of water

PID = photoionization detector

ppmv = parts per million by volume

scfm = standard cubic feet per minute

TPH-g = total petroleum hydrocarbons quantified as gasoline (C_4 to C_{12})

Figures

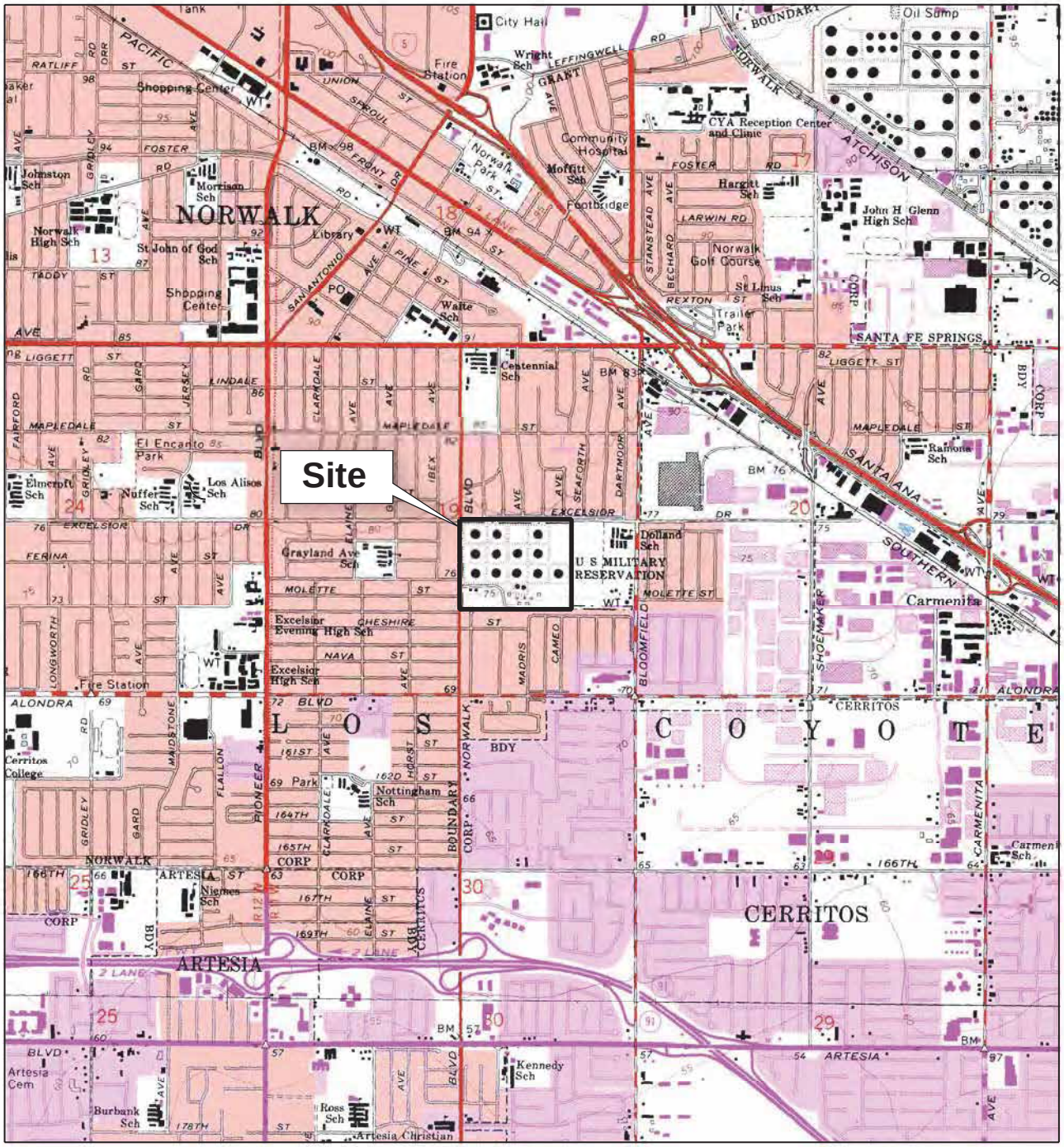
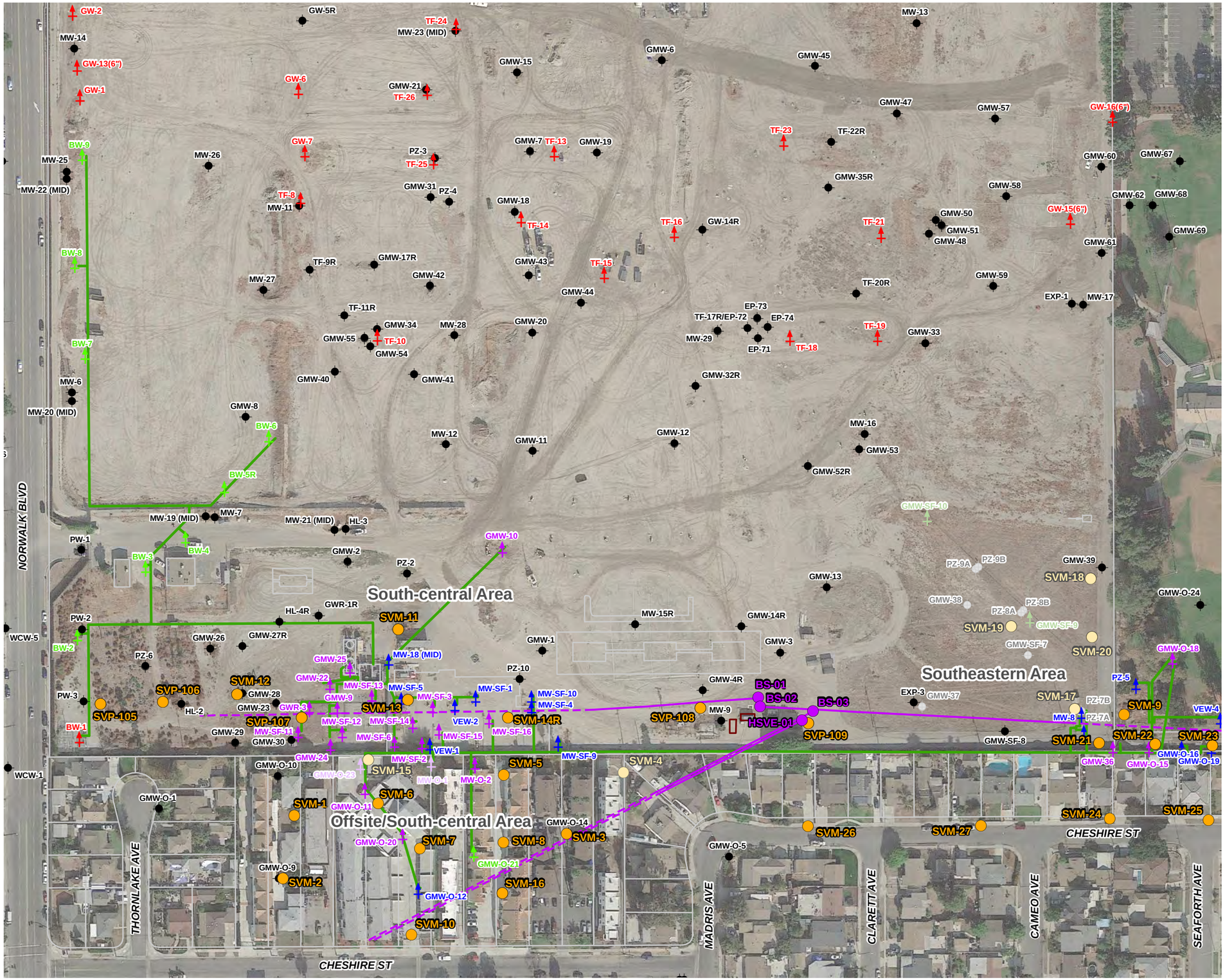


Figure 1. Site Location Map
SFPP Norwalk Pump Station
Norwalk, California

BASEMAP MODIFIED FROM U.S.G.S. 7.5 MINUTE QUADRANGLE MAP
LOS ALAMITOS 1964, CALIFORNIA. PHOTO-REVISED 1981.
WHITTIER 1965, CALIFORNIA. PHOTO-REVISED 1981.

Jacobs



LEGEND

- Soil Vapor Probe/Soil Vapor Monitoring Probe
- Destroyed Soil Vapor Probe/Soil Vapor Monitoring Probe
- Horizontal Biosparge Well Entry Point
- Existing Groundwater Monitoring Well
- Abandoned/Destroyed Groundwater Monitoring Well
- Existing Remediation Well
- Kinder Morgan Combined Soil Vapor and Total Fluids Extraction Wells
- Kinder Morgan Combined Soil Vapor and Total Fluids Extraction Wells (Abandoned)
- Kinder Morgan Soil Vapor Extraction Wells
- Kinder Morgan Total Fluids and/or Groundwater Extraction Wells
- Kinder Morgan Total Fluids and/or Groundwater Extraction Wells (Abandoned)
- Kinder Morgan Remediation Piping Layout (Above Ground and Below Ground)
- Horizontal Biosparge Well (Dashed Line Depicts Approximate Lateral Extent of Well Screen)
- Air Compressor System

Imagery Source:
Google Earth December 3, 2017.

N

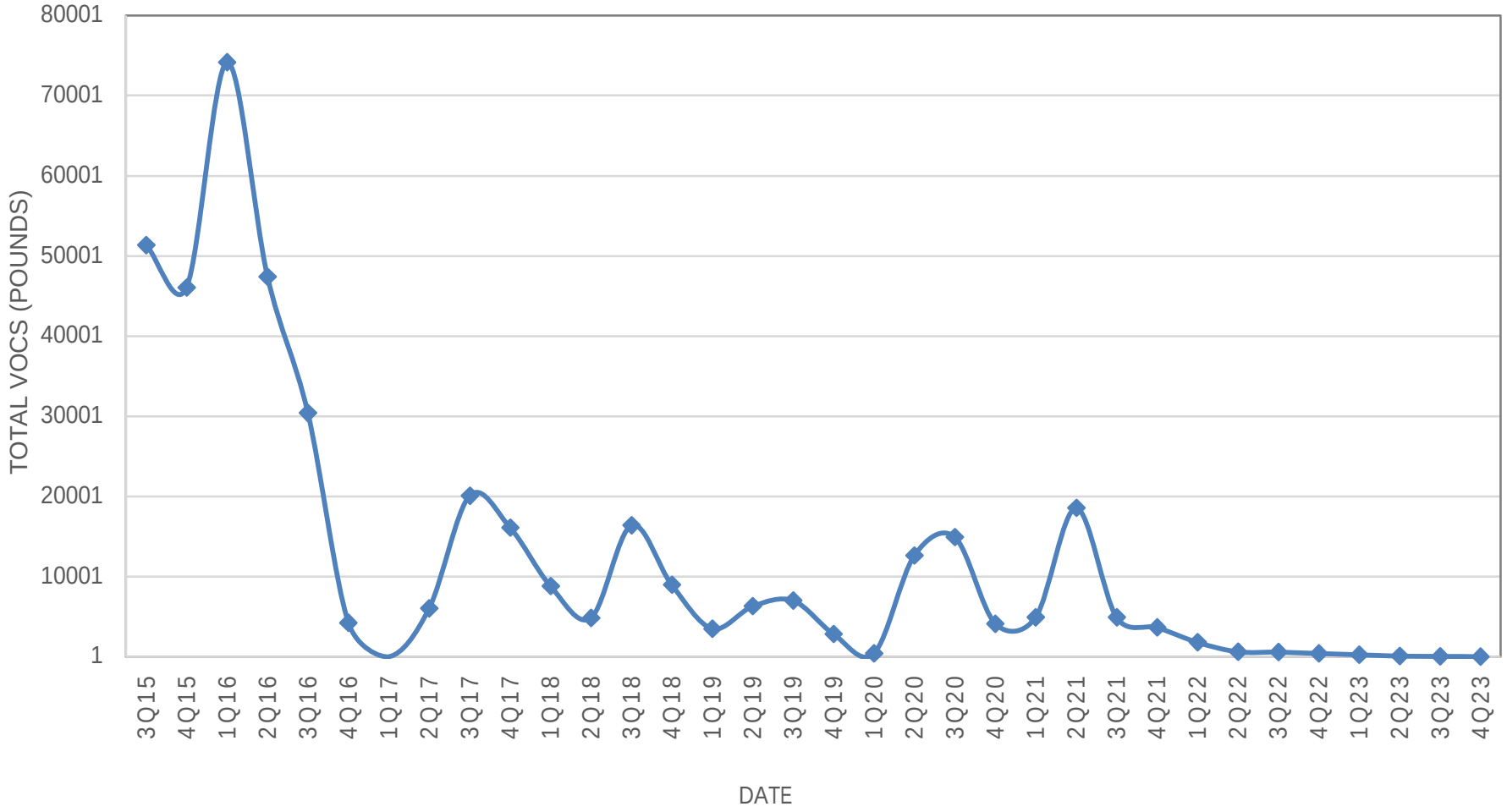
0 75 150 300
Feet

1 inch = 150 feet

Figure 2. Current and Historical Remediation System Layout(s)
SFPP Norwalk Pump Station
Norwalk, California

Jacobs

\\DC1VS01\GISPROJ\K\KINDERMORGAN\NORWALK\MAPFILES\2022\FIGURE_2_REMEDIATION_SYSTEMS_LAYOUT.MXD AESPEJO 8/17/2022

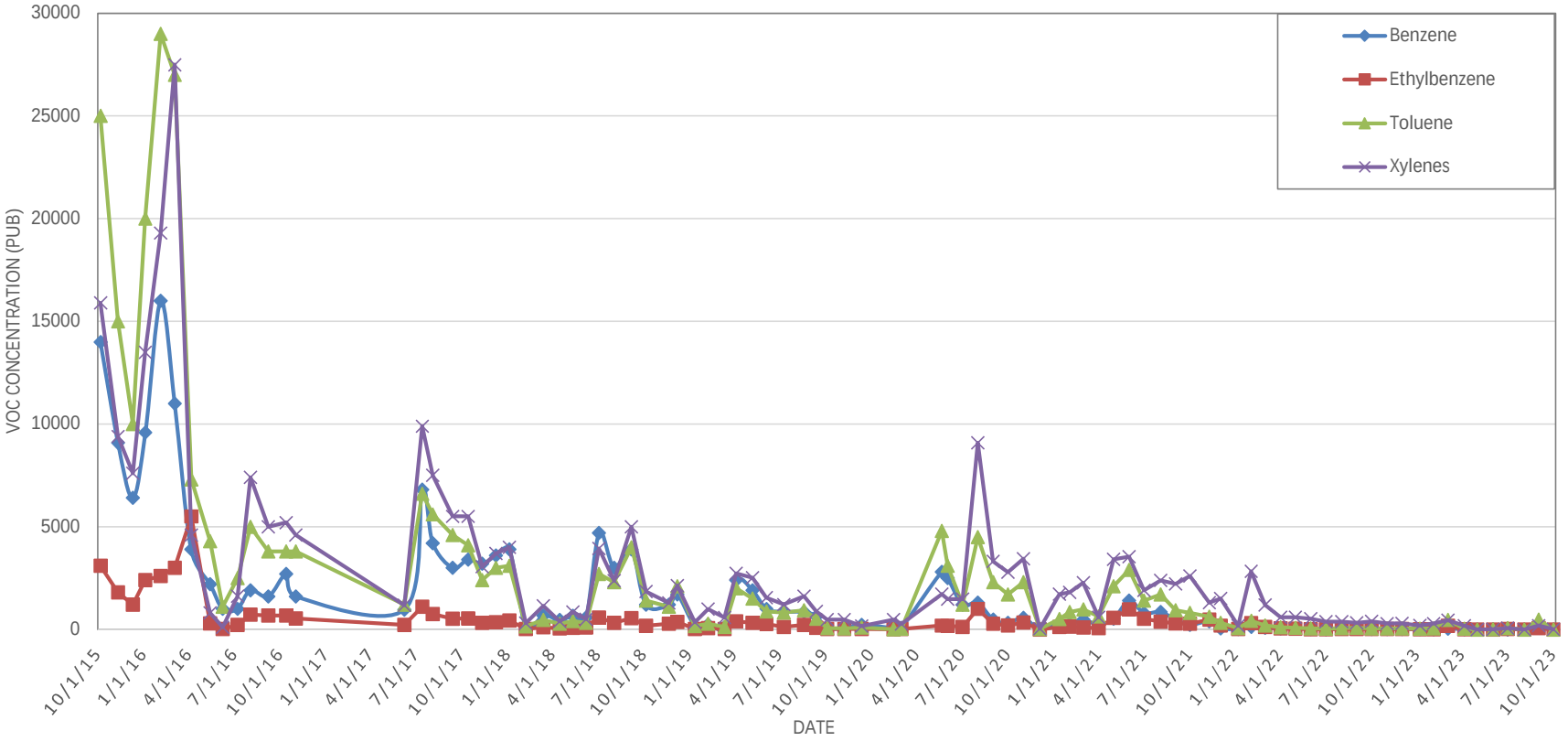


Note:
VOC = volatile organic compound

Figure 3. Mass of VOCs Removed Quarterly by the Soil Vapor Extraction System
SFPP Norwalk Pump Station
Norwalk, California

FES1111220504SCO

Jacobs

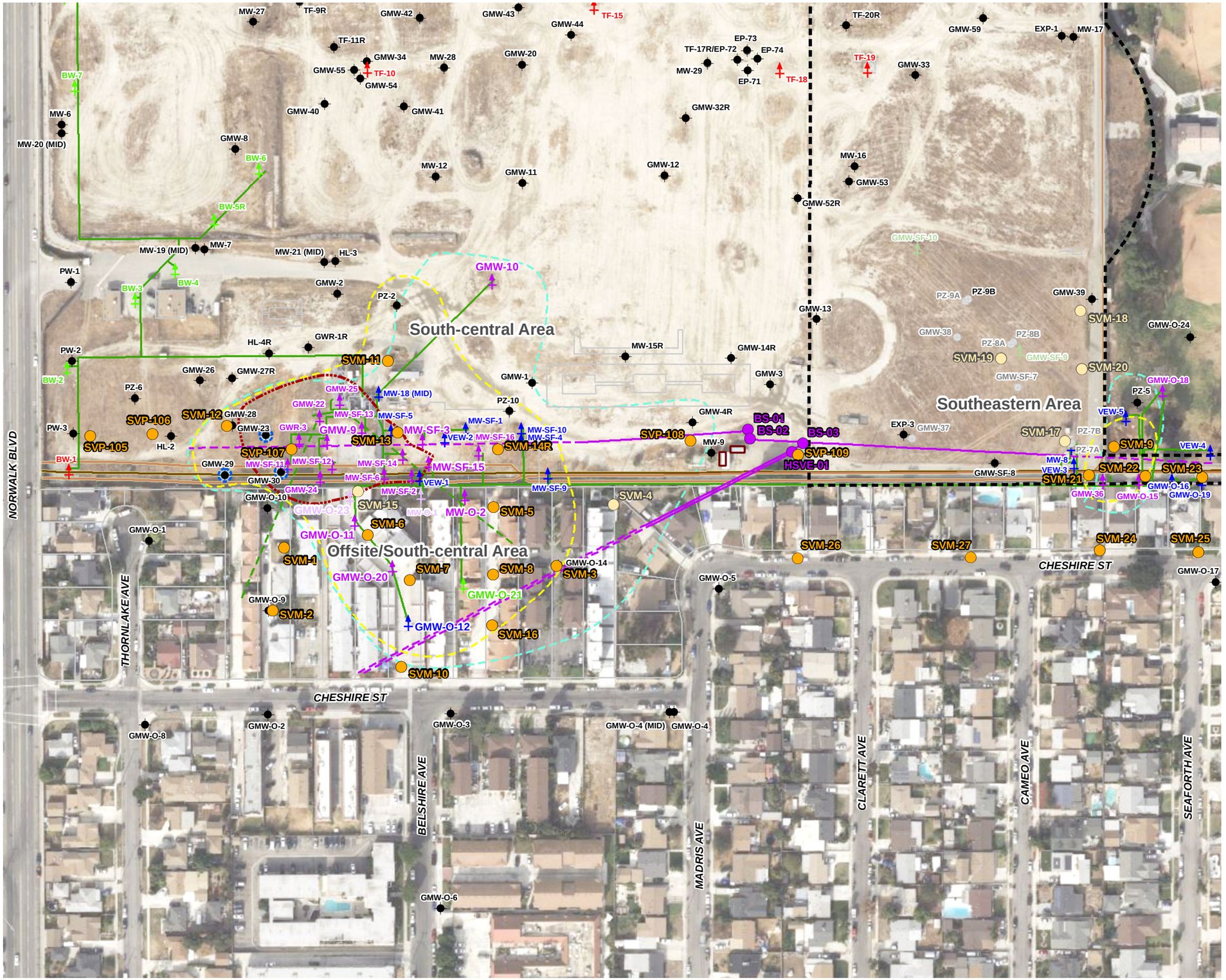


Note:
VOC = volatile organic compound

Figure 4. Influent VOC Concentrations into the Soil Vapor Extraction System
SFPP Norwalk Pump Station
Norwalk, California

FES1111220504SCO

Jacobs



LEGEND

- Soil Vapor Probe/Soil Vapor Monitoring Probe
- Destroyed Soil Vapor Probe/Soil Vapor Monitoring Probe
- Horizontal Biosparge Well Entry Point
- Existing Groundwater Monitoring Well
- Abandoned/Destroyed Groundwater Monitoring Well
- Existing Remediation Well
- Kinder Morgan Combined Soil Vapor and Total Fluids Extraction Wells
- Kinder Morgan Combined Soil Vapor and Total Fluids Extraction Wells (Abandoned)
- Kinder Morgan Soil Vapor Extraction Wells
- Kinder Morgan Total Fluids and/or Groundwater Extraction Wells
- Kinder Morgan Total Fluids and/or Groundwater Extraction Wells (Abandoned)
- Kinder Morgan Remediation Piping Layout (Above Ground and Below Ground)
- Horizontal Vapor Extraction Well Piping
- Horizontal Biosparge Well (Dashed Line Depicts Approximate Lateral Extent of Well Screen)
- Inferred Historical Extent of LNAPL Zone (Smear Zone) from LNAPL Characterization Work Plan (AMEC Geomatrix, 2010)
- Air Compressor System
- 16" Pipline (approximate)
- 24" Pipeline (approximate)
- Eastern 15-Acre Property Boundary
- Intermittent NAPL (2023)
- Estimated Extent of Dissolved Benzene > 5 µg/L (2013)
- Estimated Extent of Dissolved Benzene > 5 µg/L (2023)

Imagery Source:
Bing Aerial Imagery, 2022.

N

0 75 150 300
Feet

1 inch = 150 feet

Figure 5. Current and Historical Extent of Dissolved Phase and LNAPL
SFPP Norwalk Pump Station
Norwalk, California

Jacobs

\\DC1VS01\GISPROJ\K\KINDERMORGAN\NORWALK\MAPFILES\2024\RAP_PEM_REPORT\FIGURE_5_CURRENT_AND_HISTORICAL_LNAPL.MXD AESPEJO 1/24/2024

Appendix A
Laboratory Analytical Reports

Air TECHNOLOGY Laboratories, Inc.

October 11, 2023

LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C, ASTM D1946, RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

Jacobs
ATTN: Eric Davis
555 S. Flower St., Suite 3200
Los Angeles, CA 90071

LABORATORY TEST RESULTS

Project Reference: SFPP Norwalk
Lab Number: P100305-01/04

Enclosed are results for sample(s) received 10/03/23 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Modifications to EPA Method TO15 –Acetone, 2- butanone, trans-1,3-dicholoropropene and 2-hexanone required quadratic regression calibration. Naphthalene required linear regression calibration.
- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

Preliminary results were e-mailed to Eric Davis, Nils Orliczky and Danny Hill on 10/10/23.

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Annika Sotelo-Sanchez for

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Note: The cover letter is an integral part of this analytical report.

P100305-01/04

Air Technology Laboratories, Inc.
18501 Gale Ave. #130
City of Industry, CA 91748
Tel: 626-964-4032
Joann De La Ossa (JDeLaOssa@airtechlabs.com)

CHAIN OF CUSTODY RECORD

DATE: 10/1/2023
PAGE: 1 of 1

Section A Required Client Information:	**Section B** Required Project Information:	**Section C** Invoice Information:	**Section D** Sampler Information:
Company: **Jacobs** **Attention: Eric Davis**	Report To: Eric Davis	Attention: Eric Davis	Sampler Name: James Dye
Address: 1000 Wilshire Blvd. Suite 2100 Los Angeles, CA 90017	Copy To: Court Reece	Company Name: Jacobs	Sampler Signature:
Email To: eric.davis@jacobs.com	Purchase Order No.:	Address: 1000 Wilshire Blvd. Suite 2100 Los Angeles, CA 90017	Sample Date: 10/1/23
Phone: 404-323-1600 Fax:	Project Name: **SFPP Norwalk**	Project Manager: Joann De La Ossa	

Section E Required Sample Information

ITEM #	SAMPLE ID	LOCATION/ DESCRIPTION	MATRIX	SAMPLE TYPE (G=GRAB C=COMP)	SAMPLING DATE	SAMPLING TIME	TOTAL # OF CONTAINERS	Analysis Test: TO-3 (Total VOCs as Hexane)	TO-15 (VOCs, Target Analytes)	ASTM-D 1946 (O2/Argon, CO2, CH4, N2)	Comments
	CONTAINER TYPE										
	# OF CONTAINERS										
	PRESERVATIVE										
	VOLUME (mL)										
1	EFF-~~1001223~~ 100123	Effluent (stack)	Vapor	G	10/1/23	0800	1	X	X		Individually Certified 6-Liter SUMMA
2	EFF-~~1001223~~- D	Effluent (stack) (duplicate)	Vapor	G	10/1/23	0800	1	X	X		Individually Certified 6-Liter SUMMA
3	POST-~~0001223~~	Influent (post-dilution)	Vapor	G	10/1/23	0810	1	X	X		Individually Certified 1-Liter SUMMA
4	INF-~~1001223~~	Influent (pre-dilution)	Vapor	G	10/1/23	0820	1	X	X	X	Batch Certified 1-Liter Summa
5	JD 10/10/23										Target analytes includes Historical VOCs and remaining ATLI list per subcontract
6											
7											
8											
9											
10											

Relinquished by (Signature and Printed Name):	Date / Time	Relinquished by (Signature and Printed Name):	Date / Time
	10/2/23 1430	FEDEX	10/2/23 1430
FEDEX	10/3/23		10/3/23 1248
Relinquished by (Signature and Printed Name):	Date / Time	Relinquished by (Signature and Printed Name):	Date / Time

Turn Around Time (TAT):
- ☐A = Same Day
- ☐B = 24 Hours
- ☐C = 48 Hours
- ☐D = 72 Hours
- ☑E = 5 Workdays
- ☐E = 10 Workdays

TAT Starts at 8 AM the following day if samples received after 3:00 PM.

Special Instruction:

Matrix:			**Preservatives:**			**Container Type:**			
W = Water	WW = Wastewater		H = HCl	N = HNO3	S = H2SO4	T = Tube	V = VOA	P = Pint	A= Amber
O = Oil	P = Product	S = Soil	Z = Zn(AC)2	O = NaOH	T = Na2S2O3	J = Jar	B = Tedlar	G = Glass	
Others/Specify:			Others/Specify:			M = Metal	P = Plastic	C = Can	

Client: Jacobs
Attn: Eric Davis
Project Name: SFPP Norwalk
Project No.: NA
Date Received: 10/03/23
Matrix: Air
Reporting Units: ppmv

EPA Method TO15

Lab No.:	P100305-01			P100305-02			P100305-03			P100305-04		
Client Sample I.D.:	EFF-100123			EFF-100123-D			POST-100123			INF-100123		
Date/Time Sampled:	10/1/23 8:00			10/1/23 8:00			10/1/23 8:10			10/1/23 8:20		
Date/Time Analyzed:	10/9/23 17:04			10/9/23 17:39			10/9/23 18:15			10/9/23 18:50		
QC Batch No.:	231009MS2A1			231009MS2A1			231009MS2A1			231009MS2A1		
Analyst Initials:	VM			VM			VM			VM		
Dilution Factor:	3.6			2.5			2.4			2.3		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
Benzene	ND	0.0036	0.00035	0.0020 J	0.0025	0.00024	0.00051 J	0.0024	0.00023	0.00062 J	0.0023	0.00022
Chloroform	ND	0.0036	0.00050	ND	0.0025	0.00035	0.00054 J	0.0024	0.00034	0.0014 J	0.0023	0.00032
Carbon Tetrachloride	ND	0.0036	0.00063	ND	0.0025	0.00044	ND	0.0024	0.00042	ND	0.0023	0.00040
1,4-Dioxane	ND	0.018	0.00063	ND	0.013	0.00044	ND	0.012	0.00042	ND	0.011	0.00040
1,4-Dichlorobenzene	ND	0.0036	0.00053	ND	0.0025	0.00037	ND	0.0024	0.00035	ND	0.0023	0.00034
1,1-Dichloroethane	ND	0.0036	0.00049	ND	0.0025	0.00034	ND	0.0024	0.00033	ND	0.0023	0.00031
Ethylbenzene	0.00044 J	0.0036	0.00021	0.00053 J	0.0025	0.00015	0.00059 J	0.0024	0.00014	0.0017 J	0.0023	0.00013
1,2-Dichloroethane	ND	0.0036	0.00027	ND	0.0025	0.00019	ND	0.0024	0.00018	ND	0.0023	0.00017
Methylene Chloride	ND	0.0036	0.0010	ND	0.0025	0.00072	ND	0.0024	0.00069	ND	0.0023	0.00066
t-Butyl Methyl Ether (MTBE)	ND	0.0036	0.00081	ND	0.0025	0.00056	ND	0.0024	0.00054	ND	0.0023	0.00051
Tetrachloroethene	ND	0.0036	0.00043	ND	0.0025	0.00030	ND	0.0024	0.00029	ND	0.0023	0.00028
1,1,2-Trichloroethane	ND	0.0036	0.00058	ND	0.0025	0.00041	ND	0.0024	0.00039	ND	0.0023	0.00037
Trichloroethene	ND	0.0036	0.00051	ND	0.0025	0.00036	ND	0.0024	0.00034	ND	0.0023	0.00033
Vinyl Chloride	ND	0.0036	0.00059	ND	0.0025	0.00041	ND	0.0024	0.00039	ND	0.0023	0.00037
Naphthalene	ND	0.018	0.0014	ND	0.013	0.00097	ND	0.012	0.00092	ND	0.011	0.00088
c-1,2-Dichloroethene	ND	0.0036	0.00070	ND	0.0025	0.00049	ND	0.0024	0.00046	ND	0.0023	0.00044
2-Butanone	0.0040	0.0036	0.0022	0.0074	0.0025	0.0016	ND	0.0024	0.0015	ND	0.0023	0.0014
Dichlorodifluoromethane (12)	ND	0.0036	0.00055	ND	0.0025	0.00039	0.00062 J	0.0024	0.00037	0.00064 J	0.0023	0.00035
Chloromethane	ND	0.0072	0.00079	0.00082 J	0.0051	0.00056	ND	0.0048	0.00053	ND	0.0046	0.00051
1,1,1-Trichloroethane	ND	0.0036	0.00036	ND	0.0025	0.00025	ND	0.0024	0.00024	ND	0.0023	0.00023
1,2-Cl-1,1,2,2-F ethane (114)	ND	0.0036	0.00073	ND	0.0025	0.00051	ND	0.0024	0.00048	ND	0.0023	0.00046
Bromomethane	ND	0.0036	0.0011	ND	0.0025	0.00074	ND	0.0024	0.00071	ND	0.0023	0.00067
Chloroethane	ND	0.0036	0.0030	ND	0.0025	0.0021	ND	0.0024	0.0020	ND	0.0023	0.0019
Trichlorofluoromethane (11)	ND	0.0036	0.00078	ND	0.0025	0.00054	ND	0.0024	0.00052	ND	0.0023	0.00049
1,2-Dichloropropane	ND	0.0036	0.00065	ND	0.0025	0.00046	ND	0.0024	0.00044	ND	0.0023	0.00042
Bromodichloromethane	ND	0.0036	0.00022	ND	0.0025	0.00015	ND	0.0024	0.00014	ND	0.0023	0.00014
c-1,3-Dichloropropene	ND	0.0036	0.00043	ND	0.0025	0.00030	ND	0.0024	0.00029	ND	0.0023	0.00028
4-Methyl-2-Pentanone	ND	0.0036	0.00024	ND	0.0025	0.00017	ND	0.0024	0.00016	ND	0.0023	0.00015
Toluene	0.0022 J	0.0036	0.00029	0.0023 J	0.0025	0.00020	0.0010 J	0.0024	0.00019	0.0029	0.0023	0.00018
t-1,3-Dichloropropene	ND	0.0036	0.00037	ND	0.0025	0.00026	ND	0.0024	0.00025	ND	0.0023	0.00024
1,1-Dichloroethene	ND	0.0036	0.00082	ND	0.0025	0.00057	ND	0.0024	0.00055	ND	0.0023	0.00052
1,3-Dichloropropane	ND	0.0036	0.00018	ND	0.0025	0.00013	ND	0.0024	0.00012	ND	0.0023	0.00011
Carbon Disulfide	0.010 J	0.018	0.00087	0.14	0.013	0.00061	0.0079 J	0.012	0.00058	0.012	0.011	0.00055
2-Hexanone	ND	0.0036	0.00074	ND	0.0025	0.00052	ND	0.0024	0.00050	ND	0.0023	0.00047
Dibromochloromethane	ND	0.0036	0.00066	ND	0.0025	0.00046	ND	0.0024	0.00044	ND	0.0023	0.00042
1,2-Dibromoethane	ND	0.0036	0.00033	ND	0.0025	0.00023	ND	0.0024	0.00022	ND	0.0023	0.00021
Chlorobenzene	ND	0.0036	0.00028	ND	0.0025	0.00020	ND	0.0024	0.00019	0.00078 J	0.0023	0.00018
1,1,2-Cl 1,2,2-F ethane (113)	ND	0.0036	0.00097	ND	0.0025	0.00068	ND	0.0024	0.00065	ND	0.0023	0.00062
p,&m-Xylene	0.0016 J	0.0036	0.00041	0.0018 J	0.0025	0.00029	0.0024	0.0024	0.00027	0.0085	0.0023	0.00026

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Jacobs
Attn: Eric Davis
Project Name: SFPP Norwalk
Project No.: NA
Date Received: 10/03/23
Matrix: Air
Reporting Units: ppmv

EPA Method TO15

Lab No.:	P100305-01			P100305-02			P100305-03			P100305-04		
Client Sample I.D.:	EFF-100123			EFF-100123-D			POST-100123			INF-100123		
Date/Time Sampled:	10/1/23 8:00			10/1/23 8:00			10/1/23 8:10			10/1/23 8:20		
Date/Time Analyzed:	10/9/23 17:04			10/9/23 17:39			10/9/23 18:15			10/9/23 18:50		
QC Batch No.:	231009MS2A1			231009MS2A1			231009MS2A1			231009MS2A1		
Analyst Initials:	VM			VM			VM			VM		
Dilution Factor:	3.6			2.5			2.4			2.3		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
o-Xylene	0.00067 J	0.0036	0.00044	0.00084 J	0.0025	0.00031	0.0033	0.0024	0.00029	0.0087	0.0023	0.00028
Styrene	ND	0.0036	0.00046	ND	0.0025	0.00032	0.00032 J	0.0024	0.00031	0.00058 J	0.0023	0.00030
Bromoform	ND	0.0036	0.00020	ND	0.0025	0.00014	ND	0.0024	0.00013	ND	0.0023	0.00013
Isopropyl benzene	ND	0.0036	0.00038	ND	0.0025	0.00026	ND	0.0024	0.00025	0.00052 J	0.0023	0.00024
1,1,2,2-Tetrachloroethane	ND	0.0072	0.00022	ND	0.0051	0.00015	ND	0.0048	0.00015	ND	0.0046	0.00014
Benzyl Chloride	ND	0.0036	0.00066	ND	0.0025	0.00046	0.00070 J	0.0024	0.00044	ND	0.0023	0.00042
1,2,3-Trichloropropane	ND	0.0036	0.00097	ND	0.0025	0.00068	ND	0.0024	0.00065	ND	0.0023	0.00062
n-Propyl Benzene	ND	0.0036	0.00021	ND	0.0025	0.00015	0.00024 J	0.0024	0.00014	0.0016 J	0.0023	0.00013
4-Ethyl Toluene	ND	0.0036	0.00023	ND	0.0025	0.00016	0.0067	0.0024	0.00015	0.016	0.0023	0.00015
1,3,5-Trimethylbenzene	ND	0.0072	0.00062	ND	0.0051	0.00044	0.042	0.0048	0.00042	0.080	0.0046	0.00040
4-Chlorotoluene	ND	0.0036	0.00043	ND	0.0025	0.00030	ND	0.0024	0.00029	ND	0.0023	0.00027
tert-Butylbenzene	ND	0.0036	0.00033	ND	0.0025	0.00023	ND	0.0024	0.00022	ND	0.0023	0.00021
1,2,4-Trimethylbenzene	ND	0.0072	0.00041	ND	0.0051	0.00029	0.0015 J	0.0048	0.00027	0.0085	0.0046	0.00026
sec-Butylbenzene	ND	0.0036	0.00035	ND	0.0025	0.00024	0.00036 J	0.0024	0.00023	0.00093 J	0.0023	0.00022
p-Isopropyltoluene	0.00062 J	0.0036	0.00047	ND	0.0025	0.00033	0.00059 J	0.0024	0.00031	0.0014 J	0.0023	0.00030
1,3-Dichlorobenzene	ND	0.0036	0.00044	ND	0.0025	0.00031	0.00038 J	0.0024	0.00029	0.00048 J	0.0023	0.00028
Acetone	0.014 J	0.018	0.0010	0.021	0.013	0.00073	0.0092 J	0.012	0.00069	0.010 J	0.011	0.00066
n-Butylbenzene	ND	0.0036	0.00026	ND	0.0025	0.00018	ND	0.0024	0.00018	ND	0.0023	0.00017
1,2-Dichlorobenzene	ND	0.0036	0.00045	ND	0.0025	0.00031	ND	0.0024	0.00030	ND	0.0023	0.00029
1,2,4-Trichlorobenzene	ND	0.0072	0.00060	ND	0.0051	0.00042	ND	0.0048	0.00040	ND	0.0046	0.00038
Hexachlorobutadiene	ND	0.0036	0.00021	ND	0.0025	0.00015	ND	0.0024	0.00014	ND	0.0023	0.00013
t-Butanol	ND	0.018	0.00069	0.0017 J	0.013	0.00048	ND	0.012	0.00046	0.00048 J	0.011	0.00044
n-Hexane	0.00055 J	0.018	0.00049	0.00071 J	0.013	0.00034	0.00092 J	0.012	0.00032	0.0018 J	0.011	0.00031
Isopropyl ether	ND	0.018	0.00040	ND	0.013	0.00028	ND	0.012	0.00027	ND	0.011	0.00026
t-Butyl ethyl ether	ND	0.018	0.00072	ND	0.013	0.00050	ND	0.012	0.00048	ND	0.011	0.00046
2,2-Dichloropropane	ND	0.018	0.00034	ND	0.013	0.00024	ND	0.012	0.00023	ND	0.011	0.00022
t-Amyl methyl ether	ND	0.018	0.00025	ND	0.013	0.00018	ND	0.012	0.00017	ND	0.011	0.00016
t-1,2-Dichloroethene	ND	0.0036	0.0011	ND	0.0025	0.00076	ND	0.0024	0.00072	ND	0.0023	0.00069
1,2,3-Trichlorobenzene (TIC)	ND	--	--	ND	--	--	ND	--	--	ND	--	--

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Amika Sotelo-Sanchez
Mark Johnson
Operations Manager

Date 10-10-23

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Jacobs
Attn: Eric Davis
Project Name: SFPP Norwalk
Project No.: NA
Date Received: 10/03/23
Matrix: Air
Reporting Units: ppmv

EPA Method TO15

Lab No.:	METHOD BLANK
Client Sample I.D.:	--
Date/Time Sampled:	--
Date/Time Analyzed:	10/9/23 11:43
QC Batch No.:	231009MS2A1
Analyst Initials:	VM
Dilution Factor:	0.20

ANALYTE	Result ppmv	RL ppmv	MDL ppmv
Benzene	ND	0.00020	0.000019
Chloroform	ND	0.00020	0.000028
Carbon Tetrachloride	ND	0.00020	0.000035
1,4-Dioxane	ND	0.0010	0.000035
1,4-Dichlorobenzene	ND	0.00020	0.000029
1,1-Dichloroethane	ND	0.00020	0.000027
Ethylbenzene	ND	0.00020	0.000011
1,2-Dichloroethane	ND	0.00020	0.000015
Methylene Chloride	ND	0.00020	0.000057
t-Butyl Methyl Ether (MTBE)	ND	0.00020	0.000045
Tetrachloroethene	ND	0.00020	0.000024
1,1,2-Trichloroethane	ND	0.00020	0.000032
Trichloroethene	ND	0.00020	0.000028
Vinyl Chloride	ND	0.00020	0.000032
Naphthalene	ND	0.0010	0.000077
c-1,2-Dichloroethene	ND	0.00020	0.000039
2-Butanone	ND	0.00020	0.00012
Dichlorodifluoromethane (12)	ND	0.00020	0.000031
Chloromethane	ND	0.00040	0.000044
1,1,1-Trichloroethane	ND	0.00020	0.000020
1,2-Cl-1,1,2,2-F ethane (114)	ND	0.00020	0.000040
Bromomethane	ND	0.00020	0.000059
Chloroethane	ND	0.00020	0.00017
Trichlorofluoromethane (11)	ND	0.00020	0.000043
1,2-Dichloropropane	ND	0.00020	0.000036
Bromodichloromethane	ND	0.00020	0.000012
c-1,3-Dichloropropene	ND	0.00020	0.000024
4-Methyl-2-Pentanone	ND	0.00020	0.000013
Toluene	ND	0.00020	0.000016
t-1,3-Dichloropropene	ND	0.00020	0.000021
1,1-Dichloroethene	ND	0.00020	0.000045
1,3-Dichloropropane	ND	0.00020	0.0000099
Carbon Disulfide	ND	0.0010	0.000048
2-Hexanone	ND	0.00020	0.000041
Dibromochloromethane	ND	0.00020	0.000036
1,2-Dibromoethane	ND	0.00020	0.000018
Chlorobenzene	ND	0.00020	0.000016
1,1,2-Cl 1,2,2-F ethane (113)	ND	0.00020	0.000054
p,&m-Xylene	ND	0.00020	0.000023

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Jacobs
Attn: Eric Davis
Project Name: SFPP Norwalk
Project No.: NA
Date Received: 10/03/23
Matrix: Air
Reporting Units: ppmv

EPA Method TO15

Lab No.:	METHOD BLANK
Client Sample I.D.:	--
Date/Time Sampled:	--
Date/Time Analyzed:	10/9/23 11:43
QC Batch No.:	231009MS2A1
Analyst Initials:	VM
Dilution Factor:	0.20

ANALYTE	Result ppmv	RL ppmv	MDL ppmv
o-Xylene	ND	0.00020	0.000024
Styrene	ND	0.00020	0.000026
Bromoform	ND	0.00020	0.000011
Isopropyl benzene	ND	0.00020	0.000021
1,1,2,2-Tetrachloroethane	ND	0.00040	0.000012
Benzyl Chloride	ND	0.00020	0.000037
1,2,3-Trichloropropane	ND	0.00020	0.000054
n-Propyl Benzene	ND	0.00020	0.000012
4-Ethyl Toluene	ND	0.00020	0.000013
1,3,5-Trimethylbenzene	ND	0.00040	0.000035
4-Chlorotoluene	ND	0.00020	0.000024
tert-Butylbenzene	ND	0.00020	0.000018
1,2,4-Trimethylbenzene	ND	0.00040	0.000023
sec-Butylbenzene	ND	0.00020	0.000019
p-Isopropyltoluene	ND	0.00020	0.000026
1,3-Dichlorobenzene	ND	0.00020	0.000024
Acetone	ND	0.0010	0.000058
n-Butylbenzene	ND	0.00020	0.000015
1,2-Dichlorobenzene	ND	0.00020	0.000025
1,2,4-Trichlorobenzene	ND	0.00040	0.000033
Hexachlorobutadiene	ND	0.00020	0.000012
t-Butanol	ND	0.0010	0.000038
n-Hexane	ND	0.0010	0.000027
Isopropyl ether	ND	0.0010	0.000022
t-Butyl ethyl ether	ND	0.0010	0.000040
2,2-Dichloropropane	ND	0.0010	0.000019
t-Amyl methyl ether	ND	0.0010	0.000014
t-1,2-Dichloroethene	ND	0.00020	0.000060
1,2,3-Trichlorobenzene (TIC)	ND	--	--

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Annika Sotelo-Sachez for
Mark Johnson
Operations Manager

Date 10-10-23

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 231009MS2A1

Matrix: Air

Reporting Units: ppmv

EPA Method TO15
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK			LCS		LCSD					
Date/Time Analyzed:	10/9/23 11:43			10/9/23 10:30		10/9/23 11:06					
QC Batch No.:	231009MS2A1			231009MS2A1		231009MS2A1					
Analyst Initials:	VM			VM		VM					
Dilution Factor:	0.20			1.0		1.0					
ANALYTE	Result ppmv	RL ppmv	AMT. ppmv	Result ppmv	% Rec.	Result ppmv	% Rec.	RPD	Low %Rec	High %Rec	Max. RPD
1,1-Dichloroethene	ND	0.00020	0.010	0.00929	92.9	0.0101	101	8.2	70	130	30.0
Methylene Chloride	ND	0.00020	0.010	0.00973	97.3	0.0102	102	4.6	70	130	30.0
Trichloroethene	ND	0.00020	0.010	0.00999	99.9	0.0100	100	0.4	70	130	30.0
Toluene	ND	0.00020	0.010	0.00991	99.1	0.0100	100	1.0	70	130	30.0
1,1,2,2-Tetrachloroethane	ND	0.00020	0.010	0.0109	109	0.0106	106	2.7	70	130	30.0

ND = Not Detected (below RL)
RL = Reporting Limit

Reviewed/Approved By: _____ Date: 10-10-23
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Jacobs
Attn: Eric Davis
Project Name: SFPP Norwalk
Project No.: NA
Date Received: 10/03/23
Matrix: Air
Reporting Units: ppmv

EPA METHOD TO3

Lab No.:	P100305-01			P100305-02			P100305-03			P100305-04		
Client Sample I.D.:	EFF-100123			EFF-100123-D			POST-100123			INF-100123		
Date/Time Sampled:	10/1/23 8:00			10/1/23 8:00			10/1/23 8:10			10/1/23 8:20		
Date/Time Analyzed:	10/9/23 10:24			10/9/23 10:47			10/9/23 11:09			10/9/23 11:32		
QC Batch No.:	231009GC11A1			231009GC11A1			231009GC11A1			231009GC11A1		
Analyst Initials:	RC			RC			RC			RC		
Dilution Factor:	2.5			2.5			2.4			2.3		
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv	Result ppmv	RL ppmv	MDL ppmv
TVOC as Hexane	ND	2.5	0.44	ND	2.5	0.44	2.1 J	2.4	0.42	4.4	2.3	0.40

MDL = Method Detection Limit
ND = Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL

Reviewed/Approved By: Mark Johnson
Operations Manager

Date 10·10·23

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18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No: 231009GC11A1
Matrix: Air
Reporting Units: ppmv

EPA METHOD TO3
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK				LCS		LCSD					
Date Analyzed:	10/9/23 10:02				10/9/23 9:09		10/9/23 9:22					
Analyst Initials:	RC				RC		RC					
Dilution Factor:	1.0				1.0		1.0					
ANALYTE	Result ppmv	RL ppmv	MDL ppmv	SPIKE AMT. ppmv	Result ppmv	% Rec.	Result ppmv	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
TVOC as Hexane	ND	1.0	0.18	5.0	5.41	108	5.30	106	2.1	70	130	25

MDL = Method Detection Limit
ND = Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL

Reviewed/Approved By: _____ **Date** 10-10-23
Mark Johnson
Operations Manager

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Jacobs
Attn: Eric Davis
Project Name: SFPP Norwalk
Project No.: NA
Date Received: 10/03/23
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	P100305-04											
Client Sample I.D.:	INF-100123											
Date/Time Sampled:	10/1/23 8:20											
Date/Time Analyzed:	10/4/23 15:21											
QC Batch No.:	231004GC8A1											
Analyst Initials:	RC											
Dilution Factor:	2.3											
ANALYTE	Result % v/v	RL % v/v	MDL % v/v									
Carbon Dioxide	1.00	0.023	0.00019									
Oxygen/Argon	20	1.1	0.56									
Nitrogen	79	2.3	0.52									
Methane	0.0015 J	0.0023	0.00014									

Results normalized including non-methane hydrocarbons

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Annika Sotto-Sanchez for
Mark Johnson
Operations Manager

Date 10-10-23

The cover letter is an integral part of this analytical report

AirTECHNOLOGY Laboratories, Inc.
18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

QC Batch No: 231004GC8A1
Matrix: Air
Reporting Units: % v/v

ASTM D1946
LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	METHOD BLANK				LCS		LCSD					
Date Analyzed:	10/4/23 11:44				10/4/23 11:58		10/4/23 12:13					
Analyst Initials:	RC				RC		RC					
Dilution Factor:	1.0				1.0		1.0			Limits		
ANALYTE	Result % v/v	RL % v/v	MDL % v/v	SPIKE AMT. % v/v	Result % v/v	% Rec.	Result % v/v	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Carbon Dioxide	ND	0.010	0.000082	10	10.0	100	9.73	97	3.0	70	130	30
Oxygen/Argon	ND	0.50	0.24	15	14.1	94	14.5	96	2.5	70	130	30
Nitrogen	0.31 J	1.0	0.23	70	68.9	98	69.7	99	1.2	70	130	30
Methane	ND	0.0010	0.000059	0.10	0.111	110	0.109	108	1.8	70	130	30

MDL = Method Detection Limit
ND= Not Detected (below MDL)
RL = Reporting Limit
J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By: Annika Stolo Sanchez for
Mark Johnson
Operations Manager

Date 10-10-23

The cover letter is an integral part of this analytical report

Appendix B
BS-02 Narrative and Operations Data

Appendix B. BS-02 Narrative and Operations Data

SFPP Norwalk Pump Station, Norwalk, California

	Operational Data						VOC Mass Removal				O2 Calculations					
Date	SVE Influent Max of CO2 (%)	SVE Influent Max of O2 (%)	SVE Influent Max of VOCs (ppmv)	Max of SVE Influent Flow (scfm)	Operational Efficency	Corrected SVE Flow (scfm)	Removal Rate (VOC ppm/ ft3/minute)	VOC Mass Removal Rate (lb/minute)	VOC Mass Removal Rate (lb/day)	Cumulative Equivalent Mass Removed (lbs)	O2 Depletion (%)	O2 Depletion (lbs/minute)	Equivalent Mass Consumed by O2 (lbs/minute)	Equivalent Mass Consumed by O2 (lbs/day)	Cumulative Equivalent Mass Consumed by O2 (lbs)	Difference O2 vs CO2
5/15/20 11:30	2.40	17.20	0.00	196.00	0.00	0.31	0.00	0.00000	0.00	0	5.3	0.00	0.00	0.51	0	0
5/15/20 12:46	2.70	17.70	263.50	188.00	0.00	0.29	77.40	0.00002	0.02	0	4.8	0.00	0.00	0.44	0	0
5/18/20 8:20	2.20	19.30	563.00	166.00	0.00	0.26	146.03	0.00003	0.05	0	3.2	0.00	0.00	0.26	1	0
5/18/20 8:20	2.20	19.30	0.00	166.00	0.00	0.26	0.00	0.00000	0.00	0	3.2	0.00	0.00	0.26	1	0
5/18/20 11:58	1.60	19.20	655.00	160.00	0.00	0.25	163.75	0.00004	0.05	0	3.3	0.00	0.00	0.26	1	0
5/20/20 8:25	1.70	18.20	403.00	168.00	1.00	168.00	67704.00	0.01488	21.42	20	4.3	0.55	0.16	225.61	210	-209
5/20/20 8:25	1.70	18.20	0.00	168.00	1.00	168.00	0.00	0.00000	0.00	20	4.3	0.55	0.16	225.61	210	-209
5/20/20 11:18	1.50	18.80	252.00	168.00	1.00	168.00	42336.00	0.00930	13.40	21	3.7	0.48	0.13	194.13	235	-223
5/22/20 14:15	1.30	18.80	533.00	179.00	1.00	179.00	95407.00	0.02097	30.19	67	3.7	0.51	0.14	206.84	661	-472
5/22/20 14:15	1.30	18.80	0.00	179.00	1.00	179.00	0.00	0.00000	0.00	67	3.7	0.51	0.14	178.89	661	-472
5/26/20 8:46	1.10	18.70	526.00	168.00	1.00	168.00	88368.00	0.01942	27.96	120	3.8	0.49	0.14	199.38	1427	-949
5/26/20 14:18	1.00	18.50	397.00	177.00	1.00	177.00	70269.00	0.01544	22.24	126	4.0	0.54	0.15	221.11	1476	-984
5/27/20 8:10	1.20	18.90	383.00	168.00	1.00	168.00	64344.00	0.01414	20.36	141	3.6	0.46	0.13	188.88	1628	-1093
5/29/20 9:13	1.20	19.20	368.00	168.00	1.00	167.22	61537.78	0.01352	19.47	182	3.3	0.42	0.12	172.34	1997	-1326
6/3/20 14:48	5.40	19.20	1129.00	172.00	1.00	172.00	194188.00	0.04267	61.45	394	3.3	0.43	0.12	177.27	2912	-1895
6/4/20 10:08	0.80	19.90	687.10	180.00	1.00	180.00	123678.00	0.02718	39.14	434	2.6	0.36	0.10	146.16	3042	-1779
6/5/20 13:00	1.10	19.00	1300.00	180.00	1.00	180.00	234000.00	0.05142	74.05	498	3.5	0.48	0.14	196.75	3234	-1918
6/5/20 13:00	1.10	19.00	0.00	180.00	1.00	180.00	0.00	0.00000	0.00	498	3.5	0.48	0.14	196.75	3234	-1918
6/10/20 10:45	1.10	19.00	1050.00	224.00	1.00	224.00	235200.00	0.05168	74.43	680	3.5	0.60	0.17	244.85	4317	-2681
6/23/20 10:30	1.80	18.40	323.00	206.00	1.00	205.18	66273.96	0.01456	20.97	1300	4.1	0.64	0.18	262.73	7614	-4923
6/24/20 11:20	1.00	18.90	650.00	205.00	0.99	203.78	132456.85	0.02911	41.91	1332	3.6	0.56	0.16	229.11	7869	-5052
6/26/20 7:45	1.30	17.80	706.00	212.00	0.99	210.74	148781.10	0.03269	47.08	1415	4.7	0.76	0.21	309.33	8367	-5426
6/30/20 12:49	1.50	19.10	560.00	202.92	1.00	202.92	113635.20	0.02497	35.96	1590	3.4	0.53	0.15	215.47	9472	-6150
7/6/20 11:34	1.10	19.20	575.00	209.00	1.00	209.00	120175.00	0.02641	38.03	1810	3.3	0.53	0.15	215.40	10753	-6835
7/8/20 13:02	1.20	18.50	98.80	208.00	0.95	197.18	19481.08	0.00428	6.16	1855	4.0	0.60	0.17	246.32	11229	-7155
7/10/20 14:30	0.90	19.00	638.50	209.68	0.95	198.77	126914.32	0.02789	40.16	1903	3.5	0.53	0.15	217.27	11707	-7472
7/14/20 10:30	0.70	19.30	699.10	205.70	0.95	195.00	136322.12	0.02996	43.14	2000	3.2	0.48	0.14	194.88	12529	-7996
7/17/20 8:13	0.70	19.30	699.10	205.70	0.95	195.00	136322.12	0.02996	43.14	2184	3.2	0.48	0.14	194.88	13095	-8464
7/24/20 13:30	0.80	19.60	675.00	210.00	0.97	204.54	138062.09	0.03034	43.69	2497	2.9	0.45	0.13	185.25	14468	-9511
8/4/20 13:35	1.00	17.30	152.60	226.83	0.95	216.52	33040.88	0.00726	10.46	2795	5.2	0.86	0.24	351.63	17421	-11872
8/21/2020 15:25	0.80	19.70	340.00	150.00	1.00	149.56	50850.00	0.01117	16.09	3022	2.8	0.32	0.09	130.78	21540	-14772
9/17/2020 8:10	0.80	19.50	320.00	200.00	0.96	191.74	61358.20	0.01348	19.42	3496	3.0	0.44	0.12	179.65	25684	-17864
9/29/2020 13:30	0.30	21.50	70.00	221.00	0.99	219.85	15389.80	0.00338	4.87	3644	1.0	0.17	0.05	68.66	27202	-18764
10/15/2020 10:30	0.70	19.80	801.00	169.00	0.92	155.02	124171.81	0.02729	39.29	3994	2.7	0.32	0.09	130.72	28784	-20012
10/30/2020 12:20	1.10	19.20	1346.00	230.43	0.85	195.01	262487.41	0.05768	83.06	4917	3.3	0.49	0.14	200.98	31285	-21962
11/4/2020 9:12	0.80	19.80	354.50	273.22	1.00	273.22	96856.49	0.02128	30.65	5194	2.7	0.56	0.16	230.39	32335	-22660
12/30/20 11:16	0.30	20.30	144.50	272.29	0.76	206.28	29807.73	0.00655	9.43	6318	2.2	0.35	0.10	141.73	42770	-28970
1/5/21 9:00	1.30	19.60	373.00	225.00	0.97	218.25	81407.25	0.01789	25.76	6422	2.9	0.48	0.14	197.67	43773	-29836
2/23/21 10:00	1.00	20.90	106.00	229.33	0.97	222.45	23579.71	0.00518	7.46	7236	1.6	0.27	0.08	111.16	51345	-32234
5/5/21 8:30	0.00	18.00	380.00	205.00	0.97	198.24	75329.30	0.01655	23.84	8346	4.5	0.7	0.19	278.60	65169	-40190
5/27/21 8:55	1.40	19.43	255.06	257.40	0.98	250.97	64011.04	0.01407	20.26	8832	3.1	0.6	0.17	241.00	70889	-45910
6/22/21 8:10	0.90	19.60	219.50	220.00	1.00	219.34	48145.13	0.01058	15.23	9292	2.9	0.5	0.14	198.66	76598	-48231
7/9/21 9:08	0.90	18.70	336.00	140.00	0.99	138.60	46569.60	0.01023	14.74	9548	3.8	0.4	0.11	164.49	79692	-50074
8/4/21 12:05	--	--	220.00	130.00	0.63	81.90	18018.00	0.00396	5.70	9815	0.0	--	--	--	--	--
9/24/21 14:30	0.30	22.50	190.20	129.00	1.00	129.00	24535.80	0.00539	7.76	10159	0.0	0.0	0.00	0.00	86043	-54055
10/7/21 11:25	0.60	20.80	415.00	180.00	0.99	178.20	73953.00	0.01625	23.40	10359	1.7	0.2	0.10	95.00	86652	-54463
10/14/21 8:05	--	19.10	230.00	202.00	0.99	199.98	45995.40	0.01011	14.55	10490	3.4	0.5	0.10	212.00	87705	-55220
12/9/21 11:59	0.30	19.80	38.00	280.00	0.71	198.80	7554.40	0.00166	2.39	10965	2.7	0.4	0.10	168.00	98376	-65890
12/15/21 13:35	0.60	20.20	20.10	320.00	0.92	294.40	5917.44	0.00130	1.87	10978	2.3	0.5	0.10	211.00	99525	-66894
12/23/21 7:45	0.80	20.20	16.50	225.00	0.97	218.25	3601.13	0.00079	1.14	10990	2.3	0.4	0.10	157.00	100954	-67769
12/30/21 8:00	0.90	20.30	22.00	233.00	1.00	233.00	5126.00	0.00113	1.62	11000	2.2	0.4	0.10	160.00	102064	-68386

Appendix B. BS-02 Narrative and Operations Data

SFPP Norwalk Pump Station, Norwalk, California

	Operational Data						VOC Mass Removal				O2 Calculations					
Date	SVE Influent Max of CO2 (%)	SVE Influent Max of O2 (%)	SVE Influent Max of VOCs (ppmv)	Max of SVE Influent Flow (scfm)	Operational Efficency	Corrected SVE Flow (scfm)	Removal Rate (VOC ppm/ ft3/minute)	VOC Mass Removal Rate (lb/minute)	VOC Mass Removal Rate (lb/day)	Cumulative Equivalent Mass Removed (lbs)	O2 Depletion (%)	O2 Depletion (lbs/minute)	Equivalent Mass Consumed by O2 (lbs/minute)	Equivalent Mass Consumed by O2 (lbs/day)	Cumulative Equivalent Mass Consumed by O2 (lbs)	Difference O2 vs CO2
1/6/22 0:00	0.00	20.9	0.00	0.00	0.00	0.00	0.00	0.00000	0.00	11005	1.6	0.0	0.00	0.00	102598	-68356
1/13/22 9:50	0.00	--	--	0.00	0.00	0.00	0.00	0.00000	0.00	11005	0.0	0.0	0.00	0.00	102598	-68356
1/26/22 12:00	0.00	--	--	0.00	0.00	0.00	0.00	0.00000	0.00	11005	0.0	0.0	0.00	0.00	102598	-68356
3/3/22 11:45	0.00	16.80	6.50	457.00	0.00	0.00	0.00	0.00000	0.00	11005	5.7	0.0	0.00	0.00	102598	-68356
3/8/22 9:08	0.00	19.50	29.00	361.00	0.71	256.31	7432.99	0.00163	2.35	11011	3.0	0.6	0.20	240.00	103185	-68943
3/10/22 16:05	0.80	20.90	6.00	86.90	0.71	61.70	370.19	0.00008	0.12	11014	1.6	0.1	0.00	31.00	103495	-69253
3/24/22 9:01	0.2	19.4	48	215	1.00	215	10320.00	0.00227	3.27	11037	3.1	0.5	0.10	208.00	105133	-70618
4/7/22 11:16	0.8	19.3	9.1	457	0.75	342.75	3119.03	0.00069	0.99	11067	3.2	0.8	0.20	343.00	109014	-74254
5/4/22 13:20		20.1	26.5	457	0.99	452.43	11989.40	0.00263	3.79	11132	2.4	0.8	0.20	339.00	118246	-80489
5/11/22 11:40	0.4	19.9	23.5	427	0.90	384.30	9031.05	0.00198	2.86	11155	2.6	0.8	0.20	312.00	120502	-82745
5/12/22 15:00	0.6	19.4	14.3	134.5	0.90	121.05	1731.02	0.00038	0.55	11157	3.1	0.3	0.10	117.00	120746	-82919
5/25/22 12:15	0.1	20.5	14.7	395	1.00	395.00	5806.50	0.00128	1.84	11172	2.0	0.6	0.20	247.00	123091	-84886
6/9/22 9:15	0.8	20.1	45	650	0.98	637.00	28665.00	0.00630	9.07	11253	2.4	1.2	0.30	477.00	128477	-90035
6/15/22 9:40		20.9	25.8	395	0.99	391.05	10089.09	0.00222	3.19	11290	1.6	0.5	0.10	195.00	130502	-90822
7/21/22 8:45			142.9	209	0.99	206.91	29567.44	0.00650	9.36	11516	0.0	0.0	0.00	0.00	134015	-94335
7/28/22 14:05	0.5	20.5	23.5	107.5	0.99	106.43	2500.99	0.00055	0.79	11552	2.0	0.2	0.00	66.00	134255	-94575
8/5/22 9:10	0.4	20.1	48.5	178.5	1.00	178.50	8657.25	0.00190	2.74	11566	2.4	0.3	0.10	134.00	135036	-95189
8/16/22 9:20	0.4	20.3	34.9	806	0.99	797.94	27848.11	0.00612	8.81	11630	2.2	1.3	0.40	548.00	138789	-98625
9/23/22 9:05	0.6	20	24.9	202	0.97	195.94	4878.91	0.00107	1.54	11826	2.5	0.4	0.10	153.00	152109	-107052
10/4/22 9:58	0.7	20.9	57.20	142	1.00	142.00	8122.40	0.00178	2.57	11849	1.6	0.2	0.05	70.96	153345	-107764
10/6/22 13:15	0.2	20.9	24.00	168	1.00	168.00	4032.00	0.00089	1.28	11853	1.6	0.2	0.06	83.95	153510	-107846
BS-02 Air Sparge and South East Area Vapor Extraction Operations Stopped on 10/6/2022																

Appendix B. BS-02 Narrative and Operations Data

SFPP Norwalk Pump Station, Norwalk, California

	Biodegradation							Cumulative Mass Removed	Flow
	CO2			C14 Correction Applied					
Date	CO2 Production (scf/minute)	CO2 Production (lbs/minute)	C14 Correction Factor Based on BaCO3	Equivalent Mass Biodegraded by CO2 (lbs/minute) C14 Corrected	Equivalent Mass Biodegraded by CO2 (lbs/day) C14 Corrected	Cumulative Equivalent Mass Consumed by CO2 (lbs)	Total Biodegraded Mass (lbs) C14 Corrected	Cumulative Overall Mass Removal (lbs)	BS-02 Flow (scfm)
5/15/20 11:30	0.01	0.00	0.57	0.00	0.24	0	0	0	0
5/15/20 12:46	0.01	0.00	0.57	0.00	0.26	0	0	0	26
5/18/20 8:20	0.01	0.00	0.57	0.00	0.19	1	1	1	23
5/18/20 8:20	0.01	0.00	0.57	0.00	0.19	1	1	1	30
5/18/20 11:58	0.00	0.00	0.57	0.00	0.13	1	1	1	70
5/20/20 8:25	2.86	0.35	0.57	0.07	94.10	1	175	195	70
5/20/20 8:25	2.86	0.35	0.57	0.07	94.10	1	175	195	100
5/20/20 11:18	2.52	0.31	0.57	0.06	83.03	12	185	206	100
5/22/20 14:15	2.33	0.29	0.57	0.05	76.67	189	348	415	100
5/22/20 14:15	2.33	0.29	0.57	0.05	76.67	189	348	415	135
5/26/20 8:46	1.85	0.23	0.57	0.04	60.89	478	577	697	135
5/26/20 14:18	1.77	0.22	0.57	0.04	58.32	492	591	716	135
5/27/20 8:10	2.02	0.25	0.57	0.05	66.42	535	640	782	135
5/29/20 9:13	2.01	0.25	0.57	0.05	66.11	671	775	957	135
6/3/20 14:48	9.29	1.14	0.57	0.21	306.01	1017	2376	2770	135
6/4/20 10:08	1.44	0.18	0.57	0.03	47.44	1263	2415	2849	135
6/5/20 13:00	1.98	0.24	0.57	0.05	65.23	1317	2488	2985	135
6/5/20 13:00	1.98	0.24	0.57	0.05	65.23	1317	2488	2985	100
6/10/20 10:45	2.46	0.30	0.57	0.06	81.18	1637	2886	3566	100
6/23/20 10:30	3.69	0.45	0.57	0.08	121.68	2691	4467	5766	3
6/24/20 11:20	2.04	0.25	0.57	0.05	67.14	2817	4536	5868	70
6/26/20 7:45	2.74	0.34	0.57	0.06	90.26	2941	4703	6118	100
6/30/20 12:49	3.04	0.37	0.57	0.07	100.28	3321	5125	6715	100
7/6/20 11:34	2.30	0.28	0.57	0.05	75.75	3918	5576	7386	100
7/8/20 13:02	2.37	0.29	0.57	0.05	77.96	4074	5737	7592	105
7/10/20 14:30	1.79	0.22	0.57	0.04	58.94	4235	5858	7761	129
7/14/20 10:30	1.36	0.17	0.57	0.03	44.97	4533	6031	8031	160
7/17/20 8:13	1.36	0.17	0.57	0.03	44.97	4632	6161	8345	185
7/24/20 13:30	1.64	0.20	0.57	0.04	53.91	4956	6550	9047	180
8/4/20 13:35	2.17	0.27	0.57	0.05	71.34	5550	7335	10130	162
8/21/2020 15:25	1.20	0.15	0.57	0.03	39.42	6768	8008	11030	170
9/17/2020 8:10	1.53	0.19	0.57	0.04	50.54	7820	9358	12853	180
9/29/2020 13:30	0.66	0.08	0.55	0.01	21.08	8438	9615	13259	180
10/15/2020 10:30	1.09	0.13	0.58	0.03	36.52	8773	10195	14190	180
10/30/2020 12:20	2.15	0.26	0.58	0.05	72.19	9323	11284	16200	83
11/4/2020 9:12	2.19	0.27	0.58	0.05	73.56	9675	11642	16835	188
12/30/20 11:16	0.62	0.08	0.65	0.02	23.01	13801	12933	19250	170
1/5/21 9:00	2.84	0.35	0.65	0.07	105.52	13936	13556	19977	170
2/23/21 10:00	2.22	0.27	0.65	0.06	82.73	19111	17613	24849	170
5/5/21 8:30	0.00	0.00	0.65	0.00	0.00	24980	17613	25959	170
5/27/21 8:55	3.51	0.43	0.65	0.09	130.44	24980	20485	29316	170
6/22/21 8:10	1.97	0.24	0.65	0.05	73.41	28367	22391	31684	180
7/9/21 9:08	1.25	0.15	0.65	0.03	46.39	29618	23182	32730	160
8/4/21 12:05	--	--	0.65	--	--	--	--	--	170
9/24/21 14:30	0.39	0.05	0.70	0.01	15.62	31988	23980	34139	185
10/7/21 11:25	1.07	0.13	0.70	0.03	43.15	32189	24535	34895	180
10/14/21 8:05	0.00	0.00	0.70	0.00	0.00	32485	24535	35025	180
12/9/21 11:59	0.60	0.07	0.70	0.02	24.07	32485	25887	36852	160
12/15/21 13:35	1.77	0.22	0.70	0.05	71.28	32631	26319	37298	170
12/23/21 7:45	1.75	0.21	0.70	0.05	70.46	33184	26866	37856	165
12/30/21 8:00	2.10	0.26	0.70	0.06	84.62	33678	27459	38459	168

Appendix B. BS-02 Narrative and Operations Data

SFPP Norwalk Pump Station, Norwalk, California

	Biodegradation							Cumulative Mass Removed	Flow
	CO2			C14 Correction Applied					
Date	CO2 Production (scf/minute)	CO2 Production (lbs/minute)	C14 Correction Factor Based on BaCO3	Equivalent Mass Biodegraded by CO2 (lbs/minute) C14 Corrected	Equivalent Mass Biodegraded by CO2 (lbs/day) C14 Corrected	Cumulative Equivalent Mass Consumed by CO2 (lbs)	Total Biodegraded Mass (lbs) C14 Corrected	Cumulative Overall Mass Removal (lbs)	BS-02 Flow (scfm)
1/6/22 0:00	0.00	0.00	0.70	0.00	0.00	34242	27459	38464	0
1/13/22 0:00	0.00	0.00	0.70	0.00	0.00	34242	27459	38464	0
1/26/22 0:00	0.00	0.00	0.70	0.00	0.00	34242	27459	38464	0
3/3/22 0:00	0.00	0.00	0.70	0.00	0.00	34242	27459	38464	150
3/8/22 0:00	0.00	0.00	0.70	0.00	0.00	34242	27459	38470	70
3/10/22 0:00	0.49	0.06	0.70	0.01	19.92	34242	27505	38518	155
3/24/22 0:00	0.43	0.05	0.70	0.01	17.35	34515	27742	38779	128
4/7/22 11:16	2.74	0.34	0.70	0.08	110.65	34760	29302	40369	153
5/4/22 13:20	0.00	0.00	0.70	0.00	0.00	37757	29302	40433	151
5/11/22 11:40	1.54	0.19	0.70	0.04	62.03	37757	29732	40886	180
5/12/22 15:00	0.73	0.09	0.70	0.02	29.31	37828	29765	40922	180
5/25/22 12:15	0.40	0.05	0.70	0.01	15.94	38205	29970	41142	181
6/9/22 9:15	5.10	0.63	0.70	0.14	205.64	38442	33029	44282	180
6/15/22 9:40	0.00	0.00	0.70	0.00	0.00	39680	33029	44319	182
7/21/22 8:45	0.00	0.00	0.70	0.00	0.00	39680	33029	44545	180
7/28/22 14:05	0.53	0.07	0.70	0.01	21.47	39680	33184	44737	185
8/5/22 9:10	0.71	0.09	0.70	0.02	28.81	39847	33409	44975	180
8/16/22 9:20	3.19	0.39	0.70	0.09	128.80	40164	34827	46456	177
9/23/22 9:05	1.18	0.14	0.70	0.03	47.44	45057	36629	48455	180
10/4/22 9:58	0.97	0.12	0.70	0.04	53.75	45581	37059	48908	142
10/6/22 13:15	0.34	0.04	0.70	0.01	13.56	45664	37088	48941	168
BS-02 Air Sparge and South East Area Vapor Extraction Operations Stopped on 10/6/2022									

Appendix C
HSVE-01 and BS-03 Narrative and Operations Data

Appendix C.1. HSVE-01 Narrative and Operations Data

SFPP Norwalk Pump Station, Norwalk, California

Location	Date	Time	Biosparge Flow (scfm)	SVE VOC (ppmv)	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	SVE Flow (scfm)	SVE Vacuum (in H2O)	Comment
HSVE-1	4/6/2021	12:25	0	381	13.4	6	1	323	28.3	Step 1
HSVE-1	4/6/2021	16:00	0	405	13.4	6.2	1.1	323	29.0	Step 1
HSVE-1	4/7/2021	7:35	0	406.6	15.5	5.6	0.8	323	24.3	Step 1
HSVE-1	4/7/2021	12:45	0	421.5	15.6	4.7	0.8	512	47.1	Step 2
HSVE-1	4/7/2021	15:25	0	418	16.2	4.4	0.8	512	48.1	Step 2
HSVE-1	4/8/2021	7:35	0	425	17.1	4	0.6	512	48.2	Step 2
HSVE-1	4/8/2021	11:00	0	401.1	17.5	3.4	0.6	512	48.2	Step 2
HSVE-1	4/8/2021	12:00	0	398.1	17	3.4	0.6	560	55.0	Step 3
HSVE-1	4/8/2021	15:00	0	414.2	17.9	3.3	0.6	560	55.0	Step 3
HSVE-1	4/15/2021	9:00	0	421	17.7	3.5	0.6	560	55.0	
HSVE-1	4/21/2021	13:00	0	408	17.5	3.4	0.5	560	55.0	
HSVE-1	4/28/2021	11:00	0	340	19.9	1.4	0.5	550	55.0	Step 3 continued
HSVE-1	5/5/2021	9:00	0	390	18.9	1.3	0.5	550	55.0	
HSVE-1	5/5/2021	15:45	0	418	18.9	1.3	0.5	550	55.0	
HSVE-1	5/11/2021	16:45	45	1200	20.1	0.8	0.5	560	56.0	
HSVE-1	5/12/2021	8:15	45	422	19.9	1.3	0.1	500	56.0	
HSVE-1	5/12/2021	15:00	100	2000	20.2	1	0.5	500	56.0	
HSVE-1	5/13/2021	9:00	100	431.8	19.8	1.3	1.1	457	54.0	
HSVE-1	5/13/2021	14:52	100	5000	19.8	1	1	457	55.0	
HSVE-1	5/14/2021	8:30	50	5000	19.9	1.1	0.4	457	55.0	
HSVE-1	5/14/2021	14:18	50	4852	19.8	0.2	0.8	457	55.0	
HSVE-1	5/18/2021	9:00	50	1410	17.4	1.9	1	500	55.0	
HSVE-1	5/18/2021	12:52	50	1900	18.7	1.2	0.5	500	55.0	
HSVE-1	5/18/2021	15:30	50	2650	19.5	1.2	0.5	500	55.0	
HSVE-1	5/19/2021	9:30	50	440	19.7	1.2	1.1	457	49.0	
HSVE-1	5/19/2021	13:10	100	4830	20	0.9	0.6	470	49.0	
HSVE-1	5/19/2021	16:15	100	390	19.9	0.8	0.6	485	49.0	
HSVE-1	5/20/2021	9:30	100	455	19.6	1.4	1.2	500	56.0	
HSVE-1	5/20/2021	11:49	100	475	19.5	0.9	0.8	500	56.0	
HSVE-1	5/26/2021	11:02	100	415	19.3	1.2	1.1	460	54.0	
HSVE-1	5/26/2021	12:15	150	395	18.9	1.1	1.2	460	54.0	
HSVE-1	5/26/2021	14:01	150	418	19.4	0.9	0.9	530	54.0	
HSVE-1	5/27/2021	7:48	150	374.2	19.5	1.2	1.3	600	56.0	
HSVE-1	5/27/2021	11:20	200	379.1	19.2	1	1	600	54.5	
HSVE-1	5/28/2021	10:15	100	335	18.5	1.3	1.1	510	53.5	
HSVE-1	5/28/2021	11:30	100	421	18.7	1	1.2	510	55.6	
HSVE-1	6/1/2021	12:40	100	386.2	18.5	1.2	1	600	56.0	SVE flow was between 500-600.
HSVE-1	6/1/2021	14:45	100	360.1	18.8	1	0.5	600	56.0	SVE flow was between 500-600.
HSVE-1	6/10/2021	10:35	200	468.3	18	1.3	0.8	600	56.0	SVE flow was between 500-600.
HSVE-1	6/10/2021	12:58	200	472.5	18.1	1.4	0.8	600	55.0	SVE flow was between 500-600.
HSVE-1	6/10/2021	15:09	200	442.5	18.5	1	0.6	600	55.0	SVE flow was between 500-600.
HSVE-1	6/11/2021	7:55	300	441	19.4	1.4	1	600	56.0	SVE flow was between 500-600.
HSVE-1	6/11/2021	10:28	300	468	19.1	0.9	0.6	600	56.0	SVE flow was between 500-600.

Appendix C.1. HSVE-01 Narrative and Operations Data

SFPP Norwalk Pump Station, Norwalk, California

Location	Date	Time	Biosparge Flow (scfm)	SVE VOC (ppmv)	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	SVE Flow (scfm)	SVE Vacuum (in H2O)	Comment
HSVE-1	6/22/2021	7:55	200	344.9	18.8	1.3	0.4	600	56.0	SVE flow was between 500-600.
HSVE-1	6/25/2021	8:45	250	354	16.6	1.6	0.6	510	54.5	SVE flow was between 460-510.
HSVE-1	6/25/2021	11:02	250	405	19.2	1	0.5	550	55.1	SVE flow was between 450-550.
HSVE-1	6/28/2021	11:00	250	422	18.4	1.1	0.5	600	56.0	SVE flow was between 450-600.
HSVE-1	6/28/2021	11:10	250	424	18.3	1.1	0.5	600	56.0	SVE flow was between 450-600.
HSVE-1	6/28/2021	13:50	250	415	18.4	1	0.6	600	56.0	SVE flow was between 450-600.
HSVE-1	7/23/2021	8:00	130	421	19.7	1.3	0.3	600	56	SVE flow was between 500-600.
HSVE-1	7/23/2021	9:00	130	408	19.8	1.3	0.2	600	56	SVE flow was between 500-600.
HSVE-1	8/6/2021	9:25	275	365	19.1	--	--	555	56.45	SVE flow was between 470 and 555.
HSVE-1	8/31/2021	7:45	200	52.1	19.6	0.9	0.2	450	51.5	Check Drip Legs. Low VOCs.
HSVE-1	8/31/2021	10:45	250	408	18.4	1.1	0.4	500	51.5	Jame Dye Drained DLs for HSVE-1. BS-03 up to 250 scfm @ 8:30.
HSVE-1	9/1/2021	7:45	250	195	19.5	1	0.2	450	51.4	DL could be full again, to be cleared Thursday (9/2).
HSVE-1	9/1/2021	8:00	250	202	19.5	1.1	0.1	450	51.5	
HSVE-1	9/9/2021	9:05	150	208	19.5	1.1	0.1	500	51.3	
HSVE-1	9/9/2021	12:45	150	215	19.4	1.1	0.1	500	51.5	
HSVE-1	9/16/2021	11:00	275	238.9	19.3	1.6	0.2	550	53.5	BS-03 Flow recovering from 250-300 scfm. Avg. 225 scfm.
HSVE-1	9/21/2021	13:45	200	72.4	21	0.8	0	200	54.5	Variable flow (100-200;450-500). James Dye removed 12 gal (total) in 2 rounds of DL clearing. 6 gal total from DL #1.
HSVE-1	9/21/2021	14:45	200	1100	19.4	0.8	0.1	500	54	Water in tedlar & sample line
HSVE-1	9/21/2021	14:55	200	1090	19.6	1.2	0.3	500	54.5	Water in tedlar & sample line
HSVE-1	9/30/2021	16:30	250	1312	20.1	0.6	0.05	400	52	400 scfm average flow (varied from 160-530 scfm)
HSVE-1	10/1/2021	8:55	250	1260	19.6	0.6	0.08	400	52.5	400 scfm average flow (varied from 0-510 scfm)
HSVE-1	10/7/2021	11:05	260	382	20.7	0.2	0	460	52.24	400 scfm average flow (varied from 0-510 scfm)
HSVE-1	10/14/2021	8:03	305	950	19.4	NM	0	328	50.5	Driplegs cleared 10/5 & 10/7. Water in tedlar bag. Cleared out pilot tube.
HSVE-1	10/19/2021	14:25	200	326	19.7	0.9	0.1	427	50.53	Methane LEL, Diff P = 0.5 in WC; water in sample line, and water in DL 90 deg elbow
HSVE-1	11/10/2021	12:05	195	185	19.9	NM	NM	430	52.4	Drained drip lgs and restarted
HSVE-1	11/15/2021	14:07	192	337	19.5	0.9	0.1	400	53.32	BS-02 off
HSVE-1	12/2/2021	14:01	200	250	19.6	NM	NM	450	53.3	
HSVE-1	12/9/2021	12:52	280	153	19.2	0.6	0	395	51.6	
HSVE-1	12/15/2021	13:30	320	421	19.4	0.9	0	400	53.1	Flow measured at 9:00 was 395, 0.45 aprox 700 with velocicalc. High moisture.
HSVE-1	12/17/2021	14:30	250	102	19.9	0.5	0	450	49.3	

Appendix C.1. HSVE-01 Narrative and Operations Data

SFPP Norwalk Pump Station, Norwalk, California

Location	Date	Time	Biosparge Flow (scfm)	SVE VOC (ppmv)	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	SVE Flow (scfm)	SVE Vacuum (in H2O)	Comment
HSVE-1	12/23/2021	7:45	240	260	19.9	0.9	0	360	55	Collin Previously Drained 25 gallons from drip legs Jacobs drained manifold 83 gallons (EQ tank at 1600 approx 200_ from 12/16)
HSVE-1	12/30/2021	7:55	245	272	19.8	0.8	0	400	56	Drip legs + manifold had not been cleared @ time of monitoring
HSVE-1	1/6/2022	12:52	0	69.5	19.3	NM	NM	361	52	Shutdown SVE & AS @ 1010 for the weekend because of high precip & no availability to vlear manifold + drip legs due to holiday.
HSVE-1	1/13/2022	9:45	0	221	19.3	0.8	0	625	55.4	BS-02 and BS-03 systems off due to rain (approximately 5.7")
HSVE-1	1/20/2022	11:05	147	238	19.1	NM	NM	395	54.5	BS-02 system will remain off, BS-03 restarted at 150 scfm at noon.
HSVE-1	1/26/2022	9:20	172	188	19.7	1.1	0.1	375	56	
HSVE-1	2/8/2022	8:55	245	250	18.4	0	0	395	53.7	0.4-0.6" DP
HSVE-1	2/15/2022	11:15	313	320	19.2	1.3	0.1	395	51.9	Condensate removal completed at 8AM, system off 7-8AM and 930 to 1030 for condensate and RO calibration.
HSVE-1	2/24/2022	9:20	250	202.3	19.2	1.1	0	450	56	diff p range from 0.7 to 1.2 in WC
HSVE-1	2/24/2022	11:20	250	204.9	19.1	1	0	450	56	
HSVE-1	3/1/2022	13:50	247	520	18.9	0.8	0	459	52.7	SVE Flow range was 395-459
HSVE-1	3/3/2022	10:30	215	226	19.8	NM	NM	457	54	SE restarted at 10:22; 0.4"-0.8"
HSVE-1	3/8/2022	9:05	219	192	19.8	NM	NM	361	52.1	0.1-0.5" DP
HSVE-1	3/24/2022	8:55	189	198	19.8	0.3	0.1	610	56	
HSVE-1	4/7/2022	11:20	235	177	19	0.9	0	457	55	DP = 0.1-0.8" H2O
HSVE-1	4/28/2022	9:00	203	73.5	19.8	0.5	0	235	52.5	0-0.4" (median 0.25")
HSVE-1	5/4/2022	13:15	262	126	19.8	NM	NM	457	53.4	
HSVE-1	5/11/2022	11:35	237	165	19.3	0.7	0	427	53.6	0.7" DP
HSVE-1	5/25/2022	12:10	248	110	20.3	0.3	0	395	56.6	0.1-0.7 = 0.6"
HSVE-1	6/9/2022	9:11	200	115	20	1	0	650	56	BS-03 flow increased to 225 scfm
HSVE-1	6/15/2022	9:30	227	71.5	20.3	NM	NM	395	52.5	0.6"wc DP
HSVE-1	6/30/2022	10:05	165	57	20.3	0.5	0	427	56	
HSVE-1	7/21/2022	8:40	200	135.7	NM	NM	NM	430	54.5	GEM not available for measurements, PID used
HSVE-1	8/5/2022	9:05	250	75.7	20.1	0.3	0	427	53.7	
HSVE-1	8/16/2022	9:05	250	55.1	20.2	0.5	0	457	52.3	Vac 49.7"-54.9" DP 0.2"-1.0" ~ 0.8"
HSVE-1	9/23/2022	8:59	200	24.9	20.1	0.7	0	528	55.0	
HSVE-1	10/4/2022	9:58	202	151.6	20	0.9	NM	395	55.0	GEM not available for methane measurements
HSVE-1	10/6/2022	7:00	205	36	19.8	1.3	2	806	55.0	
HSVE-1	10/13/2022	7:00	241	16	20.7	0.4	1	836	57.0	
HSVE-1	10/17/2022	12:30	239	14	20.7	0.3	1	806	54.6	
HSVE-1	10/28/2022	7:00	244	24	20.3	0.5	0	736	59.3	

Appendix C.1. HSVE-01 Narrative and Operations Data

SFPP Norwalk Pump Station, Norwalk, California

Location	Date	Time	Biosparge Flow (scfm)	SVE VOC (ppmv)	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	SVE Flow (scfm)	SVE Vacuum (in H2O)	Comment
HSVE-1	11/3/2022	8:30	255	20	20.9	0.4	0	710	55.7	
HSVE-1	11/10/2022	9:40	279	15	20.9	0.1	0	716	55.2	
HSVE-1	11/22/2022	12:50	272	18	20.6	0.3	0	761	54.7	
HSVE-1	12/1/2022	12:55	148	20	20.9	0	0	704	55.1	
HSVE-1	12/8/2022	7:00	305	20	20.7	0.4	0	693	54.5	
HSVE-1	12/15/2022	7:10	352	12	20.9	0.3	0	673	53.4	
HSVE-1	12/22/2022	10:00	200	12	20.9	0.4	NM	594	52.8	GEM not available for methane measurements
HSVE-1	12/28/2022	13:00	282	20	20.8	--	0	552	55.7	MultiRae carbon dioxide sensor failed
HSVE-1	1/27/2023	13:45	302	24	20.1	0.7	0	361	NM	
HSVE-1	2/22/2023	12:00	352	28	20.1	0.7	0	536	NM	
HSVE-1	1/27/2023	13:45	302	24	20.1	0.7	0	361	55	
HSVE-1	2/22/2023	12:00	352	28	20.1	0.7	0	536	55	
HSVE-1	3/2/2023	12:00	326	4	17.7	1.1	0	748	55	
HSVE-1	3/28/2023	12:00	154	4	12.8	2.8	0	776	55	
HSVE-1	4/4/2023	12:00	182	12	19.6	1.8	0	722	55	
HSVE-1	4/11/2023	12:00	280	20	20.5	0.8	0	767	55	
HSVE-1	4/18/2023	12:00	360	22	20.6	1	0	781	57	
HSVE-1	4/25/2023	12:00	414	16	19.9	0.6	0	930	54	
HSVE-1	6/1/2023	12:00	201	35	13.6	3.3	0	620	55	
HSVE-1	6/5/2023	12:00	400	33.5	19.1	1.2	0	625	56	
HSVE-1	6/15/2023	12:00	216	4	20.2	0.5	0	664	57	
HSVE-1	6/20/2023	12:00	348	12	19.8	0.7	0	664	57	
HSVE-1	6/27/2023	12:00	448	13	19.9	0.6	0	664	57	
HSVE-1	7/6/2023	12:00	461	8	20	0.8	1	511	58	
HSVE-1	7/11/2023	12:00	470	8	20.8	0.7	4	511	55	
HSVE-1	7/18/2023	12:00	265	4	20.9	0	2	625	55	
HSVE-1	7/25/2023	12:00	436	8	19.8	0.8	2	625	57	
HSVE-1	8/1/2023	12:00	457	4	20.1	0.8	6	625	50	
HSVE-1	8/10/2023	12:00	451	0	20.1	0.6	2	625	55	
HSVE-1	8/15/2023	12:00	496	0	20.1	0.6	3	625	56	
HSVE-1	8/22/2023	12:00	502	0	20.3	0.2	2	625	56	
HSVE-1	8/29/2023	12:00	477	0	19.7	0.6	2	625	53	
HSVE-1	9/7/2023	12:00	479	0.7	19.8	0.7	4	625	54	
HSVE-1	9/14/2023	12:00	517	0	19.7	0.4	0	625	53	
HSVE-1	9/19/2023	12:00	489	4	20.8	0.4	0	625	57	
HSVE-1	9/28/2023	12:00	501	0.6	19.7	0.6	0	625	53	
HSVE-1	10/6/2023	12:00	512	0	19.7	0.6	0	625	56	
HSVE-1	10/10/2023	12:00	506	4	20.1	0.6	0	625	56	
HSVE-1	10/17/2023	12:00	507	4			0	625	57	
HSVE-1	10/24/2023	12:00	503	0	19.6	0.6	1	625	51	

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-05D	130	4/6/2021	15:10	18.3	0.3	0		20.1
SVM-05S	130	4/6/2021	15:15	20.8	0.4	0		
SVM-06D	180	4/6/2021	13:32	18.5	0.2	0		
SVM-06S	180	4/6/2021	13:30	19.9	0.1	0		
SVM-07D	80	4/6/2021	13:23	18.6	0.3	0		
SVM-07S	80	4/6/2021	13:21	18.1	0.6	0		
SVM-08D	40	4/6/2021	15:00	20.6	0.3	0		
SVM-08S	40	4/6/2021	15:05	20.3	0.3	0		
SVM-10D	-20	4/6/2021	13:12	8.1	5.8	0		
SVM-10S	-20	4/6/2021						
SVM-15D	250	4/6/2021	13:42	19.8	0.2	0		
SVM-15M	250	4/6/2021	13:45	20.5	0	0		
SVM-15S	250	4/6/2021	13:50	19.2	0.5	0		
SVM-16D	-20	4/6/2021	14:45	8	8.7	2.3		
SVM-16M	-20	4/6/2021	14:50	21.3	0.3	0		
SVM-16S	-20	4/6/2021	14:55	19.6	0.5	0		
GMW-O-11	200	4/6/2021	13:59	20.9	0	0		
GMW-O-12	25	4/6/2021	14:22	21	0	0		
GMW-O-20	120	4/6/2021	14:05					
HSVE-01	0	4/6/2021	14:00					
BS-03	0	4/6/2021	14:00					
SVM-02S	160	4/7/2021	12:33	20.1	0.7	0	0.1	21.1
SVM-03D	10	4/7/2021	12:40	20.9	0.3	0	0.2	21.1
SVM-03S	10	4/7/2021	12:41	20.9	0.3	0	0.3	21.1
SVM-05D	130	4/7/2021	12:51	20.8	0.1	0	0.1	21.1
SVM-05S	130	4/7/2021	12:50	20.9	0.1	0	0.2	21.1
SVM-06D	180	4/7/2021	13:42	20	0.1	0	4	21.1
SVM-06S	180	4/7/2021	13:45	19.7	0.1	0	2.4	21.1
SVM-07D	80	4/7/2021	13:25	19.9	0.2	0	5.3	21.1
SVM-07S	80	4/7/2021	13:28	19.1	0.5	0	4.1	21.1
SVM-08D	40	4/7/2021	12:56	20.9	0	0	0.1	21.1
SVM-08S	40	4/7/2021	12:55	20.8	0.2	0	0.2	21.1
SVM-10D	-20	4/7/2021	13:16	18.5	0.8	0	17.9	21.1
SVM-15D	250	4/7/2021	13:52	19	0.5	0	1.8	21.1
SVM-15M	250	4/7/2021	14:01	19.5	0.4	0	0.8	21.1
SVM-15S	250	4/7/2021	14:03	19.5	0.4	0	2	21.1
SVM-16D	-20	4/7/2021	13:09	20.9	0.1	0		

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-16M	-20	4/7/2021	13:07	20.9	0.1	0		
SVM-16S	-20	4/7/2021	13:05	20.9	0.1	0		
GMW-O-12	25	4/7/2021	14:23	20.9	0	0	36.5	21.1
GMW-O-21	40	4/7/2021	14:42	20.9	0	0	0.2	21.1
GMW-O-3	-90	4/7/2021	14:47					21.1
GMW-O-5	-150	4/7/2021	14:55					21.1
MW-SF-9	130	4/7/2021	15:05					21.1
SVM-02S	160	4/8/2021	13:35	19.6	0.7	0	0.1	20.9
SVM-03D	10	4/8/2021	13:10	20.2	0.7	0	1.4	20.9
SVM-03S	10	4/8/2021	13:12	20.4	0.3	0	0.8	20.9
SVM-05D	130	4/8/2021	14:02	21.4	0	0	1.1	20.9
SVM-05S	130	4/8/2021	14:06	21.2	0	0	0.8	20.9
SVM-06D	180	4/8/2021	13:29	21.1	0.1	0	0.1	20.9
SVM-06S	180	4/8/2021	13:29	20.3	0.1	0	0.1	20.9
SVM-07D	80	4/8/2021	13:05	20.1	0.3	0	0.2	20.9
SVM-07S	80	4/8/2021	13:05	19.1	0.9	0	0	20.9
SVM-08D	40	4/8/2021	13:51	20.9	0.2	0	1.2	20.9
SVM-08S	40	4/8/2021	13:54	21	0	0	0.1	20.9
SVM-10D	-20	4/8/2021	12:55	16.1	2.7	1.1	0.4	20.9
SVM-15D	250	4/8/2021	14:00	19.9	0.3	0	0.1	20.9
SVM-15M	250	4/8/2021	14:05	19.7	0.5	0	0.1	20.9
SVM-15S	250	4/8/2021	14:13	19.8	0	0	0.1	20.9
SVM-16D	-20	4/8/2021	13:38	20.4	1.1	0	5.4	20.9
SVM-16M	-20	4/8/2021	13:42	20.4	0.7	0	2.1	20.9
SVM-16S	-20	4/8/2021	13:45	20.8	0.5	0	1.5	20.9
GMW-O-11	200	4/8/2021	14:20	20.9	0	0	0.5	20.9
GMW-O-12	25	4/8/2021	14:38	20.9	0.1	0	7.4	20.9
GMW-O-2	160	4/8/2021	13:28	20.4	0	0	5.8	20.9
GMW-O-3	-90	4/8/2021	14:12	21.5	0	0	0.9	20.9
GMW-O-5	-150	4/8/2021	12:48	20.4	0	0	4.9	20.9
MW-SF-9	130	4/8/2021	14:58	20.9	0	0	2.8	20.9
SVM-1D	230	4/15/2021	10:10	20.3	0.8	0	0	21.2
SVM-1S	230	4/15/2021	10:12	19.8	1.5	0	0	21.2
SVM-02S	160	4/15/2021	10:20	20.1	0.7	0	0	21.2
SVM-03D	10	4/15/2021	12:10	21.3	0.3	0		21.2
SVM-03S	10	4/15/2021	12:15	21.4	0.4	0	0	21.2
SVM-05D	130	4/15/2021	12:00	21.2	0	0	0	21.2

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-05S	130	4/15/2021	12:05	21.1	0.1	0	0	21.2
SVM-06D	180	4/15/2021	10:55	20.1	0.2	0	0.1	21.2
SVM-06S	180	4/15/2021	10:52	20.3	0.2	0	0.1	21.2
SVM-07D	80	4/15/2021	10:40	20.5	0.7	0	0	21.2
SVM-07S	80	4/15/2021	10:45	20.2	1.1	0	0	21.2
SVM-08D	40	4/15/2021	11:50	21.1	0	0	0	21.2
SVM-08S	40	4/15/2021	11:55	20.9	0.2	0	0	21.2
SVM-10D	-20	4/15/2021	10:30	20.2	1.7	0	0.2	21.2
SVM-15D	250	4/15/2021	10:59	19.6	0.6	0	0	21.2
SVM-15M	250	4/15/2021	11:08	19.7	0.6	0	0	21.2
SVM-15S	250	4/15/2021	11:10	19.7	0.6	0	0	21.2
SVM-16D	-20	4/15/2021	11:40	20.5	0.2	0	0	21.2
SVM-16M	-20	4/15/2021	11:45	20.5	0.6	0	0	21.2
SVM-16S	-20	4/15/2021	11:48	20.5	0.5	0	0	21.2
GMW-O-11	200	4/15/2021	11:10	20.7	0.1	0	0	21.2
GMW-O-12	25	4/15/2021	11:30	20.6	0.1	0	0.8	21.2
GMW-O-20	120	4/15/2021	11:20	20.6	0	0	0	21.2
GMW-O-21	40	4/15/2021	12:05	21.2	0	0	0	21.2
GMW-O-3	-90	4/15/2021	9:45	19.1	0.1	0	0	21.2
GMW-O-5	-150	4/15/2021	9:20	21	0.1	0	0	21.2
SVM-1D	230	4/21/2021	13:00	20	1	0	0.1	21.4
SVM-1S	230	4/21/2021	13:01	21.2	0.7	0	0	21.4
SVM-02D	160	4/21/2021						
SVM-02S	160	4/21/2021	12:48	18.7	2	0	0	21.4
SVM-03D	10	4/21/2021	10:31	20.8	0.3	0	0.3	21.4
SVM-03S	10	4/21/2021	10:28	20.8	0.1	0	0.2	21.4
SVM-05D	130	4/21/2021	11:09	21.6	0.1	0	0	21.4
SVM-05S	130	4/21/2021	11:11	21.5	0.1	0	0.1	21.4
SVM-06D	180	4/21/2021	11:48	21.1	0.2	0	0.1	21.4
SVM-06S	180	4/21/2021	11:45	21.2	0.2	0	0.1	21.4
SVM-07D	80	4/21/2021	11:35	21.1	1.1	0	0	21.4
SVM-07S	80	4/21/2021	11:38	21.4	0.6	0	0.1	21.4
SVM-08D	40	4/21/2021	10:50	21.2	0.2	0	0.1	21.4
SVM-08S	40	4/21/2021	11:00	21	0.2	0	0.1	21.4
SVM-10D	-20	4/21/2021	11:28	21.1	2	0	0.1	21.4
SVM-10S	-20	4/21/2021						
SVM-15D	250	4/21/2021	11:55	20.5	0.7	0	0.1	21.4

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-15M	250	4/21/2021	11:58	20.8	0.6	0	0	21.4
SVM-15S	250	4/21/2021	12:01	20.8	0.7	0	0.1	21.4
SVM-16D	-20	4/21/2021	10:45	20.5	0.6	0	1.2	21.4
SVM-16M	-20	4/21/2021	10:51	20.9	0.3	0	0.2	21.4
SVM-16S	-20	4/21/2021	10:52	21	0.1	0	0.1	21.4
GMW-O-11	200	4/21/2021	13:07	21.9	0.1	0	0.1	21.4
GMW-O-12	25	4/21/2021	12:33	21.9	0.1	0	0.1	21.4
GMW-O-2	160	4/21/2021	12:25	21.9	0.1	0	0	21.4
GMW-O-20	120	4/21/2021	12:15	22	0	0	0	21.4
GMW-O-21	40	4/21/2021						
GMW-O-3	-90	4/21/2021	9:58	20.7	0.1	0	0.3	21.4
GMW-O-5	-150	4/21/2021	9:40	20.8	0.1	0	0	21.4
MW-SF-9	130	4/21/2021						
HSVE-01	0	4/21/2021						
BS-03	0	4/21/2021						
GMW-O-14		4/21/2021						
SVM-1D	230	4/28/2021	11:35	18.5	1.3	0	33	20.9
SVM-1S	230	4/28/2021	11:30	20.2	0.7	0	2.3	20.9
SVM-02	160	4/28/2021	11:40	18.6	1.6	0	1.1	20.9
SVM-02S	160	4/28/2021						20.9
SVM-03D	10	4/28/2021	14:35	20.6	0.1	0	0.2	20.9
SVM-03S	10	4/28/2021	14:38	20.6	0.1	0	0.1	20.9
SVM-06D	180	4/28/2021	13:00	21.1	0.1	0	0.4	20.9
SVM-06S	180	4/28/2021	12:55	21.1	0.2	0	0.6	20.9
SVM-07D	80	4/28/2021	13:17	21.1	0.9	0	0.4	20.9
SVM-07S	80	4/28/2021	13:20	20.9	0.8	0	0.4	20.9
SVM-08D	40	4/28/2021	14:00	20.6	0.1	0	0.2	20.9
SVM-08S	40	4/28/2021	14:05	20.9	0.1	0	0.2	20.9
SVM-10D	-20	4/28/2021	13:44	20.9	0.2	0	0.4	20.9
SVM-10S	-20	4/28/2021						20.9
SVM-15D	250	4/28/2021	12:06	21.2	0.1	0	1.2	20.9
SVM-15M	250	4/28/2021	12:05	20.9	0.5	0	0.6	20.9
SVM-15S	250	4/28/2021	12:07	20.9	0.5	0	0.6	20.9
SVM-16D	-20	4/28/2021	14:19	20.9	0.1	0	0.2	20.9
SVM-16M	-20	4/28/2021	14:24	20.9	0.1	0	0.1	20.9
SVM-16S	-20	4/28/2021	14:26	20.9	0.1	0	0.1	20.9
GMW-O-20	120	4/28/2021	13:08	21.3	0.1	0	0.8	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
GMW-O-12	25	4/28/2021	13:30	20.9	0.1	0	2.5	20.9
GMW-O-2	160	4/28/2021	11:54	20	0.5	0	0.9	20.9
GMW-O-11	200	4/28/2021	12:28	21.4	0.1	0	1.2	20.9
GMW-O-21	40	4/28/2021	14:10	20.9	0.1	0	0.2	20.9
GMW-O-3	-90	4/28/2021	13:50	20.9	0.1	0	0.4	20.9
GMW-O-5	-150	4/28/2021	14:45	20.9	0	0	0	20.9
MW-SF-9	130	4/28/2021						
SVM-1D	230	5/5/2021	12:42	18.1	1.3	0	0	20.9
SVM-1S	230	5/5/2021	12:44	19.9	0.8	0	0	20.9
SVM-02D	160	5/5/2021	12:50	17.8	1.8	0	0	20.9
SVM-02S	160	5/5/2021						
SVM-03D	10	5/5/2021	14:50	21.3	0.1	0	0.8	20.9
SVM-03S	10	5/5/2021	14:54	21.3	0	0	0.6	20.9
SVM-05D	130	5/5/2021	14:35	21.7	0	0	0.9	20.9
SVM-05S	130	5/5/2021	14:37	21.5	0	0	0.9	20.9
SVM-06D	180	5/5/2021	13:22	20.5	0.1	0	0.1	20.9
SVM-06S	180	5/5/2021	13:24	20.2	0.1	0	0	20.9
SVM-07D	80	5/5/2021	13:15	19.9	0.9	0	0	20.9
SVM-07S	80	5/5/2021	13:19	20.1	0.6	0	0	20.9
SVM-08D	40	5/5/2021	14:28	21.5	0	0	0.9	20.9
SVM-08S	40	5/5/2021	14:32	21.4	0.1	0	0.5	20.9
SVM-10D	-20	5/5/2021	n/a	20.3	0.2	0	0	20.9
SVM-10S	-20	5/5/2021						
SVM-15D	250	5/5/2021	13:30	19.7	0.4	0	4.7	20.9
SVM-15M	250	5/5/2021	13:33	20	0.5	0	0	20.9
SVM-15S	250	5/5/2021	13:37	20.3	0.5	0	0.3	20.9
SVM-16D	-20	5/5/2021	14:15	21.3	0.1	0	1.5	20.9
SVM-16M	-20	5/5/2021	14:18	21.3	0.2	0	1	20.9
SVM-16S	-20	5/5/2021	14:22	21.4	0.1	0	0.9	20.9
GMW-O-11	200	5/5/2021	13:40	21.2	0	0	3.8	20.9
GMW-O-12	25	5/5/2021	13:50	21.3	0	0	3.9	20.9
GMW-O-2	160	5/5/2021	13:05	20	0.1	0	0	20.9
GMW-O-20	120	5/5/2021	13:45	21.5	0	0	0.9	20.9
GMW-O-21	40	5/5/2021	14:43	21.7	0	0	0.9	20.9
GMW-O-3	-90	5/5/2021	14:06	21.5	0	0	1.5	20.9
GMW-O-5	-150	5/5/2021	15:00	21.6	0	0	0.5	20.9
MW-SF-9	130	5/5/2021						

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
HSVE-01	0	5/5/2021						
BS-03	0	5/5/2021						
SVM-1D	230	5/11/2021	14:50	18.6	1.2	0	0.1	21.7
SVM-1S	230	5/11/2021	14:50	20.3	0.7	0	0.5	21.7
SVM-02D	160	5/11/2021						
SVM-02S	160	5/11/2021	14:55	18.4	1.7	0	0.1	21.7
SVM-03D	10	5/11/2021	16:16	21.6	0	0	0.3	21.7
SVM-03S	10	5/11/2021	16:17	21.5	0	0	0.3	21.7
SVM-05D	130	5/11/2021	16:05	22	0	0	0	21.7
SVM-05S	130	5/11/2021	16:06	21.6	0	0	0	21.7
SVM-06D	180	5/11/2021	15:22	20.5	0.1	0	0	21.7
SVM-06S	180	5/11/2021	15:23	20.6	0.1	0	0.1	21.7
SVM-07D	80	5/11/2021	15:13	20.3	0.8	0	0.1	21.7
SVM-07S	80	5/11/2021	15:14	20.4	0.6	0	0	21.7
SVM-08D	40	5/11/2021	15:37	21.5	0	0	0.1	21.7
SVM-08S	40	5/11/2021	15:39	21.5	0	0	0.1	21.7
SVM-10D	-20	5/11/2021	15:11	20.5	0.7	0	0.1	21.7
SVM-10S	-20	5/11/2021						
SVM-15D	250	5/11/2021	15:25	20.6	0.1	0	0	21.7
SVM-15M	250	5/11/2021	15:27	20.1	0.5	0	0.1	21.7
SVM-15S	250	5/11/2021	15:29	20.1	0.5	0	0	21.7
SVM-16D	-20	5/11/2021	15:51	21	0.1	0	0.1	21.7
SVM-16M	-20	5/11/2021	15:52	21.7	0.1	0	0.4	21.7
SVM-16S	-20	5/11/2021	15:53	21.3	0	0	0	21.7
GMW-O-11	200	5/11/2021	15:30	21	0.1	0	0	21.7
GMW-O-12	25	5/11/2021	15:43	21	0	0	0.1	21.7
GMW-O-2	160	5/11/2021	15:03	19.9	0.8	0	0.1	21.7
GMW-O-20	120	5/11/2021	15:37	21.7	0	0	0.1	21.7
GMW-O-21	40	5/11/2021	16:09	21.8	0	0	0	21.7
GMW-O-3	-90	5/11/2021	15:08	20.6	0.5	0	0.2	21.7
GMW-O-5	-150	5/11/2021	16:27	21.3	0.2	0	0	21.7
MW-SF-9	130	5/11/2021						
GMW-O-14	n/a	5/11/2021	16:21	21.9	0	0	0	21.7
SVM-1D	230	5/11/2021	11:23	18.5	1.5	0	0	21.3
SVM-1S	230	5/11/2021	11:21	20.5	9	0	0.2	21.3
SVM-02D	160	5/11/2021						
SVM-02S	160	5/11/2021	11:28	18.9	1.3	0	0	21.3

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-03D	10	5/11/2021	13:36	20.9	0.1	0	0	21.3
SVM-03S	10	5/11/2021	13:35	20.4	0	0	0.2	21.3
SVM-05D	130	5/11/2021	13:25	21	0	0	0.2	21.3
SVM-05S	130	5/11/2021	13:27	20.1	0.1	0	0.4	21.3
SVM-06D	180	5/11/2021	12:20	19.6	0.2	0	0	21.3
SVM-06S	180	5/11/2021	12:30	20.5	0.4	0	0.3	21.3
SVM-07D	80	5/11/2021	12:10	19.5	0.9	0	0.2	21.3
SVM-07S	80	5/11/2021	12:12	19.5	0.7	0	0.2	21.3
SVM-08D	40	5/11/2021	13:20	21	0	0	0.7	21.3
SVM-08S	40	5/11/2021	13:21	20.2	0.1	0	0	21.3
SVM-10D	-20	5/11/2021	12:05	20.2	0.9	0	0.1	21.3
SVM-10S	-20	5/11/2021						
SVM-15D	250	5/11/2021	12:36	19.5	0.7	0	0	21.3
SVM-15M	250	5/11/2021	12:37	19.6	0.6	0	0.2	21.3
SVM-15S	250	5/11/2021	12:38	19.9	0.6	0	0	21.3
SVM-16D	-20	5/11/2021	13:05	20.6	0.1	0	1.1	21.3
SVM-16M	-20	5/11/2021	13:10	20.2	0.2	0	0	21.3
SVM-16S	-20	5/11/2021	13:15	20.8	0.1	0	0.1	21.3
GMW-O-11	200	5/11/2021	12:40	20.5	0.1	0	0.3	21.3
GMW-O-12	25	5/11/2021	12:55	20.2	0	0	0.1	21.3
GMW-O-2	160	5/11/2021	11:35	20.3	0.4	0	0.1	21.3
GMW-O-20	120	5/11/2021	12:40	20.5	0	0	0.3	21.3
GMW-O-21	40	5/11/2021	13:28	21	0	0	0	21.3
GMW-O-3	-90	5/11/2021	12:00	20.7	0.1	0	0.2	21.3
GMW-O-5	-150	5/11/2021	13:40	20.7	0	0	0	21.3
MW-SF-9	130	5/11/2021						
GMW-014		5/11/2021						
SVM-1D	230	5/12/2021	13:19	18.2	1	0	0.2	20.9
SVM-1S	230	5/12/2021	13:20	19.6	1	0	0	20.9
SVM-02S	160	5/12/2021	13:23	17.1	1.9	0	0.6	20.9
SVM-03D	10	5/12/2021	13:55	20.2	0.1	0	1	20.9
SVM-03S	10	5/12/2021	13:58	20.3	0.1	0	0.6	20.9
SVM-06D	180	5/12/2021	14:18	20.9	0.2	0	0	20.9
SVM-06S	180	5/12/2021	14:30	21	0.2	0	0	20.9
SVM-07D	80	5/12/2021	14:23	20.9	0.9	0	0.1	20.9
SVM-07S	80	5/12/2021	14:25	20.9	0.7	0	0	20.9
SVM-08D	40	5/12/2021	14:11	21.2	0.1	0	0.1	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-08S	40	5/12/2021	14:13	21.1	0.1	0	0	20.9
SVM-10D	-20	5/12/2021	14:21	20.9	1.1	0	0	20.9
SVM-15D	250	5/12/2021	14:34	20.2	0.6	0	0	20.9
SVM-15M	250	5/12/2021	14:36	20.6	0.5	0	0	20.9
SVM-15S	250	5/12/2021	14:38	20.6	0.6	0	0	20.9
SVM-16D	-20	5/12/2021	14:05	20.7	0.2	0	0.1	20.9
SVM-16M	-20	5/12/2021	14:07	20.9	0.1	0	0.1	20.9
SVM-16S	-20	5/12/2021	14:10	20.9	0	0	0	20.9
GMW-O-11	200	5/12/2021	14:40	21.6	0	0	0	20.9
GMW-O-12	25	5/12/2021	14:50	21.7	0	0	0.2	20.9
GMW-O-2	160	5/12/2021	13:32	19.5	0.1	0	0.2	20.9
GMW-O-20	120	5/12/2021	14:45	21.8	0	0	0.1	20.9
GMW-O-21	40	5/12/2021	14:16	21.4	0	0	0	20.9
GMW-O-3	-90	5/12/2021	13:38	19.7	0.1	0	1	20.9
GMW-O-5	-150	5/12/2021	13:45	18.9	0.9	0	0.1	20.9
GMW-O-14	n/a	5/12/2021	14:00	20.6	0	0	0.1	20.9
SVM-1D	230	5/12/2021	8:33	18.7	1.4	0	0.5	n/a
SVM-1S	230	5/12/2021	8:34	20.4	0.9	0	0.3	n/a
SVM-02S	160	5/12/2021	8:50	18.4	2	0	0.4	n/a
SVM-03D	10	5/12/2021	11:04	20.6	0	0	0.3	n/a
SVM-03S	10	5/12/2021	11:05	20.6	0	0	0.2	n/a
SVM-05D	130	5/12/2021	10:38	21.4	0	0	0	n/a
SVM-05S	130	5/12/2021	10:39	21.4	0	0	0	n/a
SVM-06D	180	5/12/2021	9:15	20.6	0.2	0	0.3	n/a
SVM-06S	180	5/12/2021	9:16	20.7	0.2	0	0.2	n/a
SVM-07D	80	5/12/2021	9:10	20.6	1.1	0	0.1	n/a
SVM-07S	80	5/12/2021	9:11	20.7	0.8	0	0.2	n/a
SVM-08D	40	5/12/2021	10:28	21.3	0.1	0	0	n/a
SVM-08S	40	5/12/2021	10:30	21.3	0	0	0	n/a
SVM-10D	-20	5/12/2021	9:00	20.7	1.6	0	0.3	n/a
SVM-15D	250	5/12/2021	9:27	19.8	0.7	0	0.2	n/a
SVM-15M	250	5/12/2021	9:28	20.5	0.4	0	0.1	n/a
SVM-15S	250	5/12/2021	9:30	20.2	0.6	0	0.2	n/a
SVM-16D	-20	5/12/2021	10:15	20.9	0.2	0	0.1	n/a
SVM-16M	-20	5/12/2021	10:17	21	0.2	0	0	n/a
SVM-16S	-20	5/12/2021	10:20	21.3	0	0	0	n/a
GMW-O-11	200	5/12/2021	9:37	20.8	0.2	0	0.3	n/a

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
GMW-O-12	25	5/12/2021	10:06	20.9	0	0	8.1	n/a
GMW-O-2	160	5/12/2021	8:45	21.2	0.1	0	0.2	n/a
GMW-O-20	120	5/12/2021	9:53	20.8	0.1	0	0.5	n/a
GMW-O-21	40	5/12/2021	10:51	21.4	0	0	0.7	n/a
GMW-O-3	-90	5/12/2021	8:55	20.9	0.2	0	1.2	n/a
GMW-O-5	-150	5/12/2021	11:15	20.1	0.2	0	0.2	n/a
GMW-014		5/12/2021	10:55					
SVM-1D	230	5/13/2021	9:31	19.1	1.2	0	0.6	20.9
SVM-1S	230	5/13/2021	9:37	20.5	0.7	0	0.1	20.9
SVM-02S	160	5/13/2021	12:05	18.9	1.8	0.1	0.2	20.9
SVM-03D	10	5/13/2021	10:18	20.9	0.1	0	6.1	20.9
SVM-03S	10	5/13/2021	10:16	21.4	0.1	0	0.1	20.9
SVM-05D	130	5/13/2021	10:47	21.6	0	0	2.7	20.9
SVM-05S	130	5/13/2021	10:50	21.6	0.1	0	0.1	20.9
SVM-06D	180	5/13/2021	11:16	21.2	0.2	0	0	20.9
SVM-06S	180	5/13/2021	11:18	21.3	0.2	0	0.4	20.9
SVM-07D	80	5/13/2021	11:09	21.3	0.8	0	0.1	20.9
SVM-07S	80	5/13/2021	11:11	21.3	0.7	0	0.5	20.9
SVM-08D	40	5/13/2021	10:54	21.6	0.1	0	0.1	20.9
SVM-08S	40	5/13/2021	10:55	21.5	0.1	0	1.6	20.9
SVM-10D	-20	5/13/2021	11:05	21.4	0.9	0	0.6	20.9
SVM-15D	250	5/13/2021	11:21	20.6	0.5	0	0.1	20.9
SVM-15M	250	5/13/2021	11:22	21.3	0.6	0	0.1	20.9
SVM-15S	250	5/13/2021	11:23	20.8	0.6	0	0.1	20.9
SVM-16D	-20	5/13/2021	10:34	21.4	0	0	0	20.9
SVM-16M	-20	5/13/2021	10:37	21.5	0.1	0	0.4	20.9
SVM-16S	-20	5/13/2021	10:30	21.5	0.1	0	0.3	20.9
GMW-O-11	200	5/13/2021	11:30	21.5	0.1	0	0.6	20.9
GMW-O-12	25	5/13/2021	11:45	15.5	1.6	58.9	5000	20.9
GMW-O-2	160	5/13/2021	9:41	21	0.2	0	0.4	20.9
GMW-O-20	120	5/13/2021	11:37	21.6	0	0	0.3	20.9
GMW-O-21	40	5/13/2021	10:59	21.6	0	0	0.9	20.9
GMW-O-3	-90	5/13/2021	9:59	21.3	0.1	0	1.1	20.9
GMW-O-5	-150	5/13/2021	10:10	19.1	1.8	0	0.7	20.9
HSVE-01	0	5/13/2021	9:00	19.8	1.3	1.1	431.8	20.9
GMW-014	10	5/13/2021	10:25	21.3	0.2	0	3.2	20.9
SVM-03D	10	5/13/2021	13:51	20.9	0.1	0	1.6	n/a

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-03S	10	5/13/2021	13:52	20.9	0.1	0	2.9	n/a
SVM-05D	130	5/13/2021	14:15	21.1	0	0	7.3	n/a
SVM-05S	130	5/13/2021	14:16	21	0	0	0.2	n/a
SVM-06D	180	5/13/2021	13:18	20.8	0.2	0	0.3	n/a
SVM-06S	180	5/13/2021	13:19	20.8	0.2	0	5.8	n/a
SVM-07D	80	5/13/2021	13:15	20.7	0.9	0	0.3	n/a
SVM-07S	80	5/13/2021	13:16	20.8	0.7	0	0	n/a
SVM-08D	40	5/13/2021	14:10	21.1	0	0	0.4	n/a
SVM-08S	40	5/13/2021	14:11	21.1	0	0	1.7	n/a
SVM-10D	-20	5/13/2021	13:10	20.9	1.2	0	0.5	n/a
SVM-16D	-20	5/13/2021	13:59	20.9	0.1	0	0.5	n/a
SVM-16M	-20	5/13/2021	14:01	21.0	0.1	0	0.4	n/a
SVM-16S	-20	5/13/2021	14:02	21.0	0	0	1.4	n/a
GMW-O-12	25	5/13/2021	14:36	14.8	1.6	82	5000	n/a
GMW-O-20	120	5/13/2021	13:30	21.2	0.1	0	4.4	n/a
GMW-O-21	40	5/13/2021	14:21	21.1	0	0	2.4	n/a
GMW-O-3	-90	5/13/2021	13:38	21.2	0	0	5.2	n/a
GMW-O-5	-150	5/13/2021	13:45	17.3	2.8	0	4.4	n/a
MW-SF-9	130	5/13/2021						
GMW-014	n/a	5/13/2021	13:55	21.1	0.1	0	4.9	n/a
SVM-1D	230	5/14/2021	11:37	18.4	1.3	0	0	21.3
SVM-1S	230	5/14/2021	11:39	20.2	0.7	0	0	21.3
SVM-02D	160	5/14/2021						
SVM-02S	160	5/14/2021	11:43	17.9	1.8	0	0	21.3
SVM-03D	10	5/14/2021	13:15	21	0.1	0	0.3	21.3
SVM-03S	10	5/14/2021	13:16	21.1	0.1	0	0.2	21.3
SVM-05D	130	5/14/2021	13:06	21.1	0.1	0	1	21.3
SVM-05S	130	5/14/2021	13:08	21	0	0	0.3	21.3
SVM-06D	180	5/14/2021	12:17	19.6	0.1	0	0	21.3
SVM-06S	180	5/14/2021	12:19	19.6	0.1	0	0	21.3
SVM-07D	80	5/14/2021	12:08	19.5	0.8	0	0	21.3
SVM-07S	80	5/14/2021	12:09	19.7	0.6	0	0	21.3
SVM-08D	40	5/14/2021	13:00	21	0.1	0	0.1	21.3
SVM-08S	40	5/14/2021	13:01	21.1	0.1	0	0.4	21.3
SVM-10D	-20	5/14/2021	12:05	20	0.4	0	0.1	21.3
SVM-10S	-20	5/14/2021						21.3
SVM-15D	250	5/14/2021	12:23	19	0.4	0	0	21.3

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-15M	250	5/14/2021	12:25	19	0.5	0	0	21.3
SVM-15S	250	5/14/2021	12:27	19.1	0.6	0	0	21.3
SVM-16D	-20	5/14/2021	12:55	20.9	0.1	0	0	21.3
SVM-16M	-20	5/14/2021	12:57	21	0.1	0	0.4	21.3
SVM-16S	-20	5/14/2021	12:59	21	0	0	0.2	21.3
GMW-O-11	200	5/14/2021	12:34	19.9	0.1	0	0.1	21.3
GMW-O-12	25	5/14/2021	12:50	13.9	1.3	9.9	5000	21.3
GMW-O-2	160	5/14/2021	11:48	20	0.3	0	0	21.3
GMW-O-20	120	5/14/2021	12:42	20.4	0	0	0	21.3
GMW-O-21	40	5/14/2021	13:11	21	0.3	0	2.3	21.3
GMW-O-3	-90	5/14/2021	11:57	20.1	0	0	0.1	21.3
GMW-O-5	-150	5/14/2021	13:28	18.1	2.2	0	0.9	21.3
MW-SF-9	130	5/14/2021						
HSVE-01	0	5/14/2021						
BS-03	0	5/14/2021						
GMW-O-14		5/14/2021						
SVM-1D	230	5/18/2021	15:20	18.9	0.8	0	0	20.9
SVM-1S	230	5/18/2021	15:22	20.1	0.4	0	0	20.9
SVM-02D	160	5/18/2021						
SVM-02S	160	5/18/2021	15:26	19.9	0.4	0		20.9
SVM-03D	10	5/18/2021	13:47	21	0.1	0	0.2	20.9
SVM-03S	10	5/18/2021	13:49	21	0.1	0	0.1	20.9
SVM-05D	130	5/18/2021	14:12	21.1	0	0	0	20.9
SVM-05S	130	5/18/2021	14:15	20.9	0	0	0	20.9
SVM-06D	180	5/18/2021	14:28	19.8	0.1	0	0	20.9
SVM-06S	180	5/18/2021	14:30	19.9	0.1	0	0	20.9
SVM-07D	80	5/18/2021	14:23	20.7	0.1	0	0.1	20.9
SVM-07S	80	5/18/2021	14:25	20.7	0.1	0	0	20.9
SVM-08D	40	5/18/2021	14:05	21.1	0.1	0	0.2	20.9
SVM-08S	40	5/18/2021	14:07	20.9	0.1	0	0.1	20.9
SVM-10D	-20	5/18/2021	14:20	20.9	0.4	0	0.1	20.9
SVM-10S	-20	5/18/2021						
SVM-15D	250	5/18/2021	14:35	20.1	0.4	0	0.1	20.9
SVM-15M	250	5/18/2021	14:37	20.1	0.5	0	0.1	20.9
SVM-15S	250	5/18/2021	14:39	20.3	0.6	0	0	20.9
SVM-16D	-20	5/18/2021	13:55	21	0.1	0	0.4	20.9
SVM-16M	-20	5/18/2021	13:58	21.1	0	0	0.1	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-16S	-20	5/18/2021	14:00	21	0	0	0.1	20.9
GMW-O-11	200	5/18/2021	14:50	20.9	0	0	0.5	20.9
GMW-O-12	25	5/18/2021	15:05	20.9	0	0	3.6	20.9
GMW-O-2	160	5/18/2021	15:19	20.8	0	0	0	20.9
GMW-O-20	120	5/18/2021	14:55	20.9	0.1	0	0.2	20.9
GMW-O-21	40	5/18/2021	14:20	21.2	0.1	0	0.2	20.9
GMW-O-3	-90	5/18/2021	15:12	20.2	0.1	0	0	20.9
GMW-O-5	-150	5/18/2021	13:30	18.7	0.2	0	0.7	20.9
MW-SF-9	130	5/18/2021						
HSVE-01	0	5/18/2021						
BS-03	0	5/18/2021						
GMW-O-14	n/a	5/18/2021	13:43	21	0.3	0	1	20.9
SVM-1D	230	5/18/2021	12:23	18.8	1	0	0	20.9
SVM-1S	230	5/18/2021	12:26	20.1	0.6	0	0	20.9
SVM-02D	160	5/18/2021						
SVM-02S	160	5/18/2021	12:28	19.8	0.5	0	0	20.9
SVM-03D	10	5/18/2021	10:25	20.7	0.2	0	0.3	20.9
SVM-03S	10	5/18/2021	10:27	20.8	0.1	0	0.1	20.9
SVM-05D	130	5/18/2021	10:52	20.7	0	0	0.1	20.9
SVM-05S	130	5/18/2021	10:54	20.7	0.1	0	0	20.9
SVM-06D	180	5/18/2021	11:41	19.6	0.2	0	0.1	20.9
SVM-06S	180	5/18/2021	11:43	19.7	0.2	0	0	20.9
SVM-07D	80	5/18/2021	11:35	20.3	0.8	0	0.1	20.9
SVM-07S	80	5/18/2021	11:37	20.1	0.8	0	0	20.9
SVM-08D	40	5/18/2021	10:47	20.7	0.1	0	0.2	20.9
SVM-08S	40	5/18/2021	10:49	20.7	0.1	0	0	20.9
SVM-10D	-20	5/18/2021	11:31	20.8	0.8	0	0.1	20.9
SVM-10S	-20	5/18/2021						
SVM-15D	250	5/18/2021	11:50	19.1	0.6	0	0.1	20.9
SVM-15M	250	5/18/2021	11:52	19.4	0.7	0	0	20.9
SVM-15S	250	5/18/2021	11:54	19.7	0.7	0	0	20.9
SVM-16D	-20	5/18/2021	10:39	20.4	0.3	0	0.4	20.9
SVM-16M	-20	5/18/2021	10:40	20.7	0.1	0	0.1	20.9
SVM-16S	-20	5/18/2021	10:41	20.7	0.1	0	0	20.9
GMW-O-11	200	5/18/2021	12:02	20.7	0.2	0	0.7	20.9
GMW-O-12	25	5/18/2021	12:20	20.8	0.1	0	3.5	20.9
GMW-O-2	160	5/18/2021	12:30	20.1	0	0	0	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
GMW-O-20	120	5/18/2021	12:10	20.9	0.1	0	0.6	20.9
GMW-O-21	40	5/18/2021	11:04	20.9	0	0	0.3	20.9
GMW-O-3	-90	5/18/2021	12:20	20.1	0	0	0	20.9
GMW-O-5	-150	5/18/2021	10:11	20.6	0.5	0	0.8	20.9
MW-SF-9	130	5/18/2021						
HSVE-01	0	5/18/2021						
BS-03	0	5/18/2021						
GMW-O-14	n/a	5/18/2021	10:31	21	0	0	1.8	20.9
SVM-1D	230	5/19/2021						
SVM-1S	230	5/19/2021						
SVM-02D	160	5/19/2021						
SVM-02S	160	5/19/2021						
SVM-03D	10	5/19/2021	14:05	20.8	0	0	0.1	21.5
SVM-03S	10	5/19/2021	14:07	21	0	0	0.1	21.5
SVM-05D	130	5/19/2021	14:39	21.8	0	0	0.1	21.5
SVM-05S	130	5/19/2021	14:42	21.7	0	0	0	21.5
SVM-06D	180	5/19/2021	15:40	21.4	0	0	0.2	21.5
SVM-06S	180	5/19/2021	15:45	21.2	0.1	0	0.1	21.5
SVM-07D	80	5/19/2021	14:12	21.3	0.6	0	0	21.5
SVM-07S	80	5/19/2021	14:15	21.2	0.6	0	0.5	21.5
SVM-08D	40	5/19/2021	14:30	21.6	0	0	0	21.5
SVM-08S	40	5/19/2021	14:35	21.7	0	0	0.1	21.5
SVM-10D	-20	5/19/2021	15:05	21.5	0.8	0	0.1	21.5
SVM-10S	-20	5/19/2021						21.5
SVM-15D	250	5/19/2021						21.5
SVM-15M	250	5/19/2021						21.5
SVM-15S	250	5/19/2021						21.5
SVM-16D	-20	5/19/2021	14:17	21.4	0	0	0.1	21.5
SVM-16M	-20	5/19/2021	14:20	21.5	0	0	0.1	21.5
SVM-16S	-20	5/19/2021	14:23	21.4	0	0	0	21.5
GMW-O-11	200	5/19/2021						21.5
GMW-O-12	25	5/19/2021	16:05	21.2	0	0	17.4	21.5
GMW-O-2	160	5/19/2021						21.5
GMW-O-20	120	5/19/2021	15:50	21.5	0	0	0.4	21.5
GMW-O-21	40	5/19/2021	14:47	22	0	0	0.1	21.5
GMW-O-3	-90	5/19/2021	13:40	21.3	0	0	1.3	21.5
GMW-O-5	-150	5/19/2021	13:48	17.7	2.3	0	0.3	21.5

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
GMW-O-14	10	5/19/2021	14:00	20.9	0	0	0.2	21.5
SVM-1D	230	5/20/2021						
SVM-1S	230	5/20/2021						
SVM-02D	160	5/20/2021						
SVM-02S	160	5/20/2021						
SVM-03D	10	5/20/2021	10:23	20.9	0.1	0	0	21.5
SVM-03S	10	5/20/2021	10:25	20.8	0.1	0	0	21.5
SVM-05D	130	5/20/2021	11:03	20.3	0	0	0.1	21.5
SVM-05S	130	5/20/2021	11:05	20.2	0.1	0	0	21.5
SVM-06D	180	5/20/2021	11:17	20.2	0.1	0	0.2	21.5
SVM-06S	180	5/20/2021	11:19	20	0.2	0	0.3	21.5
SVM-07D	80	5/20/2021	11:13	20.2	0	0	0.2	21.5
SVM-07S	80	5/20/2021	11:15	20.1	0.6	0	0.3	21.5
SVM-08D	40	5/20/2021	11:00	20.2	0.1	0	0.4	21.5
SVM-08S	40	5/20/2021	11:02	20.1	0.1	0	0.1	21.5
SVM-10D	-20	5/20/2021	11:12	20.2	0	0	0.4	21.5
SVM-10S	-20	5/20/2021						21.5
SVM-15D	250	5/20/2021	11:20	19.4	0	0	0.1	21.5
SVM-15M	250	5/20/2021	11:22	19.8	0.5	0	0.3	21.5
SVM-15S	250	5/20/2021	11:25	19.5	0.6	0	0.1	21.5
SVM-16D	-20	5/20/2021	10:53	20.1	0.2	0	0	21.5
SVM-16M	-20	5/20/2021	10:56	20.3	0	0	0.4	21.5
SVM-16S	-20	5/20/2021	10:59	20.1	0.1	0	0.1	21.5
GMW-O-11	200	5/20/2021	11:25	20.5	0	0	0.3	21.5
GMW-O-12	25	5/20/2021	11:35	15.5	1.9	49	681	21.5
GMW-O-2	160	5/20/2021						21.5
GMW-O-20	120	5/20/2021	11:29	20.7	0	0	0.3	21.5
GMW-O-21	40	5/20/2021	11:06	20.5	0	0	0.3	21.5
GMW-O-3	-90	5/20/2021	10:47	20.2	0.2	0	0.3	21.5
GMW-O-5	-150	5/20/2021	10:39	17.9	2.5	0	0.1	21.5
GMW-O-14	10	5/20/2021	10:20	21.3	0.1	0	0	21.5
GMW-O-12(header)	25	5/20/2021	11:35	21.2	0.2	0	9.3	21.5
SVM-1D	230	5/26/2021						
SVM-1S	230	5/26/2021						
SVM-02D	160	5/26/2021						
SVM-02S	160	5/26/2021						
SVM-03D	10	5/26/2021	8:10	20.7	0.1	0	1.5	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-03S	10	5/26/2021	8:12	20.9	0	0	1.7	20.9
SVM-05D	130	5/26/2021						20.9
SVM-05S	130	5/26/2021						20.9
SVM-06D	180	5/26/2021	13:28	20.5	0.1	0	0.2	20.9
SVM-06S	180	5/26/2021	13:32	20.4	0.1	0	0.1	20.9
SVM-07D	80	5/26/2021	13:16	20.8	0.5	0	0.1	20.9
SVM-07S	80	5/26/2021	13:20	20.6	0	0	0.2	20.9
SVM-08D	40	5/26/2021	12:50	21.3	0	0	0	20.9
SVM-08S	40	5/26/2021	12:55	21.1	0	0	0	20.9
SVM-10D	-20	5/26/2021	13:24	20.7	0.7	0	0.2	20.9
SVM-10S	-20	5/26/2021						20.9
SVM-15D	250	5/26/2021						20.9
SVM-15M	250	5/26/2021						20.9
SVM-15S	250	5/26/2021						20.9
SVM-16D	-20	5/26/2021	12:40	20.9	0	0	0	20.9
SVM-16M	-20	5/26/2021	12:42	20.7	0	0	0.5	20.9
SVM-16S	-20	5/26/2021	12:45	20.5	0	0	1.1	20.9
GMW-O-11	200	5/26/2021						20.9
GMW-O-12	25	5/26/2021	13:40	18.4	0.9	8.9	550	20.9
GMW-O-2	160	5/26/2021						20.9
GMW-O-20	120	5/26/2021						20.9
GMW-O-21	40	5/26/2021						20.9
GMW-O-3	-90	5/26/2021	13:05	21.5	0	0	0	20.9
GMW-O-5	-150	5/26/2021						
GMW-O-14	10	5/26/2021						
SVM-1D	230	5/27/2021						
SVM-1S	230	5/27/2021						
SVM-02D	160	5/27/2021						
SVM-02S	160	5/27/2021						
SVM-03D	10	5/27/2021	10:05	20.8	0	0	0	21.5
SVM-03S	10	5/27/2021	10:06	20.6	0	0	0	21.5
SVM-05D	130	5/27/2021	10:25	21.1	0.1	0	0	21.5
SVM-05S	130	5/27/2021	10:28	21.3	0	0	0	21.5
SVM-06D	180	5/27/2021	10:46	21.2	0.1	0	0	21.5
SVM-06S	180	5/27/2021	10:49	21.2	0.1	0	0	21.5
SVM-07D	80	5/27/2021	10:38	21	0.7	0	0	21.5
SVM-07S	80	5/27/2021	10:40	21.1	0.5	0	0	21.5

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-08D	40	5/27/2021	10:19	21.1	0	0	0.6	21.5
SVM-08S	40	5/27/2021	10:24	21.1	0	0	0	21.5
SVM-10D	-20	5/27/2021	10:36	20.9	0	0	0	21.5
SVM-15D	250	5/27/2021	10:50	20.3	0.6	0.1	0	21.5
SVM-15M	250	5/27/2021	10:52	20.7	0.6	0.1	0	21.5
SVM-15S	250	5/27/2021	10:53	20.9	0.6	0.1	0	21.5
SVM-16D	-20	5/27/2021	10:13	20.7	0	0	0.8	21.5
SVM-16M	-20	5/27/2021	10:17	20.8	0.1	0	0	21.5
SVM-16S	-20	5/27/2021	10:20	20.8	0.1	0	1019	21.5
GMW-O-2	160	5/27/2021	9:45	20.9	0	0	0	21.5
GMW-O-3	-90	5/27/2021	9:48	20.8	0	0	0	21.5
GMW-O-5	-150	5/27/2021	9:55	17.4	4	0	0	21.5
GMW-O-11	200	5/27/2021	10:59	21.8	0	0.1	0	21.5
GMW-O-12	25	5/27/2021	11:10	18.5	1.3	10.6	535	21.5
GMW-O-14	10	5/27/2021	10:01	20.5	0.5	0	0	21.5
GMW-O-20	120	5/27/2021	11:04	3.5	8.2	9.1	405	21.5
GMW-O-21	40	5/27/2021	10:30	20.8	0	0	0	21.5
SVM-1D	230							
SVM-1S	230							
SVM-02D	160							
SVM-02S	160							
SVM-03D	10							
SVM-03S	10							
GMW-O-2	160							
GMW-O-21	40							
GMW-O-3	-90							
GMW-O-5	-150							
MW-SF-9	130							
SVM-10S	-20							
GMW-O-11	200							
GMW-O-2	160							
GMW-O-20	120							
HSVE-01	0							
BS-03	0							
SVM-10S	-20							
GMW-O-20	120							
GMW-O-21	40							

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
HSVE-01	0							
BS-03	0							
SVM-02D	160							
SVM-10S	-20							
GMW-O-2	160							
MW-SF-9	130							
HSVE-01	0							
BS-03	0							
SVM-02D	160							
SVM-05D	130							
SVM-05S	130							
SVM-10S	-20							
MW-SF-9	130							
SVM-02D	160							
SVM-10S	-20							
MW-SF-9	130							
SVM-02D	160			n/a			0.2	
SVM-10S	-20							
SVM-1D	230							
SVM-1S	230							
SVM-02D	160							
SVM-02S	160							
SVM-10S	-20							
SVM-15D	250							
SVM-15M	250							
SVM-15S	250							
GMW-O-11	200							
GMW-O-2	160							
GMW-O-12 Manifold	25	5/28/2021	10:15	17.9	1.2	2	410	20.8
GMW-O-12	25	5/28/2021	11:15	17.6	1.2	1.8	454	20.8
GMW-O-12	25	5/28/2021	11:25	15.5	2.1	4.7	565	20.8
GMW-O-12 Manifold	25	5/28/2021	11:35	16.8	1.6	2.7	495	20.8
SVM-03D	10	6/1/2021	12:58	19.8	0	0	0	20.9
SVM-03S	10	6/1/2021	12:59	19.9	0	0	0	20.9
SVM-05D	130	6/1/2021	13:24	20.6	0.1	0	0	20.9
SVM-05S	130	6/1/2021	13:29	20.3	0	0	0	20.9
SVM-06D	180	6/1/2021	13:52	20.2	0.1	0	0.2	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-06S	180	6/1/2021	13:54	20.2	0	0	0.1	20.9
SVM-07D	80	6/1/2021	13:46	20.2	0.2	0	0.2	20.9
SVM-07S	80	6/1/2021	13:47	20.1	0	0	0.1	20.9
SVM-08D	40	6/1/2021	13:16	21.1	0	0	0	20.9
SVM-08S	40	6/1/2021	13:20	21	0	0	0	20.9
SVM-10D	-20	6/1/2021	13:42	20.1	0.9	0	0	20.9
SVM-15D	250	6/1/2021	14:00	20.3	0.4	0	0.2	20.9
SVM-15M	250	6/1/2021	14:04	20.2	0.2	0	0.1	20.9
SVM-15S	250	6/1/2021	14:06	20.1	0	0	0.1	20.9
SVM-16D	-20	6/1/2021	13:04	20.2	0.1	0	0	20.9
SVM-16M	-20	6/1/2021	13:08	20	0	0	0	20.9
SVM-16S	-20	6/1/2021	13:12	20	0	0	0	20.9
GMW-O-11	200	6/1/2021	14:15	15.7	2.4	0	30.25	20.9
GMW-O-12	25	6/1/2021	13:38	15.3	2.6	2.7	549.2	20.9
GMW-O-20	120	6/1/2021	14:22	21.1	0	0	0.9	20.9
GMW-O-21	40	6/1/2021	13:33	21.1	0.1	0	4.2	20.9
GMW-O-3	-90	6/1/2021	13:39	20.4	0.1	0	0.2	20.9
GMW-O-5	-150	6/1/2021	12:43	18.4	2.6	0	0.3	20.9
GMW-O-14	n/a	6/1/2021	12:52	20	0.3	0	0.8	20.9
SVM-03D	10	6/10/2021	12:48	19.9	0.2	0	0.3	21.1
SVM-03S	10	6/10/2021	12:52	19.7	0.1	0	0.2	21.1
SVM-05D	130	6/10/2021	12:42	20.1	0.2	0	0.2	21.1
SVM-05S	130	6/10/2021	12:42	19.9	0.1	0	0.1	21.1
SVM-06D	180	6/10/2021	10:58	18.8	0.1	0	0.1	21.1
SVM-06S	180	6/10/2021	11:00	19.2	0.1	0	0	21.1
SVM-07D	80	6/10/2021	10:52	18.9	0.6	0	0	21.1
SVM-07S	80	6/10/2021	10:54	19.1	0.5	0	0	21.1
SVM-08D	40	6/10/2021	12:25	20.1	0	0	0	21.1
SVM-08S	40	6/10/2021	12:30	20	0.1	0	0.1	21.1
SVM-10D	-20	6/10/2021	10:48	18.9	0.9	0	0.1	21.1
SVM-15D	250	6/10/2021	11:04	18.5	0.6	0	0.2	21.1
SVM-15M	250	6/10/2021	11:06	18.8	0.6	0	0.1	21.1
SVM-15S	250	6/10/2021	11:08	19.4	0.5	0	0	21.1
SVM-16D	-20	6/10/2021	12:15	20.7	0.2	0.1	13.5	21.1
SVM-16M	-20	6/10/2021	12:18	21	0	0	0	21.1
SVM-16S	-20	6/10/2021	12:20	21	0	0	0	21.1
GMW-O-11	200	6/10/2021	11:15	20.2	0	0	2.4	21.1

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
GMW-O-12	25	6/10/2021	11:25	20.1	0	0	0	21.1
SVM-03D	10	6/10/2021	15:16	20.1	0.1	0	0.2	20.5
SVM-03S	10	6/10/2021	15:18	19.9	0.1	0	0.1	20.5
SVM-05D	130	6/10/2021	14:52	20.2	0.3	0	0.2	20.5
SVM-05S	130	6/10/2021	14:54	20	0.2	0	0.2	20.5
SVM-06D	180	6/10/2021	14:10	19	0	0	0	20.5
SVM-06S	180	6/10/2021	14:11	19.3	0.1	0	0	20.5
SVM-07D	80	6/10/2021	14:04	19.1	0.5	0	0	20.5
SVM-07S	80	6/10/2021	14:06	19	0.5	0	0	20.5
SVM-08D	40	6/10/2021	14:52	20.1	0	0	0.1	20.5
SVM-08S	40	6/10/2021	14:54	20	0.1	0	0.1	20.5
SVM-10D	-20	6/10/2021	14:00	18.8	1	0	0.1	20.5
SVM-15D	250	6/10/2021	14:14	18.9	0.5	0	0.2	20.5
SVM-15M	250	6/10/2021	14:18	19	0.6	0	0.1	20.5
SVM-15S	250	6/10/2021	14:21	19.4	0.5	0	0	20.5
SVM-16D	-20	6/10/2021	14:44	20.6	0.3	0.1	14.2	20.5
SVM-16M	-20	6/10/2021	14:46	20.8	0.1	0	0	20.5
SVM-16S	-20	6/10/2021	14:48	21	0	0	0	20.5
GMW-O-11	200	6/10/2021	14:27	20.4	0	0	3.1	20.5
GMW-O-12	25	6/10/2021	14:37	20.1	0	0	0	20.5
GMW-O-14	n/a	6/10/2021	15:20	20.1	0.1	0	0.9	20.5
SVM-03D	10	6/11/2021	9:57	20.8	0.1	0	0.4	21
SVM-03S	10	6/11/2021	9:59	20.6	0.1	0		21
SVM-05D	130	6/11/2021	9:23	21.1	0.1	0	0	21
SVM-05S	130	6/11/2021	9:25	21.3	0.1	0	0	21
SVM-06D	180	6/11/2021	8:52	20.4	0.1	0	0	21
SVM-06S	180	6/11/2021	8:53	20.3	0.2	0	0.1	21
SVM-07D	80	6/11/2021	8:48	20	0.8	0	0	21
SVM-07S	80	6/11/2021	8:49	20.2	0.6	0	0	21
SVM-08D	40	6/11/2021	9:45	21.2	0.1	0	0	21
SVM-08S	40	6/11/2021	9:49	21.2	0.1	0	0.6	21
SVM-10D	-20	6/11/2021	8:35	20.6	1.1	0	0	21
SVM-15D	250	6/11/2021	8:54	20.4	0.2	0	0	21
SVM-15M	250	6/11/2021	8:56	19.6	0.7	0	0	21
SVM-15S	250	6/11/2021	8:58	19.9	0.6	0	0.3	21
GMW-O-11	200	6/11/2021	9:04	20.6	0	0	0	21
GMW-O-20	120	6/11/2021	9:10	0	12.8	5.6	5.6	21

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
GMW-O-21	40	6/11/2021	9:50					21
GMW-O-3	-90	6/11/2021	10:18	20.6	0	0	0	21
GMW-O-5	-150	6/11/2021	10:10	19.2	2	0	0	21
GMW-O-14	n/a	6/11/2021	10:05	20.8	0	0	0	21
SVM-03D	10	6/22/2021	10:00	20.5	0	0	0.3	21.4
SVM-03S	10	6/22/2021	10:03	20.4	0	0	0.1	21.4
SVM-05D	130	6/22/2021	9:39	20.8	0.2	0	0.3	21.4
SVM-05S	130	6/22/2021	9:41	21	0.1	0	0	21.4
SVM-06D	180	6/22/2021	8:40	19.8	0.3	0	0	21.4
SVM-06S	180	6/22/2021	8:42	20.1	0.3	0	0	21.4
SVM-07D	80	6/22/2021	9:15	19.6	0.9	0	7.5	21.4
SVM-07S	80	6/22/2021	9:17	20.2	0.7	0	0.6	21.4
SVM-08D	40	6/22/2021	9:30	20.8	0	0	0.6	21.4
SVM-08S	40	6/22/2021	9:32	20.9	0.1	0	0.2	21.4
SVM-10D	-20	6/22/2021	8:30	20.3	0.7	0	0.1	21.4
SVM-15D	250	6/22/2021	8:46	19.3	0.8	0	0	21.4
SVM-15M	250	6/22/2021	8:49	19.7	0.9	0	0	21.4
SVM-15S	250	6/22/2021	8:51	20	0.9	0	0	21.4
SVM-16D	-20	6/22/2021	9:22	20.4	0	0	8.7	21.4
SVM-16M	-20	6/22/2021	9:24	20.5	0.1	0	0.5	21.4
SVM-16S	-20	6/22/2021	9:26	20.6	0.1	0	0.2	21.4
GMW-O-3	-90	6/22/2021	10:20	20.4	0.4	0	0.5	21.4
GMW-O-5	-150	6/22/2021	10:08	19.2	0.9	0	30	21.4
GMW-O-11	200	6/22/2021	9:00	20.9	0.1	0	0.1	21.4
GMW-O-14	n/a	6/22/2021	9:55	20.6	0	0	0.3	21.4
GMW-O-21	40	6/22/2021	9:45	21.1	0	0	1.2	21.4
SVM-03D	10	6/25/2021	9:25	20	0.1	0	0.6	20.9
SVM-03S	10	6/25/2021	9:28	20	0.1	0	0.4	20.9
SVM-05D	130	6/25/2021	9:53	21	0.1	0	0	20.9
SVM-05S	130	6/25/2021	9:56	21.2	0.1	0	0	20.9
SVM-06D	180	6/25/2021	10:18	21.1	0	0	0	20.9
SVM-06S	180	6/25/2021	10:21	21	0.1	0	0	20.9
SVM-07D	80	6/25/2021	10:10	20.4	0.6	0	0.2	20.9
SVM-07S	80	6/25/2021	10:13	20.8	0.8	0	0.3	20.9
SVM-08D	40	6/25/2021	9:46	20.9	0	0	0.2	20.9
SVM-08S	40	6/25/2021	9:50	21	0	0	0.2	20.9
SVM-10D	-20	6/25/2021	10:03	21.2	0	0	0	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-15D	250	6/25/2021	10:28	20.2	0.5	0	0.2	20.9
SVM-15M	250	6/25/2021	10:31	20.3	0.7	0	0.1	20.9
SVM-15S	250	6/25/2021	10:34	20.5	0.7	0	0.1	20.9
SVM-16D	-20	6/25/2021	9:35	20.5	0	0	0.9	20.9
SVM-16M	-20	6/25/2021	9:38	20.6	0	0	0.5	20.9
SVM-16S	-20	6/25/2021	9:41	20.7	0	0	0.3	20.9
GMW-O-11	200	6/25/2021	10:40	21.7	0.1	0	0	20.9
GMW-O-3	-90	6/25/2021	10:50	21.4	0	0	0.2	20.9
GMW-O-5	-150	6/25/2021	9:15	17.9	0	0	2.9	20.9
GMW-O-14	n/a	6/25/2021	9:22	20	0	0	1.1	20.9
SVM-03D	10	6/28/2021	13:15	20.1	0	0.1	0.4	21.1
SVM-03S	10	6/28/2021	13:18	20.1	0.1	0	0.1	21.1
SVM-05D	130	6/28/2021	12:56	20	0.1	0	0.7	21.1
SVM-05S	130	6/28/2021	12:58	20.1	0	0	0.4	21.1
SVM-06D	180	6/28/2021	12:15	18.8	0.1	0	0.3	21.1
SVM-06S	180	6/28/2021	12:17	18.8	0.1	0	0.2	21.1
SVM-07D	80	6/28/2021	12:04	18.7	0.8	0	1.4	21.1
SVM-07S	80	6/28/2021	12:08	19.8	0.6	0	0.6	21.1
SVM-08D	40	6/28/2021	12:51	20.1	0.1	0	0.2	21.1
SVM-08S	40	6/28/2021	12:53	20	0.1	0	0.1	21.1
SVM-10D	-20	6/28/2021	11:58	20.3	0.7	0.1	0.8	21.1
SVM-15D	250	6/28/2021	12:21	18.4	0.6	0	0.4	21.1
SVM-15M	250	6/28/2021	12:23	18.8	0.6	0	0.1	21.1
SVM-15S	250	6/28/2021	12:25	18.9	0.7	0	0.2	21.1
SVM-16D	-20	6/28/2021	12:40	19.8	0.1	0	4.9	21.1
SVM-16M	-20	6/28/2021	12:42	20.1	0	0	0.1	21.1
SVM-16S	-20	6/28/2021	12:46	20.2	0.1	0	0.1	21.1
GMW-O-3	-90	6/28/2021	13:08	21.1	0.1	0	0.3	21.1
GMW-O-5	-150	6/28/2021	13:30	18.4	1.1	0	1.2	21.1
GMW-O-11	200	6/28/2021	12:30	21.1	0.1	0.1	0.4	21.1
GMW-O-14	n/a	6/28/2021	13:20	20	0	0	1	21.1
GMW-O-21	40	6/28/2021	12:59	20.4	0.1	0	1.3	21.1
SVM-07D	80	7/23/2021	8:43	19.9	0.5	0.1	0.1	21.1
SVM-06D	180	7/23/2021	8:50	20	0	0	0	21.1
SVM-06S	180	7/23/2021	8:51	20.1	0.1	0	0.1	21.1
SVM-10D	-20	7/23/2021	8:40	17.1	0.1	0.2	0.1	21.1
SVM-07S	80	7/23/2021	8:45	19.8	0.2	0	0.2	21.1

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-07D	80	8/6/2021	10:08	18.2	--	--	0.3	20.9
SVM-06D	180	8/6/2021	10:15	18.7	--	--	0.1	20.9
SVM-06S	180	8/6/2021	10:17	19.6	--	--	0	20.9
SVM-10D	-20	8/6/2021	10:06	20.9	--	--	0.1	20.9
SVM-15D	250	8/6/2021	10:21	20.9	--	--	0	20.9
SVM-15M	250	8/6/2021	10:23	19.4	--	--	0.2	20.9
SVM-15S	250	8/6/2021	10:25	19.7	--	--	0	20.9
SVM-16D	-20	8/6/2021	9:58	20.9	--	--	0	20.9
SVM-16M	-20	8/6/2021	10:00	20.9	--	--	0	20.9
SVM-16S	-20	8/6/2021	10:02	20.9	--	--	0	20.9
SVM-07S	80	8/6/2021	10:10	20.2	--	--	0.1	20.9
SVM-07D	80	8/31/2021	8:35	17.7	1	0	0	21.1
SVM-03D	10	8/31/2021	10:28	20	0.2	0	0.2	21.1
SVM-03S	10	8/31/2021	10:35	19.9	0.1	0	0	21.1
SVM-05D	130	8/31/2021	10:15	20.1	0.1	0	0	21.1
SVM-05S	130	8/31/2021	10:17	20.1	0.1	0	0	21.1
SVM-06D	180	8/31/2021	8:50	16.9	0.2	0	0	21.1
SVM-06S	180	8/31/2021	8:52	19.6	0.4	0	0	21.1
SVM-08D	40	8/31/2021	10:08	19.9	0.3	0	0	21.1
SVM-08S	40	8/31/2021	10:10	20.1	0.4	0	0	21.1
SVM-10D	-20	8/31/2021	8:30	20.8	0.6	0	0	21.1
SVM-15D	250	8/31/2021	9:12	19.1	1	0	0	21.1
SVM-15M	250	8/31/2021	9:10	19.6	1.2	0	0	21.1
SVM-15S	250	8/31/2021	9:08	19.9	1.1	0	0	21.1
SVM-16D	-20	8/31/2021	10:05	21.1	0.1	0	0.2	21.1
SVM-16M	-20	8/31/2021	9:59	21.2	0.2	0	1	21.1
SVM-07S	80	8/31/2021	8:40	19.4	0.7	0	0	21.1
SVM-07D	80	9/1/2021	9:00	18.3	1.1	0	0	21.1
SVM-16S	-20	9/1/2021	9:55	21.3	0.2	0	1.3	21.1
SVM-03D	10	9/1/2021	9:45	21.1	0.1	0	0.4	21.1
SVM-03S	10	9/1/2021	9:49	21	0.1	0	0.1	21.1
SVM-05D	130	9/1/2021	9:30	20.1	0	0	0	21.1
SVM-05S	130	9/1/2021	9:35	20.1	0	0	0	21.1
SVM-06D	180	9/1/2021	9:05	17.4	0.3	0	0	21.1
SVM-06S	180	9/1/2021	9:07	20.1	0.6	0	0	21.1
SVM-08D	40	9/1/2021	9:30	19.9	0.5	0	0	21.1
SVM-08S	40	9/1/2021	9:32	20	0.4	0	0	21.1

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-10D	-20	9/1/2021	8:40	20.9	0.5	0	0	21.1
SVM-15D	250	9/1/2021	9:18	19.3	1	0	0	21.1
SVM-15M	250	9/1/2021	9:15	19.8	1.1	0	0	21.1
SVM-15S	250	9/1/2021	9:12	19.9	1	0	0	21.1
SVM-16D	-20	9/1/2021	9:20	21.4	0.3	0.1	5.8	21.1
SVM-16M	-20	9/1/2021	9:22	21.2	0.1	0	2.1	21.1
SVM-16S	-20	9/1/2021	9:24	21.2	0.1	0	0.6	21.1
SVM-07S	80	9/1/2021	9:01	19.5	0.6	0	0	21.1
SVM-07D	80	9/9/2021	13:04	17.9	0.4	0	0	20.9
SVM-03D	10	9/9/2021	13:45	21	0	0	0.7	20.9
SVM-03S	10	9/9/2021	13:48	21.3	0.1	0	0.3	20.9
SVM-05D	130	9/9/2021	13:38	20.1	0	0	0	20.9
SVM-05S	130	9/9/2021	13:41	20	0	0	0	20.9
SVM-06D	180	9/9/2021	12:53	17.8	0.3	0	0	20.9
SVM-06S	180	9/9/2021	12:55	20.3	0.5	0	0	20.9
SVM-07S	80	9/9/2021	13:00	19.8	0.2	0	0	20.9
SVM-08D	40	9/9/2021	13:30	19.5	0.3	0	0	20.9
SVM-08S	40	9/9/2021	13:32	20.6	0.1	0	0	20.9
SVM-10D	-20	9/9/2021	9:10	21	0.1	0	0	20.9
SVM-15D	250	9/9/2021	13:07	19	0.3	0	0	20.9
SVM-15M	250	9/9/2021	13:09	19.5	0.2	0	0	20.9
SVM-15S	250	9/9/2021	13:12	20.1	0	0	0	20.9
SVM-16D	-20	9/9/2021	13:18	21.1	0.5	0.1	6.1	20.9
SVM-16M	-20	9/9/2021	13:21	21	0.2	0.1	1.2	20.9
SVM-16S	-20	9/9/2021	13:24	20.7	0.1	0	0.3	20.9
SVM-06D	180	9/16/2021	11:50	11	0.3	0	0.4	20.9
SVM-06S	180	9/16/2021	11:51	18.5	0.4	0	0	20.9
SVM-07D	80	9/16/2021	11:45	12.8	6.5	0	532.6	20.9
SVM-07S	80	9/16/2021	11:46	14.3	0.9	0	23.5	20.9
SVM-10D	-20	9/16/2021	11:40	20.3	0.7	0	0	20.9
SVM-15D	250	9/16/2021	12:15	19.2	0.1	0	0	20.9
SVM-15M	250	9/16/2021	12:20	19.4	0.1	0	0	20.9
SVM-15S	250	9/16/2021	12:22	19.5	0.2	0	0	20.9
SVM-06D	180	9/21/2021	14:34	16.9	0.1	0	0	21.2
SVM-06S	180	9/21/2021	14:36	17.2	0.1	0	0	21.2
SVM-07D	80	9/21/2021	14:30	16.3	2.9	0	50.1	21.2
SVM-07S	80	9/21/2021	14:32	16.6	0.8	0	0.4	21.2

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-10D	-20	9/21/2021	14:25	20.7	0.4	0	0	21.2
SVM-07D	80	9/30/2021	16:45	19.7	0.9	0.02	0	20.9
SVM-03D		10/1/2021	11:17	20.4	0	0	2.1	20.9
SVM-03S		10/1/2021	11:20	20.4	0	0.01	2.7	20.9
SVM-05D		10/1/2021	10:35	21.2	0	0.01	1.5	20.9
SVM-05S		10/1/2021	10:38	21.1	0	0	0.2	20.9
SVM-06D		10/1/2021	9:53	20.9	0	0	0.4	20.9
SVM-06S		10/1/2021	9:55	20.9	0.1	0	0	20.9
SVM-07D		10/1/2021	9:35	20.6	0.9	0.01	0.3	20.9
SVM-07S		10/1/2021	9:38	20.7	0.4	0.01	0	20.9
SVM-08D		10/1/2021	10:39	20.9	0	0.01	1.8	20.9
SVM-08S		10/1/2021	10:41	20.9	0	0.01	0.9	20.9
SVM-10D		10/1/2021	9:15	21.1	0	0	0	20.9
SVM-15D		10/1/2021	10:05	20.1	0.4	0.01	1.9	20.9
SVM-15M		10/1/2021	10:08	20.3	0.5	0	0	20.9
SVM-15S		10/1/2021	10:11	20.4	0	0.01	0.3	20.9
SVM-16D		10/1/2021	10:45	20.2	0	0	1.6	20.9
SVM-16M		10/1/2021	10:48	20.3	0	0.01	0.8	20.9
SVM-16S		10/1/2021	10:51	20.3	0	0.01	0.2	20.9
GMW-O-3		10/1/2021	11:45	20.9	0	0	4.2	20.9
GMW-O-5		10/1/2021	11:30	19.4	0.4	0.02	0	20.9
GMW-O-11		10/1/2021	10:13				0	20.9
GMW-O-12		10/1/2021	9:20				0.5	20.9
GMW-O-14		10/1/2021	11:10	20.3	0	0	1.4	20.9
GMW-O-20		10/1/2021	9:50				0.3	20.9
GMW-O-21		10/1/2021	10:56	20.5	0	0	0.4	20.9
GMW-O-3	-90	10/1/2021	11:45	20.9	0	0	4.2	20.9
SVM-03S	10	10/1/2021	11:20	20.4	0	0.01	2.7	20.9
SVM-03D	10	10/1/2021	11:17	20.4	0	0	2.1	20.9
SVM-15D	250	10/1/2021	10:05	20.1	0.4	0.01	1.9	20.9
SVM-08D	40	10/1/2021	10:39	20.9	0	0.01	1.8	20.9
SVM-16D	-20	10/1/2021	10:45	20.2	0	0	1.6	20.9
SVM-05D	130	10/1/2021	10:35	21.2	0	0.01	1.5	20.9
GMW-O-14	10	10/1/2021	11:10	20.3	0	0	1.4	20.9
SVM-08S	40	10/1/2021	10:41	20.9	0	0.01	0.9	20.9
SVM-16M	-20	10/1/2021	10:48	20.3	0	0.01	0.8	20.9
GMW-O-12	25	10/1/2021	9:20	--	--	--	0.5	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-06D	180	10/1/2021	9:53	20.9	0	0	0.4	20.9
GMW-O-21	40	10/1/2021	10:56	20.5	0	0	0.4	20.9
SVM-07D	80	10/1/2021	9:35	20.6	0.9	0.01	0.3	20.9
SVM-15S	250	10/1/2021	10:11	20.4	0	0.01	0.3	20.9
GMW-O-20	120	10/1/2021	9:50	--	--	--	0.3	20.9
SVM-05S	130	10/1/2021	10:38	21.1	0	0	0.2	20.9
SVM-16S	-20	10/1/2021	10:51	20.3	0	0.01	0.2	20.9
SVM-06S	180	10/1/2021	9:55	20.9	0.1	0	0	20.9
SVM-07S	80	10/1/2021	9:38	20.7	0.4	0.01	0	20.9
SVM-10D	-20	10/1/2021	9:15	21.1	0	0	0	20.9
SVM-15M	250	10/1/2021	10:08	20.3	0.5	0	0	20.9
GMW-O-5	-150	10/1/2021	11:30	19.4	0.4	0.02	0	20.9
GMW-O-11	200	10/1/2021	10:13	--	--	--	0	20.9
SVM-03D	10	10/7/2021	10:42	20.3	0	0	0	20.9
SVM-03S	10	10/7/2021	10:45	20.1	0.1	0	0	20.9
SVM-06D	180	10/7/2021	9:53	19	0.1	0	0	20.9
SVM-06S	180	10/7/2021	9:56	19.4	0.3	0	0	20.9
SVM-07D	80	10/7/2021	9:45	19.9	0.5	0	0	20.9
SVM-07S	80	10/7/2021	9:47	20.6	0.2	0	0	20.9
SVM-10D	-20	10/7/2021	10:25	20.7	0.2	0	0	20.9
SVM-15D	250	10/7/2021	10:01	20.4	0.2	0	0	20.9
SVM-15M	250	10/7/2021	10:04	20.6	0.3	0	0	20.9
SVM-15S	250	10/7/2021	10:08	20	0.6	0	0	20.9
SVM-10D	-20	10/14/2021	8:39	20.9	NM	0	0.3	20.9
SVM-08D	40	10/14/2021	9:16	20.9	NM	0	0.1	20.9
SVM-03D	10	10/14/2021	9:45	20.9	NM	0	0	20.9
SVM-03S	10	10/14/2021	9:47	20.9	NM	0	0	20.9
SVM-05D	130	10/14/2021	9:08	20.9	NM	0	0	20.9
SVM-05S	130	10/14/2021	9:11	20.9	NM	0	0	20.9
SVM-06D	180	10/14/2021	8:52	10.1	NM	0	0	20.9
SVM-06S	180	10/14/2021	8:55	18.7	NM	0	0	20.9
SVM-07D	80	10/14/2021	8:45	11.5	NM	0	0	20.9
SVM-07S	80	10/14/2021	8:42	17.6	NM	0	0	20.9
SVM-08S	40	10/14/2021	9:18	20.9	NM	0	0	20.9
SVM-15D	250	10/14/2021	8:58	18.2	NM	0	0	20.9
SVM-15M	250	10/14/2021	9:00	19.2	NM	0	0	20.9
SVM-15S	250	10/14/2021	9:03	19.5	NM	0	0	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-16D	-20	10/14/2021	9:30	20.9	NM	0	0	20.9
SVM-16M	-20	10/14/2021	9:33	20.9	NM	0	0	20.9
SVM-16S	-20	10/14/2021	9:35	20.9	NM	0	0	20.9
GMW-O-3	-90	10/14/2021	10:05	20.9	NM	0	0	20.9
GMW-O-5	-150	10/14/2021	9:55	20.1	NM	0	0	20.9
GMW-O-14	10	10/14/2021	9:40	20.9	NM	0	0	20.9
GMW-O-21	40	10/14/2021	9:25	20.9	NM	0	0	20.9
GMW-O-11	200	10/19/2021	13:38	19.5	0.3	0	37.5	20.9
SVM-08D	40	10/19/2021	14:09	20.9	0	0	0	20.9
SVM-08S	40	10/19/2021	14:12	20.8	0	0	0	20.9
SVM-06D	180	10/19/2021	13:30	14.5	0.1	0	0	20.9
SVM-06S	180	10/19/2021	13:35	18.5	0.2	0	0	20.9
SVM-07D	80	10/19/2021	13:15	14.9	4.6	0	0	20.9
SVM-07S	80	10/19/2021	13:19	15.7	0.8	0	0	20.9
SVM-10D	-20	10/19/2021	13:25	20.3	0.3	0	0	20.9
SVM-15D	250	10/19/2021	13:41	20.7	0	0	0	20.9
SVM-15M	250	10/19/2021	13:44	18.9	0.8	0	0	20.9
SVM-15S	250	10/19/2021	13:48	19	0.8	0	0	20.9
GMW-O-2	160	10/19/2021	12:50	19.8	0.7	0	0	20.9
GMW-O-3	-90	10/19/2021	13:00	20.7	0	0	0	20.9
GMW-O-21	40	10/19/2021	14:01	20.9	0	0	0	20.9
GMW-O-11	200	11/10/2021	12:50	NM	NM	NM	NM	20.9
GMW-O-12	25	11/10/2021	12:52	NM	NM	NM	NM	20.9
GMW-O-20	120	11/10/2021	12:51	NM	NM	NM	NM	20.9
GMW-O-21	40	11/10/2021	13:57	NM	NM	NM	NM	20.9
SVM-15D	250	11/10/2021	12:43	18.1	NM	NM	272	20.9
SVM-15M	250	11/10/2021	12:46	18.6	NM	NM	16.5	20.9
SVM-15S	250	11/10/2021	12:49	17.5	NM	NM	8.8	20.9
SVM-05S	130	11/10/2021	13:33	20.9	NM	NM	1.2	20.9
SVM-06D	180	11/10/2021	13:38	5.8	NM	NM	0.2	20.9
SVM-03D	10	11/10/2021	13:20	20.9	NM	NM	0	20.9
SVM-03S	10	11/10/2021	13:26	20.8	NM	NM	0	20.9
SVM-05D	130	11/10/2021	13:30	20.9	NM	NM	0	20.9
SVM-06S	180	11/10/2021	12:42	17	NM	NM	0	20.9
SVM-07D	80	11/10/2021	12:34	12	NM	NM	0	20.9
SVM-07S	80	11/10/2021	12:30	18.6	NM	NM	0	20.9
SVM-08D	40	11/10/2021	13:40	20.9	NM	NM	0	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-08S	40	11/10/2021	13:44	20.9	NM	NM	0	20.9
SVM-10D	-20	11/10/2021	12:59	20.9	NM	NM	0	20.9
SVM-16D	-20	11/10/2021	13:47	20.9	NM	NM	0	20.9
SVM-16M	-20	11/10/2021	13:51	20.9	NM	NM	0	20.9
SVM-16S	-20	11/10/2021	13:55	20.9	NM	NM	0	20.9
GMW-O-3	-90	11/10/2021	14:02	20.9	NM	NM	0	20.9
GMW-O-11	200	11/15/2021	14:53	NM	NM	NM	48.5	20.9
SVM-15M	250	11/15/2021	14:58	18.6	0.9	0	2.2	20.9
SVM-05D	130	11/15/2021	15:23	20.5	0.1	0	2.1	20.9
SVM-15S	250	11/15/2021	15:00	18.6	1	0	1.4	20.9
SVM-15D	250	11/15/2021	14:56	17.1	1.3	0	1.1	20.9
SVM-16D	-20	11/15/2021	15:09	20.7	0	0	0.3	20.9
SVM-07D	80	11/15/2021	14:42	18.2	1.4	0	0.1	20.9
GMW-O-3	-90	11/15/2021	14:25	20.6	0	0	0.1	20.9
SVM-03D	10	11/15/2021	15:35	20.8	0	0	0	20.9
SVM-03S	10	11/15/2021	15:38	20.8	0	0	0	20.9
SVM-05S	130	11/15/2021	15:25	20.8	0	0	0	20.9
SVM-06D	180	11/15/2021	14:48	14.1	0.2	0	0	20.9
SVM-06S	180	11/15/2021	14:50	17.6	0.3	0	0	20.9
SVM-07S	80	11/15/2021	14:44	18.7	0.6	0	0	20.9
SVM-08D	40	11/15/2021	15:16	20.6	0	0	0	20.9
SVM-08S	40	11/15/2021	15:18	20.7	0	0	0	20.9
SVM-10D	-20	11/15/2021	14:37	20.3	0.4	0	0	20.9
SVM-16M	-20	11/15/2021	15:15	20.6	0	0	0	20.9
GMW-O-2	160	11/15/2021	14:31	20.5	0	0	0	20.9
GMW-O-5	-150	11/15/2021	14:13	18.3	0.7	0	0	20.9
GMW-O-12	25	11/15/2021	14:40	NM	NM	NM	0	20.9
GMW-O-20	120	11/15/2021	14:46	NM	NM	NM	0	20.9
SVM-06D	180	12/2/2021	14:39	10.9	NM	NM	0.1	20.9
SVM-06S	180	12/2/2021	14:42	20.2	NM	NM	0	20.9
SVM-07D	80	12/2/2021	14:21	19	NM	NM	0	20.9
SVM-07S	80	12/2/2021	14:23	19.9	NM	NM	0	20.9
SVM-10D	-20	12/2/2021	14:31	17.4	NM	NM	0	20.9
SVM-15D	250	12/2/2021	14:44	20.9	NM	NM	0	20.9
SVM-15M	250	12/2/2021	14:46	18.4	NM	NM	0	20.9
SVM-15S	250	12/2/2021	14:48	18.9	NM	NM	0	20.9
GMW-O-11	200	12/2/2021	14:36	20.9	NM	NM	0	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
GMW-O-12	25	12/2/2021	14:27	20.9	NM	NM	0	20.9
GMW-O-20	120	12/2/2021	14:34	20.9	NM	NM	0	20.9
SVM-05S	130	12/9/2021	10:52	20.9	0	0	0.4	20.9
SVM-16D	-20	12/9/2021	10:42	20.9	0	0	0.1	20.9
SVM-03D	10	12/9/2021	11:10	20.7	0	0	0	20.9
SVM-03S	10	12/9/2021	11:12	20.7	0	0	0	20.9
SVM-05D	130	12/9/2021	10:54	20.7	0	0	0	20.9
SVM-06D	180	12/9/2021	10:29	17.1	0.1	0	0	20.9
SVM-06S	180	12/9/2021	10:31	19	0.1	0	0	20.9
SVM-07D	80	12/9/2021	10:19	16.9	1.7	0	0	20.9
SVM-07S	80	12/9/2021	10:21	19.3	0.4	0	0	20.9
SVM-08D	40	12/9/2021	10:58	20.9	0	0	0	20.9
SVM-08S	40	12/9/2021	11:00	20.9	0	0	0	20.9
SVM-10D	-20	12/9/2021	10:10	20.9	0	0	0	20.9
SVM-15D	250	12/9/2021	10:33	18.3	0.8	0	0	20.9
SVM-15M	250	12/9/2021	10:35	19	0.8	0	0	20.9
SVM-15S	250	12/9/2021	10:36	19.1	0.7	0	0	20.9
SVM-16M	-20	12/9/2021	10:44	20.9	0	0	0	20.9
SVM-16S	-20	12/9/2021	10:46	20.9	0	0	0	20.9
GMW-O-11	200	12/9/2021	10:33	20.9	0	0	0	20.9
GMW-O-12	25	12/9/2021	10:17	20.9	0	0	0	20.9
GMW-O-14	10	12/9/2021	11:03	20.9	0	0	0	20.9
GMW-O-20	120	12/9/2021	10:27	20.9	0	0	0	20.9
SVM-06D	180	12/15/2021	14:34	1	2	7	5000	20.9
SVM-07D	80	12/15/2021	14:05	17.2	1	0	17.8	20.9
SVM-06S	180	12/15/2021	14:32	18.3	0	0	7.9	20.9
GMW-O-20	120	12/15/2021	--	20.9	0	0	0.8	20.9
SVM-07S	80	12/15/2021	14:08	18	2	0	0.3	20.9
SVM-10D	-20	12/15/2021	14:13	20.9	0	0	0	20.9
SVM-15D	250	12/15/2021	14:23	14.3	1.3	0	0	20.9
SVM-15M	250	12/15/2021	14:24	18.3	2	0	0	20.9
SVM-15S	250	12/15/2021	14:26	19	0.7	0	0	20.9
GMW-O-11	200	12/15/2021	--	20.9	0	0	0	20.9
GMW-O-12	25	12/15/2021	--	20.9	0	0	0	20.9
SVM-06D	180	12/17/2021	15:03	0.6	1.7	7	5000	20.9
SVM-06S	180	12/17/2021	15:05	13.7	0.3	1	24.4	20.9
SVM-07D	80	12/17/2021	14:55	18.2	1.2	0	1.7	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-15D	250	12/17/2021	15:15	15.1	1.1	0	0.5	20.9
SVM-03D	10	12/17/2021	15:51	20.9	0.1	0	0.2	20.9
SVM-08S	40	12/17/2021	15:42	20.9	0	0	0.2	20.9
SVM-15M	250	12/17/2021	15:17	18.7	0.8	0	0.1	20.9
SVM-15S	250	12/17/2021	15:19	18.8	0.7	0	0.1	20.9
SVM-03S	10	12/17/2021	15:48	20.9	0	0	0	20.9
SVM-07S	80	12/17/2021	14:58	20.9	0.3	0	0	20.9
SVM-08D	40	12/17/2021	15:39	20.9	0	0	0	20.9
SVM-10D	-20	12/17/2021	15:28	20.9	0	0	0	20.9
GMW-O-11	200	12/17/2021	15:22	20.9	--	--	0	20.9
GMW-O-12	25	12/17/2021	15:24	20.9	--	--	0	20.9
GMW-O-20	120	12/17/2021	15:23	20.9	--	--	0	20.9
SVM-06D	180	12/23/2021	8:25	16.4	0.9	0.6	5000	20.9
SVM-06S	180	12/23/2021	8:27	18.1	0.2	0	112	20.9
SVM-15S	250	12/23/2021	8:45	19.6	1	0	3.7	20.9
SVM-05S	130	12/23/2021	8:57	20.9	0	0	0.1	20.9
SVM-08D	40	12/23/2021	9:01	20.8	0	0	0	20.9
SVM-08S	40	12/23/2021	9:04	20.9	0	0	0	20.9
SVM-05D	130	12/23/2021	8:55	20.8	0.1	0	0	20.9
SVM-07D	80	12/23/2021	8:10	16.1	3.3	0	0	20.9
SVM-07S	80	12/23/2021	8:08	18.8	1	0	0	20.9
SVM-03D	10	12/23/2021	9:32	20.8	0	0	0	20.9
SVM-03S	10	12/23/2021	9:34	20.9	0	0	0	20.9
SVM-10D	-20	12/23/2021	8:12	21.1	0.3	0	0	20.9
SVM-15D	250	12/23/2021	8:40	18.1	1.4	0	0	20.9
SVM-15M	250	12/23/2021	8:42	19.5	0.9	0	0	20.9
SVM-16M	-20	12/23/2021	9:12	20.8	0.1	0	0	20.9
SVM-16S	-20	12/23/2021	9:14	20.9	0	0	0	20.9
SVM-16D	-20	12/23/2021	9:10	--	--	--	--	20.9
SVM-03D	10	12/30/2021	9:33	21	0	0	0	21
SVM-03S	10	12/30/2021	9:36	20.9	0	0	0	21
SVM-05D	130	12/30/2021	9:22	21	0.1	0	0	21
SVM-05S	130	12/30/2021	9:24	21	0.1	0	0	21
SVM-06D	180	12/30/2021	8:30	17.1	0.8	0.4	4210	21
SVM-06S	180	12/30/2021	8:33	18.3	0.1	0	98	21
SVM-07D	80	12/30/2021	8:39	16.5	3.1	0	0	21
SVM-07S	80	12/30/2021	8:43	19.1	1	0	0	21

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-08D	40	12/30/2021	9:15	21	0	0	0	21
SVM-08S	40	12/30/2021	9:18	20.9	0	0	0	21
SVM-10D	-20	12/30/2021	8:15	21	0.2	0	0	21
SVM-15D	250	12/30/2021	8:52	18.3	1.6	0	0	21
SVM-15M	250	12/30/2021	8:54	19.7	1	0	0	21
SVM-15S	250	12/30/2021	8:56	19.7	1	0	2.9	21
SVM-16D	-20	12/30/2021	9:05	20.9	0.1	0	0.1	21
SVM-16M	-20	12/30/2021	9:08	21	0.1	0	0.1	21
SVM-16S	-20	12/30/2021	9:10	21	0	0	0	21
SVM-06D	180	1/6/2022	12:05	6.7	NM	NM	3340	20.9
SVM-06S	180	1/6/2022	12:07	12.3	NM	NM	1305	20.9
SVM-07D	80	1/6/2022	11:45	15.2	NM	NM	0	20.9
SVM-07S	80	1/6/2022	11:48	16.1	NM	NM	0	20.9
SVM-15D	250	1/6/2022	11:52	14.6	NM	NM	0.1	20.9
SVM-15M	250	1/6/2022	11:54	17.5	NM	NM	0.2	20.9
SVM-15S	250	1/6/2022	11:56	18.2	NM	NM	0	20.9
SVM-03D	10	1/13/2022	11:30	21	0.1	0	0	21
SVM-03S	10	1/13/2022	11:35	21	0	0	0	21
SVM-05D	130	1/13/2022	11:00	20.8	0.1	0	0	21
SVM-05S	130	1/13/2022	11:03	20.9	0	0	0	21
SVM-06D	180	1/13/2022	10:43	10.6	2.3	0	379.8	21
SVM-06S	180	1/13/2022	10:45	16.8	0.3	0	118.7	21
SVM-07D	80	1/13/2022	10:50	20.1	0.6	0	0	21
SVM-07S	80	1/13/2022	10:52	20.1	0.5	0	0	21
SVM-08D	40	1/13/2022	11:08	21.1	0	0	0	21
SVM-08S	40	1/13/2022	11:11	20.9	0	0	0	21
SVM-10D	-20	1/13/2022	10:55	21	0.1	0	0	21
SVM-15D	250	1/13/2022	10:30	19.7	0.5	0	0.1	21
SVM-15M	250	1/13/2022	10:33	19.9	0.4	0	0.1	21
SVM-15S	250	1/13/2022	10:36	20	0.3	0	0	21
SVM-16D	-20	1/13/2022	11:16	20.8	0.1	0	0.4	21
SVM-16M	-20	1/13/2022	11:18	20.9	0	0	0	21
SVM-16S	-20	1/13/2022	11:20	20.9	0	0	0	21
SVM-03D	10	1/20/2022	9:44	20.9	NM	NM	0	20.9
SVM-03S	10	1/20/2022	9:46	20.9	NM	NM	0	20.9
SVM-05D	130	1/20/2022	10:11	20.8	NM	NM	0	20.9
SVM-05S	130	1/20/2022	10:14	20.9	NM	NM	0	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-06D	180	1/20/2022	10:44	9.4	NM	NM	8.6	20.9
SVM-06S	180	1/20/2022	10:46	16.8	NM	NM	44	20.9
SVM-07D	80	1/20/2022	10:32	19.7	NM	NM	0	20.9
SVM-07S	80	1/20/2022	10:34	20.2	NM	NM	0	20.9
SVM-08D	40	1/20/2022	10:19	20.9	NM	NM	0	20.9
SVM-08S	40	1/20/2022	10:22	20.9	NM	NM	0	20.9
SVM-10D	-20	1/20/2022	10:28	20.9	NM	NM	0	20.9
SVM-15D	250	1/20/2022	10:38	15.9	NM	NM	0	20.9
SVM-15M	250	1/20/2022	10:40	17.8	NM	NM	0	20.9
SVM-15S	250	1/20/2022	10:42	18.4	NM	NM	0	20.9
SVM-16D	-20	1/20/2022	9:55	20.8	NM	NM	0	20.9
SVM-16M	-20	1/20/2022	9:58	20.9	NM	NM	0	20.9
SVM-16S	-20	1/20/2022	10:01	20.9	NM	NM	0	20.9
GMW-O-11	200	1/20/2022	10:36	20.9	NM	NM	0	20.9
GMW-O-12	25	1/20/2022	10:30	20.9	NM	NM	0	20.9
GMW-O-20	120	1/20/2022	10:50	20.9	NM	NM	0	20.9
SVM-05D	130	1/26/2022	12:30	20.7	0.1	0	0	20.9
SVM-05S	130	1/26/2022	12:34	20.8	0	0	0	20.9
SVM-06D	180	1/26/2022	12:00	12.7	2.3	0.1	23.2	20.9
SVM-06S	180	1/26/2022	12:05	16.8	0.3	0	15.4	20.9
SVM-07D	80	1/26/2022	11:50	19.6	0.1	0	0	20.9
SVM-07S	80	1/26/2022	11:52	20.1	0	0	0	20.9
SVM-08D	40	1/26/2022	12:24	20.9	0	0	0	20.9
SVM-08S	40	1/26/2022	12:27	20.8	0	0	0	20.9
SVM-10D	-20	1/26/2022	11:54	20.9	0.1	0	0	20.9
SVM-15D	250	1/26/2022	12:07	16.7	0.1	0	0	20.9
SVM-15M	250	1/26/2022	12:08	18.1	0.1	0.1	0	20.9
SVM-15S	250	1/26/2022	12:09	18.6	0	0	0	20.9
SVM-16D	-20	1/26/2022	12:16	20.9	0.1	0	0	20.9
SVM-16M	-20	1/26/2022	12:18	21	0.1	0	0	20.9
SVM-16S	-20	1/26/2022	12:26	20.9	0	0	0	20.9
SVM-03D	10	2/8/2022	9:18	20	0	0	0	20.9
SVM-03S	10	2/8/2022	9:21	20.5	0	0	0	20.9
SVM-05D	130	2/8/2022	9:40	20.2	0	0	0	20.9
SVM-05S	130	2/8/2022	9:42	20.4	0	0	0	20.9
SVM-06D	180	2/8/2022	10:27	10	0	0	3.6	20.9
SVM-06S	180	2/8/2022	10:29	13.1	0	0	0.8	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-07D	80	2/8/2022	9:53	12.6	0	0	0.3	20.9
SVM-07S	80	2/8/2022	9:55	16.4	0	0	0	20.9
SVM-08D	40	2/8/2022	9:35	20.4	0	0	0	20.9
SVM-08S	40	2/8/2022	9:38	20.4	0	0	0	20.9
SVM-10D	-20	2/8/2022	9:48	20.1	0	0	0	20.9
SVM-15D	250	2/8/2022	10:19	12.1	0	0	1.8	20.9
SVM-15M	250	2/8/2022	10:21	15.5	0	0	1.6	20.9
SVM-15S	250	2/8/2022	10:23	16.6	0	0	1.3	20.9
SVM-16D	-20	2/8/2022	9:24	20.2	0	0	0.3	20.9
SVM-16M	-20	2/8/2022	9:26	20.4	0	0	0.1	20.9
SVM-16S	-20	2/8/2022	9:28	20.3	0	0	0	20.9
GMW-O-11	200	2/8/2022	10:25	20.9	0	0	0	20.9
GMW-O-12	25	2/8/2022	9:51	20.7	0	0	0.1	20.9
GMW-O-20	120	2/8/2022	10:17	19.7	0	0	0	20.9
SVM-03D	10	2/15/2022	11:30	20.7	0	0	0	20.9
SVM-03S	10	2/15/2022	11:32	20.7	0	0	0	20.9
SVM-05D	130	2/15/2022	11:45	20.8	0	0	0	20.9
SVM-05S	130	2/15/2022	11:47	20.8	0	0	0	20.9
SVM-06D	180	2/15/2022	12:25	5.4	6	20.1	5000	20.9
SVM-06S	180	2/15/2022	12:27	15.3	0.1	0	10.1	20.9
SVM-07D	80	2/15/2022	12:17	16.6	3.5	0	0.1	20.9
SVM-07S	80	2/15/2022	12:20	17.8	1.5	0	0.1	20.9
SVM-08D	40	2/15/2022	11:51	20.8	0	0	0.1	20.9
SVM-08S	40	2/15/2022	11:53	20.8	0	0	0.1	20.9
SVM-10D	-20	2/15/2022	12:11	20.6	0	0	0	20.9
SVM-15D	250	2/15/2022	12:35	20.8	0	0	0	20.9
SVM-15M	250	2/15/2022	12:37	18.3	1	0	0	20.9
SVM-15S	250	2/15/2022	12:39	18.7	1.1	0	0	20.9
SVM-16D	-20	2/15/2022	12:00	20.8	0	0	0	20.9
SVM-16M	-20	2/15/2022	12:02	20.8	0	0	0	20.9
SVM-16S	-20	2/15/2022	12:03	20.8	0	0	0	20.9
GMW-O-11	200	2/15/2022	12:31	20.8	0	0	0	20.9
GMW-O-12	25	2/15/2022	12:14	20.9	0	0	0.1	20.9
GMW-O-20	120	2/15/2022	12:22	20.8	0	0	0	20.9
SVM-05D	130	2/24/2022	11:05	20.9	0	0	0	21
SVM-05S	130	2/24/2022	11:10	20.7	0	0	0	21
SVM-06D	180	2/24/2022	10:38	8.7	4.8	9	2193	21

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-06S	180	2/24/2022	10:36	12.6	0.3	0.3	1000	21
SVM-07D	80	2/24/2022	10:10	17.2	3	0	0.1	21
SVM-07S	80	2/24/2022	10:15	18.1	1.9	0	0	21
SVM-08D	40	2/24/2022	10:45	20.9	0	0	0.2	21
SVM-08S	40	2/24/2022	10:48	21	0	0	0	21
SVM-10D	-20	2/24/2022	10:00	20.5	0	0	0	21
SVM-15D	250	2/24/2022	10:20	19.9	1	0	0	21
SVM-15M	250	2/24/2022	10:22	18.2	1	0	0	21
SVM-15S	250	2/24/2022	10:26	17.9	0.9	0	0	21
SVM-16D	-20	2/24/2022	10:55	20.9	0	0	0	21
SVM-16M	-20	2/24/2022	10:57	20.8	0	0	0	21
SVM-16S	-20	2/24/2022	11:00	20.8	0	0	0	21
GMW-O-12	25	3/1/2022	13:05	20.7	0	0	0	21
GMW-O-11	200	3/1/2022	13:09	20.8	0	0	0	21
GMW-O-20	120	3/1/2022	13:07	20.6	0.1	0	0	21
SVM-07D	80	3/1/2022	13:18	16.6	1.9	0	0	21
SVM-06D	180	3/1/2022	13:31	11.4	4	14	2360	21
SVM-15D	250	3/1/2022	13:11	15.1	1.9	0	0	21
SVM-06S	180	3/1/2022	13:33	13.3	0.2	0.5	1320	21
SVM-15M	250	3/1/2022	13:13	18	1	0	0	21
SVM-15S	250	3/1/2022	13:15	18.5	0.9	0	0	21
SVM-07S	80	3/1/2022	13:20	16	2.7	0	0	21
SVM-08D	40	3/1/2022	12:56	20.7	0	0	0	21
SVM-08S	40	3/1/2022	12:58	20.6	0	0	0	21
SVM-10D	-20	3/1/2022	13:24	20	0.2	0	0	21
SVM-16D	-20	3/1/2022	12:45	20.3	0.2	0	0.3	21
SVM-16M	-20	3/1/2022	12:47	20.5	0	0	0	21
SVM-16S	-20	3/1/2022	12:49	20.6	0.1	0	0	21
SVM-06D	180	3/3/2022	11:20	0.7	NM	NM	5000	20.9
SVM-06S	180	3/3/2022	11:22	9.8	NM	NM	1230	20.9
SVM-06D	180	3/8/2022	10:11	1	NM	NM	1000	20.9
SVM-06S	180	3/8/2022		11.6	NM	NM	332	20.9
SVM-07D	80	3/8/2022	9:50	16.4	NM	NM	0	20.9
SVM-07S	80	3/8/2022	9:53	18.2	NM	NM	0	20.9
SVM-10D	-20	3/8/2022	9:43	20.9	NM	NM	0	20.9
SVM-15D	250	3/8/2022	10:02	15.1	NM	NM	0.05	20.9
SVM-15M	250	3/8/2022	10:05	17.9	NM	NM	0	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-15S	250	3/8/2022	10:08	18.8	NM	NM	0	20.9
GWM-O-11	200	3/8/2022	9:59	20.9	NM	NM	0	20.9
GWM-O-12	25	3/8/2022	9:48	20.9	NM	NM	0	20.9
GMW-O-20	120	3/8/2022	9:57	20.9	NM	NM	0	20.9
SVM-05D	130	3/24/2022	10:16	20.6	0	0	0	21
SVM-05S	130	3/24/2022	10:18	20.5	0	0	0	21
SVM-06D	180	3/24/2022	9:18	16.8	1.9	0.9	455.5	21
SVM-06S	180	3/24/2022	9:20	18.8	0.2	0	21.2	21
SVM-07D	80	3/24/2022	9:25	16.8	0	0	0	21
SVM-07S	80	3/24/2022	9:28	18.9	0	0	0	21
SVM-08D	40	3/24/2022	9:55	20.8	0	0	0	21
SVM-08S	40	3/24/2022	9:58	20.9	0.1	0	0	21
SVM-10D	-20	3/24/2022	9:33	20.9	0	0	0	21
SVM-15D	250	3/24/2022	9:38	16.2	0.1	0	0	21
SVM-15M	250	3/24/2022	9:40	18.5	0	0	0	21
SVM-15S	250	3/24/2022	9:43	19.2	0	0	0	21
SVM-16D	-20	3/24/2022	10:02	20.4	0.1	0	0	21
SVM-16M	-20	3/24/2022	10:04	20.8	0.1	0	0	21
SVM-16S	-20	3/24/2022	10:10	20.7	0	0	0	21
SVM-03D	10	4/7/2022	10:42	20.6	0.1	0	0	21
SVM-03S	10	4/7/2022	10:46	20.8	0	0	0	21
SVM-05D	130	4/7/2022	10:28	20.8	0	0	0	21
SVM-05S	130	4/7/2022	10:30	20.6	0.1	0	30.2	21
SVM-06D	180	4/7/2022	9:50	11.2	4.4	1.1	410	21
SVM-06S	180	4/7/2022	9:54	14.8	0.3	0	2	21
SVM-07D	80	4/7/2022	9:44	15.3	3.4	0	0.9	21
SVM-07S	80	4/7/2022	9:48	17.9	1.6	0	3.3	21
SVM-08D	40	4/7/2022	10:20	20.6	0.1	0	0	21
SVM-08S	40	4/7/2022	10:24	20.6	0.1	0	0	21
SVM-10D	-20	4/7/2022	9:42	20.3	0.2	0	0.9	21
SVM-15D	250	4/7/2022	9:30	17.1	1.6	0	0	21
SVM-15M	250	4/7/2022	9:34	17.9	1.3	0	0	21
SVM-15S	250	4/7/2022	9:38	18.5	1.1	0	0	21
SVM-16D	20	4/7/2022	10:08	20.5	0.1	0	0	21
SVM-16M	20	4/7/2022	10:12	20.5	0.1	0	0	21
SVM-16S	20	4/7/2022	10:16	20.3	0.1	0	0	21
SVM-03D	10	4/28/2022	9:31	20.9	0	0	0	21

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-03S	10	4/28/2022	9:28	20.9	0	0	0	21
SVM-05D	130	4/28/2022	9:54	20.9	0	0	0	21
SVM-05S	130	4/28/2022	9:57	20.9	0	0	0	21
SVM-06D	180	4/28/2022	10:26	6.4	0	0	4	21
SVM-06S	180	4/28/2022	10:29	14.6	0.1	0	0	21
SVM-07D	80	4/28/2022	10:10	19.6	0.9	0	0	21
SVM-07S	80	4/28/2022	10:12	19.3	0.6	0	0	21
SVM-08D	40	4/28/2022	9:46	20.9	0	0	0	21
SVM-08S	40	4/28/2022	9:49	20.9	0	0	0	21
SVM-10D	-20	4/28/2022	10:05	20.9	0	0	0	21
SVM-15D	250	4/28/2022	10:19	18.9	0.6	0	0	21
SVM-15M	250	4/28/2022	10:22	18.7	0..5	0	0	21
SVM-15S	250	4/28/2022	10:25	19.4	0.4	0	0	21
SVM-16D	20	4/28/2022	9:36	20.9	0	0	0	21
SVM-16M	20	4/28/2022	9:39	20.9	0	0	0	21
SVM-16S	20	4/28/2022	9:43	20.9	0	0	0	21
GMW-O-3	-90	4/28/2022	10:00	20.9	0	0	0	21
GMW-O-5	-150	4/28/2022	9:20	20.5	0	0	0	21
GMW-O-11	200	4/28/2022	10:17	20.9	0	0	0	21
GMW-O-12	25	4/28/2022	10:08	20.9	0	0	0	21
GMW-O-20	120	4/28/2022	10:15	20.9	0	0	0	21
SVM-06D	180	5/4/2022	14:08	6.2	NM	NM	126	21
SVM-06S	180	5/4/2022	14:10	13.9	NM	NM	0.4	21
SVM-07D	80	5/4/2022	13:45	16.7	NM	NM	0	21
SVM-07S	80	5/4/2022	13:48	17.8	NM	NM	0	21
SVM-10D	-20	5/4/2022	13:53	20.9	NM	NM	0	21
SVM-15D	250	5/4/2022	14:02	17.5	NM	NM	0	21
SVM-15M	250	5/4/2022	14:04	18.8	NM	NM	0	21
SVM-15S	250	5/4/2022	14:06	19.5	NM	NM	0	21
GMW-O-11	200	5/4/2022	14:00	20.9	NM	NM	0	21
GMW-O-12	25	5/4/2022	13:57	20.9	NM	NM	0	21
GMW-O-20	120	5/4/2022	13:58	20.9	NM	NM	0	21
SVM-03D	10	5/11/2022	11:07	20.8	0	0	0	21
SVM-03S	10	5/11/2022	11:04	20.6	0.1	0	0	21
SVM-05D	130	5/11/2022	10:50	20.5	0.1	0	0	21
SVM-05S	130	5/11/2022	10:48	20.5	0.1	0	0	21
SVM-06D	180	5/11/2022	10:07	8.3	6.4	0	6.5	21

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-06S	180	5/11/2022	10:10	14.6	0.5	0	0	21
SVM-07D	80	5/11/2022	10:15	17	3.1	0	0	21
SVM-07S	80	5/11/2022	10:17	17.5	2.4	0	0	21
SVM-08D	40	5/11/2022	10:46	20.3	0	0	0	21
SVM-08S	40	5/11/2022	10:44	20.4	0.1	0	0	21
SVM-10D	-20	5/11/2022	10:22	20.1	0.2	0	0	21
SVM-15D	250	5/11/2022	9:55	17.4	1.9	0	0	21
SVM-15M	250	5/11/2022	9:57	18.1	1.7	0	0	21
SVM-15S	250	5/11/2022	11:00	18.8	1.5	0	0	21
SVM-16D	20	5/11/2022	10:35	20.2	0.1	0	0	21
SVM-16M	20	5/11/2022	10:38	20.2	0	0	0	21
SVM-16S	20	5/11/2022	10:41	20.2	0.1	0	0	21
GMW-O-11	200	5/11/2022	10:03	20.9	NM	0	8	21
SVM-03D	10	5/25/2022	13:02	20.6	0	0	0	21
SVM-03S	10	5/25/2022	13:06	20.8	0	0	0	21
SVM-05D	130	5/25/2022	13:40	20.8	0	0	0	21
SVM-05S	130	5/25/2022	13:37	20.8	0	0	0	21
SVM-06S	180	5/25/2022	14:25	16.2	0	0	0	21
SVM-06D	180	5/25/2022	14:21	12.5	3.9	4.9	1,975	21
SVM-07D	80	5/25/2022	14:07	17.2	2	0	0	21
SVM-07S	80	5/25/2022	14:04	16.9	2.1	0	0	21
SVM-08D	40	5/25/2022	13:59	20.5	0	0	0	21
SVM-08S	40	5/25/2022	13:47	20.5	0	0	0	21
SVM-10D	-20	5/25/2022	13:59	20.6	0	0	0	21
SVM-15D	250	5/25/2022	14:18	19.1	0.7	0	0	21
SVM-15M	250	5/25/2022	14:15	19.8	0.5	0	0	21
SVM-15S	250	5/25/2022	14:13	19.4	0.6	0	0	21
SVM-16D	20	5/25/2022	13:34	20.9	0	0	0	21
SVM-16M	20	5/25/2022	13:31	20.8	0	0	0	21
SVM-16S	20	5/25/2022	13:22	20.8	0	0	0	21
GMW-O-11	200	5/25/2022	13:35	20.1	0	0	68	21
GMW-O-12	25	5/25/2022	14:00	20.9	0	0	1	21
GMW-O-20	120	5/25/2022	14:02	20.4	0	0	2.2	21
SVM-06S	180	6/9/2022	10:40	12	0.5	0.1	0	20.9
SVM-06D	180	6/9/2022	10:45	11	0.9	0.2	367.5	20.9
SVM-05S	130	6/15/2022	10:23	20.9	NM	NM	0	20.9
SVM-05D	130	6/15/2022	10:20	20.9	NM	NM	0	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-06S	180	6/15/2022	10:08	11.8	NM	NM	0	20.9
SVM-06D	180	6/15/2022	10:05	3.7	NM	NM	1155	20.9
SVM-07S	80	6/15/2022	10:00	17.7	NM	NM	0.1	20.9
SVM-07D	80	6/15/2022	9:57	16.5	NM	NM	0	20.9
SVM-08S	40	6/15/2022	10:29	20.9	NM	NM	0	20.9
SVM-08D	40	6/15/2022	10:26	20.9	NM	NM	0	20.9
SVM-10D	-20	6/15/2022	9:52	20.9	NM	NM	0	20.9
SVM-16S	20	6/15/2022	10:38	20.9	NM	NM	0	20.9
SVM-16M	20	6/15/2022	10:35	20.9	NM	NM	0	20.9
SVM-16D	20	6/15/2022	10:32	20.9	NM	NM	0	20.9
SVM-03D	10	6/30/2022	8:52	20.8	0	0	0	20.9
SVM-03S	10	6/30/2022	8:55	20.7	0	0	0	20.9
SVM-05D	130	6/30/2022	9:01	20.8	0	0	0	20.9
SVM-05S	130	6/30/2022	9:03	20.8	0	0	0	20.9
SVM-06D	180	6/30/2022	9:45	15	3.3	0	1.5	20.9
SVM-06S	180	6/30/2022	9:50	14.5	0.6	0	0	20.9
SVM-07D	80	6/30/2022	9:40	18.8	2.7	0	0	20.9
SVM-07S	80	6/30/2022	9:35	19.3	2.3	0	0	20.9
SVM-08D	40	6/30/2022	9:07	20.8	0	0	0	20.9
SVM-08S	40	6/30/2022	9:10	20.9	0	0	0	20.9
SVM-10D	-20	6/30/2022	9:31	20.7	0.1	0	0	20.9
SVM-16D	20	6/30/2022	9:20	20.9	0	0	0	20.9
SVM-16M	20	6/30/2022	9:15	20.9	0	0	0	20.9
SVM-16S	20	6/30/2022	9:12	20.8	0.1	0	0	20.9
GMW-O-12	25	6/30/2022	9:32	20.9	NM	NM	0	20.9
GMW-O-20	120	6/30/2022	9:41	20.9	NM	NM	15	20.9
SVM-06D	180	7/21/2022	9:10	NM	NM	NM	0.9	NM
SVM-06S	180	7/21/2022	9:05	NM	NM	NM	0.2	NM
SVM-07D	80	7/21/2022	9:15	NM	NM	NM	0.4	NM
SVM-07S	80	7/21/2022	9:13	NM	NM	NM	0	NM
SVM-03D	10	8/5/2022	9:38	20.7	0.1	0	0	20.9
SVM-03S	10	8/5/2022	9:43	20.9	0	0	0	20.9
SVM-05D	130	8/5/2022	9:49	20.9	0	0	0	20.9
SVM-05S	130	8/5/2022	9:53	20.8	0.1	0	0	20.9
SVM-06S	180	8/5/2022	10:40	13.1	4.6	0	0	20.9
SVM-06D	180	8/5/2022	10:45	11.5	0.5	3.6	585	20.9
SVM-07D	80	8/5/2022	10:35	17.6	2.8	0	0	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-07S	80	8/5/2022	10:30	17.7	2.2	0	0	20.9
SVM-08D	40	8/5/2022	10:02	20.9	0	0	0	20.9
SVM-08S	40	8/5/2022	10:07	20.8	0	0	0	20.9
SVM-10D	-20	8/5/2022	10:25	20.3	0	0	0	20.9
SVM-16D	20	8/5/2022	10:15	20.8	0	0	0	20.9
SVM-16M	20	8/5/2022	10:18	20.8	0	0	0	20.9
SVM-16S	20	8/5/2022	10:21	20.9	0	0	0	20.9
SVM-03D	10	8/16/2022	9:38	20.7	0	0	0	20.9
SVM-03S	10	8/16/2022	9:45	20.6	0	0	0	20.9
SVM-05D	130	8/16/2022	10:15	20.9	0	0	0	20.9
SVM-05S	130	8/16/2022	10:19	20.7	0	0	0	20.9
SVM-06D	180	8/16/2022	10:57	12.5	5.8	3.8	1850	20.9
SVM-06S	180	8/16/2022	11:02	11.8	0.5	0.2	439	20.9
SVM-07D	80	8/16/2022	10:49	16.5	2.0	0	0	20.9
SVM-07S	80	8/16/2022	10:53	16.5	2.4	0	0	20.9
SVM-08D	40	8/16/2022	10:23	20.8	0	0	0	20.9
SVM-08S	40	8/16/2022	10:27	20.8	0	0	0	20.9
SVM-10D	-20	8/16/2022	10:45	20.7	0	0	0	20.9
SVM-16D	20	8/16/2022	10:32	20.8	0	0	0	20.9
SVM-16M	20	8/16/2022	10:36	20.8	0	0	0	20.9
SVM-16S	20	8/16/2022	10:40	20.7	0	0	0	20.9
SVM-06D	180	9/23/2022	9:20	10.2	7.2	3.1	12.9	20.9
SVM-06S	180	9/23/2022	9:25	12.8	0.3	0.2	0.7	20.9
SVM-03D	10	10/4/2022	9:25	20.9	0	0	0	20.9
SVM-03S	10	10/4/2022	9:25	20.9	0.06	0	0	20.9
SVM-06D	180	10/4/2022	9:50	0.6	--	2	2580	20.9
SVM-06S	180	10/4/2022	9:50	0.7	--	6	3995	20.9
SVM-07D	80	10/4/2022	9:45	18	2.52	0	0	20.9
SVM-07S	80	10/4/2022	9:45	17.9	2.92	0	0	20.9
SVM-08D	40	10/4/2022	9:10	20.9	0.02	0	0	20.9
SVM-08S	40	10/4/2022	9:10	20.9	0.1	0	0	20.9
SVM-10D	-20	10/4/2022	9:35	20.9	0.3	0	0	20.9
SVM-16D	20	10/4/2022	9:20	20.9	0.08	0	0	20.9
SVM-16M	20	10/4/2022	9:20	20.9	0.02	0	0	20.9
SVM-16S	20	10/4/2022	9:20	20.9	0.04	0	0	20.9
SVM-06D	180	10/28/2022	9:00	3.2	--	--	3	20.9
SVM-06S	180	10/28/2022	9:00	3.5	--	--	0.5	20.9

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-06D	180	11/4/2022	9:00	5.4	--	--	1.8	20.9
SVM-06S	180	11/4/2022	9:00	5.2	--	--	0.2	20.9
SVM-06D	180	11/23/2022	9:00	9.2	--	--	0	20.9
SVM-06S	180	11/23/2022	9:00	8.7	--	--	0	20.9
SVM-06D	180	12/8/2022	9:00	8.8	--	--	0.1	20.9
SVM-06S	180	12/8/2022	9:00	6.5	--	--	0	20.9
SVM-06D	180	12/22/2022	9:00	10.8	--	--	0	20.9
SVM-06S	180	12/22/2022	9:00	9.7	--	--	0	20.9
SVM-06D	180	12/28/2022	9:00	8.2	--	--	0.1	20.9
SVM-06S	180	12/28/2022	9:00	7.1	--	--	0	20.9
SVM-06D	180	1/27/2023	12:00 PM	12.2	--	--	0.4	--
SVM-06S	180	1/27/2023	12:00 PM	11	--	--	0.2	--
SVM-06D	180	2/22/2023	12:00 PM	11.9	--	--	0.1	--
SVM-06S	180	2/22/2023	12:00 PM	11	--	--	0	--
SVM-1D	230	5/2/2023	12:00 PM	11.0	--	--	0	--
SVM-1S	230	5/2/2023	12:00 PM	17.8	--	--	0	--
SVM-02S	160	5/2/2023	12:00 PM	16.8	--	--	0	--
SVM-05D	130	5/2/2023	12:00 PM	19.9	--	--	0	--
SVM-05S	130	5/2/2023	12:00 PM	20.5	--	--	0	--
SVM-07D	80	5/2/2023	12:00 PM	19.1	--	--	0	--
SVM-07S	80	5/2/2023	12:00 PM	19.1	--	--	0	--
SVM-08D	40	5/2/2023	12:00 PM	20.9	--	--	0	--
SVM-08S	40	5/2/2023	12:00 PM	20.9	--	--	0	--
SVM-06D	180	5/9/2023	12:00 PM	6.9	--	--	0	--
SVM-06S	180	5/9/2023	12:00 PM	7.2	--	--	0.3	--
SVM-06D	180	6/20/2023	12:00 PM	11.5	--	--	1.5	--
SVM-06S	180	6/20/2023	12:00 PM	12.9	--	--	0.5	--
SVM-06D	180	6/28/2023	12:00 PM	9	--	--	0	--
SVM-06S	180	6/28/2023	12:00 PM	7.7	--	--	0	--
SVM-06D	180	5/9/2023	12:00 PM	6.9	--	--	0	--
SVM-06S	180	5/9/2023	12:00 PM	7.2	--	--	0.3	--
SVM-06D	180	6/20/2023	12:00 PM	11.5	--	--	1.5	--
SVM-06S	180	6/20/2023	12:00 PM	12.9	--	--	0.5	--
SVM-06D	180	6/28/2023	12:00 PM	9	--	--	0	--
SVM-06S	180	6/28/2023	12:00 PM	7.7	--	--	0	--
SVM-6D	180	8/11/2023	12:00 PM	15.9	--	--	0	--
SVM-6S	180	8/11/2023	12:00 PM	15.6	--	--	0	--

Appendix C.2. Soil Vapor Field Monitoring Data

SFPP Norwalk Pump Station, Norwalk, California

Well/ Location	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Oxygen (%)	Carbon Dioxide (%)	Methane (%)	VOC's (ppmv)	Ambient Oxygen (%)
SVM-7D	80	8/11/2023	12:00 PM	20.1	--	--	0	--
SVM-7S	80	8/11/2023	12:00 PM	20.1	--	--	0	--
SVM-10D	-20	8/11/2023	12:00 PM	19.9	--	--	0	--
SVM-3D	10	7/12/2023	12:00 PM	20.8	0	0	0	--
SVM-3S	10	7/12/2023	12:00 PM	20.9	0	0	0	--
SVM-5D	130	7/12/2023	12:00 PM	20.8	0	0	0	--
SVM-6D	180	7/12/2023	12:00 PM	14.3	4.1	0	0	--
SVM-6S	180	7/12/2023	12:00 PM	12.6	5	0	0	--
SVM-7D	80	7/12/2023	12:00 PM	19.8	0.5	0	0	--
SVM-7S	80	7/12/2023	12:00 PM	19.8	0.5	0	0	--
SVM-8D	40	7/12/2023	12:00 PM	19.8	0	0	0	--
SVM-8S	40	7/12/2023	12:00 PM	20.6	0	0	0	--
SVM-16D	-20	7/12/2023	12:00 PM	20.8	0	0	0	--
SVM-16M	-20	7/12/2023	12:00 PM	20.8	0	0	0	--
SVM-16S	-20	7/12/2023	12:00 PM	20.9	0	0	0	--

Appendix C.3. ROI Data

SFPP Norwalk Pump Station, Norwalk, California

						Higher Priority Vacuum Monitoring Locations (Vacuum [in of H2O])																Lower Priority Vacuum Monitoring Locations (Vacuum [in of H2O])												
					Approximate Distance to HSVE-01 (ft) (negative upgradient)	20	20	20	20	20	10	10	25	40	40	40	80	80	90	120	130	130	130	150	160	160	160	180	180	200	230	230	250	250	250	10	
					Monitoring ID	SVM-10D	SVM-10S	SVM-16D	SVM-16M	SVM-16S	SVM-03D	SVM-03S	GMW-O-12	SVM-08D	SVM-08S	GMW-O-21	SVM-07D	SVM-07S	GMW-O-3	GMW-O-20	SVM-05D	SVM-05S	MW-SF-9	GMW-O-5	SVM-02D	SVM-02S	GMW-O-2	SVM-06D	SVM-06S	GMW-O-11	SVM-1D	SVM-1S	SVM-15D	SVM-15M	SVM-15S	GMW-O-14	
Date	Start Time	End Time	HSVE-1 Date and Flow (SCFM)	HSVE-1 Vacuum (in of H2O)	Comment																														HSVE-1 Flow (SCFM)
4/6/2021	11:40	13:40	4/6/21 323	28.30	Left Running Overnight	0	1.3	10.4	6	0	NM	NM	0	2.4	0	NM	0	0	NM	NM	1.4	0	NM	NM	NM	NM	NM	0	0	0	NM	NM	0	0	0	NM	323
4/7/2021	11:40	13:40	4/7/21 323	24.30	50% Flow of Day 2	0.4	NM	10.1	5.8	0	2.5	0	0	2.1	0	1.9	0	0	0	NM	1.3	0	0	0	NM	0	NM	0	0	0	NM	NM	NM	0	0	0	NM	323
4/7/2021	11:40	13:40	4/7/21 512	47.10	75% Flow day 1 left running overnight	1.4	NM	16.1	9.3	0	4.5	0.6	0	2.9	0	4.9	0	0	NM	NM	1.9	0	NM	NM	NM	0	NM	0	0	NM	NM	NM	NM	0	0	0	NM	512
4/8/2021	11:15	13:15	4/8/21 512	48.20	75% flow day 2	1.6	NM	14.5	8.1	0	3.6	0	0	3.5	0	4.5	0	0	0	NM	1.9	0	0	0	NM	0	NM	0	0	0	NM	NM	NM	0	0	0	NM	512
4/8/2021	11:45	13:45	4/8/21 560	55.00	100% flow	1.5	NM	16.6	9.4	0	4.1	0	0	4.2	0.6	4.1	0	0	0.4	0	1.9	0	0	0	NM	0	0.7	0	0	0	NM	NM	NM	0	0	0	NM	560
4/15/2021	11:45	13:45	4/15/21 560	55.00	100%flow	1.3	NM	16.7	9.7	0	4.8	0.7	0	4.6	0.8	4.4	0	0	0.5	0	1.9	0	NM	0.7	NM	0	NM	0.5	0	0	0	0	0	0	0	0	NM	560
4/21/2021	11:15	13:15	4/21/21 560	55.00	100%flow	0.9	NM	11.8	6.7	0	4	0.4	0.1	3.1	0.4	NM	0.3	0.1	0.4	0.3	1.9	0	NM	0	NM	0	0	0.8	0	-0.3	0	0	0.2	0	0	15.1	560
4/28/2021	11:15	13:15	4/28/21 560	55.00	100% flow	1.2	NM	13.1	7.6	0.32	4.2	0.41	0.01	3.41	0.46	0.32	0.14	0.02	0.39	0.25	1.9	NM	NM	-0.3	NM	0	0	0.22	0	0.2	0	0.02	0.18	0	-0.04	NM	560
5/5/2021	11:40	13:40	5/5/21 560	55.00	100% flow	1.57	NM	18	11.2	0.4	6.8	0.65	0	5	0.5	5.2	0.1	0.5	0.59	0.27	1.9	0	NM	0	NM	0	0	0.3	0	0.23	0	0.06	0.25	0	0	NM	560
5/11/2021	11:20	13:40	5/11/21 560	56.00	BS-03 50cfm	1.53	NM	18.9	16.1	0.44	6.01	0.58	0	4.9	0.68	5.43	0.25	0.26	0.62	0.55	1.9	0.22	NM	0	NM	0	0	0.2	0	0.14	0	0	0.45	0	0	NM	560
5/11/2021	14:50	16:30	5/11/21 560	56.00	BS-03 50cfm	1.53	NM	19.06	10.7	0.45	4.18	0.52	0.14	4.8	0.7	5.37	0.42	0.06	0.61	0.44	1.9	0.27	NM	0	NM	0	0	0.14	0	0.14	0	0	0.24	0	0	NM	560
5/12/2021	8:20	22:23	5/12/21 500	56.00	BS-03 50cfm	1.54	NM	18.66	10.99	0.41	6.05	0.64	0.46	4.34	0.71	6.66	0.24	0.05	0.65	0.77	1.9	0.21	NM	0	NM	0	0	0.31	0	0.14	0	0	0.25	0	0	NM	500
5/12/2021	13:15	15:00	5/12/21 500	56.00	BS-03 100cfm	1.51	NM	18.4	10.56	0.4	5.99	0.61	0.02	4.69	0.67	6.94	0.21	0.05	0.62	0.22	1.9	NM	NM	-0.21	NM	0	0	0.25	0.01	0.11	0	0	0.25	0.01	0	23	500
5/13/2021	9:00	12:13	5/13/21 457	54.00	BS-03 100cfm	1.4	NM	16.7	9.83	0.37	3.78	0.46	-12.2	4.4	0.62	4.75	0.14	0	0.6	1.17	1.9	0.19	NM	-0.28	NM	NM	0	0.25	0.33	0.4	0	0	0.28	0	0	19.24	457
5/13/2021	13:09	14:50	5/13/21 457	55.00	BS-03 100cfm	1.41	NM	16.65	9.74	0.35	5.53	0.51	-6.24	4.31	0.6	4.58	0.13	0	0.46	NM	1.9	1.7	NM	-0.34	NM	NM	NM	0	0.18	NM	NM	NM	NM	NM	NM	14.1	457
5/14/2021	11:20	13:30	5/14/21 500	56.00	BS-03 50cfm	1.34	NM	16.61	9.91	0.34	4.55	0.49	NM	4.4	0.59	5.31	0.18	0	8.58	0.58	1.9	0.14	NM	-0.26	NM	0	0	0.17	0	1.26	0	0	0.21	0	0	18.2	500
5/18/2021	9:00	12:50	5/18/21 500	56.00	BS-03 50cfm	1.59	NM	18.76	10.9	0.48	6.32	0.63	0.1	4.97	0.73	7.27	0.25	0.07	0.61	0.57	1.9	0.23	NM	-0.02	NM	0	0	0.27	0	0.1	0	0	0.2	0	0	23.5	500
5/18/2021	13:30	15:30	5/18/21 500	56.00	BS-03 50cfm	1.6	NM	18.91	11.13	0.42	6.53	0.7	0.1	4.99	0.7	6.28	0.24	0.05	0.6	0.58	1.9	0.17	NM	-0.12	NM	0	0	0.26	0	0.11	0	0	0.21	0	0	23.86	500
5/19/2021	9:35	11:55	5/19/21 457	49.00	BS-03 50cfm	1.58	NM	17.8	10.5	0.4	6.12	0.57	0.15	4.75	0.67	5.38	0.3	0.1	0.6	0.8	1.9	0.22	NM	-0.19	NM	NM	NM	0.31	0.06	NM	NM	NM	NM	NM	NM	21.7	457
5/19/2021	13:40	16:05	5/19/21 470	49.00	BS-03 100cfm	1.5	NM	17.6	10.4	0.5	6.3	0.66	-0.66-0	4.78	0.75	5.98	0.27	0.12	0.76	0.7	1.9	0.3	NM	0	NM	NM	NM	0.34	0.08	NM	NM	NM	NM	NM	NM	22	470
5/20/2021	10:20	11:35	5/20/21 500	56.00	BS-03 100cfm	1.43	NM	17.01	9.9	0.41	5.7	0.5	-10.7	4.37	0.65	5.29	0.17	0.06	0.52	0.28	1.9	0.21	NM	-0.15	NM	NM	NM	0.26	0	0.11	NM	NM	0.28	0	0	21.83	500
5/26/2021	11:02	14:01	5/26/21 460	54.00	BS-03 150cfm	1.48	NM	18.16	10.39	0.37	0.1	0.03	-13	4.46	0.66	NM	0.07	0	0.61	NM	1.9	NM	NM	NM	NM	NM	NM	0.18	0	NM	NM	NM	NM	NM	NM	NM	460
5/27/2021	7:48	11:20	5/27/21 600	54.00	BS-03 200cfm	1.32	NM	16.33	9.28	0.33	5.66	0.51	-19.4	3.78	0.4	3.42	-0.03	0	0.49	-0.97	1.9	0.19	NM	-0.21	NM	NM	0	0	0	0.03	NM	NM	0.17	0	0	20.52	600
5/28/2021	10:15	11:35	5/28/21 510	53.50	BS-03 100cfm turned down because of elevated VOCs in GMW-O-12, field sheets contained additional vacuum readings from well head and manifold.	NM	NM	NM	NM	NM	NM	NM	27.2	NM	NM	NM	NM	NM	NM	NM	1.9	NM	NM	54.1	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	510
6/1/2021	12:40	14:45	6/1/21 600	56.00	BS-03 restarted at 100cfm at 12:00pm after compressor service.	1.41	NM	12.57	7.04	0.27	4.2	0.44	53.4	3.14	0.42	4.48	0.12	0.03	0.51	NM	1.9	0.13	NM	-0.18	NM	NM	NM	0	0.14	0.21	NM	NM	0.24	0.04	0.04	14.22	600
6/10/2021	10:35	12:58	6/10/21 600	56.00	Variable vacuum for GMW-O-11, and vacuum was -0.1 to -0.25. Packer in well GMW-O-20, well vault VOC 9.0 ppm.	1.13	NM	10.9	6.04	0.1	4.11	0.41	54.5	4.1	0.38	NM	0.01	0	NM	NM	1.9	0.12	NM	NM	NM	NM	NM	-0.02	0	0.1	NM	NM	0.15	0	0	NM	600
6/10/2021	15:09	17:09	6/10/21 600	55.00	No end time for HSVE-1 on this field form. Vacuum continues to fluctuate on GMW-O-11. Packer installed, well vault VOC: 9.1ppmv for GMW-O-20 temporarily with well cap off. Vacuum was 0.05 to 0.51 for GMW-O-11.	0.95	NM	11.1	6.21	0.14	4.21	0.42	54	4.12	0.4	NM	0.02	0	0	NM	1.9	0.12	NM	0	NM	NM	NM	0.02	0	0.51	NM	NM	0.33	0.03	0	18.1	600
6/11/2021	7:55	10:28	6/11/21 600	56.00	No Access Vehicle parked on SVM-16D,M,S. Packered well for GMW-O-12. Additional vacuum readings for GMW-O-14 and GMW-O-11.	0.85	NM	NM	NM	NM	2.75	0.34	NM	2.27	0.33	1.14	-0.1	-0.02	0.29	-1.35	1.9	0.29	NM	-0.65	NM	NM	NM	-0.04	0	0.2	NM	NM	0.15	0	0	2.3	600
6/22/2021	7:55	9:55	6/22/21 600	56.00	No end time for HSVE-1. Bumped BS-03 to 250 @ 10:58. Positive pressure no VOCs in vault for GMW-o-5. Checked packer sitting in good condition for GMW-0-12. Preumatic packer damamge for GMW-o-20, replaced with mechanical packer.	1.4	NM	12.68	7.04	0.27	4.04	0.43	NM	3.15	0.44	4.41	0.1	0.02	0.43	NM	1.9	0.11	NM	-0.6	NM	NM	NM	0.2	0.02	0.11	NM	NM	0.23	0.32	0.08	11.86	600
6/25/2021	8:45	11:02	6/25/21 550	55.10	Inside vaults = 0ppm VOC.	-0.94	NM	11.45	6.44	0.25	3.17	0.31	NM	2.67	0.38	NM	-0.01	0	0.34	NM	1.9	0.11	NM	-0.73	NM	NM	NM	-0.01	-0.01	0.12	NM	NM	0.19	0.01	0.15	7.03	550
6/28/2021	11:00	13:50	6/28/21 600	56.00	Vault VOCs = 0.0 for GMW-O-12 and GMW-O-20, Packers installed Vacuum for GMW-O-11 was between 0.3 and 0.21.	0.88	NM	11.47	6.51	0.24	3.11	0.21	NM	2.71	0.41	4.21	0.02	0.02	0.41	NM	1.9	0.1	NM	-0.64	NM	NM	NM	0.06	0.01	0.3	NM	NM	0.18	0.01	0.06	NM	600

Appendix C.3. ROI Data

SFPP Norwalk Pump Station, Norwalk, California

						Higher Priority Vacuum Monitoring Locations (Vacuum [in of H2O])																		Lower Priority Vacuum Monitoring Locations (Vacuum [in of H2O])												
					Approximate Distance to HSVE-01 (ft) (negative upgradient)	20	20	20	20	20	10	10	25	40	40	40	80	80	90	120	130	130	130	150	160	160	160	180	180	200	230	230	250	250	250	10	
					Monitoring ID	SVM-10D	SVM-10S	SVM-16D	SVM-16M	SVM-16S	SVM-03D	SVM-03S	GMW-O-12	SVM-08D	SVM-08S	GMW-O-21	SVM-07D	SVM-07S	GMW-O-3	GMW-O-20	SVM-05D	SVM-05S	MW-SF-9	GMW-O-5	SVM-02D	SVM-02S	GMW-O-2	SVM-06D	SVM-06S	GMW-O-11	SVM-1D	SVM-1S	SVM-15D	SVM-15M	SVM-15S	GMW-O-14	
Date	**Start Time**	**End Time**	**HSVE-1 Date and Flow (SCFM)**	**HSVE-1 Vacuum (in of H2O)**	**Comment**																														**HSVE-1 Flow (SCFM)**
7/23/2021	8:00	8:51	7/23/21 600	56.00	Bumped BS-03 flow to 250scfm @ 10:05am; Bumped BS02 flow to 175cfm @ 10:05am; monitoring was limited to locations sensitive to vac/pressure. BS-03 was operating at 130cfm after the AS shutdown.	1.37	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.13	0.03	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.21	0.02	NM	NM	NM	NM	NM	NM	NM	600
8/6/2021	9:25	10:25	8/6/21 555	56.45	BS-03 275 scfm	1.03	NM	11.68	5.88	0.25	NM	NM	NM	NM	NM	NM	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.05	0	NM	NM	NM	0.28	0	0	NM	555
8/31/2021	7:45	10:45	8/31/21 500	51.50	BS-03 200 scfm	1.34	NM	14.8	8.6	0.3	3.48	0.48	NM	3.75	0.54	NM	0.05	0	NM	NM	1.1	0.24	NM	NM	NM	NM	NM	0.12	0	NM	NM	NM	0.26	0.16	0	NM	500
9/1/2021	7:45	9:49	9/1/21 450	51.50	BS-03 250 scfm	1.23	NM	14.31	8.32	0.32	3.1	0.39	NM	3.54	0.53	NM	0.01	0	NM	NM	1.57	0.16	NM	NM	NM	NM	NM	0.07	0	NM	NM	NM	0.32	0.18	0	NM	450
9/9/2021	9:05	12:45	9/9/21 500	51.50	BS-03 150 scfm; Increased BS-03 to 250scfm. Increased BS-02 to 180scfm at 13:50.	1.5	NM	15.1	9.32	1	3.45	0.42	NM	4.11	0.63	NM	0.04	0.01	NM	NM	1.71	0.22	NM	NM	NM	NM	NM	0.05	0.01	NM	NM	NM	0.21	0.07	0.01	NM	500
9/16/2021	11:00	12:22	9/16/21 550	53.50	BS-03 Flow recovering from 250-300 scfm. Avg. 225 scfm	0.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-0.17	-0.03	NM	NM	NM	NM	NM	NM	NM	NM	-0.2	-0.03	NM	NM	NM	0.15	0.02	0	NM	550
9/21/2021	13:45	14:55	9/21/21 500	54.50	Variable HSVE-01 flow (100-200; 450-500)	1.32	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0	0	NM	NM	NM	NM	NM	NM	NM	NM	0	0	NM	NM	NM	NM	NM	NM	NM	500
9/30/2021	16:30	16:45	9/30/21 400	52.00	400 scfm average flow (varied from 160-530 scfm)	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.05	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	400
10/1/2021	8:55	16:30	10/1/21 400	52.50		-0.82	NM	-10	-5.72	-0.21	-2.54	-0.29	0	-2.42	-0.35	-0.53	-0.01	-0.01	-0.27	0	-0.95	-0.1	NM	0.68	NM	NM	NM	-0.03	-0.01	0	NM	NM	-0.19	-0.17	-0.01	NM	400
10/7/2021	11:05		10/7/21 460	52.24		-0.88	NM	NM	NM	NM	-2.52	-0.21	NM	NM	NM	NM	-0.04	-0.02	NM	NM	NM	NM	NM	NM	NM	NM	NM	-0.01	-0.01	NM	NM	NM	-0.25	-0.01	0	NM	460
10/14/2021	8:03	8:05	10/14/21 328	50.50		-0.88	NM	-14.9	-8.66	-0.29	-2.52	-0.21	NM	-3.68	-0.51	-0.53	-0.04	-0.02	-0.44	NM	-1.5	-0.14	NM	0.74	NM	NM	NM	-0.01	-0.01	NM	NM	NM	-0.25	-0.01	0	NM	328
10/19/2021	9:15	14:25	10/19/21 395	49.93		-3.3	NM	NM	NM	NM	NM	NM	NM	-3.9	0	1.2	0	0	-0.6	NM	NM	NM	NM	NM	NM	NM	0	0	0	0	NM	NM	0	0	0	NM	395
11/10/2021	12:05		11/10/21 430	52.40		-0.9	NM	-16.5	-9.5	-0.5	-5.6	-0.5	NM	-3.9	-0.4	NM	0	0	-0.4	NM	-1.6	0	NM	NM	NM	NM	NM	0	0	NM	NM	NM	0	0	0	NM	430
11/15/2021	14:07		11/15/21 400	53.32		-1.24	NM	-14.1	-8.21	NM	-4.57	-0.45	NM	-3.5	-0.46	NM	0	0.01	-0.43	NM	-1.48	-0.14	NM	-0.49	NM	NM	-0.3	-0.03	0.1	NM	NM	NM	-0.04	0.01	0	NM	400
12/2/2021	14:01		12/2/21 450	53.30		-0.88	NM	-14.9	-8.66	-0.29	-2.52	-0.21	NM	-3.68	-0.51	-0.53	-0.04	-0.02	-0.44	NM	-1.5	-0.14	NM	0.74	NM	NM	0	-0.01	-0.01	0	NM	NM	-0.25	-0.01	0	NM	450
12/9/2021	9:00	11:52	12/9/21 395	51.60		-1.2	NM	-15.6	-9	0	-4.5	0	0	-3.8	0	NM	0	0	NM	0	-1.4	0	NM	NM	NM	NM	NM	0	0	0	NM	NM	0	0	0	NM	395
12/15/2021	13:30		12/15/21 400	53.10		-1.3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0	-0.5	NM	NM	NM	NM	NM	NM	NM	NM	NM	0	0	NM	-1.3	NM	0	0	0	NM	400
12/17/2021	14:30	15:51	12/17/21 450	49.30		-1.3	NM	NM	NM	NM	-5.1	-2.8	NM	0.9	-0.8	NM	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	0	0	NM	NM	NM	0	0	0	NM	450
12/23/2021	7:45	9:34	12/23/21 360	55.00		-1.2	NM	-14	-8.15	-0.32	-4.77	-0.61	NM	-3.6	-0.57	NM	0	0	NM	NM	-1.5	-0.17	NM	NM	NM	NM	NM	-0.07	0	NM	NM	NM	-0.13	-0.05	-0.03	NM	360
12/30/2021	7:55	9:33	12/30/21 400	56.00		-1.4	NM	-14.3	-8.33	-0.51	-3.52	-0.49	NM	-3.73	-0.61	NM	0	0	NM	NM	-1.61	-0.2	NM	NM	NM	NM	NM	-0.1	0	NM	NM	NM	-0.15	-0.07	-0.04	NM	400
1/6/2022	11:48	12:52	1/6/22 361	52.00	BS-03 system off	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-0.5	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	-0.5	0	NM	NM	NM	0	0	0	NM	361
1/13/2022	10:30	11:35	1/13/22 625	55.40	BS-02/BS-03 systems off	-1.7	NM	-15.6	-9.49	-0.61	-4.45	-0.53	NM	-3.81	-0.77	NM	-0.25	-0.08	NM	NM	-1.7	-0.24	NM	NM	NM	NM	NM	0	-0.01	NM	NM	NM	-0.1	-0.01	0	NM	625
2/24/2022	9:20	11:20	2/24/22 450	56.00	BS-02 system off	-1.4	NM	-15.5	-9.2	-0.7	NM	NM	NM	-4.5	-0.9	NM	-0.01	-0.01	NM	NM	-1.7	-0.25	NM	NM	NM	NM	NM	0	0.15	NM	NM	NM	-0.01	0	0	NM	450
3/1/2022	13:50		3/1/22 450	52.70		-1.3	NM	-17.1	-10.1	-0.5	NM	NM	NM	-4.7	-0.7	NM	-0.1	-0.05	NM	NM	NM	NM	NM	NM	NM	NM	NM	-0.05	-0.2	NM	NM	NM	-0.1	0	0	NM	459
3/3/2022	10:30		3/3/22 459	54.00		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-0.03	-0.3	NM	NM	NM	NM	NM	NM	NM	457
3/8/2022	9:05		3/8/22 457	52.10		0.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.02	0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.06	-0.2	NM	NM	NM	-0.05	0.3	0	NM	361
3/24/2022	8:55		3/24/22 361	56.00		-0.99	NM	-16.7	-11.1	-0.6	NM	NM	NM	-4.9	-0.9	NM	-0.01	-0.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	-0.1	0	NM	NM	NM	-0.1	-0.04	0	NM	610
4/7/2022	9:50	11:20	4/7/22 610	55.00		-1.24	NM	-14.4	-8.65	-0.31	-5.53	-0.63	NM	-4.07	-0.7	NM	0.5	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	0	0.5	NM	NM	NM	-0.13	-0.17	0.06	NM	457
4/28/2022	9:00	10:29	4/28/22 457	52.50		-0.8	NM	-9.68	-5.71	-0.19	-3.52	-0.32	NM	-2.66	-0.42	NM	0	0.34	-0.29	NM	0	0.6	NM	0.43	NM	NM	NM	-0.29	0	NM	NM	NM	-0.27	0	-0.3	NM	323
5/4/2022	13:15	14:10	5/4/22 323	53.40		-1.3	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.5	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	-1.1	0	NM	NM	NM	-0.4	-0.01	0	NM	457
5/11/2022	9:55	11:36	5/11/22 457	53.60		-1.42	NM	NM	-9.58	-0.42	-6	-0.6	NM	-4.45	-0.73	NM	-0.01	-0.01	NM	NM	-1.84	-0.22	NM	NM	NM	NM	NM	-0.34	0	NM	NM	NM	-0.18	-0.01	0	NM	1100
5/25/2022	12:10	14:18	5/25/22 1100	56.60		-0.97	NM	-11.1	-6.52	-0.27	-3.9	-0.34	NM	-2.82	-0.32	NM	0.08	0	NM	NM	-0.94	0	NM	NM	NM	NM	NM	0	0.11	NM	NM	NM	-0.06	-6.52	0	NM	395
6/9/2022	9:11		6/9/22 395	56.00		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-0.07	-0.05	NM	NM	NM	NM	NM	NM	NM	650
6/15/2022	9:30		6/15/22 650	52.50		-1.46	NM	-14.4	-8.53	-0.37	NM	NM	NM	-3.89	-0.63	NM	0.02	0	NM	NM	-1.55	-0.19	NM	NM	NM	NM	NM	0.04	-0.37	NM	NM	NM	NM	NM	NM	NM	395
6/30/2022	10:05		6/30/22 395	56.00		-1.2	NM	-12.8	-7.66	-0.33	-4.66	-0.48	NM	-3.53	-0.59	NM	-0.04	-0.01	NM	NM	-1.34	-0.17	NM	NM	NM	NM	NM	-0.04	0	NM	NM	NM	NM	NM	NM	NM	427
7/21/2022	8:40	9:15	7/21/22 427	54.50		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	-0.07	-0.07	NM	NM	NM	NM	NM	NM	NM	430
8/5/2022	9:05	10:45	8/5/22 430	53.70		-1.13	NM	-12.7	-7.49	-0.3	-4.42	-0.45	NM	-3.33	-0.53	NM	NM	-0.05	NM	NM	-1.3	-0.15	NM	NM	NM	NM	NM	-0.13	-0.23	NM	NM	NM	NM	NM	NM	NM	427
8/16/2022	9:05	11:11	8/16/22 427	54.90		-1.14	NM	-12.7	-7.48	-0.29	-4.47	-0.44	NM	-3.37	-0.52	NM	0.1	0.02	NM	NM	-1.32	-0.14	NM	NM	NM	NM	NM	0.1	-0.27	NM	NM	NM	NM	NM	NM	NM	457
9/23/2022	8:59	9:25	9/23/22 528	55.00		NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-0.01	-0.29	NM	NM	NM	NM	NM	NM	NM	528
10/4/2022	9:25	9:58	10/4/22 395	53.00		-0.99	NM	-11.5	-6.86	-0.3	-4.28	NM	NM	-3.13	-0.5	NM	0.25	0	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.41	0	NM	NM	NM	NM	NM	NM	NM	395
Average						0.1	1.3	3.0	1.6	0.0	0.9	0.1	4.8	0.6	0.0	4.0	0.1	0.0	0.5	0.3	0.6	0.1	0.0	1.6	NM	0.0	0.0	0.0	0.0	0.1	-0.1	0.0	0.1	-0.1	0.0	17.3	485.30667

Appendix C.4. Startup GWE Data

SFPP Norwalk Pump Station, Norwalk, California

				Manual Measurements		Sheen/Odor	Field Calculations	PID
Well	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Depth to Water (ft. BTOC)	Depth to Product (ft. BTOC)	Yes/No	Apparent Product Thickness (ft)	VOC's (ppm)
GMW-O-11	200	4/6/2021	14:00	32	31.9	y	0.1	0.5
GMW-O-12	25	4/6/2021	14:15	31.19	32.02	y	1	36.4
GMW-O-20	120	4/6/2021	14:10	31.78	n/a	n	0	n/a
GMW-O-11	200	4/7/2021	9:34	32.1	32	y	0.1	1.1
GMW-O-12	25	4/7/2021	9:40	32.25	31.87	y	<1.0	6.3
GMW-O-20	120	4/7/2021	9:43	31.78	n/a	n	0	n/a
GMW-O-3	-90	4/7/2021	10:45	31.35	n/a	n	0	9.3
GMW-O-5	-150	4/7/2021	10:56	31.42	n/a	n	0	0.3
MW-SF-9	130	4/7/2021	11:05	n/a	n/a	n/a	n/a	n/a
GMW-O-11	200	4/7/2021	14:36	32.05	n/a	y	0.1	n/a
GMW-O-12	25	4/7/2021	14:20	31.28	31.97	y	<1.0	n/a
GMW-O-20	120	4/7/2021	14:32	31.85	n/a	n	0	n/a
GMW-O-3	-90	4/7/2021	14:47	31.37	n/a	n	0	n/a
GMW-O-5	-150	4/7/2021	14:55	31.38	n/a	n	0	n/a
MW-SF-9	130	4/7/2021	15:05	n/a	n/a	n/a	n/a	n/a
GMW-O-11	200	4/8/2021	14:00	32.05	n/a	n	n/a	0.5
GMW-O-12	25	4/8/2021	14:38	31.28	31.95	y	0.71	7.4
GMW-O-20	120	4/8/2021	14:20	31.85	n/a	n	0	n/a
GMW-O-3	-90	4/8/2021	14:12	31.37	n/a	n	0	0.9
GMW-O-5	-150	4/8/2021	12:50	31.38	n/a	n	0	4.9
GMW-O-11	200	4/15/2021	11:15	32.1	n/a	n	n/a	0
GMW-O-12	25	4/15/2021	11:30	32.04	n/a	n	n/a	0.8
GMW-O-2	160	4/15/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-20	120	4/15/2021	11:25	31.95	n/a	n	0	0
GMW-O-21	40	4/15/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-3	-90	4/15/2021	9:40	31.9	n/a	y	0	0
GMW-O-5	-150	4/15/2021	9:20	31.56	n/a	n	n/a	0
MW-SF-9	130	4/15/2021	12:05	32.53	n/a	n	0	n/a
GMW-O-11	200	4/21/2021	12:10	31.95	n/a	n	n/a	0.1
GMW-O-12	25	4/21/2021	12:33	31.63	n/a	n	n/a	0.1
GMW-O-2	160	4/21/2021	12:26	31.07	n/a	n	n/a	0.9

Appendix C.4. Startup GWE Data

SFPP Norwalk Pump Station, Norwalk, California

				Manual Measurements		Sheen/Odor	Field Calculations	PID
Well	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Depth to Water (ft. BTOC)	Depth to Product (ft. BTOC)	Yes/No	Apparent Product Thickness (ft)	VOC's (ppm)
GMW-O-20	120	4/21/2021	12:18	31.65	n/a	n	n/a	0
GMW-O-21	40	4/21/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-3	-90	4/21/2021	10:00	31.5	n/a	n	0	0.3
GMW-O-5	-150	4/21/2021	9:45	31.5	n/a	n	0	0
MW-SF-9	130	4/21/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-11	200	4/28/2021	12:40	n/a	NA	N	NA	1.2
GMW-O-12	25	4/28/2021	n/a	n/a	n/a	n/a	n/a	2.5
GMW-O-2	160	4/28/2021	11:59	31.66	n/a	n	NA	0.9
GMW-O-20	120	4/28/2021	n/a	n/a	n/a	n/a	n/a	0.8
GMW-O-21	40	4/28/2021	n/a	n/a	n/a	n/a	n/a	0.2
GMW-O-3	-90	4/28/2021	n/a	n/a	n/a	n/a	n/a	0.4
GMW-O-5	-150	4/28/2021	n/a	n/a	n/a	n/a	n/a	0
GMW-O-11	200	5/5/2021	13:40	31.9	n/a	n/a	n/a	3.8
GMW-O-12	25	5/5/2021	13:50	31.06	n/a	n/a	n/a	3.9
GMW-O-2	160	5/5/2021	13:01	31.69	n/a	n/a	n/a	0
GMW-O-20	120	5/5/2021	13:45	31.37	n/a	n/a	n/a	0.9
GMW-O-21	40	5/5/2021	14:43	31.13	n/a	n/a	n/a	0.9
GMW-O-3	-90	5/5/2021	14:06	31.3	n/a	n/a	n/a	1.5
GMW-O-5	-150	5/5/2021	15:00	31.22	n/a	n/a	n/a	0.5
MW-SF-9	130	5/5/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-14	n/a	5/5/2021	n/a	23.9	n/a	n/a	n/a	n/a
GMW-O-11	200	5/11/2021	12:40	30.85	n/a	n/a	0	0.3
GMW-O-12	25	5/11/2021	12:55	28.47	n/a	n/a	0	0.1
GMW-O-2	160	5/11/2021	11:35	31.35	n/a	n/a	0	0.1
GMW-O-20	120	5/11/2021	12:48	29.52	n/a	n/a	0	0.3
GMW-O-21	40	5/11/2021	13:28	29.05	n/a	n/a	0	0
GMW-O-3	-90	5/11/2021	11:50	29.45	n/a	n/a	0	0.2
GMW-O-5	-150	5/11/2021	13:40	29.09	n/a	n/a	0	n/a
GMW-O-11	200	5/11/2021	15:30	30.79	n/a	n/a	0	0
GMW-O-12	25	5/11/2021	15:43	29.74	n/a	n/a	0	0.1
GMW-O-2	160	5/11/2021	15:03	31.03	n/a	n/a	0	0.1

Appendix C.4. Startup GWE Data

SFPP Norwalk Pump Station, Norwalk, California

				Manual Measurements		Sheen/Odor	Field Calculations	PID
Well	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Depth to Water (ft. BTOC)	Depth to Product (ft. BTOC)	Yes/No	Apparent Product Thickness (ft)	VOC's (ppm)
GMW-O-20	120	5/11/2021	15:37	30.03	n/a	n/a	0	0.1
GMW-O-21	40	5/11/2021	16:09	30.04	n/a	n/a	0	0
GMW-O-3	-90	5/11/2021	15:08	29.53	n/a	n/a	0	0.2
GMW-O-5	-150	5/11/2021	16:27	29.5	n/a	n/a	0	0
GMW-O-11	200	5/12/2021	14:40	30.35	n/a	n/a	0	0
GMW-O-12	25	5/12/2021	14:50	27.65	n/a	n/a	0	0.2
GMW-O-2	160	5/12/2021	13:32	31.25	n/a	n/a	0	0.2
GMW-O-20	120	5/12/2021	14:45	28.74	n/a	n/a	0	0.1
GMW-O-21	40	5/12/2021	14:16	27.54	n/a	n/a	0	0
GMW-O-3	-90	5/12/2021	13:38	28.65	n/a	n/a	0	1
GMW-O-5	-150	5/12/2021	13:46	28.82	n/a	n/a	0	n/a
GMW-O-11	200	5/12/2021	9:43	30.69	n/a	n/a	0	0.3
GMW-O-12	25	5/12/2021	10:00	32.09	n/a	n/a	0	8.1
GMW-O-2	160	5/12/2021	8:45	31.55	n/a	n/a	0	0.2
GMW-O-20	120	5/12/2021	9:48	31.5	n/a	n/a	0	0.5
GMW-O-21	40	5/12/2021	10:48	31.75	n/a	n/a	0	0.7
GMW-O-3	-90	5/12/2021	9:00	30.82	n/a	n/a	0	1.2
GMW-O-5	-150	5/12/2021	11:15	29.55	n/a	n/a	0	0.1
GMW-O-11	200	5/13/2021	11:30	30.38	n/a	n/a	n/a	0.6
GMW-O-12	25	5/13/2021	11:45	29.75	n/a	n/a	n/a	5000
GMW-O-2	160	5/13/2021	9:41	30.87	n/a	n/a	n/a	0.4
GMW-O-20	120	5/13/2021	11:37	29.73	n/a	n/a	n/a	0.3
GMW-O-21	40	5/13/2021	10:59	29.66	n/a	n/a	n/a	0..9
GMW-O-3	-90	5/13/2021	9:56	29.05	n/a	n/a	n/a	1.1
GMW-O-5	-150	5/13/2021	10:05	29.33	n/a	n/a	n/a	0.7
GMW-O-14	n/a	5/13/2021	10:18	28.7	n/a	n/a	n/a	3.2
GMW-O-11	200	5/13/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-12	25	5/13/2021	14:37	n/a	n/a	n/a	n/a	5000
GMW-O-2	160	5/13/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-20	120	5/13/2021	13:31	29.87	n/a	n/a	n/a	n/a
GMW-O-21	40	5/13/2021	14:22	29.83	n/a	n/a	n/a	2.4

Appendix C.4. Startup GWE Data

SFPP Norwalk Pump Station, Norwalk, California

				Manual Measurements		Sheen/Odor	Field Calculations	PID
Well	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Depth to Water (ft. BTOC)	Depth to Product (ft. BTOC)	Yes/No	Apparent Product Thickness (ft)	VOC's (ppm)
GMW-O-3	-90	5/13/2021	13:38	29.28	n/a	n/a	n/a	5.2
GMW-O-5	-150	5/13/2021	13:45	29.5	n/a	n/a	n/a	n/a
GMW-O-14	n/a	5/13/2021	13:57	28.75	n/a	n/a	n/a	4.9
GMW-O-11	200	5/18/2021	12:02	31.55	n/a	n	n/a	0.7
GMW-O-12	25	5/18/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-2	160	5/18/2021	12:30	31.4	n/a	n	n/a	0
GMW-O-20	120	5/18/2021	12:10	31.11	n/a	n	n/a	0.6
GMW-O-21	40	5/18/2021	11:04	30.4	n/a	n	n/a	0.3
GMW-O-3	-90	5/18/2021	12:20	31.71	n/a	n	n/a	0
GMW-O-5	-150	5/18/2021	10:11	31.3	n/a	n	n/a	0.8
GMW-O-11	200	5/18/2021	14:50	31.52	n/a	n	n/a	0.1
GMW-O-12	25	5/18/2021	15:05	31.52	n/a	n	n/a	3.6
GMW-O-2	160	5/18/2021	15:19	31.41	n/a	n	n/a	0
GMW-O-20	120	5/18/2021	14:55	30.46	n/a	n	n/a	0.2
GMW-O-21	40	5/18/2021	14:20	30.85	n/a	n	n/a	0.2
GMW-O-3	-90	5/18/2021	15:12	31.88	n/a	n	n/a	0
GMW-O-5	-150	5/18/2021	13:30	31.31	n/a	n	n/a	0.7
GMW-O-11	200	5/14/2021	12:34	31.97	n/a	n	n/a	0.1
GMW-O-12	25	5/14/2021	12:50	n/a	n/a	n	n/a	0
GMW-O-2	160	5/14/2021	11:48	31.69	n/a	n	n/a	5000
GMW-O-20	120	5/14/2021	12:42	31.95	n/a	n	n/a	0
GMW-O-21	40	5/14/2021	13:11	30.15	n/a	n	n/a	2.3
GMW-O-3	-90	5/14/2021	11:57	31.36	n/a	n	n/a	0
GMW-O-5	-150	5/14/2021	13:28	30.11	n/a	n	n/a	0
GMW-O-11	200	5/19/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-12	25	5/19/2021	11:55	31.91	n/a	n/a	n/a	11
GMW-O-2	160	5/19/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-20	120	5/19/2021	11:45	31.36	n/a	n/a	n/a	0.4
GMW-O-21	40	5/19/2021	11:09	31.71	n/a	n/a	n/a	0.7
GMW-O-3	-90	5/19/2021	9:50	30.83	n/a	n/a	n/a	5.4
GMW-O-5	-150	5/19/2021	10:02	31.18	n/a	n/a	n/a	0.2

Appendix C.4. Startup GWE Data

SFPP Norwalk Pump Station, Norwalk, California

				Manual Measurements		Sheen/Odor	Field Calculations	PID
Well	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Depth to Water (ft. BTOC)	Depth to Product (ft. BTOC)	Yes/No	Apparent Product Thickness (ft)	VOC's (ppm)
GMW-O-11	200	5/19/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-12	25	5/19/2021	16:05	29.58	n/a	n/a	n/a	n/a
GMW-O-2	160	5/19/2021	n/a	n/a	n/a	n/a	n/a	17.4
GMW-O-20	120	5/19/2021	15:50	29.49	n/a	n/a	n/a	0.4
GMW-O-21	40	5/19/2021	14:47	29.05	n/a	n/a	n/a	0.1
GMW-O-3	-90	5/19/2021	13:40	29.71	n/a	n/a	n/a	1.3
GMW-O-5	-150	5/19/2021	13:48	30.59	n/a	n/a	n/a	0.3
GMW-O-11	200	5/20/2021	11:25	30.49	n/a	n/a	n/a	0.3
GMW-O-12	25	5/20/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-2	160	5/20/2021	n/a	n/a	n/a	n/a	n/a	n/a
GMW-O-20	120	5/20/2021	11:38	29.92	n/a	n/a	n/a	0.3
GMW-O-21	40	5/20/2021	11:06	29.93	n/a	n/a	n/a	0.3
GMW-O-3	-90	5/20/2021	10:47	29.98	n/a	n/a	n/a	0.3
GMW-O-5	-150	5/20/2021	10:38	30.65	n/a	n/a	n/a	0.1
GMW-O-2	160	5/25/2021	9:48	31.05	n/a	n/a	n/a	n/a
GMW-O-3	-90	5/25/2021	9:45	29.36	n/a	n/a	n/a	n/a
GMW-O-11	200	5/25/2021	9:28	30.95	n/a	n/a	n/a	n/a
GMW-O-12	25	5/25/2021	9:40	31.34	n/a	n/a	n/a	n/a
GMW-O-20	120	5/25/2021	9:32	29.89	n/a	n/a	n/a	n/a
GMW-O-21	40	5/25/2021	10:12	29.11	n/a	n/a	n/a	n/a
GMW-O-2	160	5/25/2021	14:39	31.11	n/a	n/a	n/a	n/a
GMW-O-3	-90	5/25/2021	14:29	29.74	n/a	n/a	n/a	n/a
GMW-O-5	-150	5/25/2021	13:10	32.94	n/a	n/a	n/a	n/a
GMW-O-11	200	5/25/2021	13:56	31.15	n/a	n/a	n/a	n/a
GMW-O-12	25	5/25/2021	14:20	31.44	n/a	n/a	n/a	n/a
GMW-O-20	120	5/25/2021	14:06	30.15	n/a	n/a	n/a	n/a
GMW-O-21	40	5/25/2021	13:31	30.85	n/a	n/a	n/a	n/a
GMW-O-3	-90	5/26/2021	13:05	29.69	n/a	n/a	n/a	0
GMW-O-2	160	5/27/2021	9:45	30.81	n/a	n/a	n/a	0
GMW-O-3	-90	5/27/2021	9:48	28.95	n/a	n/a	n/a	0
GMW-O-5	-150	5/27/2021	9:55	30.05	n/a	n/a	n/a	0

Appendix C.4. Startup GWE Data

SFPP Norwalk Pump Station, Norwalk, California

				Manual Measurements		Sheen/Odor	Field Calculations	PID
Well	Approximate Distance to HSVE-01 (ft) (negative upgradient)	Date	Time	Depth to Water (ft. BTOC)	Depth to Product (ft. BTOC)	Yes/No	Apparent Product Thickness (ft)	VOC's (ppm)
GMW-O-11	200	5/27/2021	10:59	29.98	n/a	n/a	n/a	0
GMW-O-12	25	5/27/2021	11:10	n/a	n/a	n/a	n/a	535
GMW-O-14	10	5/27/2021	10:01	n/a	n/a	n/a	n/a	0
GMW-O-20	120	5/27/2021	11:04	n/a	n/a	n/a	n/a	405
GMW-O-21	40	5/27/2021	10:30	28.74	n/a	n/a	n/a	0
GMW-O-3	-90	6/1/2021	13:39	30.44	n/a	n/a	n/a	n/a
GMW-O-5	-150	6/1/2021	12:43	31.15	n/a	n/a	n/a	n/a
GMW-O-11	200	6/1/2021	14:15	30.25	n/a	n/a	n/a	n/a
GMW-O-12	25	6/1/2021	13:38	37.75	n/a	n/a	n/a	n/a
GMW-O-14	10	6/1/2021	12:52	n/a	n/a	n/a	n/a	n/a
GMW-O-20	120	6/1/2021	14:22	30.17	n/a	n/a	n/a	n/a
GMW-O-21	40	6/1/2021	13:33	30.66	n/a	n/a	n/a	n/a
GMW-O-11	200	6/10/2021	11:15	30.72	n/a	n/a	n/a	n/a
GMW-O-12	25	6/10/2021	11:25	28	n/a	n/a	n/a	n/a
GMW-O-11	200	6/10/2021	14:27	30.63	n/a	n/a	n/a	n/a
GMW-O-12	25	6/10/2021	14:37	27.95	n/a	n/a	n/a	n/a
GMW-O-3	-90	6/11/2021	10:18	28.03	n/a	n/a	n/a	n/a
GMW-O-5	-150	6/11/2021	10:10	29.23	n/a	n/a	n/a	n/a
GMW-O-11	200	6/11/2021	9:04	30.25	n/a	n/a	n/a	n/a
GMW-O-20	120	6/11/2021	9:10	28.61	n/a	n/a	n/a	n/a
GMW-O-21	40	6/11/2021	9:50	28.45	n/a	n/a	n/a	n/a
GMW-O-3	-90	6/22/2021	10:20	30.49	n/a	n/a	n/a	n/a
GMW-O-5	-150	6/22/2021	10:08	30.36	n/a	n/a	n/a	n/a
GMW-O-21	40	6/22/2021	9:45	31.34	n/a	n/a	n/a	n/a
GMW-O-3	-90	6/28/2021	13:08	30.55	n/a	n/a	n/a	n/a
GMW-O-5	-150	6/28/2021	13:30	30.45	n/a	n/a	n/a	n/a
GMW-O-11	200	6/28/2021	12:30	30.59	n/a	n/a	n/a	n/a
GMW-O-21	40	6/28/2021	12:59	30.91	n/a	n/a	n/a	n/a

Appendix C.5. HSVE-01 Cumulative Mass Removed

SFPP Norwalk Pump Station, Norwalk, California

	Operational Data						VOC Mass Removal				O2 Calculations					
Date	SVE Influent Max of CO2 (%)	SVE Influent Max of O2 (%)	SVE Influent Max of VOCs (ppmv)	Max of SVE Influent Flow (scfm)	Operational Efficency	Corrected SVE Flow (scfm)	Removal Rate (VOC ppm/ ft3/minute)	VOC Mass Removal Rate (lb/minute)	VOC Mass Removal Rate (lb/day)	Cumulative Equivalent Mass Removed (lbs)	O2 Depletion (%)	O2 Depletion (lbs/minute)	Equivalent Mass Consumed by O2 (lbs/minute)	Equivalent Mass Consumed by O2 (lbs/day)	Cumulative Equivalent Mass Consumed by O2 (lbs)	Difference O2 vs CO2
4/6/2021 12:25	6	13.4	381	323	1.00	323	0.00	0.00	0.00	0.00	7.6	1.88	0.53	766.66	0.00	0.00
4/6/2021 16:00	6.2	13.4	405	323	1.00	323	130815.00	0.03	41.39	6.18	7.6	1.88	0.53	766.66	114.47	-6.04
4/7/2021 7:35	5.6	15.5	406.6	323	1.00	323	131331.80	0.03	41.56	33.16	5.5	1.36	0.39	554.82	612.26	-16.61
4/7/2021 12:45	4.7	15.6	421.5	512	1.00	512	215808.00	0.05	68.29	47.87	5.4	2.12	0.60	863.47	731.70	9.86
4/7/2021 15:25	4.4	16.2	418	512	1.00	512	214016.00	0.05	67.72	55.39	4.8	1.88	0.53	767.53	827.64	14.11
4/8/2021 7:35	4	17.1	425	512	1.00	512	217600.00	0.05	68.86	101.77	3.9	1.53	0.43	623.62	1344.66	65.71
4/8/2021 11:00	3.4	17.5	401.1	512	1.00	512	205363.20	0.05	64.98	111.02	3.5	1.37	0.39	559.66	1433.44	86.18
4/8/2021 12:00	3.4	17	398.1	560	1.00	560	222936.00	0.05	70.54	113.96	4	1.71	0.49	699.57	1456.75	90.04
4/8/2021 15:00	3.3	17.9	414.2	560	1.00	560	231952.00	0.05	73.40	123.14	3.1	1.33	0.38	542.17	1544.20	91.77
4/15/2021 9:00	3.5	17.7	421	560	1.00	560	235760.00	0.05	74.60	626.71	3.3	1.41	0.40	577.15	5203.83	1106.20
4/21/2021 13:00	3.4	17.5	408	560	0.73	408.8	166790.40	0.04	52.78	952.17	3.5	1.09	0.31	446.85	8762.90	2076.07
4/28/2021 11:00	1.4	19.9	340	550	1.00	550	187000.00	0.04	59.17	1361.45	1.1	0.46	0.13	188.95	11853.62	2587.61
5/5/2021 9:00	1.3	18.9	390	550	1.00	550	214500.00	0.05	67.88	1830.92	2.1	0.88	0.25	360.72	13160.50	3276.35
5/5/2021 15:45	1.3	18.9	418	550	1.00	550	229900.00	0.05	72.75	1851.38	2.1	0.88	0.25	360.72	13261.96	3250.25
5/11/2021 16:45	0.8	20.1	1200	560	0.98	548.8	658560.00	0.14	208.39	3110.42	0.9	0.38	0.11	154.26	15441.28	2689.56
5/12/2021 8:15	1.3	19.9	422	500	0.98	490	206780.00	0.05	65.43	3152.67	1.1	0.41	0.12	168.33	15540.91	2696.19
5/12/2021 15:00	1	20.2	2000	500	0.98	490	980000.00	0.22	310.11	3239.89	0.8	0.30	0.09	122.42	15588.25	2715.97
5/13/2021 9:00	1.3	19.8	431.8	457	0.98	447.86	193385.95	0.04	61.19	3285.79	1.2	0.41	0.12	167.84	15680.07	2761.86
5/13/2021 14:52	1	19.8	5000	457	0.98	447.86	2239300.00	0.49	708.59	3459.00	1.2	0.41	0.12	167.84	15721.10	2774.16
5/14/2021 8:30	1.1	19.9	5000	457	0.98	447.86	2239300.00	0.49	708.59	3979.62	1.1	0.38	0.11	153.86	15844.42	2774.14
5/14/2021 14:18	0.2	19.8	4852	457	0.98	447.86	2173016.72	0.48	687.62	4145.79	1.2	0.41	0.12	167.84	15881.60	2781.57
5/18/2021 9:00	1.9	17.4	1410	500	0.98	490	690900.00	0.15	218.62	4972.01	3.6	1.35	0.38	550.91	16515.91	2274.09
5/18/2021 12:52	1.2	18.7	1900	500	0.98	490	931000.00	0.20	294.60	5019.47	2.3	0.86	0.24	351.97	16604.67	2241.54
5/18/2021 15:30	1.2	19.5	2650	500	0.98	490	1298500.00	0.29	410.89	5064.56	1.5	0.56	0.16	229.55	16643.29	2227.09
5/19/2021 9:30	1.2	19.7	440	457	0.98	447.86	197058.40	0.04	62.36	5111.33	1.3	0.45	0.13	181.83	16815.45	2220.18
5/19/2021 13:10	0.9	20	4830	470	0.98	460.6	2224698.00	0.49	703.97	5218.88	1	0.35	0.10	143.85	16843.23	2223.16
5/19/2021 16:15	0.8	19.9	390	485	0.98	475.3	185367.00	0.04	58.66	5226.41	1.1	0.40	0.11	163.28	16861.71	2224.64
5/20/2021 9:30	1.4	19.6	455	500	0.98	490	222950.00	0.05	70.55	5277.12	1.4	0.52	0.15	214.24	16979.07	2209.68
5/20/2021 11:49	0.9	19.5	475	500	0.98	490	232750.00	0.05	73.65	5284.23	1.5	0.56	0.16	229.55	16999.75	2213.82
5/26/2021 11:02	1.2	19.3	415	460	0.93	427.8	177537.00	0.04	56.18	5619.47	1.7	0.56	0.16	227.13	18369.54	1830.10
5/26/2021 12:15	1.1	18.9	395	460	0.93	427.8	168981.00	0.04	53.47	5622.18	2.1	0.69	0.19	280.57	18381.06	1828.34
5/26/2021 14:01	0.9	19.4	418	530	0.93	492.9	206032.20	0.05	65.20	5626.98	1.6	0.60	0.17	246.30	18401.71	1820.67
5/27/2021 7:48	1.2	19.5	374.2	600	0.93	558	208803.60	0.05	66.07	5675.94	1.5	0.64	0.18	261.40	18584.21	1761.33
5/27/2021 11:20	1	19.2	379.1	600	0.93	558	211537.80	0.05	66.94	5685.79	1.8	0.77	0.22	313.68	18622.69	1759.79
5/28/2021 10:15	1.3	18.5	335	510	0.93	474.3	158890.50	0.03	50.28	5733.80	2.5	0.91	0.26	370.32	18922.22	1659.91
5/28/2021 11:30	1	18.7	421	510	0.93	474.3	199680.30	0.04	63.19	5737.09	2.3	0.83	0.24	340.69	18941.51	1652.66
6/1/2021 12:40	1.2	18.5	386.2	600	0.99	594	229402.80	0.05	72.59	6030.98	2.5	1.14	0.32	463.78	20320.84	992.85
6/1/2021 14:45	1	18.8	360.1	600	0.99	594	213899.40	0.05	67.69	6036.86	2.2	1.00	0.28	408.12	20361.10	975.77
6/10/2021 10:35	1.3	18	468.3	600	1.00	600	280980.00	0.06	88.91	6821.63	3	1.38	0.39	562.16	23963.37	-661.97
6/10/2021 12:58	1.4	18.1	472.5	600	1.00	600	283500.00	0.06	89.71	6830.54	2.9	1.33	0.38	543.42	24019.20	-688.77
6/10/2021 15:09	1	18.5	442.5	600	1.00	600	265500.00	0.06	84.01	6838.18	2.5	1.15	0.33	468.46	24068.63	-709.57
6/11/2021 7:55	1.4	19.4	441	600	1.00	600	264600.00	0.06	83.73	6896.68	1.6	0.73	0.21	299.82	24395.91	-879.78
6/11/2021 10:28	0.9	19.1	468	600	1.00	600	280800.00	0.06	88.85	6906.12	1.9	0.87	0.25	356.03	24427.76	-878.19
6/22/2021 7:55	1.3	18.8	344.9	600	0.99	594	204870.60	0.05	64.83	7612.34	2.2	1.00	0.28	408.12	28306.28	-2552.47
6/25/2021 8:45	1.6	16.6	354	510	0.99	504.9	178734.60	0.04	56.56	7783.98	4.4	1.70	0.48	693.81	29544.83	-2912.92
6/25/2021 11:02	1	19.2	405	550	0.99	544.5	220522.50	0.05	69.78	7790.61	1.8	0.75	0.21	306.09	29610.84	-2950.13
6/28/2021 11:00	1.1	18.4	422	600	0.99	594	250668.00	0.06	79.32	8028.46	2.6	1.18	0.33	482.33	30528.69	-3256.19
6/28/2021 11:10	1.1	18.3	424	600	0.99	594	251856.00	0.06	79.70	8029.02	2.7	1.23	0.35	500.88	30532.04	-3257.84
6/28/2021 13:50	1	18.4	415	600	0.99	594	246510.00	0.05	78.00	8037.69	2.6	1.18	0.33	482.33	30587.70	-3286.29

Appendix C.5. HSVE-01 Cumulative Mass Removed

SFPP Norwalk Pump Station, Norwalk, California

	Operational Data						VOC Mass Removal				O2 Calculations					
Date	SVE Influent Max of CO2 (%)	SVE Influent Max of O2 (%)	SVE Influent Max of VOCs (ppmv)	Max of SVE Influent Flow (scfm)	Operational Efficency	Corrected SVE Flow (scfm)	Removal Rate (VOC ppm/ ft3/minute)	VOC Mass Removal Rate (lb/minute)	VOC Mass Removal Rate (lb/day)	Cumulative Equivalent Mass Removed (lbs)	O2 Depletion (%)	O2 Depletion (lbs/minute)	Equivalent Mass Consumed by O2 (lbs/minute)	Equivalent Mass Consumed by O2 (lbs/day)	Cumulative Equivalent Mass Consumed by O2 (lbs)	Difference O2 vs CO2
7/23/2021 8:00	1.3	19.7	421	600	0.74	444	186924.00	0.04	59.15	9502.04	1.3	0.44	0.13	180.26	42528.70	-9717.03
7/23/2021 9:00	1.3	19.8	408	600	0.74	444	181152.00	0.04	57.32	9504.43	1.2	0.41	0.12	166.40	42536.21	-9715.53
8/6/2021 9:25		19.1	365	555	1.00	555	202575.00	0.04	64.10	10402.97	1.9	0.81	0.23	329.33	44868.67	-9016.32
8/31/2021 7:45	0.9	19.6	52.1	450	0.70	315	16411.50	0.00	5.19	10532.43	1.4	0.34	0.10	137.73	53079.04	-17226.68
8/31/2021 10:45	1.1	18.4	408	500	0.70	350	142800.00	0.03	45.19	10538.08	2.6	0.70	0.20	284.20	53096.25	-17230.62
9/1/2021 7:45	1	19.5	195	450	0.68	306	59670.00	0.01	18.88	10554.60	1.5	0.35	0.10	143.35	53344.93	-17353.07
9/1/2021 8:00	1.1	19.5	202	450	0.68	306	61812.00	0.01	19.56	10554.81	1.5	0.35	0.10	143.35	53346.42	-17353.37
9/9/2021 9:05	1.1	19.5	208	500	0.69	345	71760.00	0.02	22.71	10737.49	1.5	0.40	0.11	161.62	54499.69	-17491.94
9/9/2021 12:45	1.1	19.4	215	500	1.00	500	107500.00	0.02	34.02	10742.69	1.6	0.61	0.17	249.85	54524.38	-17494.90
9/16/2021 11:00	1.6	19.3	238.9	550	1.00	550	131395.00	0.03	41.58	11030.70	1.7	0.72	0.20	292.01	56255.09	-17798.03
9/21/2021 13:45	0.8	21	72.4	200	1.00	200	14480.00	0.00	4.58	11054.14	0	0.00	0.00	0.00	57748.60	-17605.05
9/21/2021 14:45	0.8	19.4	1100	500	1.00	500	550000.00	0.12	174.04	11061.39	1.6	0.61	0.17	249.85	57748.60	-17602.55
9/21/2021 14:55	1.2	19.6	1090	500	1.00	500	545000.00	0.12	172.46	11062.59	1.4	0.54	0.15	218.62	57750.33	-17603.24
9/30/2021 16:30	0.6	20.1	1312	400	1.00	400	524800.00	0.12	166.06	12568.13	0.9	0.28	0.08	112.43	59732.30	-17546.97
10/1/2021 8:55	0.6	19.6	1260	400	0.98	392	493920.00	0.11	156.29	12675.04	1.4	0.42	0.12	171.39	59809.20	-17562.36
10/7/2021 11:05	0.2	20.7	382	460	1.00	460	175720.00	0.04	55.60	13013.68	0.3	0.11	0.03	43.10	60853.05	-18069.47
10/19/2021 9:15	0.5	20.1	102	395	0.98	387.1	39484.20	0.01	12.49	13162.66	0.9	0.27	0.08	108.81	61366.94	-18172.32
10/19/2021 14:25	0.9	19.7	326	427	0.63	269.01	87697.26	0.02	27.75	13168.63	1.3	0.27	0.08	109.22	61390.36	-18180.13
11/15/2021 14:07	0.9	19.5	337	400	0.98	392	132104.00	0.03	41.80	14296.77	1.5	0.45	0.13	183.64	64337.89	-18679.37
12/9/2021 11:52	0.6	19.2	153	395	1.00	395	60435.00	0.01	19.12	14753.95	1.8	0.54	0.15	222.05	68727.98	-19909.15
12/15/2021 13:30	0.9	19.4	421	400	0.91	364	153244.00	0.03	48.49	15048.20	1.6	0.45	0.13	181.89	70075.40	-20717.69
12/17/2021 14:30	0.5	19.9	102	450	0.91	409.5	41769.00	0.01	13.22	15075.18	1.1	0.34	0.10	140.68	70446.75	-20838.43
12/23/2021 7:45	0.9	19.9	260	360	0.78	280.8	73008.00	0.02	23.10	15207.30	1.1	0.24	0.07	96.47	71251.26	-21204.19
12/30/2021 7:55	0.8	19.8	272	400	1.00	400	108800.00	0.02	34.43	15448.53	1.2	0.37	0.10	149.91	71927.19	-21216.60
1/6/2022 12:52		19.3	69.5	361	0.77	277.97	19318.92	0.00	6.11	15492.59	1.7	0.36	0.10	147.58	73007.47	-21432.80
1/13/2022 9:45	0.8	19.3	221	625	0.77	481.25	106356.25	0.02	33.65	15723.80	1.7	0.63	0.18	255.51	74021.37	-22446.71
1/20/2022 11:05		19.1	238	395	0.77	304.15	72387.70	0.02	22.91	15885.42	1.9	0.44	0.13	180.48	75824.12	-23231.61
1/26/2022 9:20	1.1	19.7	188	375	0.77	288.75	54285.00	0.01	17.18	15987.23	1.3	0.29	0.08	117.23	76893.83	-24301.32
2/8/2022 8:55	0	18.4	250	395	0.97	383.15	95787.50	0.02	30.31	16380.74	2.6	0.76	0.22	311.12	78415.82	-24278.18
2/15/2022 11:15	1.3	19.2	320	395	0.97	383.15	122608.00	0.03	38.80	16656.09	1.8	0.53	0.15	215.39	80623.90	-26486.25
2/24/2022 11:20	1	19.1	204.9	450	0.97	436.5	89438.85	0.02	28.30	16910.91	1.9	0.63	0.18	259.01	82563.16	-26745.12
3/1/2022 13:50	0.8	18.9	520	459	1.00	459	238680.00	0.05	75.53	17296.41	2.1	0.74	0.21	301.03	83885.20	-27232.33
3/3/2022 10:30	0	19.8	226	457	1.00	457	103282.00	0.02	32.68	17357.23	1.2	0.42	0.12	171.27	84445.46	-27536.52
3/8/2022 9:05	0	19.8	192	361	0.99	357.39	68618.88	0.02	21.71	17464.52	1.2	0.33	0.09	133.94	85291.70	-28382.76
3/24/2022 8:55	0.3	19.8	198	610	0.99	603.9	119572.20	0.03	37.84	18069.64	1.2	0.55	0.16	226.32	87433.80	-30524.85
4/7/2022 11:20	0.9	19	177	457	0.75	342.75	60666.75	0.01	19.20	18340.33	2	0.52	0.15	214.09	90625.12	-32758.95
4/28/2022 9:00	0.5	19.8	73.5	235	0.98	230.3	16927.05	0.00	5.36	18452.30	1.2	0.21	0.06	86.31	95100.15	-34817.88
5/4/2022 13:15	0	19.8	126	457	0.99	452.43	57006.18	0.01	18.04	18563.72	1.2	0.42	0.12	169.56	95633.29	-35084.50
5/11/2022 11:35	0.7	19.3	165	427	0.98	418.46	69045.90	0.02	21.85	18715.15	1.7	0.54	0.15	222.17	96808.41	-36259.63
5/25/2022 12:10	0.3	20.3	110	395	0.94	371.3	40843.00	0.01	12.92	18896.40	0.7	0.20	0.06	81.17	99924.20	-37836.12
6/9/2022 9:11	1	20	115	650	0.98	637	73255.00	0.02	23.18	19241.22	1	0.49	0.14	198.94	101131.70	-38422.72
6/15/2022 9:30	0	20.3	71.5	395	0.96	379.2	27112.80	0.01	8.58	19292.81	0.7	0.20	0.06	82.90	102327.97	-38183.72
6/30/2022 10:05	0.5	20.3	57	427	0.86	367.22	20931.54	0.00	6.62	19392.33	0.7	0.20	0.06	80.28	103573.47	-39429.22
7/21/22 8:40			135.7	430	0.99	426	57767.49	0.01	18.28	19775.12	0.0	0.00	0.00	0.00	105254.61	-39669.64
8/5/22 9:05	0.4	20.1	75.7	427	1.00	427	32323.90	0.01	10.23	19928.72	0.9	0.29	0.08	120.02	105254.61	-38636.45
8/16/22 9:05	0.5	20.2	55.1	457	0.99	452	24928.89	0.01	7.89	20015.49	0.8	0.28	0.08	113.04	106574.84	-39956.67
9/23/22 9:05	0.7	20.1	24.9	528	0.97	512	12752.78	0.00	4.04	20168.84	0.9	0.35	0.10	143.96	110870.29	-41820.14

Appendix C.5. HSVE-01 Cumulative Mass Removed

SFPP Norwalk Pump Station, Norwalk, California

	Operational Data						VOC Mass Removal				O2 Calculations					
Date	SVE Influent Max of CO2 (%)	SVE Influent Max of O2 (%)	SVE Influent Max of VOCs (ppmv)	Max of SVE Influent Flow (scfm)	Operational Efficency	Corrected SVE Flow (scfm)	Removal Rate (VOC ppm/ ft3/minute)	VOC Mass Removal Rate (lb/minute)	VOC Mass Removal Rate (lb/day)	Cumulative Equivalent Mass Removed (lbs)	O2 Depletion (%)	O2 Depletion (lbs/minute)	Equivalent Mass Consumed by O2 (lbs/minute)	Equivalent Mass Consumed by O2 (lbs/day)	Cumulative Equivalent Mass Consumed by O2 (lbs)	Difference O2 vs CO2
10/4/2022 9:58	0.9	20	151.6	395	1.00	395	59882.00	0.01	18.95	20377.97	1.0	0.30	0.09	123.36	112459.11	-42473.44
10/6/2022 7:00	1.3	19.8	36	806	1.00	806	29016.00	0.01	9.18	20395.20	1.2	0.74	0.21	302.06	112690.59	-42452.85
10/13/2022 7:00	0.4	20.7	16	836	1.00	836	13376.00	0.00	4.23	20424.83	0.3	0.19	0.05	78.33	114805.04	-43634.85
10/17/2022 12:30	0.3	20.7	14	806	1.00	806	11284.00	0.00	3.57	20439.93	0.3	0.18	0.05	75.52	115136.30	-42305.67
10/28/2022 7:00	0.5	20.3	24	736	0.99	725	17399.04	0.00	5.51	20499.23	0.7	0.39	0.11	158.49	115949.67	-41769.45
11/3/2022 8:30	0.4	20.9	20	710	1.00	708	14157.40	0.00	4.48	20526.39	0.1	0.05	0.02	22.11	116910.50	-42181.00
11/10/2022 9:40	0.1	20.9	15	716	1.00	716	10740.00	0.00	3.40	20550.35	0.1	0.05	0.02	22.36	117066.33	-41379.46
11/22/2022 12:50	0.3	20.6	18	761	1.00	760	13684.30	0.00	4.33	20602.88	0.4	0.23	0.07	94.97	117337.62	-40363.58
12/1/2022 12:55	0	20.9	20	704	1.00	703	14065.92	0.00	4.45	20642.95	0.1	0.05	0.02	21.96	118192.69	-40977.11
12/8/2022 7:00	0.4	20.7	20	693	0.65	447	8939.70	0.00	2.83	20662.06	0.3	0.10	0.03	41.88	118341.03	-40548.29
12/15/2022 7:10	0.3	20.9	12	673	0.85	572	6864.60	0.00	2.17	20677.28	0.1	0.04	0.01	17.87	118634.47	-40841.74
12/22/2022 10:00	0.4	20.9	12	594	0.84	497	5966.14	0.00	1.89	20690.72	0.1	0.04	0.01	15.53	118761.64	-40492.03
12/28/2022 13:00	0.4	20.8	20	552	1.00	551	11028.96	0.00	3.49	20712.09	0.2	0.08	0.02	34.44	118856.75	-40193.27
1/27/2023 12:00	0.7	20.1	24	361	0.97	350	8404.08	0.00	2.66	20792.0	0.9	0.24	0.07	98.42	119889.00	-38993.00
2/22/2023 12:00	0.7	20.1	28	536	0.94	504	14107.52	0.00	4.46	20908.0	0.9	0.35	0.10	141.62	122448.00	-39403.00
3/2/2023 12:00	1.1	17.7	4	748	0.36	269.28	1077.12	0.00	0.34	20912.05	3.3	0.68	0.19	277.52	123392.95	-39708.94
3/28/2023 12:00	2.8	12.8	4	776	0.02	15.52	62.08	0.00	0.02	20912.56	8.2	0.10	0.03	39.75	130608.60	-43269.27
4/4/2023 12:00	1.8	19.6	12	722	0.71	512.62	6151.44	0.00	1.95	20926.18	1.4	0.55	0.16	224.13	130886.82	-42770.56
4/11/2023 12:00	0.8	20.5	20	767	0.99	759.33	15186.60	0.00	4.81	20959.82	0.5	0.29	0.08	118.57	132455.76	-44225.51
4/18/2023 12:00	1	20.6	22	781	0.99	773.19	17010.18	0.00	5.38	20997.50	0.4	0.24	0.07	96.59	133285.77	-42635.30
4/25/2023 12:00	0.6	19.9	16	930	1.00	930.00	14880.00	0.00	4.71	21030.46	1.1	0.78	0.22	319.49	133961.89	-41718.09
6/1/2023 12:00	3.3	13.6	35	620	0.15	93.00	3255.00	0.00	1.03	21068.57	7.4	0.53	0.15	214.93	145783.09	-42819.72
6/5/2023 12:00	1.2	19.1	33.5	625	1.00	625.00	20937.50	0.00	6.63	21095.07	1.9	0.91	0.26	370.87	146642.81	-42843.10
6/15/2023 12:00	0.5	20.2	4	664	0.82	544.48	2177.92	0.00	0.69	21101.96	0.8	0.33	0.09	136.04	150351.47	-45401.80
6/20/2023 12:00	0.7	19.8	12	664	0.96	637.44	7649.28	0.00	2.42	21114.06	1.2	0.59	0.17	238.89	151031.66	-44676.84
6/27/2023 12:00	0.6	19.9	13	664	1.00	664.00	8632.00	0.00	2.73	21133.18	1.1	0.56	0.16	228.11	152703.91	-45635.02
7/6/2023 8:00	0.8	20.0	8	511	1.00	508.63	4069.07	0.00	1.29	21145.20	1.0	0.39	0.11	158.85	154832.94	-46203.55
7/11/2023 8:30	0.7	20.8	8	511	0.99	508.02	4064.15	0.00	1.29	21151.66	0.2	0.08	0.02	31.73	155630.51	-46251.60
7/18/2023 7:00	0	20.9	4	625	0.69	430.80	1723.21	0.00	0.55	21155.44	0.1	0.03	0.01	13.45	155850.64	-45413.97
7/25/2023 8:00	0.8	19.8	8	625	0.99	621.28	4970.24	0.00	1.57	21166.52	1.2	0.57	0.16	232.84	155945.39	-44570.41
8/1/2023 8:20	0.8	20.1	4	625	0.99	620.16	2480.65	0.00	0.78	21172.02	0.9	0.43	0.12	174.31	157578.48	-46203.51
8/10/2023 7:30	0.6	20.1	0	625	1.00	623.26	0.00	0.00	0.00	21172.02	0.9	0.43	0.12	175.19	159141.26	-46096.61
8/15/2023 8:00	0.6	20.1	0	625	1.00	622.40	0.00	0.00	0.00	21172.02	0.9	0.43	0.12	174.94	160020.83	-46042.81
8/22/2023 7:30	0.2	20.3	0	625	0.99	620.16	0.00	0.00	0.00	21172.02	0.7	0.33	0.09	135.58	161241.78	-46285.80
8/29/2023 8:00	0.6	19.7	0	625	1.00	625.37	0.00	0.00	0.00	21172.02	1.3	0.62	0.18	253.90	162193.65	-46255.26
9/7/2023 8:45	0.7	19.8	1	625	1.00	623.26	436.28	0.00	0.14	21173.27	1.2	0.57	0.16	233.58	164486.70	-48128.57
9/14/2023 8:40	0.4	19.7	0	625	1.00	622.77	0.00	0.00	0.00	21173.27	1.3	0.62	0.18	252.84	166120.95	-48779.13
9/19/2023 7:45	0.4	20.8	4	625	0.99	618.23	2472.92	0.00	0.78	21177.15	0.2	0.09	0.03	38.62	167375.52	-49222.55
9/28/2023 8:00	0.6	19.7	1	625	1.00	626.16	375.69	0.00	0.12	21178.22	1.3	0.62	0.18	254.22	167723.46	-48729.45
10/6/2023	0.6	19.7	0	625	0.98	612.5	0.00	0.00	0.00	21178.22	1.3	0.61	0.17	248.68	169672.49	-49968.07
10/10/2023	0.6	20.1	4	625	0.98	612.5	2450.00	0.00	0.78	21181.32	0.9	0.42	0.12	172.16	170667.19	-50399.67
10/17/2023			4	625	1	625	2500.00	0.00	0.79	21186.86	0.0	0.00	0.00	0.00	171872.31	-50640.86
10/24/2023	0.6	19.6	0	625	1	625	0.00	0.00	0.00	21186.86	1.4	0.67	0.19	273.27	171872.31	-49676.94

Appendix C.5. HSVE-01 Cumulative Mass Removed

SFPP Norwalk Pump Station, Norwalk, California

	Biodegradation							Cumulative Mass Removed	Flow
	CO2			C14 Correction Applied					
Date	CO2 Production (scf/minute)	CO2 Production (lbs/minute)	C14 Correction Factor Based on BaCO3	Equivalent Mass Biodegraded by CO2 (lbs/minute C14 Corrected	Equivalent Mass Biodegraded by CO2 (lbs/day) C14 Corrected	Cumulative Equivalent Mass Consumed by CO2 (lbs)	Total Biodegraded Mass (lbs) C14 Corrected	Cumulative Overall Mass Removal (lbs)	BS-03 Flow (scfm)
4/6/2021 12:25	19.38	2.38	0.65	0.50	726.18	0	0	0	0
4/6/2021 16:00	20.03	2.46	0.65	0.52	750.38	108	112	118	0
4/7/2021 7:35	18.09	2.22	0.65	0.47	677.77	596	552	585	0
4/7/2021 12:45	24.06	2.95	0.65	0.63	901.69	742	746	794	0
4/7/2021 15:25	22.53	2.76	0.65	0.59	844.13	842	840	895	0
4/8/2021 7:35	20.48	2.51	0.65	0.53	767.40	1410	1357	1459	0
4/8/2021 11:00	17.41	2.14	0.65	0.45	652.29	1520	1450	1561	0
4/8/2021 12:00	19.04	2.34	0.65	0.50	713.44	1547	1480	1593	0
4/8/2021 15:00	18.48	2.27	0.65	0.48	692.45	1636	1566	1689	0
4/15/2021 9:00	19.60	2.40	0.65	0.51	734.42	6310	6523	7150	0
4/21/2021 13:00	13.90	1.70	0.65	0.36	520.81	10839	9735	10687	0
4/28/2021 11:00	7.70	0.94	0.65	0.20	288.52	14441	11731	13092	0
5/5/2021 9:00	7.15	0.88	0.65	0.19	267.91	16437	13584	15415	0
5/5/2021 15:45	7.15	0.88	0.65	0.19	267.91	16512	13659	15511	0
5/11/2021 16:45	4.39	0.54	0.65	0.11	164.51	18131	14653	17763	45
5/12/2021 8:15	6.37	0.78	0.65	0.17	238.69	18237	14807	17960	45
5/12/2021 15:00	4.90	0.60	0.65	0.13	183.61	18304	14859	18099	100
5/13/2021 9:00	5.82	0.71	0.65	0.15	218.16	18442	15022	18308	100
5/13/2021 14:52	4.48	0.55	0.65	0.12	167.82	18495	15063	18522	100
5/14/2021 8:30	4.93	0.60	0.65	0.13	184.60	18619	15199	19179	50
5/14/2021 14:18	0.90	0.11	0.65	0.02	33.56	18663	15207	19353	50
5/18/2021 9:00	9.31	1.14	0.65	0.24	348.85	18790	16526	21498	50
5/18/2021 12:52	5.88	0.72	0.65	0.15	220.33	18846	16561	21581	50
5/18/2021 15:30	5.88	0.72	0.65	0.15	220.33	18870	16585	21650	50
5/19/2021 9:30	5.37	0.66	0.65	0.14	201.38	19036	16736	21848	50
5/19/2021 13:10	4.15	0.51	0.65	0.11	155.33	19066	16760	21979	100
5/19/2021 16:15	3.80	0.47	0.65	0.10	142.48	19086	16778	22005	100
5/20/2021 9:30	6.86	0.84	0.65	0.18	257.05	19189	16963	22240	100
5/20/2021 11:49	4.41	0.54	0.65	0.11	165.24	19214	16979	22263	100
5/26/2021 11:02	5.13	0.63	0.65	0.13	192.36	20200	18127	23746	100
5/26/2021 12:15	4.71	0.58	0.65	0.12	176.33	20209	18136	23758	150
5/26/2021 14:01	4.44	0.54	0.65	0.12	166.22	20222	18148	23775	150
5/27/2021 7:48	6.70	0.82	0.65	0.17	250.90	20346	18334	24010	150
5/27/2021 11:20	5.58	0.68	0.65	0.15	209.09	20382	18365	24051	200
5/28/2021 10:15	6.17	0.76	0.65	0.16	231.04	20582	18585	24319	100
5/28/2021 11:30	4.74	0.58	0.65	0.12	177.72	20594	18595	24332	100
6/1/2021 12:40	7.13	0.87	0.65	0.19	267.09	21314	19676	25707	100
6/1/2021 14:45	5.94	0.73	0.65	0.15	222.57	21337	19695	25732	100
6/10/2021 10:35	7.80	0.96	0.65	0.20	292.27	23301	22275	29097	200
6/10/2021 12:58	8.40	1.03	0.65	0.22	314.75	23330	22306	29137	200
6/10/2021 15:09	6.00	0.74	0.65	0.16	224.82	23359	22327	29165	200
6/11/2021 7:55	8.40	1.03	0.65	0.22	314.75	23516	22547	29443	300
6/11/2021 10:28	5.40	0.66	0.65	0.14	202.34	23550	22568	29474	300
6/22/2021 7:55	7.72	0.95	0.65	0.20	289.35	25754	25720	33332	200
6/25/2021 8:45	8.08	0.99	0.65	0.21	302.70	26632	26639	34423	250
6/25/2021 11:02	5.45	0.67	0.65	0.14	204.03	26661	26658	34449	250
6/28/2021 11:00	6.53	0.80	0.65	0.17	244.83	27273	27392	35421	250
6/28/2021 11:10	6.53	0.80	0.65	0.17	244.83	27274	27394	35423	250
6/28/2021 13:50	5.94	0.73	0.65	0.15	222.57	27301	27419	35456	250

Appendix C.5. HSVE-01 Cumulative Mass Removed

SFPP Norwalk Pump Station, Norwalk, California

	Biodegradation							Cumulative Mass Removed	Flow
	CO2			C14 Correction Applied					
Date	CO2 Production (scf/minute)	CO2 Production (lbs/minute)	C14 Correction Factor Based on BaCO3	Equivalent Mass Biodegraded by CO2 (lbs/minute C14 Corrected	Equivalent Mass Biodegraded by CO2 (lbs/day) C14 Corrected	Cumulative Equivalent Mass Consumed by CO2 (lbs)	Total Biodegraded Mass (lbs) C14 Corrected	Cumulative Overall Mass Removal (lbs)	BS-03 Flow (scfm)
7/23/2021 8:00	5.77	0.71	0.65	0.15	216.28	32812	32773	42275	130
7/23/2021 9:00	5.77	0.71	0.65	0.15	216.28	32821	32782	42287	130
8/6/2021 9:25	0.00	0.00	0.65	0.00	0.00	35852	32782	43185	275
8/31/2021 7:45	2.84	0.35	0.65	0.07	106.23	35852	35431	45963	200
8/31/2021 10:45	3.85	0.47	0.65	0.10	144.26	35866	35449	45987	250
9/1/2021 7:45	3.06	0.38	0.65	0.08	114.66	35992	35549	46104	250
9/1/2021 8:00	3.37	0.41	0.65	0.09	126.13	35993	35550	46105	250
9/9/2021 9:05	3.80	0.47	0.65	0.10	142.20	37008	36694	47432	150
9/9/2021 12:45	5.50	0.67	0.65	0.14	206.09	37029	36726	47468	150
9/16/2021 11:00	8.80	1.08	0.65	0.23	329.74	38457	39010	50041	275
9/21/2021 13:45	1.60	0.20	0.65	0.04	59.95	40144	39316	50371	200
9/21/2021 14:45	4.00	0.49	0.65	0.10	149.88	40146	39323	50384	200
9/21/2021 14:55	6.00	0.74	0.65	0.16	224.82	40147	39324	50387	200
9/30/2021 16:30	2.40	0.29	0.65	0.06	89.93	42185	40140	52708	250
10/1/2021 8:55	2.35	0.29	0.65	0.06	88.13	42247	40200	52875	250
10/7/2021 11:05	0.92	0.11	0.65	0.02	34.47	42784	40410	53424	260
10/19/2021 9:15	1.94	0.24	0.65	0.05	72.52	43195	41275	54437	300
10/19/2021 14:25	2.42	0.30	0.65	0.06	90.72	43210	41294	54463	200
11/15/2021 14:07	3.53	0.43	0.65	0.09	132.20	45659	44862	59159	192
12/9/2021 11:52	2.37	0.29	0.65	0.06	88.81	48819	46985	61739	280
12/15/2021 13:30	3.28	0.40	0.65	0.09	122.75	49358	47730	62778	320
12/17/2021 14:30	2.05	0.25	0.65	0.05	76.72	49608	47886	62961	250
12/23/2021 7:45	2.53	0.31	0.65	0.07	94.70	50047	48428	63635	240
12/30/2021 7:55	3.20	0.39	0.65	0.08	119.91	50711	49268	64716	245
1/6/2022 12:52	0.00	0.00	0.65	0.00	0.00	51575	49268	64761	0
1/13/2022 9:45	3.85	0.47	0.65	0.10	144.26	51575	50259	65983	0
1/20/2022 11:05	0.00	0.00	0.65	0.00	0.00	52593	50259	66144	147
1/26/2022 9:20	3.18	0.39	0.65	0.08	119.02	52593	50964	66952	172
2/8/2022 8:55	0.00	0.00	0.65	0.00	0.00	54138	50964	67345	245
2/15/2022 11:15	4.98	0.61	0.65	0.13	186.64	54138	52289	68945	313
2/24/2022 11:20	4.37	0.54	0.65	0.11	163.56	55818	53762	70673	250
3/1/2022 13:50	3.67	0.45	0.65	0.10	137.59	56653	54464	71760	247
3/3/2022 10:30	0.00	0.00	0.65	0.00	0.00	56909	54464	71821	215
3/8/2022 9:05	0.00	0.00	0.65	0.00	0.00	56909	54464	71928	219
3/24/2022 8:55	1.81	0.22	0.65	0.05	67.89	56909	55550	73619	189
4/7/2022 11:20	3.08	0.38	0.65	0.08	116	57866	57180	75520	235
4/28/2022 9:00	1.15	0.14	0.65	0.03	43	60282	58081	76534	203
5/4/2022 13:15	0.00	0.00	0.65	0.00	0	60549	58081	76645	262
5/11/2022 11:35	2.93	0.36	0.65	0.08	110	60549	58842	77557	237
5/25/2022 12:10	1.11	0.14	0.65	0.03	42	62088	59427	78324	248
6/9/2022 9:11	6.37	0.78	0.65	0.17	239	62709	62978	82219	200
6/15/2022 9:30	0.00	0.00	0.65	0.00	0	64144	62978	82271	227
6/30/2022 10:05	1.84	0.23	0.65	0.05	69	64144	64012	83404	165
7/21/22 8:40	0.00	0.00	0.65	0.00	0.00	65585	64012	83787	165
8/5/22 9:05	1.71	0.21	0.65	0.04	64.00	66618	64973	84902	250
8/16/22 9:05	2.26	0.28	0.65	0.06	84.76	66618	64944	84960	251
9/23/22 9:05	3.59	0.44	0.65	0.09	134.34	69050	70078	90246	252

Appendix C.5. HSVE-01 Cumulative Mass Removed

SFPP Norwalk Pump Station, Norwalk, California

	Biodegradation							Cumulative Mass Removed	Flow
	CO2			C14 Correction Applied					
Date	CO2 Production (scf/minute)	CO2 Production (lbs/minute)	C14 Correction Factor Based on BaCO3	Equivalent Mass Biodegraded by CO2 (lbs/minute C14 Corrected	Equivalent Mass Biodegraded by CO2 (lbs/day) C14 Corrected	Cumulative Equivalent Mass Consumed by CO2 (lbs)	Total Biodegraded Mass (lbs) C14 Corrected	Cumulative Overall Mass Removal (lbs)	BS-03 Flow (scfm)
10/4/2022 9:58	3.56	0.44	0.65	0.09	133.21	69986	72480	92858	201.5
10/6/2022 7:00	10.48	1.29	0.65	0.27	392.62	70238	73217	93612	205
10/13/2022 7:00	3.34	0.41	0.65	0.09	125.30	71170	74094	94519	241
10/17/2022 12:30	2.42	0.30	0.65	0.06	90.60	72831	74477	94917	239
10/28/2022 7:00	3.62	0.44	0.65	0.09	135.82	74180	75940	96439	244
11/3/2022 8:30	2.83	0.35	0.65	0.07	106.10	74730	76583	97110	255
11/10/2022 9:40	0.72	0.09	0.65	0.02	26.83	75687	76772	97323	279
11/22/2022 12:50	2.28	0.28	0.65	0.06	85.46	76974	77809	98412	272
12/1/2022 12:55	0.00	0.00	0.65	0.00	0.00	77216	77809	98452	148
12/8/2022 7:00	1.79	0.22	0.65	0.05	66.99	77793	78262	98924	305
12/15/2022 7:10	1.72	0.21	0.65	0.04	64.30	77793	78712	99390	352
12/22/2022 10:00	1.99	0.24	0.65	0.05	74.52	78270	79243	99933	200
12/28/2022 13:00	2.21	0.27	0.65	0.06	82.65	78663	79749	100461	282
1/27/2023 12:00	2.45	0.30	0.65	0.06	91.85	80896	82501	103292	302
2/22/2023 12:00	3.53	0.43	0.65	0.09	132.15	83045	85937	106844	352
3/2/2023 12:00	2.96	0.36	0.65	0.08	110.99	83684	86790	107702	353
3/28/2023 12:00	0.43	0.05	0.65	0.01	16.28	87339	87213	108126	354
4/4/2023 12:00	9.23	1.13	0.65	0.24	345.75	88116	89633	110559	355
4/11/2023 12:00	6.07	0.75	0.65	0.16	227.62	88230	91227	112186	356
4/18/2023 12:00	7.73	0.95	0.65	0.20	289.72	90650	93255	114252	357
4/25/2023 12:00	5.58	0.68	0.65	0.15	209.09	92244	94718	115749	358
6/1/2023 12:00	3.07	0.38	0.65	0.08	115.00	102963	98973	120042	359
6/5/2023 12:00	7.50	0.92	0.65	0.20	281.03	103800	100097	121192	360
6/15/2023 12:00	2.72	0.33	0.65	0.07	102.01	104950	101117	122219	361
6/20/2023 12:00	4.46	0.55	0.65	0.12	167.20	106355	101953	123067	362
6/27/2023 12:00	3.98	0.49	0.65	0.10	149.28	107069	102998	124132	363
7/6/2023 8:00	4.07	0.50	0.65	0.11	152.47	108629	104421	125567	461
7/11/2023 8:30	3.56	0.44	0.65	0.09	133.25	109379	105090	126242	470
7/18/2023 7:00	0.00	0.00	0.65	0.00	0.00	110437	105090	126246	265
7/25/2023 8:00	4.97	0.61	0.65	0.13	186.24	111375	106402	127568	436
8/1/2023 8:20	4.96	0.61	0.65	0.13	185.90	111375	107706	128878	457
8/10/2023 7:30	3.74	0.46	0.65	0.10	140.12	113045	108962	130134	451
8/15/2023 8:00	3.73	0.46	0.65	0.10	139.93	113978	109665	130837	496
8/22/2023 7:30	1.24	0.15	0.65	0.03	46.48	114956	109989	131161	502
8/29/2023 8:00	3.75	0.46	0.65	0.10	140.60	115938	110976	132148	477
9/7/2023 8:45	4.36	0.54	0.65	0.11	163.48	116358	112452	133626	479
9/14/2023 8:40	2.49	0.31	0.65	0.06	93.34	117342	113105	134279	517
9/19/2023 7:45	2.47	0.30	0.65	0.06	92.66	118153	113565	134742	489
9/28/2023 8:00	3.76	0.46	0.65	0.10	140.77	118994	114834	136012	501
10/6/2023	3.68	0.45	0.65	0.10	137.70	119704	115889	137068	512
10/10/2023	3.68	0.45	0.65	0.10	137.70	120268	116440	137622	506
10/17/2023	0.00	0.00	0.65	0.00	0.00	121231	116440	137627	507
10/24/2023	3.75	0.46	0.65	0.10	140.51	122195	117424	138611	503

Appendix D
API Workbook (GMW-23) and Supplemental Gauging Data

Well Designation:	GMW-23	Beckett and Lyverse (2002)
Date:	19-Dec-22	

Ground Surface Elev (ft msl)	0.0	Enter These Data	
Top of Casing Elev (ft msl)	0.0		
Well Casing Radius, r_c (ft):	0.167	r_{e1}	
Well Radius, r_w (ft):	0.500		
LNAPL Specific Yield, S_y:	0.175		
LNAPL Density Ratio, ρ_r:	0.780		
Top of Screen (ft bgs):	25.0		
Bottom of Screen (ft bgs):	60.0		
LNAPL Baildown Vol. (gal.):	6.00		
Effective Radius, r_{e3} (ft):	0.258	Calculated Parameters	
Effective Radius, r_{e2} (ft):	0.243		
Initial Casing LNAPL Vol. (gal.):	4.60	11.03	6.00
Initial Filter LNAPL Vol. (gal.):	6.43		

Drawdown Adjustment (ft)
0

borehole recharge

Submerged Screen	No
Radius of Influence Ratio	30.00
Theim Transmissivity (ft^2/day)	NA
Constant Discharge (ft^3/day)	NA
Constant Confined Drawdown (ft)	NA
LNAPL Behavior (Perched, Unconfined, or Confined)	unconfined
Confining Layer Depth (ft bgs)	NA
Perched Confining Layer Depth (ft bgs)	NA
Formation Thickness (ft)	4.00

LNAPL Transmissivity (ft^2/day)			
B&R Method	C&J Method	CB&P	Thiem Method
#NAME?	0.005	0.005	NA

Recovery Rate Estimates	
Average Transmissivity (ft^2/day)	#NAME?
Skimming Systems	
Maximum Skimming Drawdown (ft)	0.01
Estimated Skimming Recovery Rate (gpd)	#NAME?
Enhanced Skimming System	
Drawdown Enhancement (Vacuum or Water) (ft H20)	1.00
Estimated Enhanced Skimming Recovery Rate (gpd)	#NAME?

Enter Data Here

Initial Fluid Levels:	Time (min)	DTP (ft btoc)	DTW (ft btoc)	DTP (ft bgs)	DTW (ft bgs)	Water Table Depth (ft)	LNAPL Drawdown s_n (ft)	Average Time (min)	LNAPL Discharge Q_n (ft^3/d)	s_n (ft)	b_n (ft)	r_e (ft)
12/19/2022 7:00:00	0	33.51	40.55	33.51	40.55	35.06					7.04	
12/19/2022 9:35:00	155.00	36.50	36.50	36.50	36.50	36.500	2.990				0.00	
12/19/2022 9:35:30	155.50	36.45	36.45	36.45	36.45	36.450	0.015	155.3	#NAME?	1.50	0.00	#NAME?
12/19/2022 9:36:00	156.00	36.35	36.35	36.35	36.35	36.350	0.015	155.8	#NAME?	0.02	0.00	#NAME?
12/19/2022 9:36:30	156.50	36.05	36.07	36.05	36.07	36.054	0.011	156.3	#NAME?	0.01	0.02	#NAME?
12/19/2022 9:37:00	157.00	35.89	35.91	35.89	35.91	35.894	0.011	156.8	#NAME?	0.01	0.02	#NAME?
12/19/2022 9:37:30	157.50	35.83	35.85	35.83	35.85	35.834	0.011	157.2	#NAME?	0.01	0.02	#NAME?
12/19/2022 9:38:00	158.00	35.78	35.8	35.78	35.80	35.784	0.011	157.8	#NAME?	0.01	0.02	#NAME?
12/19/2022 9:38:30	158.50	35.71	35.73	35.71	35.73	35.714	0.011	158.3	#NAME?	0.01	0.02	#NAME?
12/19/2022 9:39:00	159.00	35.64	35.66	35.64	35.66	35.644	0.011	158.8	#NAME?	0.01	0.02	#NAME?
12/19/2022 9:39:30	159.50	35.61	35.64	35.61	35.64	35.617	0.009	159.3	#NAME?	0.01	0.03	#NAME?
12/19/2022 9:40:00	160.00	35.59	35.62	35.59	35.62	35.597	0.009	159.8	#NAME?	0.01	0.03	#NAME?
12/19/2022 9:40:30	160.50	35.55	35.58	35.55	35.58	35.557	0.009	160.3	#NAME?	0.01	0.03	#NAME?
12/19/2022 9:41:00	161.00	35.53	35.56	35.53	35.56	35.537	0.009	160.8	#NAME?	0.01	0.03	#NAME?
12/19/2022 9:42:00	162.00	35.48	35.50	35.48	35.50	35.484	0.011	161.5	#NAME?	0.01	0.02	#NAME?
12/19/2022 9:43:00	163.00	35.42	35.45	35.42	35.45	35.427	0.009	162.5	#NAME?	0.01	0.03	#NAME?
12/19/2022 9:44:00	164.00	35.39	35.43	35.39	35.43	35.399	0.007	163.5	#NAME?	0.01	0.04	#NAME?
12/19/2022 9:45:00	165.00	35.35	35.37	35.35	35.37	35.354	0.011	164.5	#NAME?	0.01	0.02	#NAME?
12/19/2022 9:46:00	166.00	35.33	35.36	35.33	35.36	35.337	0.009	165.5	#NAME?	0.01	0.03	#NAME?
12/19/2022 9:47:00	167.00	35.31	35.34	35.31	35.34	35.317	0.009	166.5	#NAME?	0.01	0.03	#NAME?
12/19/2022 9:48:00	168.00	35.31	35.34	35.31	35.34	35.317	0.009	167.5	#NAME?	0.01	0.03	#NAME?
12/19/2022 9:49:00	169.00	35.3	35.34	35.30	35.34	35.309	0.007	168.5	#NAME?	0.01	0.04	#NAME?
12/19/2022 9:50:00	170.00	35.29	35.33	35.29	35.33	35.299	0.007	169.5	#NAME?	0.01	0.04	#NAME?
12/19/2022 9:56:00	176.00	35.26	35.30	35.26	35.30	35.269	0.007	173.0	#NAME?	0.01	0.04	#NAME?
12/19/2022 10:01:00	181.00	35.24	35.28	35.24	35.28	35.249	0.007	178.5	#NAME?	0.01	0.04	#NAME?
12/19/2022 10:06:00	186.00	35.23	35.27	35.23	35.27	35.239	0.007	183.5	#NAME?	0.01	0.04	#NAME?
12/19/2022 11:00:00	240.00	35.22	35.34	35.22	35.34	35.246	-0.011	213.0	#NAME?	0.00	0.12	#NAME?
12/19/2022 11:01:00	241.00	35.22	35.34	35.22	35.34	35.246	-0.011	240.5	#NAME?	-0.01	0.12	#NAME?
12/19/2022 12:24:00	324.00	35.81	35.81	35.81	35.81	35.810	0.015	282.5	#NAME?	0.00	0.00	#NAME?
12/19/2022 12:24:30	324.50	35.75	35.75	35.75	35.75	35.750	0.015	324.3	#NAME?	0.02	0.00	#NAME?
12/19/2022 12:25:00	325.00	35.7	35.71	35.70	35.71	35.702	0.013	324.8	#NAME?	0.01	0.01	#NAME?
12/19/2022 12:25:30	325.50	35.66	35.67	35.66	35.67	35.662	0.013	325.3	#NAME?	0.01	0.01	#NAME?

12/19/2022 12:26:00	326.00	35.64	35.65	35.64	35.65			35.642	0.013		325.8	#NAME?	0.01	0.01	#NAME?
12/19/2022 12:26:30	326.50	35.62	35.63	35.62	35.63			35.622	0.013		326.3	#NAME?	0.01	0.01	#NAME?
12/19/2022 12:27:00	327.00	35.59	35.60	35.59	35.60			35.592	0.013		326.8	#NAME?	0.01	0.01	#NAME?
12/19/2022 12:27:30	327.50	35.57	35.59	35.57	35.59			35.574	0.011		327.3	#NAME?	0.01	0.02	#NAME?
12/19/2022 12:28:00	328.00	35.55	35.58	35.55	35.58			35.557	0.009		327.7	#NAME?	0.01	0.03	#NAME?
12/19/2022 12:28:30	328.50	35.54	35.56	35.54	35.56			35.544	0.011		328.3	#NAME?	0.01	0.02	#NAME?
12/19/2022 12:29:00	329.00	35.51	35.54	35.51	35.54			35.517	0.009		328.8	#NAME?	0.01	0.03	#NAME?
12/19/2022 12:33:00	333.00	35.48	35.50	35.48	35.50			35.484	0.011		331.0	#NAME?	0.01	0.02	#NAME?
12/19/2022 12:36:00	336.00	35.47	35.49	35.47	35.49			35.474	0.011		334.5	#NAME?	0.01	0.02	#NAME?
12/19/2022 12:42:00	342.00	35.45	35.47	35.45	35.47			35.454	0.011		339.0	#NAME?	0.01	0.02	#NAME?
12/19/2022 12:45:00	345.00	35.44	35.46	35.44	35.46			35.444	0.011		343.5	#NAME?	0.01	0.02	#NAME?
12/19/2022 12:50:00	350.00	35.43	35.49	35.43	35.49			35.443	0.002		347.5	#NAME?	0.01	0.06	#NAME?
12/19/2022 13:06:00	366.00	35.42	35.50	35.42	35.50			35.438	-0.002		358.0	#NAME?	0.00	0.08	#NAME?
12/19/2022 13:30:00	390.00	35.41	35.58	35.41	35.58			35.447	-0.022		378.0	#NAME?	-0.01	0.17	#NAME?
12/20/2022 7:11:00	1451.00	36.25	37.56	36.25	37.56			36.538	-0.273		920.5	#NAME?	-0.15	1.31	#NAME?
12/20/2022 11:35:00	1715.00	36.29	37.71	36.29	37.71			36.602	-0.297		1583.0	#NAME?	-0.28	1.42	#NAME?
3/2/2023 12:00:00	105420.00	36.22	38.52	36.22	38.52			36.726	-0.491		53567.5	#NAME?	-0.39	2.30	#NAME?
5/1/2023 12:00:00	191820.00	34.87	36.86	34.87	36.86			35.308	-0.422		148620.0	#NAME?	-0.46	1.99	#NAME?
7/12/2023 12:00:00	295500.00	32.36	32.43	32.36	32.43			32.375	-0.211		243660.0	#NAME?	-0.32	0.07	#NAME?

Figure 1

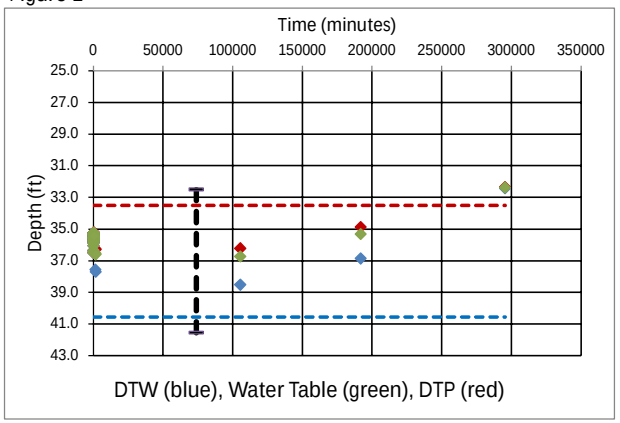
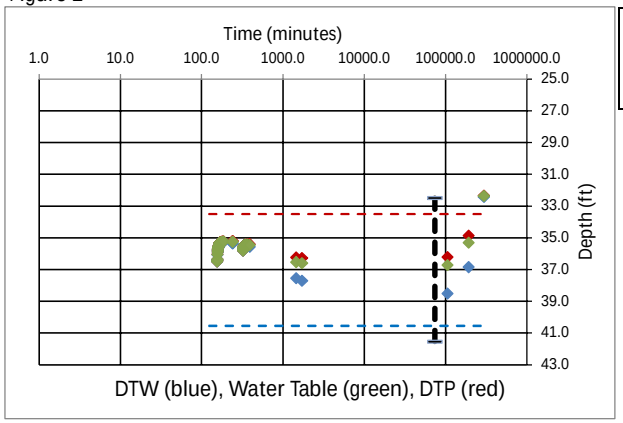


Figure 2

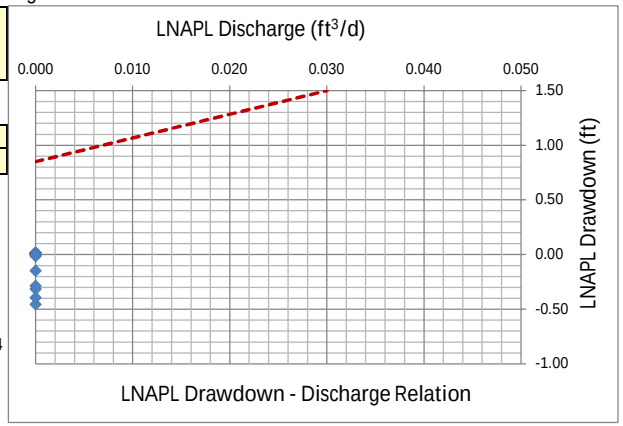


124.0	33.51
295500	33.51
124.0	40.55
295500	40.55
73875.0	32.51
73875.0	41.6

Figure 3

Q_n (ft^3/d)	s_n (ft)
0	0.85
0.03	1.5

Drawdown Adjust.	
Δs_n (ft)	0



######## 33.54

Figure 4

b_n	s_n
7.5	0
0	1.5

J-ratio	-0.200

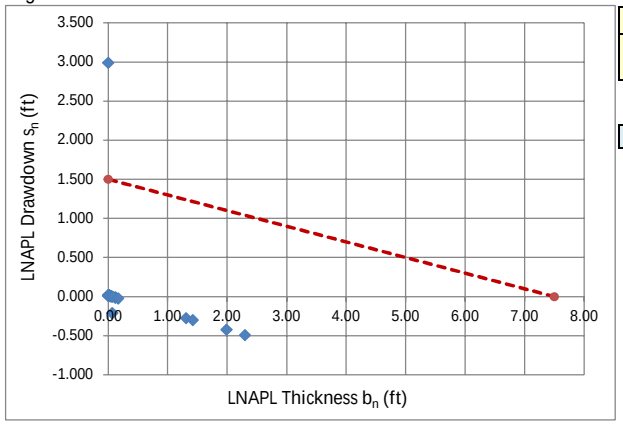


Figure 5

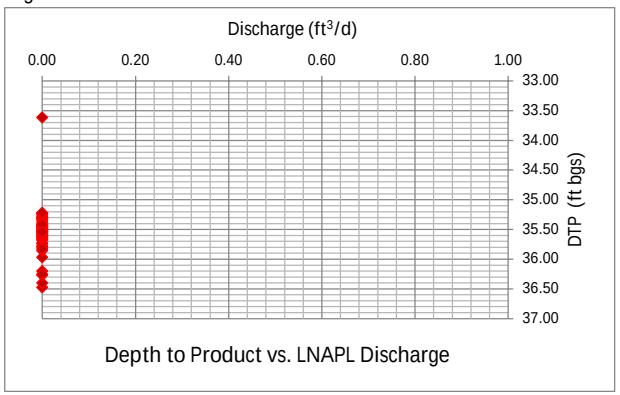


Figure 6

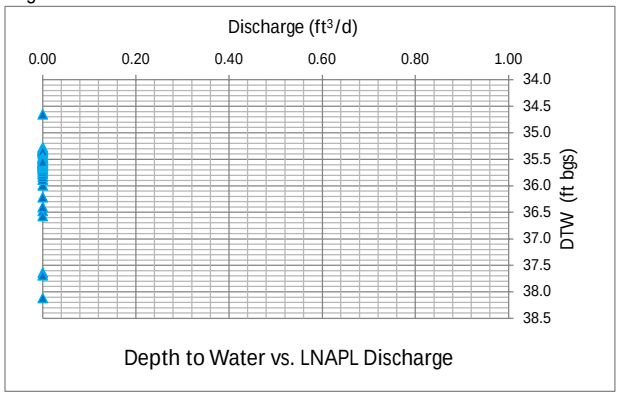


Figure 7

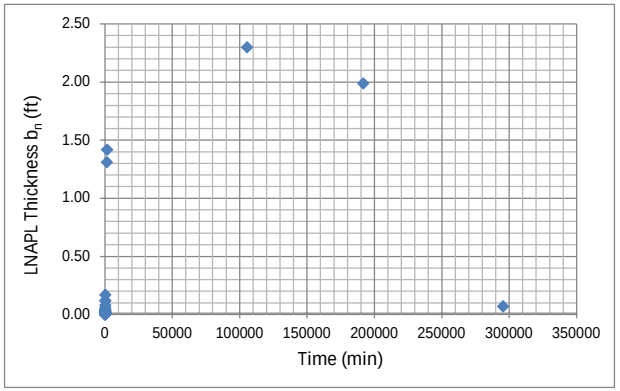


Figure 8

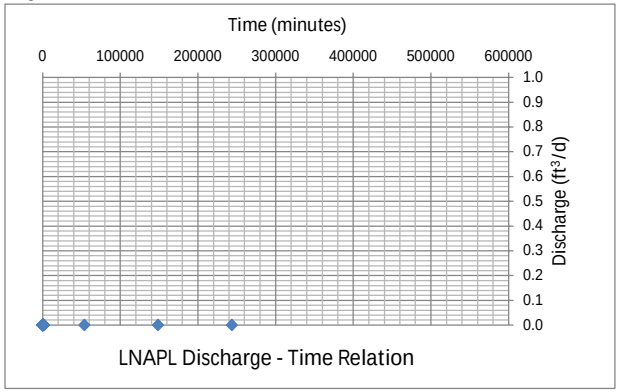


Figure 9

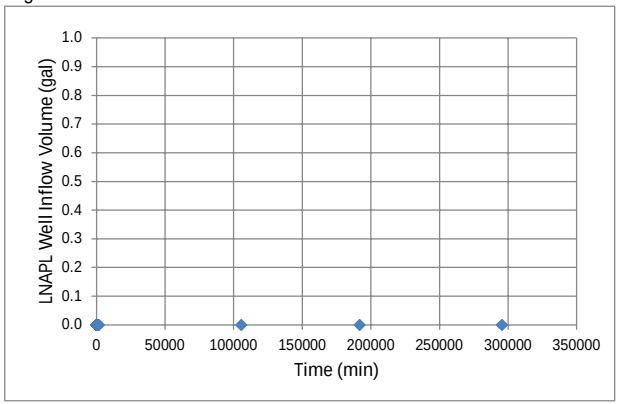
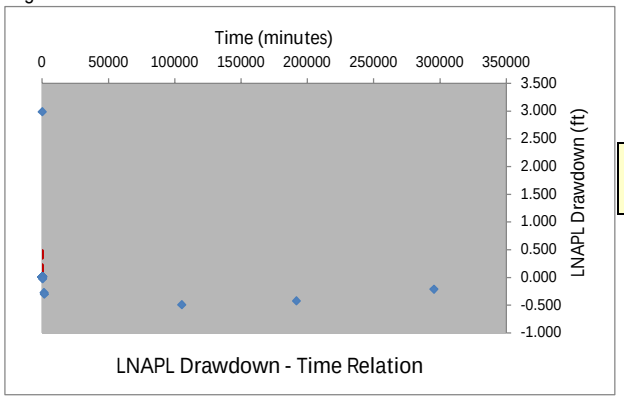


Figure 10



t (min)	s_n (ft)
10	0.48
10	0

Generalized Bouwer and Rice (1976)

Well Designation:	GMW-23
Date:	19-Dec-22

$$T_n = \frac{r_e^{\,2}\ln(R/r_e)\ln(s_n(t_1)/s_n(t))}{2(-J)(t-t_1)}$$

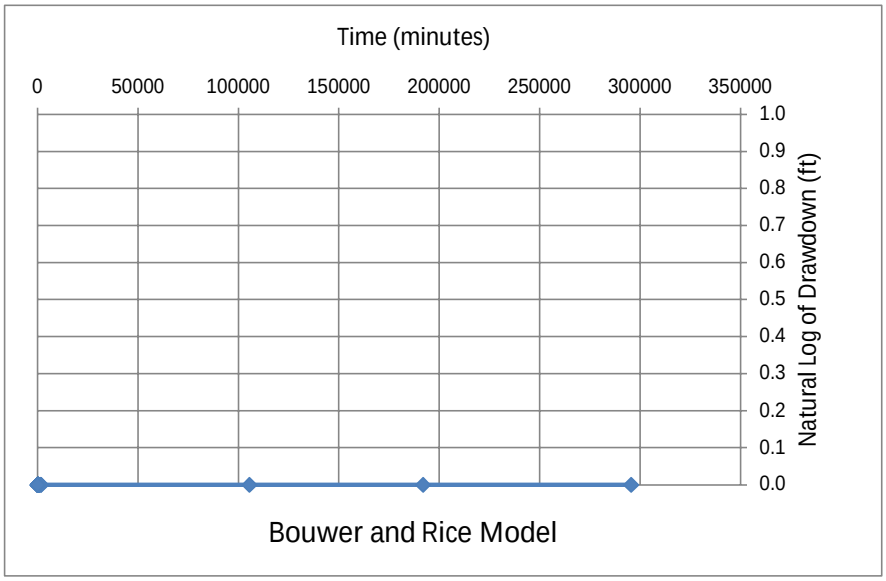
Enter early time cut-off for least-squares model fit

$Time_{cut}$	0	<- Enter or change value here

L_e/r_e
27.3
C
1.88
R/r_e
12.05

Model Results: T_n (ft^2/d) = #NAME? +/- #NAME? ft^2/d

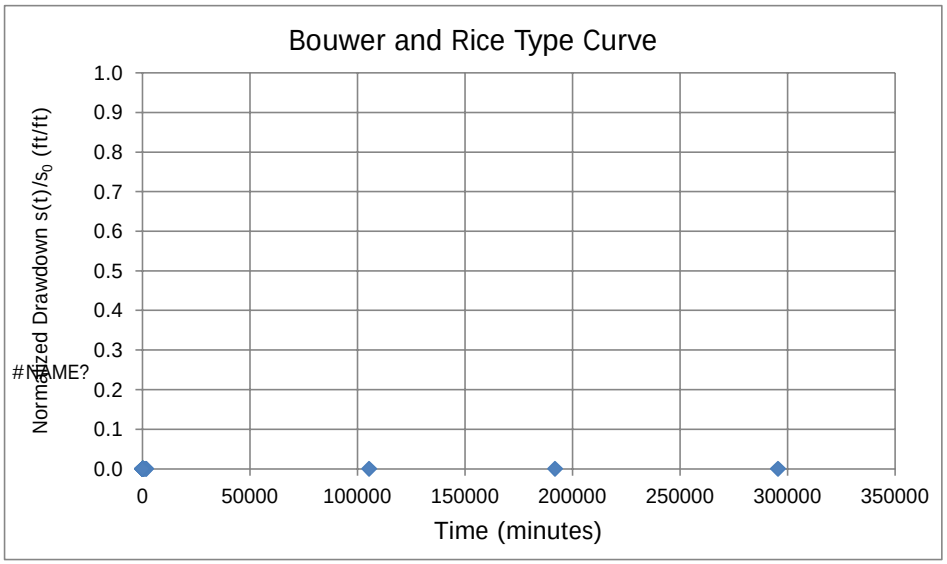
J-Ratio
-0.200



Coef. Of Variation
#NAME?

C coefficient calculated from Eq. 6.5(c) of Butler, The Design, Performance, and

10/31/2022 C coefficie 33.54 40.77



Cooper and Jacob (1946)

Well Designation:	GMW-23
Date:	19-Dec-22

$$V_n(t_i) = \sum_j^i \frac{4\pi T_n s_j}{\ln\left(\frac{2.25 T_n t_j}{r_e^2 S_n}\right)} \Delta t_j$$

Enter early time cut-off for least-squares model fit

$Time_{cut}$ (min):	0	<- Enter or change values here
Time Adjustment (min):	0	

Trial S_n: d <-- Enter d for default or enter S_n value

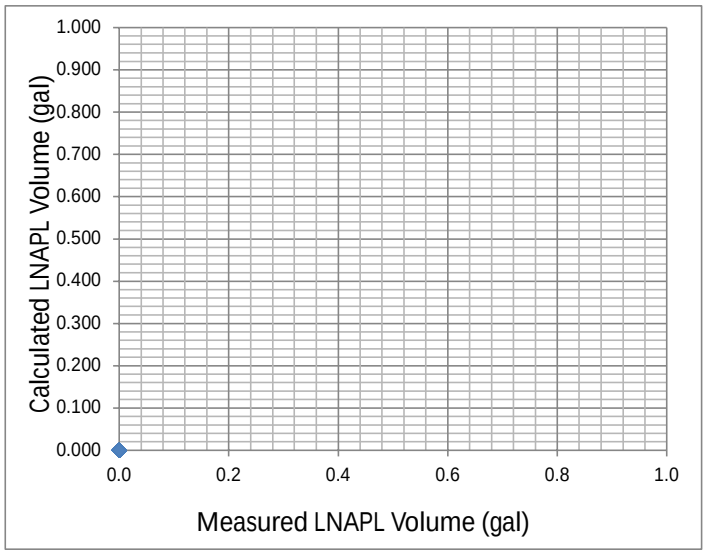
Root-Mean-Square Error: #NAME? <-- Minimize this using "Solver"

0.002 <-- Working S_n

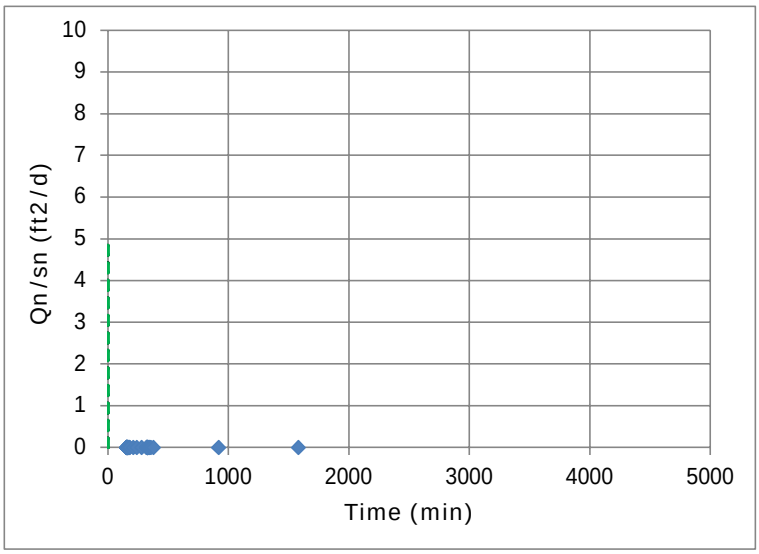
Trial T_n (ft^2/d): 0.005 <-- By changing T_n through "Solver"

Add constraint T_n > 0.00001

Model Result: T_n (ft^2/d) = 0.005



########



Height
5

Cooper, Bredehoeft and Papadopulos (1967)

Well Designation:	GMW-23
Date:	19-Dec-22

Enter early time cut-off for least-squares model fit

$Time_{cut}$ (min):	0	<- Enter or change values here
Initial Drawdown s_n (ft):	2.99	

Trial S_n: d <-- Enter d for default

Root-Mean-Square Error: #NAME? <-- Minimize this using "Solver"

Trial T_n (ft^2/d): 0.005 <-- By changing T_n through "Solver"

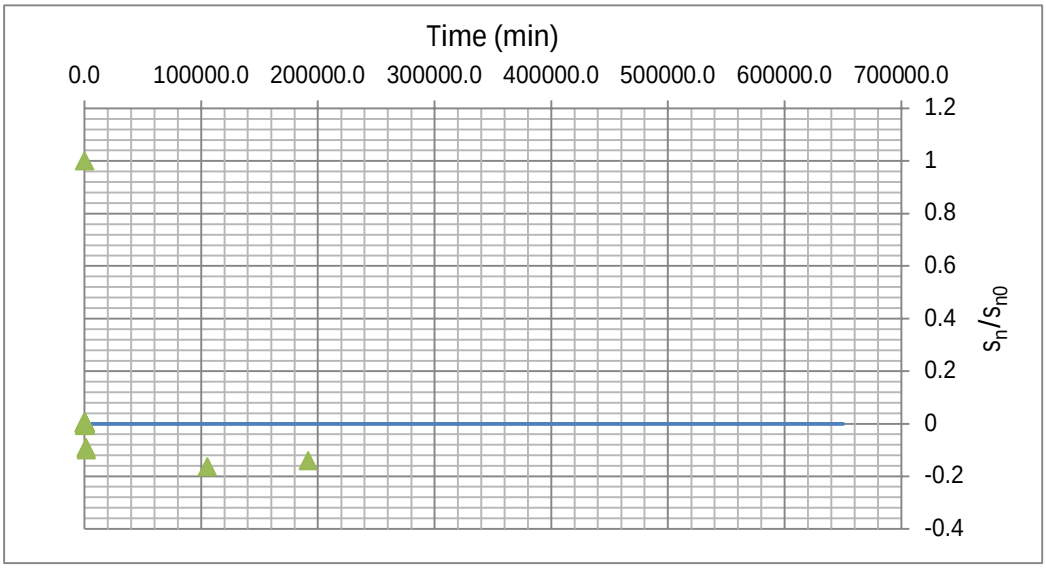
0.002 <-- Working S_n

Add constraint Tn > 0.00001

T_{min}	1
T_{max}	650000

Model Result:

T_n (ft^2/d) =	0.005



J-Ratio
-0.200

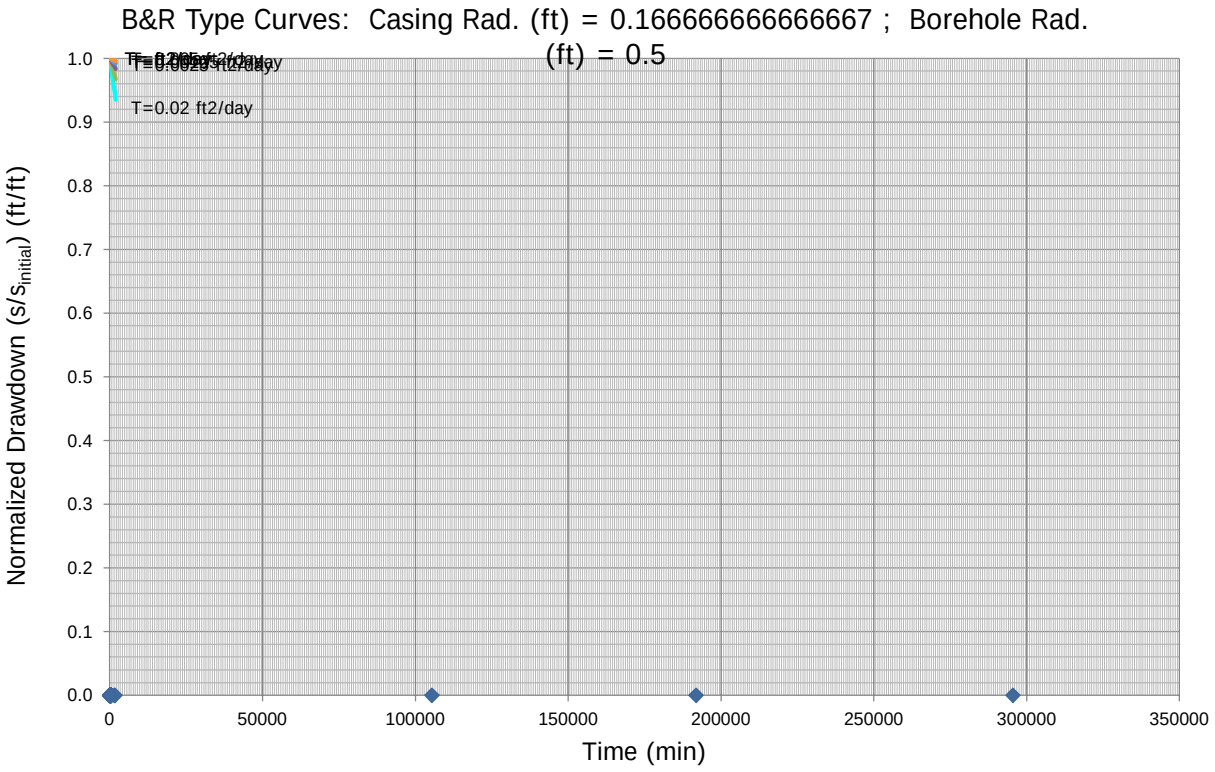
Bouwer and Rice Short Term LNAPL Mobility Test Type Curves

B&R Type Curves: Casing Rad. (ft) = 0.166666666666667 ; Borehole Rad. (ft) = 0.5

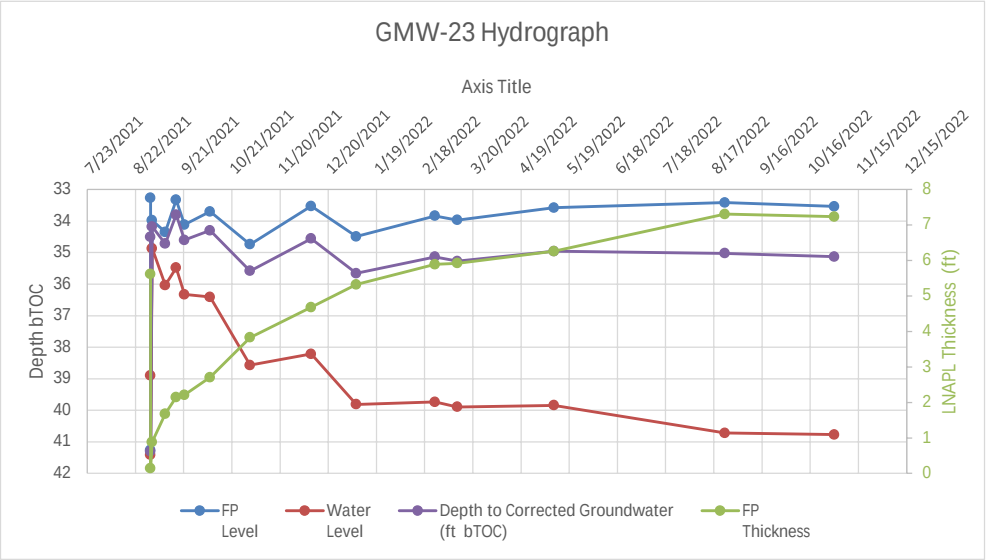
Enter these values

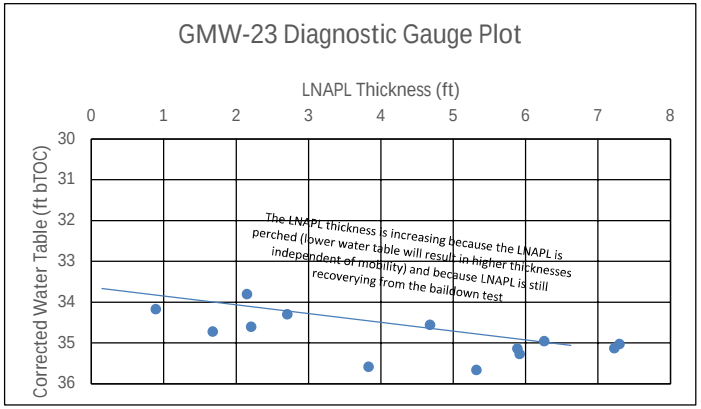
Type Curve ID	Type Curve Name	Notes	Max Time (min)	Transmissivity (ft^2/day)
1	T=0.02 ft2/day		2000	0.02
2	T=0.01 ft2/day		2000	0.01
3	T=0.005 ft2/day		2000	0.005
4	T=0.0025 ft2/day		2000	0.0025
5	T=0.00125 ft2/day		2000	0.00125
6	T= ft2/day			
7	T= ft2/day			

J-Ratio	
-0.200	<-- If uncertain use
	-0.22



	Date	FP Level	Water Level	FP Thickness	Notes	Depth to Corrected Groundwater (ft bTOC)
GMW-23	8/31/2021 10:00	33.27	38.89	5.62	Bailed approx 6 gallons	34.5064
	8/31/2021 11:30	41.26	41.41	0.15	NA	41.293
	9/1/2021 9:15	33.98	34.87	0.89	NA	34.1758
	9/9/2021 14:20	34.35	36.03	1.68	NA	34.7196
	9/16/2021 10:10	33.33	35.48	2.15	NA	33.803
	9/21/2021 13:00	34.12	36.33	2.21	NA	34.6062
	10/7/2021 11:55	33.7	36.41	2.71	NA	34.2962
	11/1/2021 9:48	34.74	38.57	3.83	BTS gauged	35.5826
	12/9/2021 8:30	33.53	38.21	4.68	NA	34.5596
	1/6/2022 11:45	34.49	39.81	5.32	Rained approx. 5.7" (12/20-1/1)	35.6604
	2/24/2022 11:30	33.84	39.73	5.89		35.1358
	3/10/22 9:21	33.97	39.89	5.92		35.2724
	5/9/2022 13:01	33.58	39.84	6.26	NA	34.9572
	8/24/2022 0:00:00	33.42	40.72	7.3	NA	35.026
	10/31/2022 0:00:00	33.54	40.77	7.23	NA	35.1306





Appendix D.1. Supplemental Gauging Data

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date	Time	Depth to Product (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Comment
GMW-23	12/19/2022	7:00:00	33.51	40.55	7.04	Measured before vacuum enhanced recovery
GMW-23	12/19/2022	9:35:00	36.5	36.5	0	Measured after vacuum enhanced recovery
GMW-23	12/19/2022	9:35:30	36.45	36.45	0	
GMW-23	12/19/2022	9:36:00	36.35	36.35	0	
GMW-23	12/19/2022	9:36:30	36.05	36.07	0.02	
GMW-23	12/19/2022	9:37:00	35.89	35.91	0.02	
GMW-23	12/19/2022	9:37:30	35.83	35.85	0.02	
GMW-23	12/19/2022	9:38:00	35.78	35.8	0.02	
GMW-23	12/19/2022	9:38:30	35.71	35.73	0.02	
GMW-23	12/19/2022	9:39:00	35.64	35.66	0.02	
GMW-23	12/19/2022	9:39:30	35.61	35.64	0.03	
GMW-23	12/19/2022	9:40:00	35.59	35.62	0.03	
GMW-23	12/19/2022	9:40:30	35.55	35.58	0.03	
GMW-23	12/19/2022	9:41:00	35.53	35.56	0.03	
GMW-23	12/19/2022	9:42:00	35.48	35.5	0.02	
GMW-23	12/19/2022	9:43:00	35.42	35.45	0.03	
GMW-23	12/19/2022	9:44:00	35.39	35.43	0.04	
GMW-23	12/19/2022	9:45:00	35.35	35.37	0.02	
GMW-23	12/19/2022	9:46:00	35.33	35.36	0.03	
GMW-23	12/19/2022	9:47:00	35.31	35.34	0.03	
GMW-23	12/19/2022	9:48:00	35.31	35.34	0.03	
GMW-23	12/19/2022	9:49:00	35.30	35.34	0.04	
GMW-23	12/19/2022	9:50:00	35.29	35.33	0.04	
GMW-23	12/19/2022	9:56:00	35.26	35.3	0.04	
GMW-23	12/19/2022	10:01:00	35.24	35.28	0.04	
GMW-23	12/19/2022	10:06:00	35.23	35.27	0.04	
GMW-23	12/19/2022	11:00:00	35.22	35.34	0.12	
GMW-23	12/19/2022	11:01:00	35.22	35.34	0.12	Resumed vacuum enhanced recovery
GMW-23	12/19/2022	12:24:00	35.81	35.81	0.00	Measured after vacuum enhanced recovery
GMW-23	12/19/2022	12:24:30	35.75	35.75	0.00	
GMW-23	12/19/2022	12:25:00	35.70	35.71	0.01	
GMW-23	12/19/2022	12:25:30	35.66	35.67	0.01	
GMW-23	12/19/2022	12:26:00	35.64	35.65	0.01	

Appendix D.1. Supplemental Gauging Data

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date	Time	Depth to Product (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Comment
GMW-23	12/19/2022	12:26:30	35.62	35.63	0.01	
GMW-23	12/19/2022	12:27:00	35.59	35.6	0.01	
GMW-23	12/19/2022	12:27:30	35.57	35.59	0.02	
GMW-23	12/19/2022	12:28:00	35.55	35.58	0.03	
GMW-23	12/19/2022	12:28:30	35.54	35.56	0.02	
GMW-23	12/19/2022	12:29:00	35.51	35.54	0.03	
GMW-23	12/19/2022	12:33:00	35.48	35.5	0.02	
GMW-23	12/19/2022	12:36:00	35.47	35.49	0.02	
GMW-23	12/19/2022	12:42:00	35.45	35.47	0.02	
GMW-23	12/19/2022	12:45:00	35.44	35.46	0.02	
GMW-23	12/19/2022	12:50:00	35.43	35.49	0.06	
GMW-23	12/19/2022	13:06:00	35.42	35.5	0.08	
GMW-23	12/19/2022	13:30:00	35.41	35.58	0.17	
GMW-23	12/20/2022	7:11:00	36.25	37.56	1.31	
GMW-23	12/20/2022	11:35:00	36.29	37.71	1.42	
GMW-23	12/21/2022	7:13:00	35.68	36.99	1.31	Measured before vacuum enhanced recovery
GMW-23	12/21/2022	8:45:00	--	--	--	Completed vacuum enhanced recovery at 10:20 AM
GMW-23	12/21/2022	12:35:00	35.88	35.88	0.00	
GMW-23	12/22/2022	7:45:00	35.55	35.71	0.16	Began vacuum enhanced recovery at 8:45 AM
GMW-23	12/22/2022	10:10:00	--	--	--	Completed vacuum enhanced recovery
GMW-23	12/22/2022	11:10:00	--	--	--	Began vacuum enhanced recovery at 11:10 AM
GMW-23	12/22/2022	12:20:00	36.15	36.15	0.00	Completed vacuum enhanced recovery at 12:10 PM
GMW-23	12/22/2022	12:25:00	36.06	36.06	0.00	
GMW-23	12/22/2022	12:35:00	35.93	35.93	0.00	
GMW-23	12/22/2022	12:55:00	35.81	35.81	0.00	
GMW-23	12/22/2022	13:25:00	35.75	35.75	0.00	
GMW-23	1/12/2023	10:25:00	35.05	35.99	0.94	
GMW-23	1/27/2023	12:00:00	34.27	35.45	1.18	
GMW-23	3/2/2023	7:40:00	36.22	38.52	2.30	
GMW-23	4/4/2023	10:58:00	34.16	35.96	1.80	
GMW-23	7/12/2023	12:40:00	32.36	32.43	0.07	
GMW-29	12/20/2022	7:25:00	35.67	36.65	0.98	Measured before vacuum enhanced recovery
GMW-29	12/20/2022	9:33:00	40.19	40.19	0.00	Measured after vacuum enhanced recovery

Appendix D.1. Supplemental Gauging Data

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date	Time	Depth to Product (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Comment
GMW-29	12/20/2022	9:33:30	39.94	39.94	0.00	
GMW-29	12/20/2022	9:34:00	39.82	39.82	0.00	
GMW-29	12/20/2022	9:34:30	39.73	39.73	0.00	
GMW-29	12/20/2022	9:35:00	39.63	39.63	0.00	
GMW-29	12/20/2022	9:35:30	39.51	39.51	0.00	
GMW-29	12/20/2022	9:36:00	39.44	39.44	0.00	
GMW-29	12/20/2022	9:36:30	39.36	39.36	0.00	
GMW-29	12/20/2022	9:37:00	39.29	39.29	0.00	
GMW-29	12/20/2022	9:37:30	39.21	39.21	0.00	
GMW-29	12/20/2022	9:38:00	39.12	39.12	0.00	
GMW-29	12/20/2022	9:38:30	39.04	39.04	0.00	
GMW-29	12/20/2022	9:39:00	38.97	38.97	0.00	
GMW-29	12/20/2022	9:40:00	38.88	38.88	0.00	
GMW-29	12/20/2022	9:41:00	38.63	38.63	0.00	
GMW-29	12/20/2022	9:42:00	38.48	38.48	0.00	
GMW-29	12/20/2022	9:43:00	38.33	38.33	0.00	
GMW-29	12/20/2022	9:44:00	38.22	38.22	0.00	
GMW-29	12/20/2022	9:45:00	38.10	38.10	0.00	
GMW-29	12/20/2022	10:20:00	36.34	36.34	0.00	
GMW-29	12/20/2022	10:40:00	36.10	36.10	0.00	
GMW-29	12/20/2022	11:00:00	36.03	36.03	0.00	
GMW-29	12/20/2022	11:30:00	35.97	35.97	0.00	
GMW-29	12/21/2022	7:19:00	35.69	35.69	0.00	
GMW-29	12/21/2022	12:31:00	35.67	35.73	0.06	
GMW-29	12/22/2022	9:10:00	35.51	35.59	0.08	
GMW-29	3/2/2023	7:30:00	36.89	37.88	0.99	
GMW-29	4/4/2023	10:45:00	34.76	35.18	0.42	
GMW-30	12/20/2022	9:30:00	36.83	37.17	0.34	Measured before vacuum enhanced recovery
GMW-30	12/20/2022	11:45:00	40.69	40.69	0.00	Measured after vacuum enhanced recovery
GMW-30	12/20/2022	11:45:30	40.58	40.58	0.00	
GMW-30	12/20/2022	11:46:00	40.48	40.48	0.00	
GMW-30	12/20/2022	11:46:30	40.39	40.39	0.00	
GMW-30	12/20/2022	11:47:00	40.32	40.32	0.00	

Appendix D.1. Supplemental Gauging Data

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date	Time	Depth to Product (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Comment
GMW-30	12/20/2022	11:47:30	40.24	40.24	0.00	
GMW-30	12/20/2022	11:48:00	40.15	40.15	0.00	
GMW-30	12/20/2022	11:48:30	40.07	40.07	0.00	
GMW-30	12/20/2022	11:49:00	39.97	39.97	0.00	
GMW-30	12/20/2022	11:49:30	39.89	39.89	0.00	
GMW-30	12/20/2022	11:50:00	39.82	39.82	0.00	
GMW-30	12/20/2022	11:51:00	39.66	39.66	0.00	
GMW-30	12/20/2022	11:52:00	39.52	39.52	0.00	
GMW-30	12/20/2022	11:53:00	39.37	39.37	0.00	
GMW-30	12/20/2022	11:54:00	39.24	39.24	0.00	
GMW-30	12/20/2022	11:55:00	39.09	39.09	0.00	
GMW-30	12/20/2022	12:00:00	38.53	38.53	0.00	
GMW-30	12/20/2022	12:05:00	38.23	38.23	0.00	
GMW-30	12/20/2022	12:10:00	37.91	37.91	0.00	
GMW-30	12/20/2022	12:20:00	37.59	37.59	0.00	
GMW-30	12/20/2022	12:40:00	37.22	37.22	0.00	
GMW-30	12/21/2022	7:16:00	36.05	36.05	0.00	
GMW-30	12/21/2022	12:27:00	36.01	36.03	0.02	
GMW-30	12/22/2022	8:58:00	35.74	35.75	0.01	
GMW-30	1/27/2023	12:00:00	34.25	34.25	0.00	sheen
GMW-30	3/2/2023	7:35:00	37.13	37.13	--	sheen
GMW-30	4/4/2023	10:53:00	--	34.56	--	sheen
GMW-30	7/12/2023	12:35:00	32.27	32.28	0.01	
GMW-O-12	12/21/2022	10:35:00	33.70	33.73	0.03	Measured before vacuum enhanced recovery
GMW-O-12	12/21/2022	10:52:00	--	--	--	
GMW-O-12	12/21/2022	12:08:00	33.65	33.65	0.00	Measured after vacuum enhanced recovery
GMW-O-12	12/22/2022	10:00:00	34.55	34.55	0.00	
GMW-O-12	1/27/2023	12:00:00	28.10	28.10	0.00	sheen
GMW-O-12	3/2/2023	8:24:00	--	34.70	--	
GMW-O-12	4/4/2023	11:10:00	31.58	31.63	0.05	

Appendix D.2. LNAPL Recovery Data

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date	Time	Depth to Product (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Water Volume Recovered in Well During Measurement Period (Gallons)	Water Recovery Rate During Measurement Period (Gallons/Minute)	Comment
GMW-23	12/19/2022	7:00:00 AM	33.51	40.55	7.04	--	--	Measured before vacuum enhanced recovery
GMW-23	12/19/2022	9:35:00 AM	36.5	36.5	0	--	--	Measured after vacuum enhanced recovery
GMW-23	12/19/2022	9:35:30 AM	36.45	36.45	0	0.033	0.065	
GMW-23	12/19/2022	9:36:00 AM	36.35	36.35	0	0.065	0.130	
GMW-23	12/19/2022	9:36:30 AM	36.05	36.07	0.02	0.183	0.365	
GMW-23	12/19/2022	9:37:00 AM	35.89	35.91	0.02	0.104	0.209	
GMW-23	12/19/2022	9:37:30 AM	35.83	35.85	0.02	0.039	0.078	
GMW-23	12/19/2022	9:38:00 AM	35.78	35.8	0.02	0.033	0.065	
GMW-23	12/19/2022	9:38:30 AM	35.71	35.73	0.02	0.046	0.091	
GMW-23	12/19/2022	9:39:00 AM	35.64	35.66	0.02	0.046	0.091	
GMW-23	12/19/2022	9:39:30 AM	35.61	35.64	0.03	0.013	0.026	
GMW-23	12/19/2022	9:40:00 AM	35.59	35.62	0.03	0.013	0.026	
GMW-23	12/19/2022	9:40:30 AM	35.55	35.58	0.03	0.026	0.052	
GMW-23	12/19/2022	9:41:00 AM	35.53	35.56	0.03	0.013	0.026	
GMW-23	12/19/2022	9:42:00 AM	35.48	35.5	0.02	0.039	0.039	
GMW-23	12/19/2022	9:43:00 AM	35.42	35.45	0.03	0.033	0.033	
GMW-23	12/19/2022	9:44:00 AM	35.39	35.43	0.04	0.013	0.013	
GMW-23	12/19/2022	9:45:00 AM	35.35	35.37	0.02	0.039	0.039	
GMW-23	12/19/2022	9:46:00 AM	35.33	35.36	0.03	0.007	0.007	
GMW-23	12/19/2022	9:47:00 AM	35.31	35.34	0.03	0.013	0.013	
GMW-23	12/19/2022	9:48:00 AM	35.31	35.34	0.03	0.000	0.000	
GMW-23	12/19/2022	9:49:00 AM	35.3	35.34	0.04	0.000	0.000	
GMW-23	12/19/2022	9:50:00 AM	35.29	35.33	0.04	0.007	0.007	
GMW-23	12/19/2022	9:56:00 AM	35.26	35.3	0.04	0.020	0.003	
GMW-23	12/19/2022	10:01:00 AM	35.24	35.28	0.04	0.013	0.003	
GMW-23	12/19/2022	10:06:00 AM	35.23	35.27	0.04	0.007	0.001	
GMW-23	12/19/2022	11:00:00 AM	35.22	35.34	0.12	-0.046	-0.001	
GMW-23	12/19/2022	11:01:00 AM	35.22	35.34	0.12	0.000	0.000	Resumed vacuum enhanced recovery
GMW-23	12/19/2022	12:24:00 PM	35.81	35.81	0	--	--	Measured after vacuum enhanced recovery
GMW-23	12/19/2022	12:24:30 PM	35.75	35.75	0	0.005	0.010	
GMW-23	12/19/2022	12:25:00 PM	35.7	35.71	0.01	0.003	0.007	
GMW-23	12/19/2022	12:25:30 PM	35.66	35.67	0.01	0.003	0.007	
GMW-23	12/19/2022	12:26:00 PM	35.64	35.65	0.01	0.002	0.003	
GMW-23	12/19/2022	12:26:30 PM	35.62	35.63	0.01	0.002	0.003	
GMW-23	12/19/2022	12:27:00 PM	35.59	35.6	0.01	0.003	0.005	
GMW-23	12/19/2022	12:27:30 PM	35.57	35.59	0.02	0.001	0.002	
GMW-23	12/19/2022	12:28:00 PM	35.55	35.58	0.03	0.001	0.002	
GMW-23	12/19/2022	12:28:30 PM	35.54	35.56	0.02	0.002	0.003	
GMW-23	12/19/2022	12:29:00 PM	35.51	35.54	0.03	0.002	0.003	
GMW-23	12/19/2022	12:33:00 PM	35.48	35.5	0.02	0.003	0.001	
GMW-23	12/19/2022	12:36:00 PM	35.47	35.49	0.02	0.001	0.000	
GMW-23	12/19/2022	12:42:00 PM	35.45	35.47	0.02	0.002	0.000	
GMW-23	12/19/2022	12:45:00 PM	35.44	35.46	0.02	0.001	0.000	
GMW-23	12/19/2022	12:50:00 PM	35.43	35.49	0.06	-0.003	-0.001	
GMW-23	12/19/2022	1:06:00 PM	35.42	35.5	0.08	-0.001	0.000	
GMW-23	12/19/2022	1:30:00 PM	35.41	35.58	0.17	-0.007	0.000	
GMW-23	12/20/2022	7:11:00 AM	36.25	37.56	1.31	-0.173	0.000	
GMW-23	12/20/2022	11:35:00 AM	36.29	37.71	1.42	-0.013	0.000	

Appendix D.2. LNAPL Recovery Data

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date	Time	Depth to Product (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Water Volume Recovered in Well During Measurement Period (Gallons)	Water Recovery Rate During Measurement Period (Gallons/Minute)	Comment
GMW-23	12/21/2022	7:13:00 AM	35.68	36.99	1.31	0.063	0.000	Measured before vacuum enhanced recovery
GMW-23	12/21/2022	8:45:00 AM	--	--	--	--	--	Completed vacuum enhanced recovery at 10:20 AM
GMW-23	12/21/2022	12:35:00 PM	35.88	35.88	0.00	--	--	
GMW-23	12/22/2022	7:45:00 AM	35.55	35.71	0.16	--	--	Began vacuum enhanced recovery at 8:45 AM
GMW-23	12/22/2022	10:10:00 AM	--	--	--	--	--	Completed vacuum enhanced recovery
GMW-23	12/22/2022	11:10:00 AM	--	--	--	--	--	Began vacuum enhanced recovery at 11:10 AM
GMW-23	12/22/2022	12:20:00 PM	36.15	36.15	0.00	--	--	Completed vacuum enhanced recovery at 12:10 PM
GMW-23	12/22/2022	12:25:00 PM	36.06	36.06	0.00	0.008	0.002	
GMW-23	12/22/2022	12:35:00 PM	35.93	35.93	0.00	0.011	0.001	
GMW-23	12/22/2022	12:55:00 PM	35.81	35.81	0.00	0.010	0.001	
GMW-23	12/22/2022	1:25:00 PM	35.75	35.75	0.00	0.005	0.000	
GMW-29	12/20/2022	7:25:00 AM	35.67	36.65	0.98	--	--	Measured before vacuum enhanced recovery
GMW-29	12/20/2022	9:33:00 AM	40.19	40.19	0.00	--	--	Measured after vacuum enhanced recovery
GMW-29	12/20/2022	9:33:30 AM	39.94	39.94	0.00	0.163	0.326	
GMW-29	12/20/2022	9:34:00 AM	39.82	39.82	0.00	0.078	0.157	
GMW-29	12/20/2022	9:34:30 AM	39.73	39.73	0.00	0.059	0.117	
GMW-29	12/20/2022	9:35:00 AM	39.63	39.63	0.00	0.065	0.130	
GMW-29	12/20/2022	9:35:30 AM	39.51	39.51	0.00	0.078	0.157	
GMW-29	12/20/2022	9:36:00 AM	39.44	39.44	0.00	0.046	0.091	
GMW-29	12/20/2022	9:36:30 AM	39.36	39.36	0.00	0.052	0.104	
GMW-29	12/20/2022	9:37:00 AM	39.29	39.29	0.00	0.046	0.091	
GMW-29	12/20/2022	9:37:30 AM	39.21	39.21	0.00	0.052	0.104	
GMW-29	12/20/2022	9:38:00 AM	39.12	39.12	0.00	0.059	0.117	
GMW-29	12/20/2022	9:38:30 AM	39.04	39.04	0.00	0.052	0.104	
GMW-29	12/20/2022	9:39:00 AM	38.97	38.97	0.00	0.046	0.091	
GMW-29	12/20/2022	9:40:00 AM	38.88	38.88	0.00	0.059	0.059	
GMW-29	12/20/2022	9:41:00 AM	38.63	38.63	0.00	0.163	0.163	
GMW-29	12/20/2022	9:42:00 AM	38.48	38.48	0.00	0.098	0.098	
GMW-29	12/20/2022	9:43:00 AM	38.33	38.33	0.00	0.098	0.098	
GMW-29	12/20/2022	9:44:00 AM	38.22	38.22	0.00	0.072	0.072	
GMW-29	12/20/2022	9:45:00 AM	38.1	38.1	0.00	0.078	0.078	
GMW-29	12/20/2022	10:20:00 AM	36.34	36.34	0.00	1.148	0.033	
GMW-29	12/20/2022	10:40:00 AM	36.1	36.1	0.00	0.157	0.008	
GMW-29	12/20/2022	11:00:00 AM	36.03	36.03	0.00	0.046	0.002	
GMW-29	12/20/2022	11:30:00 AM	35.97	35.97	0.00	0.039	0.001	
GMW-29	12/21/2022	7:19:00 AM	35.69	35.69	0.00	0.183	-0.001	
GMW-29	12/21/2022	12:31:00 PM	35.67	35.73	0.06	-0.026	0.000	
GMW-29	12/22/2022	9:10:00 AM	35.51	35.59	0.08	--	--	
GMW-30	12/20/2022	9:30:00 AM	36.83	37.17	0.34	--	--	Measured before vacuum enhanced recovery
GMW-30	12/20/2022	11:45:00 AM	40.69	40.69	0.00	--	--	Measured after vacuum enhanced recovery
GMW-30	12/20/2022	11:45:30 AM	40.58	40.58	0.00	0.161	0.323	
GMW-30	12/20/2022	11:46:00 AM	40.48	40.48	0.00	0.147	0.294	
GMW-30	12/20/2022	11:46:30 AM	40.39	40.39	0.00	0.132	0.264	
GMW-30	12/20/2022	11:47:00 AM	40.32	40.32	0.00	0.103	0.205	
GMW-30	12/20/2022	11:47:30 AM	40.24	40.24	0.00	0.117	0.235	
GMW-30	12/20/2022	11:48:00 AM	40.15	40.15	0.00	0.132	0.264	
GMW-30	12/20/2022	11:48:30 AM	40.07	40.07	0.00	0.117	0.235	
GMW-30	12/20/2022	11:49:00 AM	39.97	39.97	0.00	0.147	0.294	

Appendix D.2. LNAPL Recovery Data

SFPP Norwalk Pump Station, Norwalk, California

Well ID	Date	Time	Depth to Product (feet)	Depth to Water (feet)	Free Product Thickness (feet)	Water Volume Recovered in Well During Measurement Period (Gallons)	Water Recovery Rate During Measurement Period (Gallons/Minute)	Comment
GMW-30	12/20/2022	11:49:30 AM	39.89	39.89	0.00	0.117	0.235	
GMW-30	12/20/2022	11:50:00 AM	39.82	39.82	0.00	0.103	0.205	
GMW-30	12/20/2022	11:51:00 AM	39.66	39.66	0.00	0.235	0.235	
GMW-30	12/20/2022	11:52:00 AM	39.52	39.52	0.00	0.205	0.205	
GMW-30	12/20/2022	11:53:00 AM	39.37	39.37	0.00	0.220	0.220	
GMW-30	12/20/2022	11:54:00 AM	39.24	39.24	0.00	0.191	0.191	
GMW-30	12/20/2022	11:55:00 AM	39.09	39.09	0.00	0.220	0.220	
GMW-30	12/20/2022	12:00:00 PM	38.53	38.53	0.00	0.822	0.164	
GMW-30	12/20/2022	12:05:00 PM	38.23	38.23	0.00	0.440	0.088	
GMW-30	12/20/2022	12:10:00 PM	37.91	37.91	0.00	0.470	0.094	
GMW-30	12/20/2022	12:20:00 PM	37.59	37.59	0.00	0.470	0.047	
GMW-30	12/20/2022	12:40:00 PM	37.22	37.22	0.00	0.543	0.027	
GMW-30	12/21/2022	7:16:00 AM	36.05	36.05	0.00	1.717	-0.005	
GMW-30	12/21/2022	12:27:00 PM	36.01	36.03	0.02	0.029	0.000	
GMW-30	12/22/2022	8:58:00 AM	35.74	35.75	0.01	--	--	
GMW-O-12	12/21/2022	10:35:00 AM	33.70	33.73	0.03	--	--	Measured before vacuum enhanced recovery
GMW-O-12	12/21/2022	10:52:00 AM	--	--	--	--	--	
GMW-O-12	12/21/2022	12:08:00 PM	33.65	33.65	0.00	--	--	Measured after vacuum enhanced recovery
GMW-O-12	12/22/2022	10:00:00 AM	34.55	34.55	0.00	--	--	

Appendix E
Statistical Analysis Summary Data

Appendix E. Statistical Analysis Summary Data

SFPP Norwalk Pump Station, Norwalk, California

Mann-Kendall Test Data Preparation (All Data)																					
Location	**Analyte**	**COUNT**	**DET**	**CEN**	**PER.DET**	**MIN.CEN**	**MAX.CEN**	**MIN.DET**	**MAX.DET**	**MEAN**	**MEDIAN**	**SD**	**CV**	**LASTVALUE**	**LASTDATE**	**DIFF**	**S**	**PVAL**	**SLOPE**	**RESULT**	**TREND**	**STABILITY**	**MIN.LAG**
BW-1	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	May-97	N/A	IS	IS	IS	IS	IS	IS	
BW-2	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	May-97	N/A	IS	IS	IS	IS	IS	IS	
BW-3	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	May-97	N/A	IS	IS	IS	IS	IS	IS	
BW-4	TPH-g	1	1	0	100	---	---	960	960	960	960	---	---	960	May-97	0%	IS	IS	IS	IS	IS	IS	
BW-5	TPH-g	1	1	0	100	---	---	150	150	150	150	---	---	150	May-97	0%	IS	IS	IS	IS	IS	IS	
BW-6	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	May-97	N/A	IS	IS	IS	IS	IS	IS	
BW-7	TPH-g	1	1	0	100	---	---	200	200	200	200	---	---	200	May-97	0%	IS	IS	IS	IS	IS	IS	
BW-8	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	May-97	N/A	IS	IS	IS	IS	IS	IS	
BW-9	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	May-97	N/A	IS	IS	IS	IS	IS	IS	
EXP-1	TPH-g	104	2	102	2	50	500	82	200	52.8641	100	18.0531	0.3415	ND (50)	Nov-23	N/A	-123	0.074410126	---	92.6% (-)	No Trend	>50% ND	1
EXP-2	TPH-g	107	2	105	2	50	500	72	120	51.4899	100	8.6809	0.1686	ND (50)	Nov-23	N/A	-121	0.083787195	---	91.6% (-)	No Trend	>50% ND	1
EXP-3	TPH-g	107	1	106	1	50	500	120	120	146	100	112.6962	0.7745	ND (50)	Nov-23	N/A	-22	0.366947055	---	63.3% (-)	No Trend	>50% ND	1
EXP-4	TPH-g	57	0	57	0	50	500	---	---	157	50	142.8156	0.9096	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	19
EXP-5	TPH-g	88	0	88	0	50	500	---	---	127.8409	50	129.0678	1.0096	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	19
GB-21	TPH-g	1	0	1	0	50	50	---	---	50	50	---	---	ND (50)	Jan-11	N/A	IS	IS	IS	IS	IS	IS	
GB-22	TPH-g	1	0	1	0	50	50	---	---	50	50	---	---	ND (50)	Jan-11	N/A	IS	IS	IS	IS	IS	IS	
GB-23	TPH-g	1	0	1	0	50	50	---	---	50	50	---	---	ND (50)	Jan-11	N/A	IS	IS	IS	IS	IS	IS	
GMW-1	TPH-g	59	35	24	59	50	1000	55	68000	3767	500	9764.4332	2.5924	ND (50)	Nov-23	N/A	-813	1.85E-08	-123.8274	100% (sig -)	Decreasing	---	28
GMW-10	TPH-g	18	11	7	61	200	500	200	27000	4626	500	7021.4855	1.5178	ND (200)	Nov-23	N/A	-65	0.007	-311.5959	99.3% (sig -)	Decreasing	---	64
GMW-11	TPH-g	12	8	4	67	100	300	220	42400	4910	995	11444.27	2.3308	ND (100)	Apr-16	N/A	-38	0.004	-654.7932	99.6% (sig -)	Decreasing	---	133
GMW-12	TPH-g	42	2	40	4.76	50	500	99	110	75.6452	100	24.9044	0.3292	ND (100)	May-22	N/A	-79	0.010655423	0	98.9% (sig -)	Decreasing	---	135
GMW-13	TPH-g	55	1	54	1.82	50	500	1300	1300	124.5455	50	193.8577	1.5565	ND (50)	Nov-23	N/A	-54	0.047524698	0	95.2% (sig -)	Decreasing	---	4
GMW-14	TPH-g	31	10	21	32.26	50	500	58	1500	150.7144	100	270.367	1.7939	ND (100)	Oct-14	N/A	34	0.289	---	71.1% (+)	No Trend	>50% ND	55
GMW-14R	TPH-g	15	0	15	0.00	50	100	---	---	53.3333	50	12.9099	0.2421	ND (50)	Nov-23	N/A	0	0.52	---	48% (+)	No Trend	>50% ND	6
GMW-15	TPH-g	29	10	19	34.48	100	300	180.00	1900	309.1149	100	410.7677	1.3289	ND (100)	May-22	N/A	-175	5.52E-05	-7.3257	100% (sig -)	Decreasing	---	154
GMW-16	TPH-g	28	0	28	0.00	38	500	---	---	181.7143	100	118.5377	0.6523	ND (100)	May-22	N/A	0	0.508	---	49.2% (+)	No Trend	>50% ND	134
GMW-17	TPH-g	12	11	1	91.67	1100	1100	450.00	49000	5355.5556	1050	13264.0884	2.4767	510	Oct-14	99%	-19	0.1115	---	88.8% (-)	No Trend	Not Stable	174
GMW-17R	TPH-g	10	3	7	30.00	100	100	550	1300	319	100	381.3778	1.1955	ND (100)	May-22	N/A	-20	0.045	0	95.5% (sig -)	Decreasing	---	158
GMW-18	TPH-g	11	6	5	55	100	100	120	15000	2218.1818	120	4230.4649	1.9072	ND (100)	May-22	N/A	-23	0.043	-74.2009	95.7% (sig -)	Decreasing	---	168
GMW-19	TPH-g	29	5	24	17	50	500	150	3000	190	160	539	3	ND (100)	May-22	N/A	20	0.362	---	63.8% (+)	No Trend	>50% ND	134
GMW-1R	TPH-g	1	0	1	0.00	100	100	---	---	100	100	---	---	ND (100)	Nov-23	N/A	IS	IS	IS	IS	IS	IS	
GMW-2	TPH-g	19	3	16	16	50	500	91	350	85.2998	300	73.5794	0.8626	ND (50)	May-10	N/A	-1	0.5	---	50% (-)	No Trend	>50% ND	139
GMW-20	TPH-g	16	3	13	19	100	500	160	1100	193	300	246	1	ND (100)	Apr-17	N/A	-38	0.048	0	95.2% (sig -)	Decreasing	---	135
GMW-21	TPH-g	14	5	9	36	100	100	130	1500	227	100	357.16	1.5724	ND (100)	May-22	N/A	-51	0.002	-20.6907	99.8% (sig -)	Decreasing	---	158
GMW-22	TPH-g	4	4	0	100	---	---	4100	46000	27525	30000	17419.4097	0.6329	32000	Oct-12	30%	4	0.167	---	83.3% (+)	No Trend	Stable	181
GMW-23	TPH-g	10	10	0	100	---	---	59	37000	9430.9	385	14931.6496	1.5833	19000	Aug-21	49%	-4	0.3975	---	60.2% (-)	No Trend	Not Stable	44
GMW-24	TPH-g	2	2	0	100	---	---	58000	70000	64000	64000	8485.2814	0.1326	58000	Oct-11	17%	IS	IS	IS	IS	IS	IS	167
GMW-25	TPH-g	20	11	9	55	50	20000	56	15000	1551	94	4132.406	2.6642	ND (200)	Nov-23	N/A	-76	0.00522672	-11.5565	99.5% (sig -)	Decreasing	---	44
GMW-26	TPH-g	34	11	23	32	50	300	62	6700	479.6936	50	1223.2367	2.55	ND (50)	Nov-23	N/A	-256	2.47E-06	-1.6381	100% (sig -)	Decreasing	---	30
GMW-27	TPH-g	37	29	8	78.38	50	100	95	21000	4123.1853	3100	4832.8864	1.1721	ND (50)	Oct-14	N/A	-319	1.43E-05	-308.8378	100% (sig -)	Decreasing	---	78
GMW-28	TPH-g	34	19	15	55.88	50	50	58	46000	7420.1765	72	13941.4433	1.8789	ND (50)	Nov-23	N/A	-376	2.83E-09	-102.8556	100% (sig -)	Decreasing	---	31
GMW-29	TPH-g	7	7	0	100	---	---	1600.00	74000	25428.5714	13000	28154.2012	1.1072	2200	Aug-21	97%	12	0.0515	---	94.8% (+)	No Trend	Not Stable	71
GMW-3	TPH-g	43	1	42	2	50	500	120	120	121.3953	50	117.5865	0.9686	ND (50)	Nov-23	N/A	-2	0.483930498	---	51.6% (-)	No Trend	>50% ND	64
GMW-30	TPH-g	11	8	3	72.73	50	100	99	14000	2385.0303	280	4464.3901	1.8718	ND (50)	Nov-20	N/A	-50	5.72E-05	-131.3599	100% (sig -)	Decreasing	---	31
GMW-31	TPH-g	28	3	25	10.71	100	500	55.00	1100	109.2857	100	210.0285	1.9218	ND (100)	May-22	N/A	-64	0.108	---	89.2% (-)	No Trend	>50% ND	134
GMW-32	TPH-g	16	8	8	50.00	100	500	63	1000	301	300	258.0614	0.8581	290	Oct-14	71%	10	0.345	---	65.5% (+)	No Trend	Stable	135
GMW-33	TPH-g	12	0	12	0	38	500	---	---	274	300	121.7419	0.4443	ND (300)	Apr-02	N/A	0	0.527	---	47.3% (+)	No Trend	>50% ND	134
GMW-34	TPH-g	6	3	3	50.00	300	300	740.00	9500.00	2016.6667	520	3356.276	1.6643	960	Apr-02	90%	-4	0.2975	---	70.2% (-)	No Trend	Not Stable	155
GMW-35	TPH-g	1	1	0	100.00	---	---	20000	20000	20000	20000	---	---	20000	May-01	0%	IS	IS	IS	IS	IS	IS	
GMW-35R	TPH-g	10	8	2	80.00	100	100	160	1200	377	205	334.8746	0.8883	ND (100)	May-22	N/A	3	0.431	---	56.9% (+)	No Trend	Stable	161
GMW-36	TPH-g	73	64	9	87.67	50	2000	68	560000	32930.2808	7300	78369.875	2.3799	ND (2000)	Nov-23	N/A	-1164	1.47E-08	-1092	100% (sig -)	Decreasing	---	14
GMW-37	TPH-g	62	0	62	0.00	50	500	---	---	113.1613	50	117.6349	1.0395	ND (50)	May-22	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	48
GMW-38	TPH-g	67	0	67	0.00	50	500	---	---	97.2537	50	106.9091	1.0993	ND (50)	May-22	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	48
GMW-39	TPH-g	74	3	71	4.05	50	500	90	160	53.4332	50	16.4039	0.307	ND (50)	Nov-23	N/A	-36	0.31580323	---	68.4% (-)	No Trend	>50% ND	47
GMW-4	TPH-g	19	19	0	100.00	---	---	380	16000	2930.5263	2100	3407.0409	1.1626	1800	Oct-13	89%	15	0.314	---	68.6% (+)	No Trend	Not Stable	1

Appendix E. Statistical Analysis Summary Data

SFPP Norwalk Pump Station, Norwalk, California

Mann-Kendall Test Data Preparation (All Data)																					
Location	**Analyte**	**COUNT**	**DET**	**CEN**	**PER.DET**	**MIN.CEN**	**MAX.CEN**	**MIN.DET**	**MAX.DET**	**MEAN**	**MEDIAN**	**SD**	**CV**	**LASTVALUE**	**LASTDATE**	**DIFF**	**S**	**PVAL**	**SLOPE**	**RESULT**	**TREND**	**STABILITY**	**MIN.LAG**
GMW-40	TPH-g	18	3	15	16.67	50	500	120	400	101.5126	300	93.0224	0.9164	ND (100)	Oct-16	N/A	-26	0.1745	---	82.5% (-)	No Trend	>50% ND	134
GMW-41	TPH-g	27	2	25	7	100	500	75	250	85.9375	100	42.3608	0.4929	ND (100)	May-22	N/A	-51	0.15	---	85% (-)	No Trend	>50% ND	134
GMW-42	TPH-g	23	6	17	26	100	300	380	7900	1231	100	2482	2	ND (100)	May-22	N/A	-111	0.001	0	99.9% (sig -)	Decreasing	---	154
GMW-43	TPH-g	27	1	26	3.70	50	500	620	620	206.2963	100	142.4821	0.6907	ND (100)	May-22	N/A	-26	0.303	---	69.7% (-)	No Trend	>50% ND	134
GMW-44	TPH-g	29	3	26	10.34	100	500	68	820	99.1562	100	137.8773	1.3905	ND (100)	May-22	N/A	-43	0.2175	---	78.2% (-)	No Trend	>50% ND	135
GMW-45	TPH-g	22	22	0	100.00	---	---	230	23000	4127.7273	3200	4769.5013	1.1555	270	May-22	99%	-67	0.031263161	-107.8446	96.9% (sig -)	Decreasing	---	134
GMW-47	TPH-g	56	25	31	44.64	100	300	130.00	9600	844.7946	100	1936.7111	2.2925	440	May-22	95%	-409	0.000757753	0	99.9% (sig -)	Decreasing	---	18
GMW-48	TPH-g	18	11	7	61.11	100	100	150	56000	3695.5556	320	12705.1928	3.438	ND (100)	May-22	N/A	-122	1.09E-06	-187.0953	100% (sig -)	Decreasing	---	154
GMW-4R	TPH-g	14	3	11	21	50	200	84.00	120	61.8462	50	22.7557	0.3679	ND (50)	Nov-23	N/A	-14	0.242	---	75.8% (-)	No Trend	>50% ND	161
GMW-5	TPH-g	15	0	15	0.00	50	500	---	---	226.6667	300	132.1075	0.5828	ND (100)	Apr-15	N/A	0	0.52	---	48% (+)	No Trend	>50% ND	154
GMW-50	TPH-g	1	0	1	0	100	100	---	---	100.00	100	---	---	ND (100)	Apr-16	N/A	IS	IS	IS	IS	IS	IS	
GMW-54	TPH-g	2	0	2	0	100	100	---	---	100	100	0	0	ND (100)	Apr-17	N/A	IS	IS	IS	IS	IS	IS	730
GMW-56	TPH-g	25	0	25	0.00	100	300	---	---	164	100	95.219	0.5806	ND (100)	May-22	N/A	0	0.509	---	49.1% (+)	No Trend	>50% ND	154
GMW-57	TPH-g	51	25	26	49.02	100	300	110	28000	1799.2059	110.00	5304.2124	2.9481	ND (100)	May-22	N/A	-673	2.13E-09	-10.4522	100% (sig -)	Decreasing	---	40
GMW-58	TPH-g	36	28	8	77.78	100	100	100	21000	2386.9444	1050	3989.5557	1.6714	ND (100)	May-22	N/A	-463	1.20E-10	-176.3679	100% (sig -)	Decreasing	---	40
GMW-59	TPH-g	50	40	10	80.00	100	1800	210	67000	4548.8444	2550	9441.1234	2.0755	ND (100)	May-22	N/A	-819	3.09E-12	-370.6902	100% (sig -)	Decreasing	---	40
GMW-6	TPH-g	35	2	33	5.71	50	500	3400.00	5300	295.7143	100	1023.6051	3.4615	ND (100)	May-22	N/A	-43	0.277	---	72.3% (-)	No Trend	>50% ND	48
GMW-60	TPH-g	51	39	12	76.47	100	100	110	15000	2460.7843	1500	3139.7308	1.2759	ND (100)	May-22	N/A	-994	2.26E-16	-321.5914	100% (sig -)	Decreasing	---	40
GMW-61	TPH-g	50	37	13	74.00	100	100	120	23000	3693	750	5873.1202	1.5903	ND (100)	May-22	N/A	-1019	3.94E-18	-453.7623	100% (sig -)	Decreasing	---	40
GMW-62	TPH-g	19	19	0	100	---	---	510	17000	3506	2200	3821	1	510	May-22	97%	-43	0.072	---	92.8% (-)	No Trend	Not Stable	70
GMW-63	TPH-g	23	0	23	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.5107	---	48.9% (+)	No Trend	>50% ND	70
GMW-64	TPH-g	23	0	23	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.5107	---	48.9% (+)	No Trend	>50% ND	70
GMW-65	TPH-g	19	0	19	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.514	---	48.6% (+)	No Trend	>50% ND	124
GMW-66	TPH-g	4	0	4	0.00	100	100	---	---	100	100	0	0	ND (100)	Oct-14	N/A	0	0.625	---	37.5% (+)	No Trend	>50% ND	190
GMW-66R	TPH-g	13	0	13	0	100	100	---	---	100.00	100	0	0	ND (100)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	162
GMW-67	TPH-g	14	6	8	43	100	100	110	900	189	100	208	1	110	May-22	88%	-8	0.354	---	64.6% (-)	No Trend	>50% ND	161
GMW-68	TPH-g	3	3	0	100	---	---	5600	17000	12533	15000	6087.1449	0.4857	5600	May-22	67%	IS	IS	IS	IS	IS	IS	173
GMW-69	TPH-g	14	14	0	100	---	---	130	3600	1370	1115	1039.2157	0.7586	170	May-22	95%	-48	0.004	-325.8054	99.6% (sig -)	Decreasing	---	161
GMW-7	TPH-g	13	13	0	100.00	---	---	150.00	520000	40395.3846	520	144103.3804	3.5673	670	May-22	100%	1	0.5	---	50% (+)	No Trend	Not Stable	161
GMW-8	TPH-g	50	0	50	0	50	500	---	---	121	50	132.8994	1.0983	ND (500)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	2
GMW-9	TPH-g	19	7	12	37	50	100	67	61000	6506	50	17591.5739	2.7041	ND (100)	Nov-23	N/A	-85	0.001	-9.3169	99.9% (sig -)	Decreasing	---	44
GMW-O-1	TPH-g	86	0	86	0	50	500	---	---	111	50	116	1	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	29
GMW-O-10	TPH-g	59	36	23	61	50	500	52	32000	3601.5142	140	6756.8291	1.8761	ND (50)	Nov-23	N/A	-901	6.18E-10	-94.0308	100% (sig -)	Decreasing	---	30
GMW-O-11	TPH-g	11	4	7	36.36	50	200	95	10000	1000.3247	100	2846.6875	2.8458	ND (200)	Nov-23	N/A	-4	0.4105	---	59% (-)	No Trend	>50% ND	63
GMW-O-12	TPH-g	10	8	2	80	500	2000	5300	34000	17030	18000	11637.7876	0.6834	ND (2000)	Nov-23	N/A	-16	0.093	---	90.7% (-)	No Trend	Stable	175
GMW-O-14	TPH-g	86	78	8	90.70	50	50	250	160000	22244.8837	16000	23646.3167	1.063	ND (50)	Nov-23	N/A	-1227	2.37E-06	-1006.2026	100% (sig -)	Decreasing	---	28
GMW-O-15	TPH-g	42	41	1	97.62	1000	1000	190	370000	19971.7582	1750	60312.886	3.0199	ND (1000)	Nov-20	N/A	17	0.431153178	---	56.9% (+)	No Trend	Not Stable	14
GMW-O-16	TPH-g	86	6	80	6.98	50	500	57	320	56.1636	50	32.6349	0.5811	ND (50)	Nov-23	N/A	123	0.150802851	---	84.9% (+)	No Trend	>50% ND	16
GMW-O-17	TPH-g	44	0	44	0	50	500	---	---	113.64	50	117.3167	1.0324	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	134
GMW-O-18	TPH-g	61	44	17	72.13	50	3000	55	11000000	182657.9171	220	1396523.547	7.6456	2000	Nov-23	100%	459	0.001959682	29	99.8% (sig +)	Increasing	---	14
GMW-O-19	TPH-g	84	4	80	4.76	50	500	52	510	57.743	50	51.6332	0.8942	ND (50)	Nov-23	N/A	-10	0.462366402	---	53.8% (-)	No Trend	>50% ND	16
GMW-O-2	TPH-g	79	0	79	0.00	50	500	---	---	94.9367	50	101.1457	1.0654	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	13
GMW-O-20	TPH-g	25	21	4	84	100	500	82	48000	11754.675	1200	16926.3542	1.44	ND (500)	Nov-23	N/A	-240	1.10E-08	-2638.3886	100% (sig -)	Decreasing	---	45
GMW-O-21	TPH-g	26	16	10	62	50	8000	140	66000	10081	3600	16273.1326	1.6142	ND (100)	Nov-23	N/A	-197	4.12E-06	-2015	100% (sig -)	Decreasing	---	63
GMW-O-23	TPH-g	21	15	6	71.43	50	100	57	120000	15241.9048	110	31310.6884	2.0543	ND (50)	May-22	N/A	-134	2.34E-05	-1737.2463	100% (sig -)	Decreasing	---	45
GMW-O-24	TPH-g	24	0	24	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.51	---	49% (+)	No Trend	>50% ND	62
GMW-O-3	TPH-g	88	44	44	50	50	500	51	14000	700.5651	84	1758.9138	2.5107	ND (50)	Nov-23	N/A	-1738	1.04E-11	-26.902	100% (sig -)	Decreasing	---	13
GMW-O-4	TPH-g	57	0	57	0.00	50	500	---	---	99.1228	50	106.2726	1.0721	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	1
GMW-O-4 (MID)	TPH-g	31	0	31	0.00	50	500	---	---	132.2581	50	128.8076	0.9739	ND (50)	Oct-12	N/A	0	0.5063	---	49.4% (+)	No Trend	>50% ND	133
GMW-O-5	TPH-g	64	0	64	0	50	500	---	---	131.25	50	133.78	1.0193	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	30
GMW-O-6	TPH-g	20	0	20	0.00	50	500	---	---	177.5	100	141.8626	0.7992	ND (50)	Apr-12	N/A	0	0.513	---	48.7% (+)	No Trend	>50% ND	153
GMW-O-7	TPH-g	1	0	1	0.00	500	500	---	---	500	500	---	---	ND (500)	May-99	N/A	IS	IS	IS	IS	IS	IS	
GMW-O-8	TPH-g	21	0	21	0.00	50	300	---	---	61.9048	50	54.5545	0.8813	ND (50)	Oct-12	N/A	0	0.512	---	48.8% (+)	No Trend	>50% ND	133
GMW-O-9	TPH-g	56	0	56	0	50	500	---	---	95.5357	50	103.6939	1.0854	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	29
GMW-SF-10	TPH-g	7	2	5	28.57	50	50	90	100	62.8571	50	20.5039	0.3262	ND (50)	Oct-12	N/A	-9	0.119	---	88.1% (-)	No Trend	>50% ND	16

Appendix E. Statistical Analysis Summary Data

SFPP Norwalk Pump Station, Norwalk, California

Mann-Kendall Test Data Preparation (All Data)																						
Location	**Analyte**	**COUNT**	**DET**	**CEN**	**PER.DET**	**MIN.CEN**	**MAX.CEN**	**MIN.DET**	**MAX.DET**	**MEAN**	**MEDIAN**	**SD**	**CV**	**LASTVALUE**	**LASTDATE**	**DIFF**	**S**	**PVAL**	**SLOPE**	**RESULT**	**TREND**	**STABILITY**	**MIN.LAG**
GMW-SF-7	TPH-g	61	3	58	5	50	500	220	550	67	50	76.7794	1.1537	ND (50)	May-22	N/A	-97	0.054791082	---	94.5% (-)	No Trend	>50% ND	53
GMW-SF-8	TPH-g	63	1	62	1.59	50	500	660	660	104.9206	50	124.0821	1.1826	ND (50)	Nov-23	N/A	-50	0.088938542	---	91.1% (-)	No Trend	>50% ND	64
GMW-SF-9	TPH-g	8	1	7	13	50	100	79	79	59.875	50.00	19.1269	0.3194	ND (50)	Oct-12	N/A	-5	0.317	---	68.3% (-)	No Trend	>50% ND	1
GW-1	TPH-g	6	0	6	0	100	100	---	---	100	100	0	0	ND (100)	Apr-17	N/A	0	0.5773	---	42.3% (+)	No Trend	>50% ND	175
GW-13(6")	TPH-g	24	2	22	8.33	100	100	230	1500	163.75	100	279.8335	1.71	ND (100)	May-22	N/A	-29	0.246	---	75.4% (-)	No Trend	>50% ND	161
GW-13(6)	TPH-g	24	2	22	8.33	100	100	230	1500	163.75	100	279.8335	1.7089	ND (100)	May-22	N/A	-29	0.246	---	75.4% (-)	No Trend	>50% ND	161
GW-14(1")	TPH-g	3	3	0	100.00	---	---	110	950	653.3333	900	471.2041	0.7212	950	Jan-10	0%	IS	IS	IS	IS	IS	IS	83
GW-14(1)	TPH-g	3	3	0	100.00	---	---	110	950	653.3333	900	471.2041	0.7212	950	Jan-10	0%	IS	IS	IS	IS	IS	IS	83
GW-14(6")	TPH-g	7	7	0	100.00	---	---	690	2200	1515.7143	1700	553.2889	0.365	1700	Oct-14	23%	8	0.155	---	84.5% (+)	No Trend	Stable	180
GW-14(6)	TPH-g	7	7	0	100.00	---	---	690	2200	1515.7143	1700	553.2889	0.365	1700	Oct-14	23%	8	0.155	---	84.5% (+)	No Trend	Stable	180
GW-14R	TPH-g	3	2	1	66.67	100	100	140	1400	546.6667	140	603.6187	1.1042	ND (100)	May-22	N/A	IS	IS	IS	IS	IS	IS	199
GW-15(6")	TPH-g	15	8	7	53.33	100	100	190.00	32000	4461.3333	190	8125.7753	1.8214	ND (100)	May-22	N/A	-74	6.51E-05	-624.0241	100% (sig -)	Decreasing	---	154
GW-15(6)	TPH-g	15	8	7	53.33	100	100	190	32000	4461.3333	190	8125.7753	1.8214	ND (100)	May-22	N/A	-74	6.51E-05	-624.0241	100% (sig -)	Decreasing	---	154
GW-16(6")	TPH-g	22	2	20	9	100	100	100	2500	209.09	100	499.9173	2.3909	ND (100)	May-22	N/A	-15	0.35	---	65.2% (-)	No Trend	>50% ND	82
GW-16(6)	TPH-g	22	2	20	9	100	100	100	2500	209.0909	100	499.9173	2.3909	ND (100)	May-22	N/A	-15	0.348	---	65.2% (-)	No Trend	>50% ND	82
GW-2	TPH-g	22	2	20	9.09	100	100	180	1800	180.9091	100	353.7065	1.9552	ND (100)	May-22	N/A	-27	0.234	---	76.6% (-)	No Trend	>50% ND	161
GW-3	TPH-g	18	0	18	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.515	---	48.5% (+)	No Trend	>50% ND	160
GW-4	TPH-g	3	0	3	0	100	100	---	---	100	100	0	0	ND (100)	Oct-16	N/A	IS	IS	IS	IS	IS	IS	181
GW-6	TPH-g	24	2	22	8.33	100	300	339.00	690	134.5417	100	125.264	0.931	ND (100)	May-22	N/A	-41	0.1625	---	83.8% (-)	No Trend	>50% ND	160
GW-7	TPH-g	4	0	4	0.00	100	300	---	---	150	100	100	0.6667	ND (100)	Apr-17	N/A	0	0.625	---	37.5% (+)	No Trend	>50% ND	190
GW-8	TPH-g	17	0	17	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.516	---	48.4% (+)	No Trend	>50% ND	158
GWR-1	TPH-g	28	25	3	89	100	500	130	16000	2671.6369	1650	3194.9962	1.1959	ND (100)	Oct-14	N/A	-130	0.005351541	-140.3461	99.5% (sig -)	Decreasing	---	87
GWR-1R	TPH-g	13	0	13	0	50	50	---	---	50	50	0	0	ND (50)	May-23	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	161
GWR-3	TPH-g	3	2	1	66.67	20000	20000	21000	25000	22000	21000	2160.2469	0.0982	ND (20000)	Oct-11	N/A	IS	IS	IS	IS	IS	IS	183
HL-2	TPH-g	52	4	48	7.69	50	500	150	1400	92.1703	50	196.479	2.1317	ND (50)	May-23	N/A	-170	0.001877502	0	99.8% (sig -)	Decreasing	---	78
HL-3	TPH-g	37	3	34	8.11	50	300	80	130	54.3324	50.00	15.2769	0.2812	ND (50)	Nov-23	N/A	-45	0.28	---	71.7% (-)	No Trend	>50% ND	30
HL-4	TPH-g	16	15	1	93.75	300	300	200	2800	1225.3125	1150	796.8806	0.6503	200	Nov-04	93%	-32	0.083	---	91.7% (-)	No Trend	Stable	139
HL-5	TPH-g	1	1	0	100.00	---	---	950	950	950	950	---	---	950	Jul-97	0%	IS	IS	IS	IS	IS	IS	
MW-10	TPH-g	13	0	13	0	38	500	---	---	260.6154	300	126.1544	0.4841	ND (100)	Apr-16	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	134
MW-11	TPH-g	5	1	4	20	300	300	220	220	284.00	300	35.7771	0.126	220	Apr-12	0%	4	0.242	---	75.8% (+)	No Trend	>50% ND	154
MW-12	TPH-g	52	0	52	0	50	500	---	---	101.9231	50	110.6848	1.086	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	133
MW-13	TPH-g	32	1	31	3.12	50	500	1100	1100.00	204.6875	100	197.7125	0.9659	ND (100)	May-22	N/A	-31	0.3145	---	68.5% (-)	No Trend	>50% ND	134
MW-14	TPH-g	35	6	29	17.14	50	500	180	670	139.9532	300	149.2741	1.0666	ND (100)	Apr-17	N/A	61	0.198	---	80.2% (+)	No Trend	>50% ND	19
MW-15	TPH-g	22	14	8	63.64	300	500	340	59000	3419.026	590	12141.7874	3.5512	590	Oct-14	99%	75	0.01598233	32.9422	98.4% (sig +)	Increasing	---	111
MW-15R	TPH-g	14	5	9	35.71	50	100	53	130	60	50	21	0	ND (50)	Nov-23	N/A	-9	0.334	---	66.6% (-)	No Trend	>50% ND	161
MW-16	TPH-g	36	2	34	5.56	50	500	50	51	50.125	100	0.3307	0.0066	ND (100)	May-22	N/A	-39	0.3035	---	69.7% (-)	No Trend	>50% ND	98
MW-17	TPH-g	32	2	30	6.25	50	500	45	130	49.0476	100	18.1015	0.3691	ND (100)	May-22	N/A	-25	0.35	---	65% (-)	No Trend	>50% ND	134
MW-18 (MID)	TPH-g	29	10	19	34.48	50	200	96	4100	329.8912	100	769.9431	2.3339	ND (200)	Nov-23	N/A	-152	0.002	0	99.8% (sig -)	Decreasing	---	29
MW-19 (MID)	TPH-g	62	24	38	38.71	50	10000	54	5200	321.591	55	809.2255	2.5163	ND (50)	Nov-23	N/A	-677	1.37E-06	0	100% (sig -)	Decreasing	---	48
MW-20 (MID)	TPH-g	55	7	48	12.73	50	500	51	97	51.878	50	7.4447	0.1435	ND (50)	Nov-23	N/A	-60	0.228914261	---	77.1% (-)	No Trend	>50% ND	49
MW-21 (MID)	TPH-g	37	6	31	16.22	50	500	57	87	53.9615	50	8.7946	0.163	ND (50)	Nov-23	N/A	-36	0.325	---	67.5% (-)	No Trend	>50% ND	155
MW-22 (MID)	TPH-g	44	2	42	4.55	50	500	46.00	180	51.8261	140	27.3268	0.5273	ND (100)	May-22	N/A	-39	0.142286211	---	85.8% (-)	No Trend	>50% ND	1
MW-23 (MID)	TPH-g	12	2	10	16.67	300	300	140	1400	245	300	348.2456	1.4214	ND (300)	Oct-02	N/A	-21	0.087	---	91.3% (-)	No Trend	>50% ND	154
MW-24	TPH-g	29	3	26	10.34	100	300	92	700	113.3946	100	110.8726	0.9778	ND (100)	May-22	N/A	-75	0.083	---	91.7% (-)	No Trend	>50% ND	134
MW-25	TPH-g	16	0	16	0.00	50	500	---	---	281.25	300	126.3263	0.4492	ND (100)	Nov-19	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	1
MW-26	TPH-g	31	16	15	51.61	50	500	130	8400	1245.2645	300	2316.9985	1.8606	ND (100)	May-22	N/A	-160	0.002004424	-40	99.8% (sig -)	Decreasing	---	135
MW-27	TPH-g	30	3	27	10	50	300	420	7200	349	100	1299.7419	3.7242	ND (100)	May-22	N/A	-66	0.1245	---	87.5% (-)	No Trend	>50% ND	135
MW-28	TPH-g	14	3	11	21	100	500	220	1500	249.5238	300	353.3038	1.4159	ND (100)	Apr-17	N/A	-18	0.1795	---	82% (-)	No Trend	>50% ND	134
MW-29	TPH-g	27	13	14	48	100	300	120	84700	4813	120	16564	3	ND (100)	May-22	N/A	-234	7.48E-08	-78.0345	100% (sig -)	Decreasing	---	155
MW-6	TPH-g	54	1	53	2	50	500	89	89	103	50	108.355	1.0564	ND (50)	Nov-23	N/A	-21	0.260563105	---	73.9% (-)	No Trend	>50% ND	132
MW-7	TPH-g	54	11	43	20	50	500	57.00	590	98.1021	50	141.1503	1.4388	ND (200)	Nov-23	N/A	-423	3.56E-06	0	100% (sig -)	Decreasing	---	134
MW-8	TPH-g	67	9	58	13	50	500	79	1700	133	50	308.3089	2.3161	ND (50)	Nov-23	N/A	-252	0.010763928	0	98.9% (sig -)	Decreasing	---	52
MW-9	TPH-g	42	29	13	69	50	500	66	4700	966	935	978	1	ND (50)	Nov-23	N/A	-565	2.54E-10	-93.1208	100% (sig -)	Decreasing	---	133
MW-O-1	TPH-g	7	5	2	71	50	50	4500	32000	13086	14000	11604	1	ND (50)	Feb-21	N/A	-12	0.0515	---	94.8% (-)	No Trend	Stable	184
MW-O-2	TPH-g	22	19	3	86.36	200	5000	520	73000	12174.4949	5450	17615.114	1.4469	ND (1000)	Nov-23	N/A	-106	0.001501282	-2302.378	99.8% (sig -)	Decreasing	---	63

Appendix E. Statistical Analysis Summary Data

SFPP Norwalk Pump Station, Norwalk, California

Mann-Kendall Test Data Preparation (All Data)																						
Location	**Analyte**	**COUNT**	**DET**	**CEN**	**PER.DET**	**MIN.CEN**	**MAX.CEN**	**MIN.DET**	**MAX.DET**	**MEAN**	**MEDIAN**	**SD**	**CV**	**LASTVALUE**	**LASTDATE**	**DIFF**	**S**	**PVAL**	**SLOPE**	**RESULT**	**TREND**	**STABILITY**	**MIN.LAG**
MW-SF-1	TPH-g	49	36	13	73	50	1000	55	34000	9777.5394	10000	8581.1699	0.8776	ND (1000)	Nov-23	N/A	-720	1.84E-10	-1095.2065	100% (sig -)	Decreasing	---	45
MW-SF-10	TPH-g	3	3	0	100	---	---	18000	31000	26333	30000	7234	0	18000	Oct-11	42%	IS	IS	IS	IS	IS	IS	182
MW-SF-11	TPH-g	5	5	0	100.00	---	---	7800	77000	29160	16000	27925.4006	0.96	77000	Oct-12	0%	6	0.117	---	88.3% (+)	No Trend	Stable	167
MW-SF-12	TPH-g	4	3	1	75.00	50	50	17000	110000	38512.5	22000	42382.6376	1.1005	ND (50)	Nov-23	N/A	0	0.625	---	37.5% (+)	No Trend	Not Stable	167
MW-SF-13	TPH-g	19	8	11	42.11	50	200	78	42000	3337.2331	200	9396.9173	2.8158	ND (200)	Nov-23	N/A	-70	0.007	-131.3036	99.3% (sig -)	Decreasing	---	45
MW-SF-14	TPH-g	8	7	1	87.50	20000	20000	370	270000	44052	16500	85914.1248	1.9503	370	Apr-16	100%	-8	0.199	---	80.1% (-)	No Trend	Not Stable	167
MW-SF-15	TPH-g	19	10	9	53	100	500	110	35000	2932.9965	190	8064.9927	2.7497	ND (200)	Nov-23	N/A	-100	0.00	-25.5066	100% (sig -)	Decreasing	---	45
MW-SF-16	TPH-g	6	6	0	100.00	---	---	3000	100000	25150	6900	38020.7706	1.51	3000	Oct-15	97%	3	0.36	---	64% (+)	No Trend	Not Stable	168
MW-SF-2	TPH-g	3	3	0	100.00	---	---	48000	110000	76666.6667	72000	31262.3309	0.4078	72000	Oct-11	35%	IS	IS	IS	IS	IS	IS	182
MW-SF-3	TPH-g	4	3	1	75	500	500	9500	280000	76250	12250	117748.9384	1.5442	280000	Nov-15	0%	4	0.167	---	83.3% (+)	No Trend	Not Stable	168
MW-SF-4	TPH-g	30	18	12	60	50	500	540	40000	10554.6667	9950	10990.0894	1.04	ND (100)	Nov-22	N/A	-274	2.22E-07	-1686.067	100% (sig -)	Decreasing	---	45
MW-SF-5	TPH-g	6	3	3	50.00	200	500	270	570	341.6667	500	153.7765	0.4501	270	Oct-15	53%	-4	0.2975	---	70.2% (-)	No Trend	Stable	175
MW-SF-6	TPH-g	19	10	9	53	200	500	110.00	59000	8272.2488	200	16303.4809	1.9709	ND (500)	Nov-23	N/A	-103	7.59E-05	-768.3171	100% (sig -)	Decreasing	---	45
MW-SF-9	TPH-g	18	16	2	88.89	500	500	110	24000	3218.1481	1010	5454.3788	1.6949	2300	Apr-16	90%	-10	0.3685	---	63.1% (-)	No Trend	Not Stable	67
PO-7	TPH-g	1	0	1	0.00	100	100	---	---	100	100	---	---	ND (100)	Nov-05	N/A	IS	IS	IS	IS	IS	IS	
PW-1	TPH-g	30	1	29	3	50	500	190	190	148	50	131.5006	0.8885	ND (100)	Nov-19	N/A	-29	0.31	---	69% (-)	No Trend	>50% ND	133
PW-2	TPH-g	33	3	30	9.09	50	500	83	140	63.2857	300	27.2775	0.431	ND (50)	Apr-08	N/A	5	0.4755	---	52.4% (+)	No Trend	>50% ND	48
PW-3	TPH-g	59	1	58	1.69	50	500	140	140	121.8644	50	131.3652	1.078	ND (50)	Nov-23	N/A	-58	0.047106814	0	95.3% (sig -)	Decreasing	---	48
PZ-1	TPH-g	11	7	4	64	100	300	220	2000	455.0909	350	510.8968	1.1226	ND (300)	Apr-02	N/A	-1	0.5	---	50% (-)	No Trend	Not Stable	140
PZ-10	TPH-g	31	10	21	32	50	1000	340	11000	1293.883	200	2562.5606	1.9805	ND (200)	Apr-16	N/A	-155	0.004	0	99.6% (sig -)	Decreasing	---	51
PZ-2	TPH-g	24	13	11	54	50	100	53	2300	313.4833	105	499.5101	1.5934	ND (50)	Nov-23	N/A	-144	9.08E-05	-34.5214	100% (sig -)	Decreasing	---	29
PZ-3	TPH-g	14	9	5	64.29	100	100	210.00	5300.00	1100.7143	690	1429.4478	1.2987	910	May-22	83%	-54	0.0015	-218.3589	99.9% (sig -)	Decreasing	---	158
PZ-5	TPH-g	76	71	5	93	50	4000	120	3200000	49442.4111	2900	364926.5546	7.3808	ND (200)	Nov-23	N/A	311	0.08206147	---	91.8% (+)	No Trend	Not Stable	17
PZ-6	TPH-g	4	0	4	0	50	300	---	---	175	175	144	1	ND (50)	Jul-04	N/A	0	0.625	---	37.5% (+)	No Trend	>50% ND	72
PZ-7A	TPH-g	3	3	0	100.00	---	---	160	340	246.6667	240	90.185	0.3656	240	Oct-03	29%	IS	IS	IS	IS	IS	IS	16
PZ-7B	TPH-g	3	3	0	100	---	---	61	98	83	90	19	0	90	Oct-03	8%	IS	IS	IS	IS	IS	IS	16
PZ-8A	TPH-g	4	0	4	0	50	50	---	---	50	50	0	0	ND (50)	Dec-06	N/A	0	0.625	---	37.5% (+)	No Trend	>50% ND	16
PZ-8B	TPH-g	4	2	2	50	50	50	86	310	124	68	108.3882	0.8741	ND (50)	Dec-06	N/A	1	0.5	---	50% (+)	No Trend	Stable	16
PZ-9A	TPH-g	3	0	3	0	50	50	---	---	50	50	0	0	ND (50)	Oct-03	N/A	IS	IS	IS	IS	IS	IS	16
PZ-9B	TPH-g	3	1	2	33.33	50	50	75.00	75.00	58.3333	50	14.4338	0.2474	ND (50)	Oct-03	N/A	IS	IS	IS	IS	IS	IS	16
RTF-18-N	TPH-g	1	1	0	100	---	---	25000	25000	25000	25000	---	---	25000	Apr-17	0%	IS	IS	IS	IS	IS	IS	
RTF-18-NNW	TPH-g	1	1	0	100	---	---	30000	30000	30000	30000	---	---	30000	Apr-17	0%	IS	IS	IS	IS	IS	IS	
TF-15	TPH-g	5	5	0	100	---	---	160	2000	1048	1100	669	1	780	May-22	61%	-2	0.408	---	59.2% (-)	No Trend	Stable	167
TF-16	TPH-g	9	9	0	100	---	---	170	6000	1787.7778	1200	1864	1	790	May-22	87%	-10	0.179	---	82.1% (-)	No Trend	Not Stable	167
TF-17	TPH-g	3	3	0	100.00	---	---	2900	18000	9933.3333	8900	7602.8503	0.7654	2900	Nov-14	84%	IS	IS	IS	IS	IS	IS	190
TF-17R	TPH-g	5	5	0	100	---	---	1700	8600	4780	5700	2879	1	2100	May-22	76%	-4	0.242	---	75.8% (-)	No Trend	Stable	168
TF-18	TPH-g	6	6	0	100	---	---	450	54000	16708	7500	20515	1	450	May-22	99%	-7	0.136	---	86.4% (-)	No Trend	Not Stable	170
TF-19	TPH-g	1	1	0	100	---	---	710	710	710	710	---	---	710	Nov-18	0%	IS	IS	IS	IS	IS	IS	
TF-20R	TPH-g	10	7	3	70	100	100	170	1300	513.00	475	391.5367	0.7632	ND (100)	May-22	N/A	-38	0.00	-243.6944	100% (sig -)	Decreasing	---	158
TF-21	TPH-g	18	13	5	72	100	100	110	1600	531	360	501.3922	0.945	ND (100)	May-22	N/A	-119	3.03E-06	-104.0665	100% (sig -)	Decreasing	---	161
TF-23	TPH-g	7	7	0	100	---	---	160	1100	587	560	286.1069	0.4873	160	May-22	85%	5	0.281	---	71.9% (+)	No Trend	Stable	168
TF-24	TPH-g	16	0	16	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	158
TF-8	TPH-g	18	1	17	5.56	100	100	140	140	102.2222	100	9.4281	0.0922	ND (100)	May-22	N/A	-15	0.3	---	70% (-)	No Trend	>50% ND	160
TF-9	TPH-g	3	3	0	100	---	---	960	3400	1820.00	1100	1370.1095	0.7528	1100	Oct-14	68%	IS	IS	IS	IS	IS	IS	190
TF-9R	TPH-g	10	3	7	30	100	100	750	1500	445.00	100	561	1.2617	ND (100)	May-22	N/A	-21	0.036	0	96.4% (sig -)	Decreasing	---	158
WCW-1	TPH-g	30	0	30	0.00	50	500	---	---	240	300	152.2249	0.6343	ND (50)	Apr-12	N/A	0	0.51	---	49.3% (+)	No Trend	>50% ND	51
WCW-10	TPH-g	11	0	11	0	50	500	---	---	295.4545	300	135.0084	0.457	ND (300)	Apr-02	N/A	0	0.5313	---	46.9% (+)	No Trend	>50% ND	152
WCW-11	TPH-g	11	0	11	0	50	500	---	---	295.4545	300	135.0084	0.457	ND (300)	Apr-02	N/A	0	0.5313	---	46.9% (+)	No Trend	>50% ND	152
WCW-12	TPH-g	52	0	52	0.00	50	500	---	---	114.4231	50	118.1294	1.0324	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	64
WCW-13	TPH-g	79	0	79	0.00	50	500	---	---	110.1266	50	113.8993	1.0343	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	49
WCW-14	TPH-g	48	0	48	0.00	50	500	---	---	108.3333	50	108.83	1.0046	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	135
WCW-2	TPH-g	61	0	61	0.00	50	500	---	---	148.3607	50	140.2282	0.9452	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	51
WCW-3	TPH-g	85	2	83	2.35	50	1000	100	120	51.875	50	10.5882	0.2041	ND (50)	Nov-23	N/A	-167	0.008061172	0	99.2% (sig -)	Decreasing	---	49
WCW-4	TPH-g	53	0	53	0	50	500	---	---	117.9245	50	119.733	1.0153	ND (50)	Nov-23	N/A	0	0.5	---	50% (+)	No Trend	>50% ND	133
WCW-5	TPH-g	53	0	53	0.00	50	500	---	---	117.9245	50	119.733	1.0153	ND (50)	Nov-23	N/A	0	0.50	---	50% (+)	No Trend	>50% ND	134

Appendix E. Statistical Analysis Summary Data

SFPP Norwalk Pump Station, Norwalk, California

Mann-Kendall Test Data Preparation (All Data)																						
Location	**Analyte**	**COUNT**	**DET**	**CEN**	**PER.DET**	**MIN.CEN**	**MAX.CEN**	**MIN.DET**	**MAX.DET**	**MEAN**	**MEDIAN**	**SD**	**CV**	**LASTVALUE**	**LASTDATE**	**DIFF**	**S**	**PVAL**	**SLOPE**	**RESULT**	**TREND**	**STABILITY**	**MIN.LAG**
WCW-6	TPH-g	53	1	52	1.89	50	500	230	230	121.3208	50	120.3207	0.9918	ND (50)	Nov-23	N/A	-52	0.047758479	0	95.2% (sig -)	Decreasing	---	136
WCW-7	TPH-g	73	4	69	5.48	50	500	53.00	140	52.5137	53	12.4011	0.2361	ND (50)	May-21	N/A	-22	0.399612248	---	60% (-)	No Trend	>50% ND	47
WCW-8	TPH-g	57	3	54	5	50	500	55	84	51.5625	50	6.1843	0.1199	ND (50)	Nov-23	N/A	-99	0.040051136	0	96% (sig -)	Decreasing	---	51
WCW-9	TPH-g	11	0	11	0.00	50	500	---	---	295.4545	300	135.0084	0.457	ND (300)	Apr-02	N/A	0	0.5313	---	46.9% (+)	No Trend	>50% ND	154

Notes:

ND	Non-Detect
N/A	Not Applicable
IS	Insufficient Data for trend analysis (valid statistical trend analysis requires 3 or more observations)
>50% ND	Valid statistical trend analysis requires 3 or more observations, with less than 50% nondetect values per well
Stable	CV is <1.0
Not Stable	CV is >1.0
No Trend	Trend in well is not statistically significant in a positive or negative direction
Increasing	Statistically significant increasing trend observed in the data over time
Decreasing	Statistically significant decreasing trend observed in the data over time
COUNT	Count of Sample Results
DET	Number of Detections
CEN	Number of Non-Detections
PER.DET	Percent Detections
MIN.CEN	Minimum Non-Detect Value in Dataset
MAX.CEN	Maximum Non-Detect Value in Dataset
MIN.DET	Minimum Detected Value in Dataset
MAX.DET	Maximum Detected Value in Dataset
SD	Standard Deviation
CV	Coefficient of Variation
LASTVALUE	Last Analytical Result Value
LASTDATE	Last Analytical Result Date
DIFF	Difference (%) from Maximum Result to Last Result
S	S Statistic for Mann-Kendall Analysis
PVAL	Probability Value
MIN.LAG	Minimum Spacing Between Consecutive Measurements in Dataset (Days)

Appendix E. Statistical Analysis Summary Data

SFPP Norwalk Pump Station, Norwalk, California

Mann-Kendall Test Data Preparation (2016 to Present)																						
Location	**Analyte**	**COUNT**	**DET**	**CEN**	**PER.DET**	**MIN.CEN**	**MAX.CEN**	**MIN.DET**	**MAX.DET**	**MEAN**	**MEDIAN**	**SD**	**CV**	**LASTVALUE**	**LASTDATE**	**DIFF**	**S**	**PVAL**	**SLOPE**	**RESULT**	**TREND**	**STABILITY**	**MIN.LAG**
EXP-1	TPH-g	19	0	19	0	50	100	---	---	84	100	23.8783	0.2836	ND (50)	Nov-23	N/A	0	1	---	48.6% (+)	No Trend	>50% ND	1
EXP-2	TPH-g	19	0	19	0	50	100	---	---	81.5789	100	24.7797	0.3038	ND (50)	Nov-23	N/A	0	0.514	---	48.6% (+)	No Trend	>50% ND	1
EXP-3	TPH-g	18	0	18	0.00	50	100	---	---	86.1111	100	23.0444	0.2676	ND (50)	Nov-23	N/A	0	0.515	---	48.5% (+)	No Trend	>50% ND	1
EXP-4	TPH-g	16	0	16	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	1	---	48.2% (+)	No Trend	>50% ND	162
EXP-5	TPH-g	16	0	16	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	162
GMW-1	TPH-g	10	2	8	20.00	50	50	55.00	57	51.2	50	2.4413	0.0477	ND (50)	Nov-23	N/A	-7	0	---	70% (-)	No Trend	>50% ND	30
GMW-10	TPH-g	10	3	7	30	200	500	200	250	207.1429	200	17.4964	0.0845	ND (200)	Nov-23	N/A	-1	1	---	50% (-)	No Trend	>50% ND	64
GMW-11	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	Apr-16	N/A	IS	IS	IS	IS	IS	IS	
GMW-12	TPH-g	12	0	12	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.527	---	47.3% (+)	No Trend	>50% ND	158
GMW-13	TPH-g	16	0	16	0	50	100	---	---	53	50	13	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	161
GMW-14R	TPH-g	15	0	15	0.00	50	100	---	---	53.3333	50	12.9099	0.2421	ND (50)	Nov-23	N/A	0	0.52	---	48% (+)	No Trend	>50% ND	6
GMW-15	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	47.6% (+)	No Trend	>50% ND	158
GMW-16	TPH-g	11	0	11	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.5313	---	46.9% (+)	No Trend	>50% ND	160
GMW-17R	TPH-g	10	3	7	30.00	100	100	550	1300	319	100	381.3778	1.1955	ND (100)	May-22	N/A	-20	0.045	0	95.5% (sig -)	Decreasing	---	158
GMW-18	TPH-g	6	1	5	16.67	100	100	120	120	103.3333	100	8.165	0.079	ND (100)	May-22	N/A	-1	0.5	---	50% (-)	No Trend	>50% ND	168
GMW-19	TPH-g	11	3	8	27	100	100	150	220	120.91	100	37.77	0.3124	ND (100)	May-22	N/A	-3	0	---	56% (-)	No Trend	>50% ND	165
GMW-1R	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	Nov-23	N/A	IS	IS	IS	IS	IS	IS	
GMW-20	TPH-g	2	0	2	0.00	100	100	---	---	100	100	0	0	ND (100)	Apr-17	N/A	IS	IS	IS	IS	IS	IS	195
GMW-21	TPH-g	12	3	9	25.00	100	100	130.00	180	115	100	28.1366	0.2447	ND (100)	May-22	N/A	-26	0	0	95.7% (sig -)	Decreasing	---	158
GMW-23	TPH-g	8	8	0	100	---	---	59	19000	2913.625	180	6580	2	19000	Aug-21	0%	11	0.1135	---	88.6% (+)	No Trend	Not Stable	44
GMW-25	TPH-g	17	9	8	52.94	50	500	56	950	145.3255	81	218.4099	1.5029	ND (200)	Nov-23	N/A	-48	0.026	-8	97.4% (sig -)	Decreasing	---	44
GMW-26	TPH-g	19	0	19	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	1	---	48.6% (+)	No Trend	>50% ND	30
GMW-28	TPH-g	23	8	15	34.78	50	50	58	600	108	50	144.9766	1.3467	ND (50)	Nov-23	N/A	-114	0.001	-6.1528	99.9% (sig -)	Decreasing	---	31
GMW-29	TPH-g	2	2	0	100.00	---	---	2200	74000	38100	38100	50770.2669	1.3326	2200	Aug-21	97%	IS	IS	IS	IS	IS	IS	1995
GMW-3	TPH-g	3	0	3	0	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	IS	IS	IS	IS	IS	IS	181
GMW-30	TPH-g	11	8	3	72.73	50	100	99	14000	2385.0303	280	4464.3901	1.8718	ND (50)	Nov-20	N/A	-50	0	-131.3599	100% (sig -)	Decreasing	---	31
GMW-31	TPH-g	11	0	11	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.5313	---	46.9% (+)	No Trend	>50% ND	160
GMW-35R	TPH-g	10	8	2	80	100	100	160	1200	377	205	334.8746	0.8883	ND (100)	May-22	N/A	3	0	---	56.9% (+)	No Trend	Stable	161
GMW-36	TPH-g	17	8	9	47	50	2000	68	16000	1611	160	3952.8493	2.4533	ND (2000)	Nov-23	N/A	-75	0.001	-54.1852	99.9% (sig -)	Decreasing	---	63
GMW-37	TPH-g	13	0	13	0.00	50	50	---	---	50	50	0	0	ND (50)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	161
GMW-38	TPH-g	13	0	13	0.00	50	50	---	---	50	50	0	0	ND (50)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	162
GMW-39	TPH-g	16	0	16	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	162
GMW-40	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	Oct-16	N/A	IS	IS	IS	IS	IS	IS	
GMW-41	TPH-g	11	0	11	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.5313	---	46.9% (+)	No Trend	>50% ND	162
GMW-42	TPH-g	11	0	11	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	46.9% (+)	No Trend	>50% ND	160
GMW-43	TPH-g	10	0	10	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.5357	---	46.4% (+)	No Trend	>50% ND	164
GMW-44	TPH-g	12	1	11	8.33	100	100	160	160	105	100	17.3205	0.165	ND (100)	May-22	N/A	-5	0.3945	---	60.5% (-)	No Trend	>50% ND	164
GMW-45	TPH-g	8	8	0	100	---	---	230	4300	1987.5	1850.00	1467.9699	0.7386	270	May-22	94%	-16	0	-878.8063	96.9% (sig -)	Decreasing	---	168
GMW-47	TPH-g	14	5	9	35.71	100	100	130	440	144.2857	100	90.689	0.6285	440	May-22	0%	51	0.002	20.8492	99.8% (sig +)	Increasing	---	18
GMW-48	TPH-g	12	5	7	42	100	100	150	470	201.6667	100	142.8772	0.7085	ND (100)	May-22	N/A	-45	5.00E-04	-73.5136	100% (sig -)	Decreasing	---	154
GMW-4R	TPH-g	14	3	11	21	50	200	84	120	62	50	22.7557	0.3679	ND (50)	Nov-23	N/A	-14	0.242	---	75.8% (-)	No Trend	>50% ND	161
GMW-50	TPH-g	1	0	1	0.00	100	100	---	---	100	100	---	---	ND (100)	Apr-16	N/A	IS	IS	IS	IS	IS	IS	
GMW-54	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	Apr-17	N/A	IS	IS	IS	IS	IS	IS	
GMW-56	TPH-g	13	0	13	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	162
GMW-57	TPH-g	13	1	12	7.69	100	100	160	160	104.6154	100	16.641	0.1591	ND (100)	May-22	N/A	4	0	---	57.1% (+)	No Trend	>50% ND	160
GMW-58	TPH-g	9	2	7	22	100	100	150	390	138	100	90.5266	0.657	ND (100)	May-22	N/A	-7	0.272	---	72.8% (-)	No Trend	>50% ND	164
GMW-59	TPH-g	13	4	9	30.77	100	100	210	640	201.5385	100	174.6577	0.87	ND (100)	May-22	N/A	-42	0	-31.9419	99.5% (sig -)	Decreasing	---	160
GMW-6	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	47.6% (+)	No Trend	>50% ND	158
GMW-60	TPH-g	13	2	11	15	100	100	110	220	110	100	31.8651	0.2897	ND (100)	May-22	N/A	-19	0.1395	---	86.1% (-)	No Trend	>50% ND	158
GMW-61	TPH-g	13	1	12	7.69	100	100	140	140	103.0769	100	11.094	0.1076	ND (100)	May-22	N/A	-8	0	---	66.2% (-)	No Trend	>50% ND	160
GMW-62	TPH-g	8	8	0	100	---	---	510	17000	4239	1650	5727.4288	1.3512	510	May-22	97%	-16	0.031	-1256.3147	96.9% (sig -)	Decreasing	---	161
GMW-63	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	47.6% (+)	No Trend	>50% ND	161
GMW-64	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	47.6% (+)	No Trend	>50% ND	161
GMW-65	TPH-g	13	0	13	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	161
GMW-66R	TPH-g	13	0	13	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	162

Appendix E. Statistical Analysis Summary Data

SFPP Norwalk Pump Station, Norwalk, California

Mann-Kendall Test Data Preparation (2016 to Present)																						
Location	**Analyte**	**COUNT**	**DET**	**CEN**	**PER.DET**	**MIN.CEN**	**MAX.CEN**	**MIN.DET**	**MAX.DET**	**MEAN**	**MEDIAN**	**SD**	**CV**	**LASTVALUE**	**LASTDATE**	**DIFF**	**S**	**PVAL**	**SLOPE**	**RESULT**	**TREND**	**STABILITY**	**MIN.LAG**
GMW-67	TPH-g	13	5	8	38.46	100	100	110	310	134.6154	100	68.0063	0.5052	110	May-22	65%	5	0	---	59.4% (+)	No Trend	>50% ND	161
GMW-68	TPH-g	2	2	0	100.00	---	---	5600.00	15000	10300	10300	6646.8037	0.6453	5600	May-22	63%	IS	IS	IS	IS	IS	IS	2219
GMW-69	TPH-g	13	13	0	100	---	---	130	3600	1252	930	980	1	170	May-22	95%	-37	0.013	-299.5829	98.7% (sig -)	Decreasing	---	161
GMW-7	TPH-g	11	11	0	100.00	---	---	150.00	710	411.8182	410	201.3861	0.489	670	May-22	6%	20	0.071	---	92.9% (+)	No Trend	Stable	161
GMW-8	TPH-g	17	0	17	0	50	500	---	---	76.4706	50	109.141	1.4272	ND (500)	Nov-23	N/A	0	1	---	48.4% (+)	No Trend	>50% ND	29
GMW-9	TPH-g	16	4	12	25.00	50	100	67	750	112.8558	50	174.4245	1.5456	ND (100)	Nov-23	N/A	-40	0.039	0	96.1% (sig -)	Decreasing	---	44
GMW-O-1	TPH-g	19	0	19	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.514	---	48.6% (+)	No Trend	>50% ND	29
GMW-O-10	TPH-g	19	4	15	21	50	50	73	910	100.5789	50	191.1974	1.901	ND (50)	Nov-23	N/A	-58	0.02	0	97.7% (sig -)	Decreasing	---	30
GMW-O-11	TPH-g	10	3	7	30.00	50	200	95	290	100.3571	100	68.0825	0.6784	ND (200)	Nov-23	N/A	6	0	---	66.8% (+)	No Trend	>50% ND	63
GMW-O-12	TPH-g	3	1	2	33.33	500	2000	5300	5300	2600	2000	2455.6058	0.9445	ND (2000)	Nov-23	N/A	IS	IS	IS	IS	IS	IS	187
GMW-O-14	TPH-g	24	16	8	66.67	50	50	250	30000	5799.5833	1150	8749.7797	1.5087	ND (50)	Nov-23	N/A	-169	0	-891.9464	100% (sig -)	Decreasing	---	31
GMW-O-15	TPH-g	5	4	1	80	1000	1000	4400	370000	79120	9200	145482.733	1.8388	ND (1000)	Nov-20	N/A	-8	0	-10412.4111	95.8% (sig -)	Decreasing	---	182
GMW-O-16	TPH-g	16	2	14	12.50	50	50	66	320	67.875	50	65.213	0.9608	ND (50)	Nov-23	N/A	-7	0.395	---	60.5% (-)	No Trend	>50% ND	162
GMW-O-17	TPH-g	16	0	16	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	160
GMW-O-18	TPH-g	11	11	0	100.00	---	---	1600.00	11000000	1003518.182	3500	3315458.841	3.3038	2000	Nov-23	100%	-32	0.0065	-1170.9703	99.4% (sig -)	Decreasing	---	175
GMW-O-19	TPH-g	16	1	15	6.25	50	50	52	52	50.125	50	0.5	0.01	ND (50)	Nov-23	N/A	-11	0.329	---	67.1% (-)	No Trend	>50% ND	162
GMW-O-2	TPH-g	18	0	18	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.515	---	48.5% (+)	No Trend	>50% ND	29
GMW-O-20	TPH-g	20	16	4	80	100	500	82	35000	4393.3438	590	8929.7728	2.0326	ND (500)	Nov-23	N/A	-140	0	-527.7999	100% (sig -)	Decreasing	---	45
GMW-O-21	TPH-g	20	10	10	50.00	50	8000	140	18000	3348.5882	1070	4629.5067	1.3825	ND (100)	Nov-23	N/A	-89	0	-570.1717	99.9% (sig -)	Decreasing	---	63
GMW-O-23	TPH-g	17	11	6	65	50	100	57	17000	1828.24	100	4327.4142	2.367	ND (50)	May-22	N/A	-60	0.007	-73.6433	99.3% (sig -)	Decreasing	---	45
GMW-O-24	TPH-g	16	0	16	0	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	1	---	48.2% (+)	No Trend	>50% ND	62
GMW-O-3	TPH-g	19	7	12	36.84	50	50	60	450	105.7895	50	104.4442	0.9873	ND (50)	Nov-23	N/A	0	1	---	48.6% (+)	No Trend	>50% ND	29
GMW-O-4	TPH-g	19	0	19	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.514	---	48.6% (+)	No Trend	>50% ND	30
GMW-O-5	TPH-g	18	0	18	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.515	---	48.5% (+)	No Trend	>50% ND	30
GMW-O-9	TPH-g	19	0	19	0	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	1	---	48.6% (+)	No Trend	>50% ND	29
GMW-SF-7	TPH-g	13	0	13	0	50	50	---	---	50	50	0	0	ND (50)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	161
GMW-SF-8	TPH-g	16	0	16	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	1	---	48.2% (+)	No Trend	>50% ND	162
GW-1	TPH-g	2	0	2	0.00	100	100	---	---	100	100	0	0	ND (100)	Apr-17	N/A	IS	IS	IS	IS	IS	IS	196
GW-13(6")	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	161
GW-13(6)	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	47.6% (+)	No Trend	>50% ND	161
GW-14R	TPH-g	3	2	1	66.67	100	100	140	1400	546.6667	140	603.6187	1.1042	ND (100)	May-22	N/A	IS	IS	IS	IS	IS	IS	199
GW-15(6")	TPH-g	11	4	7	36.36	100	100	190	8700	1020	100	2444.6863	2.3968	ND (100)	May-22	N/A	-32	0.0065	-134.5907	99.4% (sig -)	Decreasing	---	154
GW-15(6)	TPH-g	11	4	7	36	100	100	190	8700	1020	100	2444.6863	2.3968	ND (100)	May-22	N/A	-32	0.0065	-134.5907	99.4% (sig -)	Decreasing	---	154
GW-16(6")	TPH-g	13	0	13	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	158
GW-16(6)	TPH-g	13	0	13	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	47.6% (+)	No Trend	>50% ND	158
GW-2	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	47.6% (+)	No Trend	>50% ND	161
GW-3	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	160
GW-4	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	Oct-16	N/A	IS	IS	IS	IS	IS	IS	
GW-6	TPH-g	12	0	12	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.527	---	47.3% (+)	No Trend	>50% ND	160
GW-7	TPH-g	2	0	2	0.00	100	100	---	---	100	100	0	0	ND (100)	Apr-17	N/A	IS	IS	IS	IS	IS	IS	190
GW-8	TPH-g	12	0	12	0	100	100	---	---	100.00	100	0	0	ND (100)	May-22	N/A	0	1	---	47.3% (+)	No Trend	>50% ND	158
GWR-1R	TPH-g	13	0	13	0.00	50	50	---	---	50	50	0	0	ND (50)	May-23	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	161
HL-2	TPH-g	15	0	15	0.00	50	50	---	---	50	50.00	0	0	ND (50)	May-23	N/A	0	0.52	---	48% (+)	No Trend	>50% ND	162
HL-3	TPH-g	18	1	17	6	50	50	130	130	54	50	19	0	ND (50)	Nov-23	N/A	-17	0	---	72.5% (-)	No Trend	>50% ND	30
MW-10	TPH-g	1	0	1	0.00	100	100	---	---	100	100	---	---	ND (100)	Apr-16	N/A	IS	IS	IS	IS	IS	IS	
MW-12	TPH-g	16	0	16	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	1	---	48.2% (+)	No Trend	>50% ND	163
MW-13	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	47.6% (+)	No Trend	>50% ND	158
MW-14	TPH-g	2	0	2	0	100	100	---	---	100	100	0	0	ND (100)	Apr-17	N/A	IS	IS	IS	IS	IS	IS	197
MW-15R	TPH-g	14	5	9	35.71	50	100	53	130	60.3571	50	21.0742	0.3492	ND (50)	Nov-23	N/A	-9	0	---	66.6% (-)	No Trend	>50% ND	161
MW-16	TPH-g	13	0	13	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	161
MW-17	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.52	---	47.6% (+)	No Trend	>50% ND	161
MW-18 (MID)	TPH-g	18	4	14	22.22	50	200	150	390	102.0635	50	109.449	1.0724	ND (200)	Nov-23	N/A	-59	0	0	98.7% (sig -)	Decreasing	---	29
MW-19 (MID)	TPH-g	16	1	15	6.25	50	50	54	54	50.25	50	1	0.0199	ND (50)	Nov-23	N/A	-13	0.2975	---	70.2% (-)	No Trend	>50% ND	162
MW-20 (MID)	TPH-g	16	0	16	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	162
MW-21 (MID)	TPH-g	16	2	14	13	50	100	57	68	51.6667	50	4.6999	0.091	ND (50)	Nov-23	N/A	-19	0	---	78.8% (-)	No Trend	>50% ND	162

Appendix E. Statistical Analysis Summary Data

SFPP Norwalk Pump Station, Norwalk, California

Mann-Kendall Test Data Preparation (2016 to Present)																						
Location	**Analyte**	**COUNT**	**DET**	**CEN**	**PER.DET**	**MIN.CEN**	**MAX.CEN**	**MIN.DET**	**MAX.DET**	**MEAN**	**MEDIAN**	**SD**	**CV**	**LASTVALUE**	**LASTDATE**	**DIFF**	**S**	**PVAL**	**SLOPE**	**RESULT**	**TREND**	**STABILITY**	**MIN.LAG**
MW-22 (MID)	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	47.6% (+)	No Trend	>50% ND	160
MW-24	TPH-g	11	0	11	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.5313	---	46.9% (+)	No Trend	>50% ND	160
MW-25	TPH-g	1	0	1	0.00	100	100	---	---	100	100	---	---	ND (100)	Nov-19	N/A	IS	IS	IS	IS	IS	IS	
MW-26	TPH-g	13	4	9	30.77	100	100	130	210	123.8462	100	39.7179	0.3207	ND (100)	May-22	N/A	-34	0	0	97.9% (sig -)	Decreasing	---	160
MW-27	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.524	---	47.6% (+)	No Trend	>50% ND	160
MW-28	TPH-g	1	0	1	0	100	100	---	---	100	100	---	---	ND (100)	Apr-17	N/A	IS	IS	IS	IS	IS	IS	
MW-29	TPH-g	13	0	13	0.00	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	1	---	47.6% (+)	No Trend	>50% ND	164
MW-6	TPH-g	16	0	16	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	161
MW-7	TPH-g	16	0	16	0	50	200	---	---	62.5	50	38.7298	0.6197	ND (200)	Nov-23	N/A	0	1	---	48.2% (+)	No Trend	>50% ND	162
MW-8	TPH-g	16	1	15	6.25	50	50	1200	1200	121.875	50	287.5	2.359	ND (50)	Nov-23	N/A	-1	0.5	---	50% (-)	No Trend	>50% ND	161
MW-9	TPH-g	16	4	12	25.00	50	100	66.00	260	71.6477	58.00	51.1711	0.7142	ND (50)	Nov-23	N/A	-50	0.013	0	98.7% (sig -)	Decreasing	---	160
MW-O-1	TPH-g	2	0	2	0.00	50	50	---	---	50	50	0	0	ND (50)	Feb-21	N/A	IS	IS	IS	IS	IS	IS	189
MW-O-2	TPH-g	17	14	3	82	200	5000	520	73000	9194	5000	16962	2	ND (1000)	Nov-23	N/A	-68	0.002	-3108.2672	99.8% (sig -)	Decreasing	---	63
MW-SF-1	TPH-g	16	3	13	18.75	50	1000	55	260	68.7143	100	53.2322	0.7747	ND (1000)	Nov-23	N/A	-32	0.083	---	91.7% (-)	No Trend	>50% ND	45
MW-SF-12	TPH-g	1	0	1	0.00	50	50	---	---	50	50	---	---	ND (50)	Nov-23	N/A	IS	IS	IS	IS	IS	IS	
MW-SF-13	TPH-g	16	5	11	31.25	50	200	78	5300	562.9643	200	1316.0912	2.3378	ND (200)	Nov-23	N/A	-25	0.143	---	85.7% (-)	No Trend	>50% ND	45
MW-SF-14	TPH-g	1	1	0	100.00	---	---	370.00	370.00	370	370	---	---	370	Apr-16	0%	IS	IS	IS	IS	IS	IS	
MW-SF-15	TPH-g	16	7	9	43.75	100	500	110	300	132.9333	130	51.3491	0.3863	ND (200)	Nov-23	N/A	-55	0.007	-14.6465	99.3% (sig -)	Decreasing	---	45
MW-SF-4	TPH-g	13	1	12	7.69	50	500	540	540	149.2308	100	170.0716	1.1397	ND (100)	Nov-22	N/A	-12	0	---	74.5% (-)	No Trend	>50% ND	45
MW-SF-6	TPH-g	16	7	9	43.75	200	500	110	13000	1635.7955	200	3558.6598	2.1755	ND (500)	Nov-23	N/A	-54	0.008	-62.4803	99.2% (sig -)	Decreasing	---	45
MW-SF-9	TPH-g	1	1	0	100.00	---	---	2300.00	2300	2300	2300.00	---	---	2300	Apr-16	0%	IS	IS	IS	IS	IS	IS	
PW-1	TPH-g	1	0	1	0.00	100	100	---	---	100	100	---	---	ND (100)	Nov-19	N/A	IS	IS	IS	IS	IS	IS	
PW-3	TPH-g	16	0	16	0	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	163
PZ-10	TPH-g	1	0	1	0.00	200	200	---	---	200	200	---	---	ND (200)	Apr-16	N/A	IS	IS	IS	IS	IS	IS	
PZ-2	TPH-g	19	8	11	42	50	100	53.00	2300	322.2947	53	559.7728	1.7368	ND (50)	Nov-23	N/A	-96	9.94E-05	-45.202	100% (sig -)	Decreasing	---	29
PZ-3	TPH-g	10	5	5	50	100	100	210	910	371	155	317	1	910	May-22	0%	-14	0.127	---	87.3% (-)	No Trend	Stable	158
PZ-5	TPH-g	16	14	2	88	200	200	120	16000	1747	700	3755	2	ND (200)	Nov-23	N/A	-81	0	-180.733	100% (sig -)	Decreasing	---	160
RTF-18-N	TPH-g	1	1	0	100	---	---	25000	25000	25000	25000	---	---	25000	Apr-17	0%	IS	IS	IS	IS	IS	IS	
RTF-18-NNW	TPH-g	1	1	0	100	---	---	30000	30000	30000	30000	---	---	30000	Apr-17	0%	IS	IS	IS	IS	IS	IS	
TF-15	TPH-g	5	5	0	100.00	---	---	160	2000	1048	1100	669.4177	0.6388	780	May-22	61%	-2	0.408	---	59.2% (-)	No Trend	Stable	167
TF-16	TPH-g	5	5	0	100.00	---	---	170	3400	1186	790	1317.4711	1.1109	790	May-22	77%	0	0.592	---	40.8% (+)	No Trend	Not Stable	167
TF-17R	TPH-g	5	5	0	100	---	---	1700	8600	4780	5700	2878.715	0.6022	2100	May-22	76%	-4	0	---	75.8% (-)	No Trend	Stable	168
TF-18	TPH-g	6	6	0	100.00	---	---	450	54000	16708.3333	7500	20515.1265	1.2278	450	May-22	99%	-7	0.136	---	86.4% (-)	No Trend	Not Stable	170
TF-19	TPH-g	1	1	0	100	---	---	710	710	710	710	---	---	710	Nov-18	0%	IS	IS	IS	IS	IS	IS	
TF-20R	TPH-g	10	7	3	70	100	100	170	1300	513	475	392	1	ND (100)	May-22	N/A	-38	0.000391107	-243.6944	100% (sig -)	Decreasing	---	158
TF-21	TPH-g	12	7	5	58.33	100	100	110	1300	281.6667	130	327.9693	1.1644	ND (100)	May-22	N/A	-52	0.000134814	-81.5188	100% (sig -)	Decreasing	---	161
TF-23	TPH-g	7	7	0	100	---	---	160	1100	587.1429	560	286.1069	0.4873	160	May-22	85%	5	0.281	---	71.9% (+)	No Trend	Stable	168
TF-24	TPH-g	12	0	12	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.527	---	47.3% (+)	No Trend	>50% ND	158
TF-8	TPH-g	13	0	13	0	100	100	---	---	100	100	0	0	ND (100)	May-22	N/A	0	0.52	---	47.6% (+)	No Trend	>50% ND	160
TF-9R	TPH-g	10	3	7	30	100	100	750	1500	445	100	561.449	1.2617	ND (100)	May-22	N/A	-21	0.036	0	96.4% (sig -)	Decreasing	---	158
WCW-12	TPH-g	16	0	16	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.52	---	48.2% (+)	No Trend	>50% ND	161
WCW-13	TPH-g	16	0	16	0	50	50	---	---	50.00	50.00	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	161
WCW-14	TPH-g	16	0	16	0.00	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	162
WCW-2	TPH-g	16	0	16	0	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	161
WCW-3	TPH-g	16	0	16	0	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	161
WCW-4	TPH-g	16	0	16	0	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	162
WCW-5	TPH-g	16	0	16	0	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	162
WCW-6	TPH-g	16	0	16	0	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	162

Appendix E. Statistical Analysis Summary Data

SFPP Norwalk Pump Station, Norwalk, California

Mann-Kendall Test Data Preparation (2016 to Present)																						
Location	**Analyte**	**COUNT**	**DET**	**CEN**	**PER.DET**	**MIN.CEN**	**MAX.CEN**	**MIN.DET**	**MAX.DET**	**MEAN**	**MEDIAN**	**SD**	**CV**	**LASTVALUE**	**LASTDATE**	**DIFF**	**S**	**PVAL**	**SLOPE**	**RESULT**	**TREND**	**STABILITY**	**MIN.LAG**
WCW-7	TPH-g	9	0	9	0	50	100	---	---	55.5556	50	16.6667	0.3	ND (50)	May-21	N/A	0	0.54	---	46% (+)	No Trend	>50% ND	162
WCW-8	TPH-g	16	0	16	0	50	50	---	---	50	50	0	0	ND (50)	Nov-23	N/A	0	0.518	---	48.2% (+)	No Trend	>50% ND	162

Notes:

ND	Non-Detect
N/A	Not Applicable
IS	Insufficient Data for trend analysis (valid statistical trend analysis requires 3 or more observations)
>50% ND	Valid statistical trend analysis requires 3 or more observations, with less than 50% nondetect values per well
Stable	CV is <1.0
Not Stable	CV is >1.0
No Trend	Trend in well is not statistically significant in a positive or negative direction
Increasing	Statistically significant increasing trend observed in the data over time
Decreasing	Statistically significant decreasing trend observed in the data over time
COUNT	Count of Sample Results
DET	Number of Detections
CEN	Number of Non-Detections
PER.DET	Percent Detections
MIN.CEN	Minimum Non-Detect Value in Dataset
MAX.CEN	Maximum Non-Detect Value in Dataset
MIN.DET	Minimum Detected Value in Dataset
MAX.DET	Maximum Detected Value in Dataset
SD	Standard Deviation
CV	Coefficient of Variation
LASTVALUE	Last Analytical Result Value
LASTDATE	Last Analytical Result Date
DIFF	Difference (%) from Maximum Result to Last Result
S	S Statistic for Mann-Kendall Analysis
PVAL	Probability Value
MIN.LAG	Minimum Spacing Between Consecutive Measurements in Dataset (Days)