Full Raw Water Quality Characterization

Step 2 of 97-005 Evaluation

City of Santa Monica

Olympic Well Field

August 2021

308038-03533

Advisian
Worley Group

ICF

City of Santa Monica

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Full Raw Water Quality Characterization – Olympic Well Field - Step 2 of 97-005 Evaluation

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Executive Summary

As groundwater in the vicinity of the Olympic Well Field is impaired by contamination, the City of Santa Monica (the City) is required to demonstrate compliance with the Division of Drinking Water (DDW) Process Memo 97-005-R2020 - *Revised Guidance for Direct Domestic Use of Extremely Impaired Sources*. A source is considered "extremely impaired" if it meets two or more of 10 DDW-developed criteria. Based on the evaluation of available water quality data, groundwater in the vicinity of the Olympic Well Field meets up to three criteria.

The DDW 97-005 evaluation process consists of 10 steps for assessing proposals, establishing appropriate permit conditions, and approving the use of an extremely impaired drinking water source. This report documents the second step (Step 2) of the 97-005 evaluation process, i.e., "Full Characterization of the Raw Water Quality" for the Olympic Well Field. The purpose of this step is the to fully characterize constituents in the raw water produced by the Olympic Well Field, thereby ensuring a treatment system can be properly designed. In accordance with the DDW Process Memo 97-005-R2020, Step 2 (this report) was conducted after finalization of Step 1 (Drinking Water Source Assessment and Contaminant Assessment), as "*each step relies upon the findings and conclusions of the prior step*" (DDW 2020).

A series of data analyses were conducted to evaluate raw water quality to meet the primary objective of characterizing influent water quality that will enter the planned treatment system so that an appropriate level of monitoring and treatment can be designed. This included screening of water quality data against specific criteria and regulatory values to identify constituents of potential concern (COPCs), analyzing water quality data to estimate future treatment plant influent concentrations, trend analysis for historical water quality to understand how water quality trends have changed over time, and analysis of variability to develop an understanding of how water quality has changed under the influence of certain factors such as pumping and seasonal variation in precipitation.

An initial screening of water quality data indicated 42 COPCs based on constituents detected in production wells (or constituents with three or more detections in monitoring wells), with a ratio of maximum concentration to maximum contaminant level (MCL) or notification level (NL) greater than 0.05 (5%). The list of COPCs was then further refined to determine which would drive treatment system design (using ultraviolet/advanced oxidation process [UV/AOP] and granular activated carbon [GAC]) based on constituents which are synthetic organics and had a ratio of maximum concentration to MCL or NL greater than 0.5 (50%). This yielded a list of 15 synthetic organic COPCs, as follows:

- Nine COPCs from production well data:
  - 1,1-dichloroethane (1,1-DCA)
  - 1,1-dichloroethene (1,1-DCE)
  - 1,2,3-trichloropropane (1,2,3-TCP)
  - 1,4-dioxane
  - carbon tetrachloride
  - cis-1,2-dichloroethene (cis-1,2-DCE)
  - perfluorooctanoic acid (PFOA)
  - tetrachloroethene (PCE)
  - trichloroethene (TCE)
- An additional six COPCs from monitoring well data:
  - 1,1,2-trichloroethane (1,1,2-TCA)
  - 1,2-dichloroethane (1,1-DCA)
  - benzene
  - methyl tert-butyl ether (MTBE)
  - trans-1,2-dichloroethene (trans-1,2-DCE)
  - vinyl chloride

Statistical analysis and flow-weighting calculations were then conducted to estimate future treatment plant influent concentrations using monitoring well groundwater quality data for all constituents including the identified COPCs. The results of this analysis indicated four COPCs are projected to be at concentrations above their respective MCL or NL in treatment plant influent, as summarized in Table E-1. These COPCs are 1,4-dioxane, PCE, TCE and 1,2,3-TCP. For comparison, calculated influent estimates based on recent (2020) water quality data from production wells SM-4, SM-8 and SM-9 indicate that 1,4-dioxane, PCE and TCE in influent would be above their respective MCL or NL, with 1,2,3-TCP being below its MCL based on these data, as shown in Table E-1.

Table E-1 Summary of Estimated Concentrations in Treatment Plant Influent for Key Synthetic Organic COPCs

Constituent [Units]	MCL or NL	Using UCL95*		Using Production Well Concentrations From 2020**	
		Plant Influent Concentration Estimates	With Safety Factor Applied***	Plant Influent Concentration Estimates	With Safety Factor Applied***
1,2,3-TCP [µg/L]	**0.005**	**0.022**	**0.026**	0.00091	0.0011
1,4-Dioxane [µg/L]	**1**	**13.8**	**20.7**	**9.9**	**14.9**
PCE [µg/L]	**5**	**10.4**	**15.6**	**31**	**46.5**
TCE [µg/L]	**5**	**8.2**	**12.3**	**23**	**34.5**

Notes: *µg/L = micrograms per liter; values above respective MCLs or NLs are highlighted* ***bold****.*

** From production wells concentration estimates.*

***Maximum observed values from production wells from available 2020 sampling data (provided for information only).*

****A safety factor of 1.5 was applied for each constituent, except for 1,2,3-TCP which used a safety factor of 1.2.*

Trend analysis was performed on available temporal production well data for COPCs to inform potential future concentration trends and design of the treatment system. Key outcomes from the trend analysis include the identification of statistically significant increasing trends for PCE and 1,4-dioxane. Although no statistically significant trend was identified for TCE, visual assessment of trend charts indicates that recent (2018-2020) concentrations are rebounding to the elevated levels recorded between 2012 and 2014. No statistically significant or visual trend was identified for 1,2,3-TCP. Visual assessment indicated nitrate and nitrite (as nitrogen) exhibited variability since start of analysis period (2012) with no discernible trend identified. Visual assessment of other COPC trends generally indicated that parameters with concentrations above detection limits remained stable during the analysis period (2012-2020).

An assessment of concentration variability generally indicates that concentrations of 1,4-dioxane, TCE, PCE exhibit an observable correlation to operational status (i.e., pumping or non-pumping) and pumping rate of a well or at nearby wells; however, seasonal impacts or seasonal signals are not distinguishable in the data sets.

Acronyms and Abbreviations

Acronym / Abbreviation	Definition
%	Percent
1,1,1-TCA	1,1,1-Trichloroethane
1,1-DCA	1,1-Dichloroethane
1,2-DCA	1,2-Dichloroethane
1,1-DCE	1,1-Dichloroethene
1,2,3-TCP	1,2,3-Trichloropropane
µg	Microgram
µg/L	Microgram(s) Per Liter
AST	Aboveground Storage Tank
bgs	Below Ground Surface
CA	Contaminant Assessment
CEPRD	Coalition for Environmental Protection Restoration and Development
cfs	Cubic Foot/Feet Per Second
City	City of Santa Monica
cis-1,2-DCE	cis-1,2-Dichloroethene
COPC	Constituent of Potential Concern
Cr(VI)	Hexavalent Chromium
DDW	Division of Drinking Water
DEHP	Bis(2-ethylhexyl)phthalate
DQO	Data Quality Objective
EPA	United States Environmental Protection Agency
ft	Feet
GAC	Granular Activated Carbon.
GIS	Global Information System
gpm	gallons per minute
Cr(VI)	Hexavalent Chromium
GTE	General Telephone & Electronics Corporation

Acronym / Abbreviation	Definition
HPC	Heterotrophic Plate Count
KM	Kaplan Meier
L	Liter(s)
LA	Los Angeles
MCL	California Maximum Contaminant Level
mg/L	Milligram(s) Per Liter
MRL	Method Reporting Limit
N	Nitrogen
NDMA	N-Nitrosodimethylamine
NL	Notification Level
OCPs	Organochlorine Pesticides
PBCs	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PHG	Public Health Goal
RL	Reporting Limit
RWQC	Raw Water Quality Characterization
S	Statistic
SA	(Drinking Water) Source Assessment
SMCL	California Secondary Maximum Contaminant Level
SOCs	Non-Volatile Synthetic Organic Compounds
SVOCs	Semi-Volatile Organic Compounds
SWRCB	State Water Resources Control Board
TCE	Trichloroethene
TDS	Total Dissolved Solids
TIC	Tentatively Identified Compound
trans-1,2-DCE	trans-1,2-Dichloroethene
UCL95	95 Percent (%) Upper Confidence Limit
USGS	United States Geological Survey
UST	Underground Storage Tank

Acronym / Abbreviation	Definition
UV/AOP	Ultraviolet/Advanced Oxidation Process
VC	Vinyl Chloride
VOCs	Volatile Organic Compounds

1 Introduction

The Division of Drinking Water (DDW) 97-005 evaluation process consists of 10 steps (also referred to as elements) for assessing proposals, establishing appropriate permit conditions, and approving the use of an extremely impaired drinking water source. A schematic diagram presenting the 10-step 97-005 evaluation process is presented in Figure 1-1. This report documents the second step (Step 2) of the 97-005 evaluation process, i.e., "Full Characterization of the Raw Water Quality" for the City of Santa Monica's (the City's) Olympic Well Field. For the purposes of this raw water quality characterization (RWQC) study, "raw water" is defined as the groundwater extracted from the Olympic Well Field via three production wells (SM-4, SM-8 and SM-9) which are planned to supply the treatment system.

The Olympic Well Field is one of the City's production well fields situated within the Santa Monica Subbasin. The location of the well field is shown in Figure 1-2. As groundwater in the vicinity of the well field is impaired by contamination, the City is required to demonstrate compliance with the DDW Process Memo 97-005-R2020 - *Revised Guidance for Direct Domestic Use of Extremely Impaired Sources* (DDW 2020). Per the guidance, a source is considered to be "extremely impaired" if it meets two or more of 10 DDW-developed criteria. Based on the evaluation of available water quality data, groundwater in the vicinity of the Olympic Well Field meets up to the following three criteria and is therefore considered extremely impaired:

- Contains a contaminant that exceeds 10 times its notification limit (NL) based on chronic health effects, i.e., 1,4-dioxane.
- Is extremely threatened with contamination due to known contaminating activities within the long term, steady state capture zone of a drinking water well or within the watershed of a surface water intake. As identified in the Drinking Water Source Assessment and Contaminant Assessment (SA/CA; Step 1 of the 97-005 Evaluation; ICF 2020), former Gillette and Boeing facilities, which are located within the Olympic Well Field Study Area, are identified contamination sites.
- Might be considered to contain a mixture of contaminants of health concern beyond what is typically seen in terms of number and concentration of contaminants, i.e., 1,4-dioxane, trichloroethene (TCE), and tetrachloroethene (PCE).

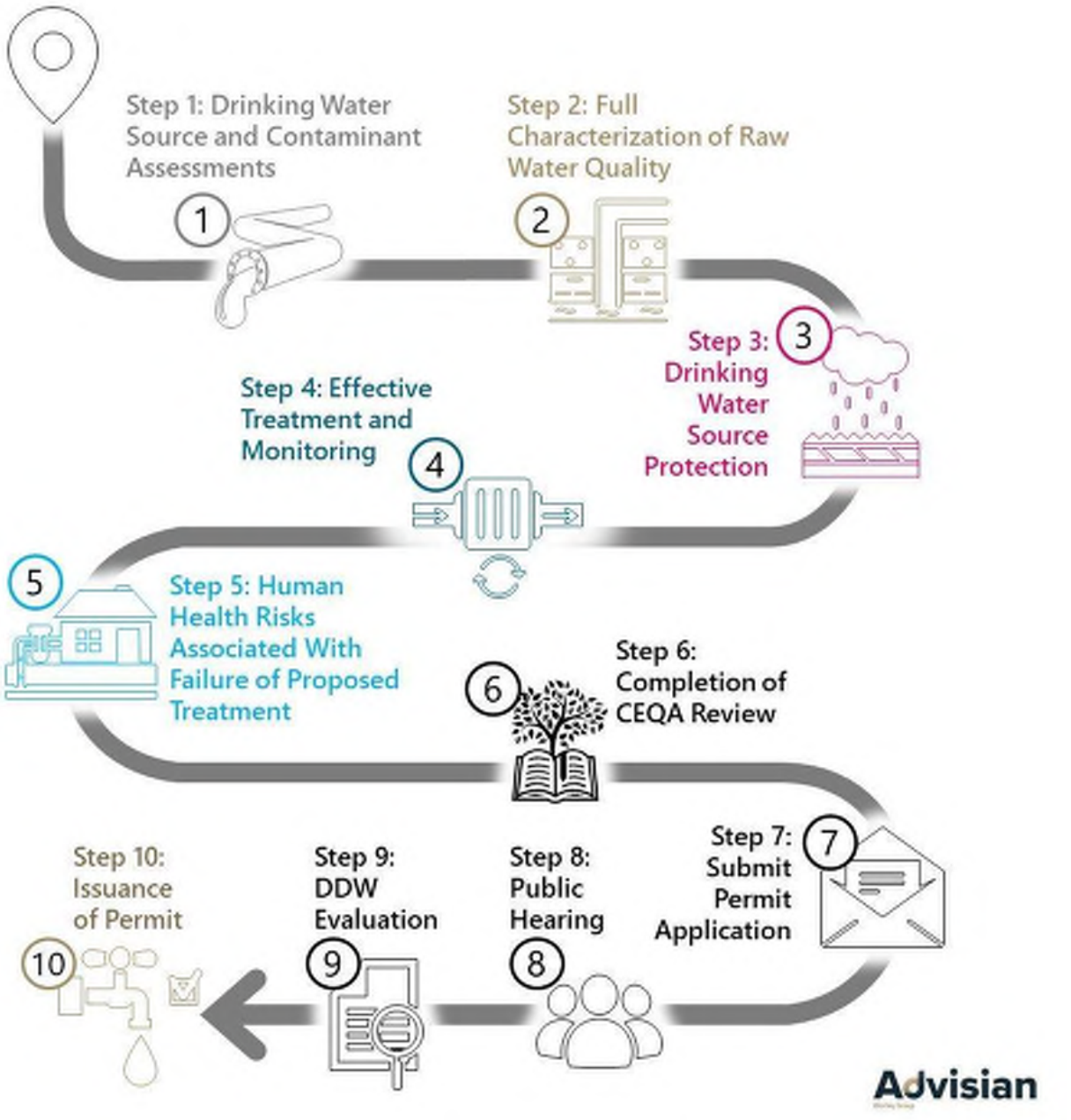
It is imperative that the precursor Step 1 report (SA/CA, ICF 2020) for the Olympic Well Field 97-005 Evaluation is read prior to, or in conjunction with this report, "*as each step lies upon the findings and conclusions of the prior step*" (DDW 2020).

1.1 Olympic Well Field History

Historically, the Olympic Well Field consisted of two active drinking water production wells SM-3 and SM-4 which were installed in 1969 and 1981, respectively. A third production well SM-7, which was never brought on-line, was destroyed and abandoned in March 2018 due to excessive sand production and potential for acting as conduit for contamination migration from the heavily impacted B-Zone to deeper and less impacted aquifer zones. A new production well, SM-8, was drilled and installed in November 2017. More recently, the City replaced SM-3 with a new well, SM-9. The City plans to destroy SM-3 in the near future. Both SM-8 and SM-9 will be brought on-line upon successful amendment of the City's

Domestic Water Supply Permit (DDW 1910146). The well field setting and the locations of production wells are shown in Figure 1-2.

Figure 1-1 DDW Ten-Step 97-005 Evaluation Process for an Extremely Impaired Drinking Water Source



Santa Monica Mountains

Arcadia Subbasin

Olympic Subbasin

Crestal Subbasin

Charnock Subbasin

Coastal Subbasin

OLYMPIC WELL FIELD

Santa Monica Fault

Santa Monica Fault (offshore)

Santa Monica Fault (offshore)

Hollywood fault

Hollywood fault

Newport-Inglewood - Rose Canyon Fault

Overland Avenue Fault

Newport-Inglewood Uplift

Charnock fault

Baldwin Hills

Ballona Escarpment

Santa Monica Bay

HOLLYWOOD BASIN

CENTRAL BASIN

WEST COAST BASIN

SM-3*

SM-9

SM-4

SM-8

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
Esri, Garmin, GEBCO, NOAA NGDC, and other contributors.
CA DWR, RC Slade (Approximate Santa Monica Sub Units).
All locations approximate

Notes:
* - SM-9 replaces SM-3
All locations approximate

N W E S

0 2
Miles

LEGEND

SANTA MONICA GROUNDWATER BASIN

GROUNDWATER BASIN

Olympic Well Field
Santa Monica, California

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OLYMPIC WELL FIELD SETTING AND PRODUCTION WELL LOCATIONS

SWL	SB	07/30/2021
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FILE LOCATION: E:\GIS\Projects\308038-03533\Task_6_GenSpSvc\mapdocuments\7-22-2021\Fig 1-2 - Olympic Well Setting and Production Well Locations.mxd

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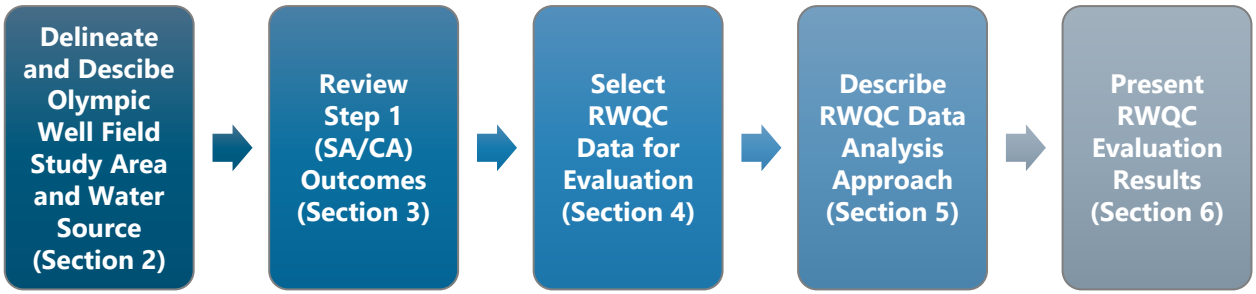
1.2 Purpose

The purpose of the RWQC study is to fully characterize constituents in the raw water produced by the Olympic Well Field, thereby ensuring a treatment system can be properly designed. As stated by DDW: "*the appropriate level of monitoring and treatment to produce safe drinking water cannot be determined unless the raw water quality is fully understood*" (DDW 2020). The outcome of this RWQC study will support the next steps of the 97-005 evaluation process, including "Effective Treatment and Monitoring" (Step 4), which comprises the evaluation and determination of treated water goals and ultimately directs treatment design.

1.3 Scope of Work

The scope of work for the RWQC study of the Olympic Well Field is illustrated in Figure 1-3. The Olympic Well Field RWQC study has been conducted in accordance with the DDW Process Memo 97-005-R2020 - *Revised Guidance for Direct Domestic Use of Extremely Impaired Sources* (DDW 2020).

Figure 1-3 Key Raw Water Quality Characterization Study Tasks



1.4 Document Organization

The report is organized into the following sections:

Section 1 - Introduction: This section provides the introductory and background information, purpose of study, regulatory requirements and organization of the document.

Section 2 - Olympic Well Field Water Source: This section summarizes the characteristics of the Olympic Well Field water source.

Section 3 - Summary of Source Water Assessment and Contaminant Assessment (DDW Step 1): This section comprises a summary discussion of the Step 1 results for the Olympic Well Field.

Section 4 - RWQC Data: This section describes the data and data sources used for the Olympic Well Field RWQC study.

Section 5 - RWQC Approach: This section describes the approach adopted for characterization of raw water quality for the Olympic Well Field.

Section 6 - RWQC Results: This section presents the results of the RWQC study.

Section 7 - Conclusions: This section provides a summary of the results and conclusions of the RWQC study.

Section 8 - References: This section lists the documents referenced in this RWQC report.

2 Olympic Well Field Water Source

This section presents a description summary of the Olympic Well Field water source. A detailed discussion is provided in the *Olympic Well Field Drinking Water Source Assessment and Contaminant Assessment* report (Step 1 of 97-005 Evaluation, ICF 2020).

The Olympic Well Field extracts water from the underlying local and regional aquifers, which predominantly comprises permeable sands and gravels interbedded with laterally discontinuous lenses of less permeable finer-grained silt and clays. Locally, the upper water-bearing zones in the Olympic Well Field are identified as the B-, C-, and D-Zones. In the regional context, the B-Zone is known as the Lakewood Aquifer and C- and D-Zones are within the Silverado Aquifer. The C-Zone within the Olympic Well Field is laterally continuous, whereas the B- and D-Zones pinch-out in the western portion of the well field. The Sunnyside Formation, a regionally recognized aquifer, underlies the D-Zone. Production wells SM-3 and SM-4 were installed in 1969 and 1981, respectively, before contamination was discovered in the Olympic Well Field. Each was screened in several water-bearing units, including the B- and C-Zones, the zones most impacted by contamination. An idealized geological cross-section with local to regional aquifer correlation is shown in Figure 2-1.

Static (non-pumping) water levels in Olympic Well Field production wells are approximately 100 feet below ground surface (ft bgs); dynamic water levels in pumping wells generally vary between 250 and 300 ft bgs, depending on pumping rates. Under natural conditions (non-pumping) groundwater flows west toward the Pacific Ocean. The depth to water in monitoring wells in the B- and C-Zones generally ranges between 100 and 120 ft bgs and 150 to 170 ft bgs, respectively. However, water levels can extend beyond those ranges depending on several factors, including pumping rates in production wells and seasonal variations in recharge. Locally, groundwater hydraulic gradients vary in magnitude and direction depending on various groundwater stresses, such as groundwater pumping and limited recharge during drought conditions.

A calibrated groundwater flow model developed by ICF for the Olympic Subbasin (ICF 2017) was used to simulate the future capture zones generated by pumping of production wells SM-4, SM-8 and SM-9 which are planned to supply the treatment system. Capture zones were generated for each aquifer zone intercepted by the production wells, i.e., the B-Zone, C-Zone, D-Zone and upper Sunnyside Aquifer. Aquifer zones are represented by different layers within the groundwater model. The pumping rates specified in the model for each production well were based on planned future pumping rates; these are summarized in Table 2-1 below.

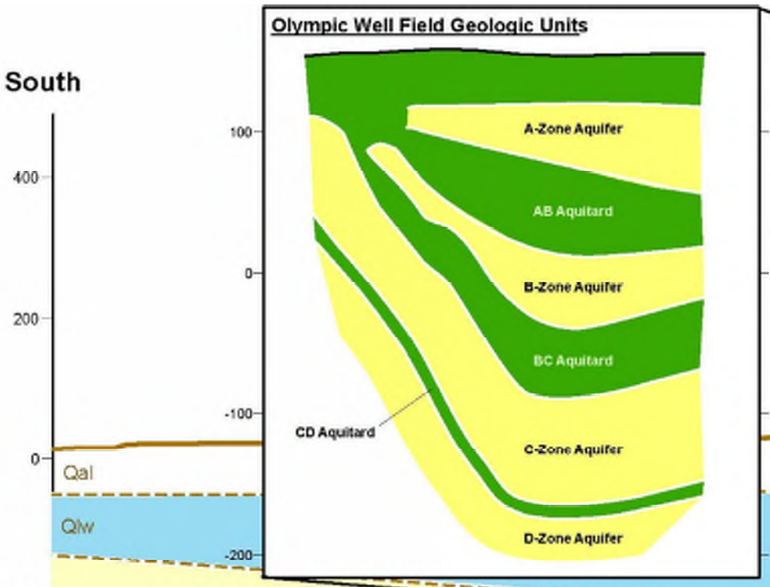
For the purposes of this report, the Olympic Well Field Study Area was delineated by determining an aggregate capture zone comprising the modeled 2-, 5-, and 10-year capture zones for the B-, C-, D-Zones and Sunnyside Aquifer as a means of predicting the lateral extent the groundwater system will be influenced by Olympic Well Field pumping activities. The Olympic Well Field Study Area is shown in Figure 2-2. In addition, modeled particle traces and 2-, 5-, and 10-year capture zones for each aquifer zone are presented in the figures provided in Appendix A.

The forecast (forward-looking) flow model simulation was performed assuming steady-state pumping conditions to assess long-term flow patterns. Simulated particles were then placed around each production well in the model and reverse particle tracking was performed to trace the lateral extent of capture for each well in the applicable aquifer zone where the wells are screened.

Table 2-1 Modeled Production Well Pumping Rates and Aquifers/Zones Intercepted by Olympic Well Field Production Wells

Production Well	Aquifers/Zones Intercepted	Modeled Future Pumping Rate (gpm)
SM-4	B-Zone	700
	C-Zone	
	D-Zone	
	Sunnyside Aquifer	
SM-8	C-Zone	700
	D-Zone	
	Sunnyside Aquifer	
SM-9	B-Zone	600
	C-Zone	
	D-Zone	
	Sunnyside Aquifer	

Notes: *gpm = gallons per minute.*



Olympic Wellfield Aquifer System Designations

Local to Regional Aquifer Correlation		
Olympic Wellfield Designation	Regional Aquifer Designation	
A-Zone Aquifer	Ballona Aquifer	Ballona
A/B Aquitard	Lakewood Aquifer	Lakewood Aquifer
B-Zone Aquifer		
B/C Aquitard		
C-Zone Aquifer	San Pedro Aquifer, Silverado Member	San Pedro Aquifer
C/D Aquitard		
D-Zone Aquifer		
Sunnyside Aquifer	San Pedro Aquifer, Sunnyside Member	
Pico Formation	Pico Formation	Pico

NOTES
Cross section alignment generally follows RCS (2013) A-A' alignment.

Olympic Well Field
Santa Monica, California

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IDEALIZED CROSS-SECTION WITH LOCAL TO REGIONAL AQUIFER CORRELATION (REPRODUCED FROM ICF 2017, FIGURE 3)

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FILE LOCATION: E:\GIS\Projects\308038-03533\Task_6_GenSpSvc\mapdocuments\7-22-2021\Fig 2-1 Idealized Cross-Section with Local to Regional Aquifer Correlation.mxd

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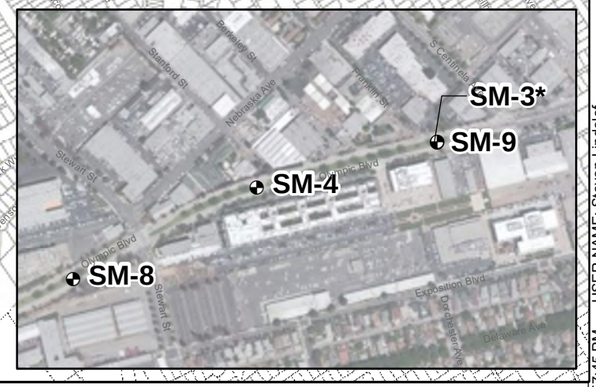
SM-3*
SM-9
SM-4
SM-8
OLYMPIC WELL FIELD STUDY AREA



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. LA County GIS

Notes:
* - SM-9 replaces SM-3
All locations approximate

N
W E
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Feet

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- CITY OF SANTA MONICA PRODUCTION WELL
- OLYMPIC WELL FIELD STUDY AREA (Aggregate capture zone comprising the modeled 2, 5, and 10-year capture zones for the B-, C-, D-Zones and Sunnyside Aquifer)

Olympic Well Field
Santa Monica, California

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OLYMPIC WELL FIELD STUDY AREA

SWL	SB	07/30/2021
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FILE LOCATION: E:\GIS\Projects\308038-03533\Task_6_GenSpSvc\mapdocuments\7-22-2021\Fig 2-2 Olympic Well Field Study Area.mxd

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3 Summary of Source Water Assessment and Contaminant Assessment Results

As stated in the DDW Process Memo 97-005-R2020, the steps (or elements) of the extremely impaired source evaluation process are designed to be sequential in nature. Step 1 of the 97-005 Evaluation, i.e., the SA/CA, determined the extent to which groundwater within the Olympic Well Field is vulnerable to contaminating activities. The RWQC study (Step 2 of 97-005 Evaluation) documented herein, follows on from Step 1 and includes an evaluation of contaminants and contamination sources identified in the SA/CA. A summary is provided below.

The SA/CA included an assessment of known and potential contaminant sources to identify the origin of detected contaminants in groundwater, and potential contamination sources currently or historically present in the source water capture zones.

The Olympic Well Field is located within a corridor formerly occupied by several industrial operations. Some of these operations resulted in release of volatile organic compounds (VOCs) that have impacted groundwater production wells in the City's Olympic Well Field.

Sources of contamination to groundwater have been identified at the CSHV Pen Factory Property (former Paper Mate/Gillette facility) located at 1681 26th Street and the Former Boeing/Douglas Aircraft property, located at 2902 Exposition Boulevard. The locations of these sites are shown in (Figure 3-1). The City continues to monitor the known sites and evaluates other sites that may also contribute to groundwater contamination in this area. A brief summary of operations and chemical releases at these two sites is provided below, and a detailed discussion is provided in the SA/CA report.

3.1 CSHV Pen Factory Property (former Paper Mate/Gillette)

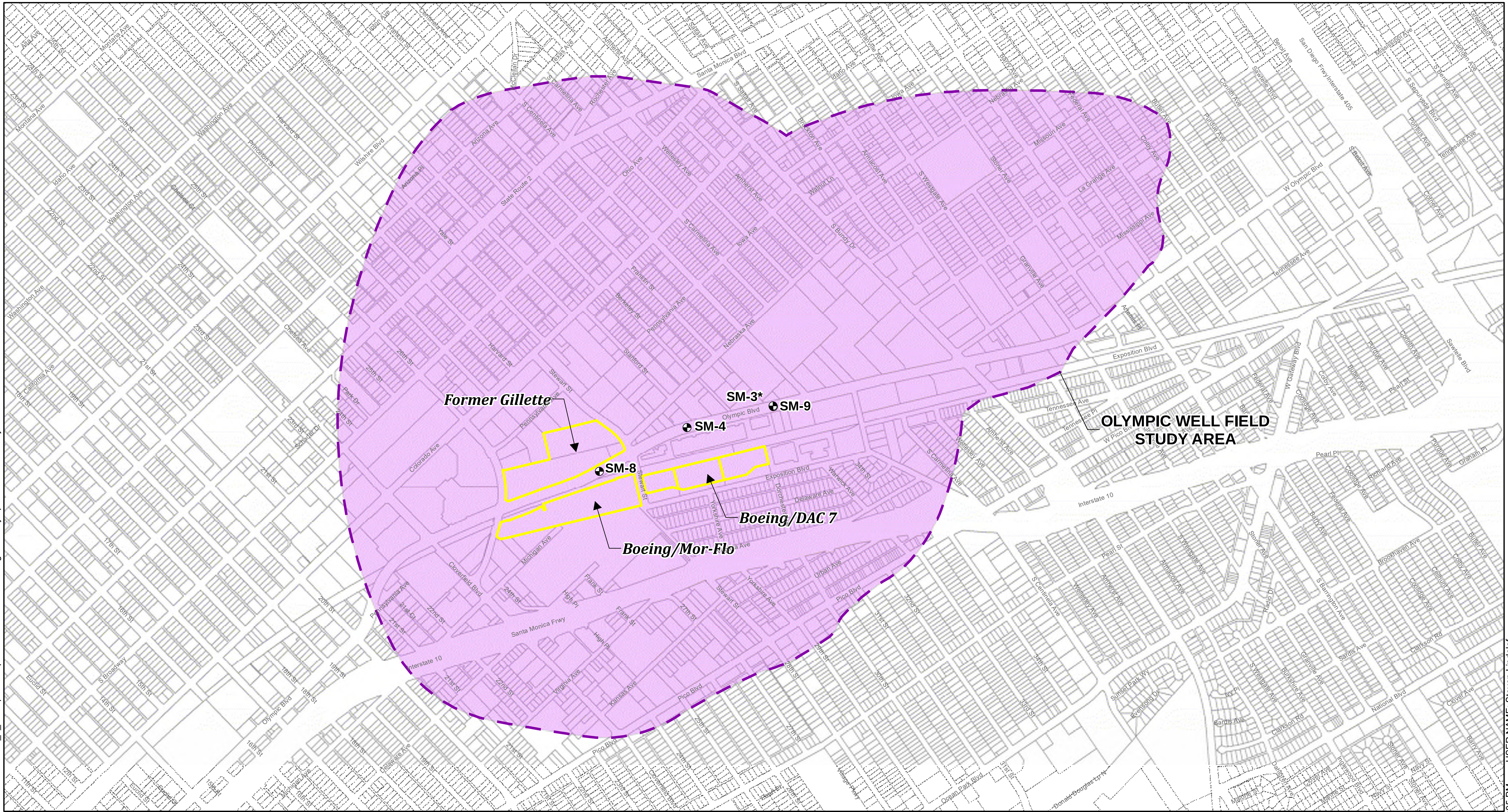
Gillette manufactured ballpoint pens under the Paper Mate brand at 1620 26th Street, City of Santa Monica, CA from 1957 until 2006 when operations ceased at this facility. The location of the former site is shown in Figure 3-1. Operations that used potentially hazardous materials, or generated materials designated as hazardous wastes, included degreasing, metal plating, molding, nickel plating, ink manufacturing, product assembly, and tooling and maintenance. Over the facility's history, virgin and spent solvents containing PCE and TCE and other wastes were stored in drums at various locations at the facility and later in up to 35 underground storage tanks (USTs) and 45 aboveground storage tanks (ASTs). USTs and ASTs were generally located in two separate locations, along the northern property line and along the southern property line adjacent to Olympic Boulevard. During investigations and closure activities, leaking USTs and associated underground piping were discovered, as well as the presence of contaminated soils in multiple locations at the former facility (AMEC, 2008). As of the late 2000s, all known USTs and ASTs had been removed and numerous investigations and extensive source area remediation had been performed.

Between 2010 and 2015 soil remediation and shallow groundwater remediation occurred at the site to remove PCE and TCE. The Los Angeles Regional Water Quality Control Board (LARWQCB) subsequently concluded that remedial activities had cleaned-up or abated contamination to assure protection of groundwater beneath the site and vicinity for its beneficial uses (LA-RWQCB, 2016). This site is now used for commercial office space and other non-industrial purposes.

3.2 Former Boeing/Douglas Aircraft Property

Douglas Aircraft (Douglas) operated an aerospace components company (Plant A7) located at 2902 Exposition Boulevard and used the eastern and central portions of what is now known as the Bergamot Arts Center for warehousing. The location of the former site is shown in Figure 3-1. Douglas later merged with McDonnell Aircraft and became McDonnell Douglas. In 1997, the Boeing Company acquired the assets of McDonnell Douglas. Aircraft parts manufacturing commenced at the Plant A7 site in the mid-1940s and ceased in the early-1970s. Douglas utilized industrial solvents in their manufacturing process. General Telephone & Electronics Corporation (GTE) acquired the property from Boeing in the early-1970s and operated a fleet refueling and maintenance facility until they sold the property to Verizon in the late 1970s. VOCs, principally PCE and TCE have been detected in the soil, vapor, and shallow groundwater (A-Zone) beneath the Boeing-Exposition Boulevard site. VOC releases to the A-Zone at the Boeing site have been characterized by over 150 soil borings and groundwater monitoring wells.

Verizon utilized the former Plant A7 property for warehousing, vehicle maintenance, and fleet washing beginning in the early 1970s. Releases of fuel hydrocarbons occurred to the soil and shallow groundwater during Verizon's occupancy of the Plant A7 site. No fuel related compounds have been detected in the City's Olympic Well Field production wells. Remedial activities were conducted to remediate the fuel hydrocarbon releases. Notably, Boeing has retained obligations to address shallow groundwater VOC contamination at this site, which includes monitored natural attenuation and deeper groundwater assessment. Much of the former Plant A7 site is now occupied by a Los Angeles County Metropolitan Transportation Authority (Metro) maintenance facility. The rest of the former Plant A7 site is now office space.



Sources: LA County GIS
Notes:
* - SM-9 replaces SM-3
All locations approximate

N
W E
S

0 1,000
Feet

LEGEND

CITY OF SANTA MONICA PRODUCTION WELL

POTENTIAL CONTAMINATION SITES

OLYMPIC WELL FIELD STUDY AREA (Aggregate capture zone comprising the modeled 2, 5, and 10-year capture zones for the B-, C-, D-Zones and Sunnyside Aquifer)

Olympic Well Field
Santa Monica, California

City of Santa Monica | ICF | Advisian Worley Group

OLYMPIC WELL FIELD STUDY AREA AND CONTAMINATION SOURCE SITES

SWL	SB	07/30/2021
308038-03533		3-1

FILE LOCATION: E:\GIS\Projects\308038-03533\Task_6_GenSpSvc\mapdocuments\7-22-2021\Fig 3-1 - Olympic Well Field Study Area and Locations of Potential Contamination Sites.mxd

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4 Raw Water Quality Characterization Data

This section provides information pertaining to the analysis period and data used for the data analyses conducted for the RWQC study. Data types include:

- Groundwater monitoring well water quality data;
- Production well data which includes:
  - water quality data;
  - groundwater production data; and,
- Precipitation data.

For the purposes of the RWQC study, an analysis period of January 1, 2012 to June 30, 2020 was selected. The rationale for selecting 2012 as the start of the analysis period is because in-situ soil remediation at one of the primary identified responsible parties[1] in the Olympic Well Field concluded in February 2012. It was considered suitable to use data after completion of remediation as these activities are likely to have influenced constituent concentrations and therefore concentrations recorded prior to completion of remediation are unlikely to be representative of current or future groundwater conditions. The analysis period also includes a range of wet and dry years to evaluate long-term variations in COPC concentrations; this is discussed later in Section 6.5.

The RWQC data sources are described in the following subsections.

4.1 Olympic Well Field Monitoring Well Water Quality Data

As described in Section 2, reverse particle tracking was performed to delineate the lateral extent of the projected capture for each production well in the applicable aquifer zone(s) where each well is screened. Once capture zones were generated, groundwater monitoring wells located within these capture zones were identified. The capture zones for each production well and each applicable aquifer zone, as well as the locations of the identified groundwater monitoring wells are shown in the figures provided in Appendix A. A total of 22 groundwater monitoring wells were selected and the locations of these wells are shown in Figure 4-1. Table 4-2 presents the list of monitoring wells, the aquifer zone each monitoring well intercepts, the production well capture zone assigned to each monitoring well, and pertinent well construction information.

Groundwater quality data for an extensive list of constituents (>500) were queried from the Olympic Well Field Environmental Quality Information System (EQuIS) database for the 22 selected groundwater monitoring wells. The database stores water quality data generated from the implementation of the following groundwater monitoring programs at the Olympic Well Field:

- The Olympic Well Field Monitoring Program which comprises quarterly groundwater monitoring activities. The program commenced in 2002 and is still ongoing. The groundwater monitoring results are documented and reported to the LARWQCB. Samples collected as part of this monitoring program

[1] *Former Gillette/Paper Mate Site located at 1620 26th Street, City of Santa Monica, CA. Refer to Section 3 for more information.*

are analyzed using United States Environmental Protection Agency (EPA) Method 8760. However, when using this method, the laboratory method reporting limits (MRLs) for 1,4-dioxane and 1,2,3-TCP are above the NL (1 µg/L) and MCL (0.005 µg/L), respectively. Therefore, additional low-level analyses are conducted using EPA Method 522 for 1,4-dioxane (MRL = 0.5 µg/L) and EPA-approved method CA SRL 524M for 1,2,3-TCP (MRL = 0.005 µg/L). Quarterly groundwater monitoring reports are available on GeoTracker (Global ID: T0603799303; https://geotracker.waterboards.ca.gov/profile_report?global_id=T0603799303).

- The 97-005 Raw Water Characterization Sampling and Analysis Plan (Advisian 2020) which was executed in 2020 for the purpose of generating data of sufficient quality and quantity to support full characterization of the raw water quality in the Olympic Well Field, meeting DDW requirements. Groundwater samples were analyzed for >500 constituents, including pesticides, pharmaceuticals, radionuclides, tentatively identified compounds (TICs) and other various organic and inorganic compounds. Samples were analyzed using EPA-approved drinking water methods. MRLs are equal to or less than applicable MCLs or NLs.
- Implementation of the Monitoring and Reporting Program (MRP) No. CI-10539 for Santa Monica Exploratory Well SM-10i (LARWQCB 2020). The LARWQCB requires that the City conduct quarterly and annual monitoring of monitoring wells in the receiving aquifer surrounding exploratory well SM-10i which was used to perform short-term injection testing within the Olympic Well Field (documented in MRP). Samples were analyzed using EPA-approved drinking water methods. MRLs are equal to or less than applicable MCLs or NLs. Technical and monitoring reports associated with the MRP is available on GeoTracker (WDR100046020; https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=WDR100046020).

The data generated from the implementation of these monitoring programs and exported from the Olympic Well Field EQuIS database, were used to screen for contaminants of potential concern (COPCs) (Section 6.1) and estimating future treatment plant influent concentrations (Section 6.1.3).

4.2 Olympic Well Field Production Well Data

The capture zones for each production well and each applicable aquifer zone, as well as the locations of the identified groundwater monitoring wells for each aquifer zone are shown in Figures A-1 to A-4, provided in Appendix A.

The City conducted sampling of production well SM-4, and newly installed, but yet to be equipped and permitted production wells SM-8 and SM-9 (SM-3 replacement well) concurrent with the implementation of the 97-005 Raw Water Characterization Sampling and Analysis Plan (Advisian 2020). The purpose of this sampling was to generate production well data of sufficient quality and quantity to support full characterization of the raw water quality in the Olympic Well Field. Groundwater samples were analyzed for >500 constituents, including pesticides, pharmaceuticals, radionuclides, TICs and other various organic and inorganic compounds. This data was used to identify COPCs (Section 6.1) and for comparisons to estimated future treatment plant influent concentrations derived from monitoring well data (Section 6.1.3).

The City conducts compliance sampling of the Olympic Well Field production wells (SM-3 and SM-4) in accordance with its Domestic Water Supply Permit (DDW 1910146). Samples are collected by the City on a monthly basis; therefore, a significant water quality data set has been established. Water quality data generated from compliance sampling are transmitted in electronic format to DDW. In addition to

collecting water samples, the City also measures and records water level and production data for each production well. Temporal data generated from monthly compliance monitoring were used to evaluate water quality concentration trends and variability (Section 6.4).

The locations of the production wells are shown in Figure 4-1 and pertinent well information is presented in Table 4-3.

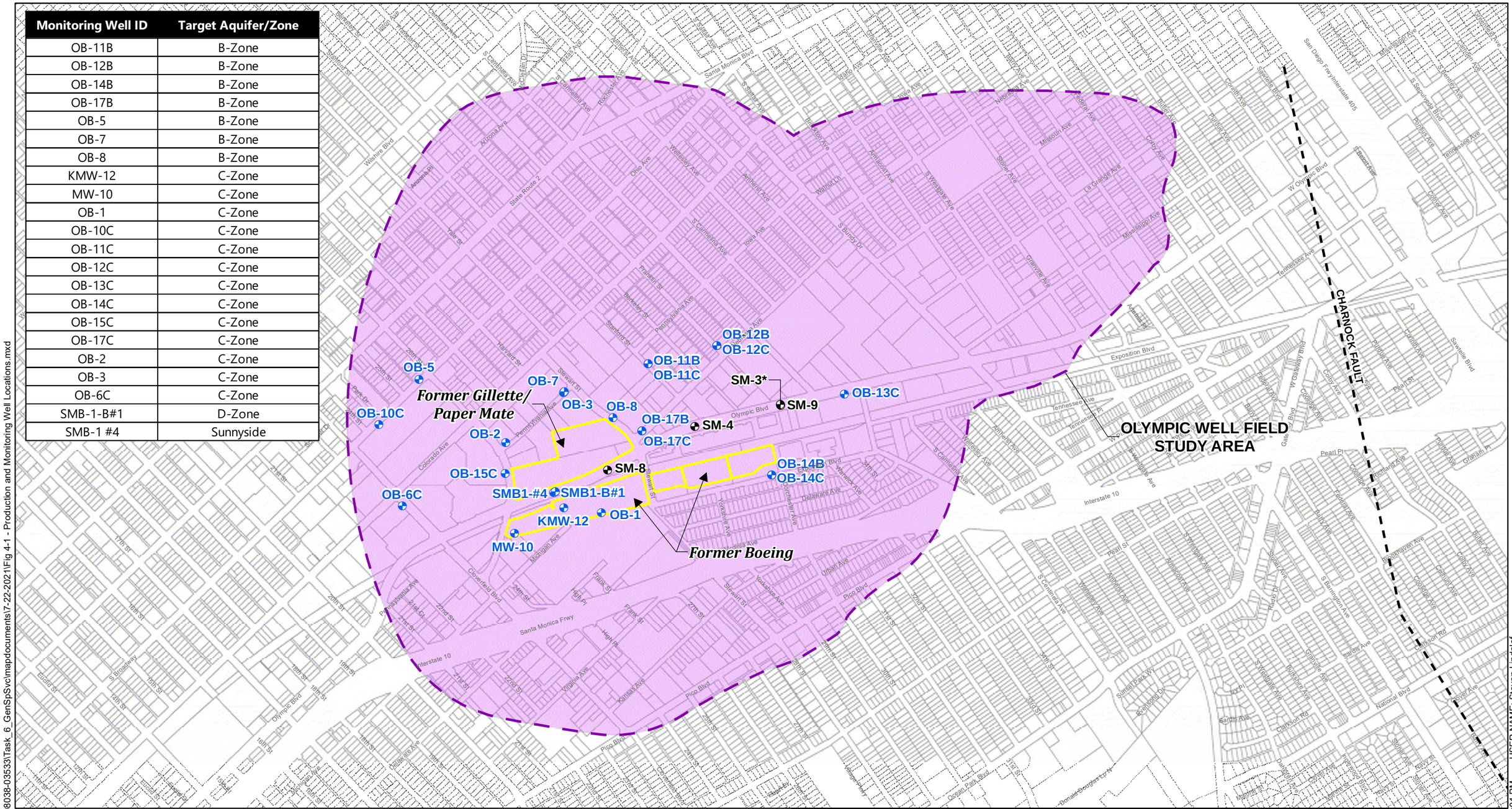
4.3 Precipitation Data

Annual precipitation data was obtained from Santa Monica Municipal Airport (Station Number: USW00093197) for the January 1, 2012 through June 30, 2020 period and is presented in Table 4-1. This data was used determine whether changes in water quality could be correlated to periods considered to be "wet" (i.e., periods of high precipitation) versus "dry" (i.e., periods of low precipitation) (Section 6.5).

Table 4-1 Annual Precipitation at Santa Monica Municipal Airport

Calendar Year	Water Year (Start Date)	Total Precipitation (inches)
2019-2020	1-Oct-19	13.68
2018-2019	1-Oct-18	19.81
2017-2018	1-Oct-17	5.93
2016-2017	1-Oct-16	18.09
2015-2016	1-Oct-15	6.43
2014-2015	1-Oct-14	11.66
2013-2014	1-Oct-13	4.76
2012-2013	1-Oct-12	7.24

Monitoring Well ID	Target Aquifer/Zone
OB-11B	B-Zone
OB-12B	B-Zone
OB-14B	B-Zone
OB-17B	B-Zone
OB-5	B-Zone
OB-7	B-Zone
OB-8	B-Zone
KMW-12	C-Zone
MW-10	C-Zone
OB-1	C-Zone
OB-10C	C-Zone
OB-11C	C-Zone
OB-12C	C-Zone
OB-13C	C-Zone
OB-14C	C-Zone
OB-15C	C-Zone
OB-17C	C-Zone
OB-2	C-Zone
OB-3	C-Zone
OB-6C	C-Zone
SMB-1-B#1	D-Zone
SMB-1 #4	Sunnyside



Source: LA County GIS

Notes:
SMB1-B#1 - USGS Station ID: 340142118280501, State Well Number: 002S015W05H006S
SMB1-#4 - USGS Station ID: 340142118280604, State Well Number: 002S015W05H005S

* - SM-9 replaces SM-3
All locations approximate

N W E S

0 1,000 Feet

LEGEND

- CITY OF SANTA MONICA PRODUCTION WELL (ACTIVE)
- GROUNDWATER MONITORING WELLS
- APPROXIMATE LOCATION OF CHARNOCK FAULT
- IDENTIFIED CONTAMINATION SITES
- OLYMPIC WELL FIELD STUDY AREA (Aggregate capture zone comprising the modeled 2, 5, and 10-year capture zones for the B-, C-, D-Zones and Sunnyside Aquifer)

Olympic Well Field
Santa Monica, California

City of Santa Monica | ICF | Advisian Worley Group

PRODUCTION AND MONITORING WELL LOCATIONS

SWL	SB	07/30/2021
308038-03533		**4-1**

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Table 4-2 Olympic Well Field Monitoring Wells Information

Well ID	Well Owner	Aquifer Zone	Production Well Capture Zone	Easting	Northing	Ground Surface Elevation (ft AMSL)	Top of Casing Elevation (ft AMSL)	Screen Interval (ft bgs)		Screen Interval (ft AMSL)	
								Top	Bottom	Top	Bottom
KMW-12	City	C-Zone	SM-8	6419868.9	1832919.6	156.2	155.5	140.0	165.0	16.2	-8.8
MW-10	City	C-Zone	SM-8	6419343.6	1832650.7	153.4	155.6	123.5	143.5	29.9	9.9
OB-1	City	C-Zone	SM-8	6420268.4	1832870.3	156.3	156.0	139.8	159.8	16.5	-3.5
OB-10C	City	C-Zone	SM-8	6417901.4	1833803.9	152.4	151.7	168.3	198.3	-15.9	-45.9
OB-11B	City	B-Zone	SM-4	6420765.9	1834448.6	156.7	156.2	230.2	250.2	-73.5	-93.5
OB-11C	City	C-Zone	SM-4	6420765.9	1834448.6	156.7	156.0	346.3	376.3	-189.6	-219.6
OB-12B	City	B-Zone	SM-4	6421494.2	1834642.3	156.8	156.3	220.3	240.3	-63.5	-83.5
OB-12C	City	C-Zone	SM-4	6421494.2	1834642.3	156.8	156.3	336.5	366.5	-179.7	-209.7
OB-13C	City	C-Zone	SM-9	6422849.8	1834130.3	154.2	153.9	305.6	335.6	-151.4	-181.4
OB-14B	City	B-Zone	SM-9	6422077.2	1833265.5	150.8	150.5	102.0	132.0	48.8	18.8
OB-14C	City	C-Zone	SM-9	6422077.2	1833265.5	150.8	150.4	186.4	216.4	-35.6	-65.6
OB-15C	City	C-Zone	SM-8	6419246.2	1833281.4	156.1	156.1	185.0	215.0	-28.9	-58.9
OB-17B	City	B-Zone	SM-4	6420698.9	1833740.4	152.6	152.6	194.9	204.9	-42.3	-52.3
OB-17C	City	C-Zone	SM-4	6420698.9	1833740.4	152.5	152.5	295.6	325.6	-143.1	-173.1
OB-2	City	C-Zone	SM-8	6419251.0	1833613.0	155.2	154.9	246.5	276.5	-91.4	-121.4
OB-3	City	C-Zone	SM-8	6419874.2	1834156.2	157.1	157.5	339.3	369.3	-182.2	-212.2
OB-5	City	B-Zone	SM-4	6418328.2	1834284.6	156.0	155.7	145.9	175.9	10.1	-19.9
OB-6D	City	C-Zone	SM-8	6418153.1	1832939.5	149.2	148.8	145.9	175.9	3.3	-26.7
OB-7	City	B-Zone	SM-4	6419865.3	1834147.6	157.5	157.1	215.0	246.0	-57.6	-88.6
OB-8	City	B-Zone	SM-4	6420392.0	1833878.0	153.8	153.4	205.0	235.0	-51.2	-81.2
SMB1-B#1[(1)]	USGS	D-Zone	SM-4, SM-8, SM-9[(3)]	6419779.1	1833088.0	159.1	159.3	235.0	255.0	-75.9	-95.9
SMB1-#4[(2)]	USGS	Sunnyside	SM-4, SM-8, SM-9[(4)]	6419759.9	1833082.6	159.3	159.1	350.0	370.0	-190.7	-210.7

Notes: *ft = feet; AMSL = Above Mean Sea Level; bgs = below ground surface; City = City of Santa Monica; USGS = United States Geological Survey*

(1) SMB1-B#1 = USGS Station ID: 340142118280501; State Well Number: 002S015W05H006S

(2) SMB1-#4 = USGS Station ID: 340142118280604; State Well Number: 002S015W05H005S

(3) SMB-1-B#1 used for all production well capture zones in D-Zone

(4) SMB-1 #4 used for all production well capture zones in Sunnyside Aquifer

Table 4-3 Olympic Well Field Production Wells Information

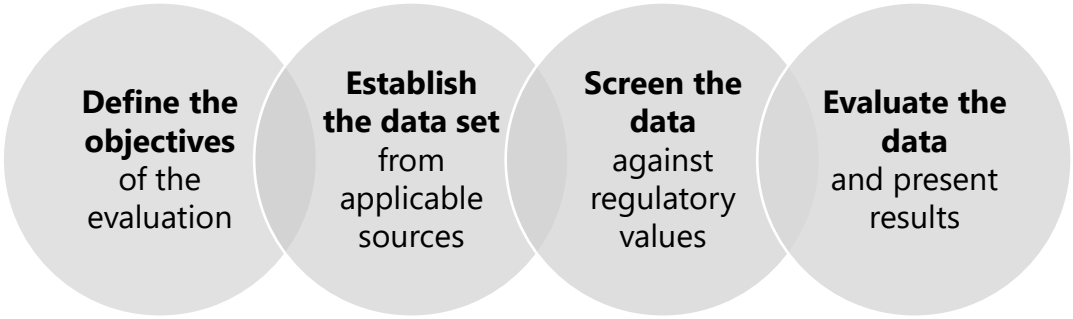
Well Name	Easting	Northing	Year Drilled	Ground Surface Elevation (ft AMSL)	Pump Intake Depth (ft bgs)	Elevation of Suction Intake (ft AMSL)	Perforation Interval Depths (ft bgs)	Perforation Interval Elevations (ft AMSL)
SM-3	64222173.0	1834009.0	1969	155.0	280.0	-125.0	210 to 270 300 to 380 410 to 430 490 to 530	-55 to -115 -145 to -225 -255 to -275 -335 to -375
SM-4	6421262.9	1833785.3	1981	150.7	240.0	-89.3	200 to 410 470 to 540	-49 to -259 -319 to -389
SM-8	6420334.0	1833323.0	2017	156.0	--	--	210 to 265 295 to 325 335 to 345 360 to 460	-54 to -109 -139 to -169 -179 to -189 -204 to -304
SM-9	6422172.63	1834014.79	2019	155.0	--	--	240 to 265 300 to 380 390 to 430 490 to 535 655 to 750 760 to 790	-85 to -110 -145 to -225 -235 to -275 -335 to -380 -500 to -595 -605 to -635

Notes: *ft = feet; AMSL = Above Mean Sea Level; bgs = below ground surface, -- pump not installed at time of writing this report*

5 Raw Water Quality Characterization Approach

A series of steps were taken in order to evaluate data to support this RWQC; these steps are summarized in Figure 5-1. This section outlines the approach and methodologies adopted for each step of the evaluation. The results of the evaluation are presented later in Section 6.

Figure 5-1 Key Steps of the Evaluation



5.1 Define the Objectives

Per the DDW Process Memo 97-005-R2020 (DDW 2020), the primary objective of the RWQC is to characterize the influent water quality that will enter the treatment system, so that an appropriate level of monitoring and treatment can be designed to produce safe drinking water. This includes an evaluation of potential future water quality at the production wells and plant influent for the contaminants found in Step 1 of the 97-005 Evaluation, i.e., the SA/CA (ICF 2020; refer to Section 3).

5.2 Establish the Data Set

From the sources described in Section 4, water quality sample records for production and monitoring wells were combined into a single data set. The water quality data set was then queried to identify constituents analyzed in groundwater well samples using specific criteria as follows:

- Well type (production or monitoring well);
- Well screen depth/elevation interval and associated aquifer zones intercepted by the well screen;
- Well location within modeled captures zones for each aquifer zone; and,
- Date of samples (samples collected between January 1, 2012 and June 30, 2020[2]).

The resultant data set consisted of 48,151 records from over 650 samples, featuring over 500 constituent/parameter results derived from four production wells and 22 monitoring wells.

[2] *An exception is 1,4-dioxane and 1,2,3-trichloropropane (1,2,3-TCP) data for USGS wells SMB1-B#1 and SMB1-#4; data were not available for these constituents for the time period, so groundwater samples collected and analyzed for these constituents in Q3 2020 were used for the evaluation.*

5.3 Screen the Data

To identify COPCs and determine which constituents would drive design for proposed treatment, the groundwater quality data set (Section 5.2) was screened against specific criteria. This section discusses the approach adopted for COPC screening for this RWQC, with the results being presented later in Section 6.

Starting with the entire data set, an initial COPC screening was conducted by applying the following criteria to develop a preliminary list of COPCs for further evaluation:

1. Constituents that were detected in the four production wells (SM-3, SM-4, SM-8, or SM-9);
2. Constituents that were non-detect in the four production wells, but had three or more detections in one or more monitoring wells;
3. Detected constituents with a primary maximum contaminant level (MCL) or notification level (NL); and,
4. Constituents meeting screening criteria 1 or 2 and screening criteria 3 with a ratio of detected concentration (maximum observed) to MCL or NL greater than 0.05 (5%).

Following the initial screening, the resultant list of COPCs were further refined to determine which COPCs would drive design for the planned treatment system, using the following secondary criteria:

5. Constituents meeting initial screening criteria with a ratio of detected concentration (maximum observed) to MCL or NL greater than 0.5 (50%); and,
6. Constituents meeting initial screening criteria and screening criteria 5 which are synthetic organics (these constituents are most likely to drive design for the planned treatment system using ultraviolet/advanced oxidation process [UV/AOP] and granular activated carbon [GAC]).

Results from the initial and secondary screening are provided in Section 6.1.

5.4 Evaluate the Data

The next stage in the RWQC was to evaluate the water quality data. As part of the evaluation, several different data analyses were conducted to meet the requirements of the DDW Process Memo 97-005-R2020 (DDW 2020), including:

- Estimating future treatment plant influent concentrations to characterize the quality of water anticipated to enter the proposed treatment system;
- Trend analysis for historical water quality to understand how water quality trends have changed over time; and,
- Variability/correlation analysis to develop an understanding of how water quality has changed over time under the influence of certain factors such as pumping and seasonal variation in precipitation.

The approach adopted for each of the data analyses are described in the subsections which follow.

5.4.1 Approach to Estimating Future Treatment Plant Influent Concentrations

The approach to estimating future treatment plant influent concentrations utilizes several methods including statistical analysis to characterize ranges in raw water quality in the data set and, subsequently,

flow-weighting calculations to estimate concentrations in production wells and treatment plant influent. This section discusses the approach adopted for estimating future treatment plant influent concentrations for this RWQC, with the results being presented later in Section 6.

5.4.1.1 Statistical Analysis of Groundwater Quality Data Set

The approach to the COPC screening evaluation (Section 5.3) utilized data from both production and monitoring wells to provide a conservative first stage in characterizing COPCs. However, in order to provide projections of future water quality in production wells and treatment plant influent, monitoring well data were primarily used since these data represent groundwater that is anticipated to arrive at the production wells in the future based on groundwater modeling and capture zone analysis (refer to Section 2).

Using the monitoring well groundwater quality data set, statistical analysis was performed using the EPA's ProUCL software version 5.1 (EPA 2015a, 2015b). ProUCL is a comprehensive statistical software package with statistical methods to evaluate environmental sampling data. For the purposes of the evaluation herein, the mean and 95 percent (%) upper confidence limit of the population mean (UCL95) were calculated using ProUCL software. In the event either of these statistics could not be calculated (for example, due to an insufficient number of detections to compute reliable and meaningful statistics and estimates), the maximum observed value was adopted in subsequent calculations as a conservative approach.

The statistical analysis was conducted for data from monitoring wells within the projected capture zone for each production well supplying the treatment plant (SM-4, SM-8, SM-9) and for each aquifer zone which the production wells are screened in. The results of this analysis are provided in Section 6.1.2.

5.4.1.2 Flow-Weighting Calculations for Production Well Concentration Estimates

Following statistical analyses of the monitoring well groundwater quality data set, constituent concentrations based on the mean and UCL95 of the data set were used in flow-weighting calculations to derive production well concentration estimates, applying the following equation:

$$C_w = \frac{C_1Q_1 + C_2Q_2 + C_3Q_3 + C_4Q_4}{Q_w} \qquad \textit{Equation (1)}$$

Where:

C_w is the estimated flow-weighted concentration in the production well.

C_1 to C_4 is the assumed concentration within each capture zone and within each aquifer zone (adopted from mean or UCL95 statistics, or maximum observed value if either of these statistics were unavailable).

Q_w is the total flow rate for the production well.

Q_1 to Q_4 is the flow rate to the well in each aquifer zone. This was estimated by calculating the proportion of total flow in the production well coming from each screen interval using the transmissivity across each production well screen within each aquifer zone. Transmissivities were

calculated by multiplying total screen length in each aquifer zone by the hydraulic conductivity for the applicable layer from the calibrated groundwater model.

It should be noted that this approach is conservative as it assumes there are no transport mechanisms that reduce constituent concentrations, such as attenuation, retardation or degradation. Furthermore, no monitoring network is robust enough to describe all subsurface conditions; the approach herein assumes all flow from each aquifer zone into each production well screen has concentrations equal to the adopted value from monitoring well statistics (mean or UCL95 statistics, or maximum observed value if either of these statistics were unavailable). **This may result in an over-estimate of production well influent concentrations for some constituents as there are expected to be areas within each capture zone which have low or non-detect concentrations of the constituents evaluated.** The results of this analysis are provided in Section 6.1.2.

5.4.1.3 Flow-Weighting Calculations for Treatment Plant Influent Concentration Estimates

After concentration estimates for each production well were calculated, plant influent concentrations (comprising the combined flow from the three production wells) were estimated using the same flow-weighting method applied in Equation 1 above, as follows:

$$C_i = \frac{C_{SM4}Q_{SM4} + C_{SM8}Q_{SM8} + C_{SM9}Q_{SM9}}{Q_i} \qquad \textit{Equation (2)}$$

Where:

C_i is the estimated flow-weighted influent concentration for the combined flow of all three production wells (i.e., SM-4, SM-8 and SM-9).

C_{SM4}, C_{SM8} and C_{SM9} are the estimated concentrations for each production well, derived from Equation 1.

Qi is the combined flow of all three production wells (i.e., SM-4, SM-8 and SM-9).

Q_{SM4}, Q_{SM8} and Q_{SM9} are the flow rates for each production well.

For treatment plant influent estimates, only the production well estimates derived from UCL95 statistics (or maximum observed value if these statistics were unavailable) were used as this is more conservative than the mean. It should be noted that the flow-weighted treatment plant influent concentration estimates may, in some cases, be significantly lower than any single observed value in the groundwater monitoring well data set. The results of this analysis are provided in Section 6.1.2.

5.4.2 Trend Analysis

Trend analysis for historical water quality data provides important information that supports the evaluation of future COPC concentrations in the production wells to help understand how water quality trends have changed over time. For example, increasing trends indicate that constituent concentration levels have not stabilized, and concentrations may continue to increase to levels greater than historically and currently observed. This information supports proper treatment design as it provides insight to potential future

influent concentrations. This section discusses the approach adopted for trend analysis for this RWQC, with the results being presented later in Section 6.

Available concentration data for COPCs between January 1, 2012 and June 30, 2020 were used for trend analysis. Trend analysis was undertaken for water quality data from production wells SM-3 and SM-4 to assess concentration trends and evaluate temporal changes in COPCs. These production wells were chosen because extensive temporal data exist for SM-3 and SM-4 but limited temporal data is available for the recently drilled production wells SM-8 and SM-9 (refer to Section 2). As noted in Section 4.2, SM-9 was drilled as a replacement well for SM-3. SM-3 is screened across four depth intervals from 210 to 530 ft bgs, whereas SM-9, located within approximately 50 ft of SM-3, is screened over six depth intervals, from 240 to 790 ft bgs. The upper four screen intervals of SM-9 align very closely with the screen intervals of SM-3, and therefore it is reasonable to use historic data from SM-3 as a proxy for historical water quality data for SM-9. In addition, the two lower screen intervals of SM-9 (between 655 and 790 ft bgs) draw water from deeper aquifer units that are likely to be uncontaminated, or less contaminated, than the shallower four screen intervals, and therefore is anticipated to dilute contaminant concentrations in SM-9 compared to SM-3. Thus, using SM-3 as a proxy for SM-9 data is likely to be conservative.

5.4.2.1 Methodology

Trend analysis on chemical data was performed using the non-parametric Mann-Kendall Trend Test (Kendall 1975; Mann 1945), and a modified version of Sen's non-parametric slope estimator (Sen 1968). The process involves first arranging the data in a chronological order. The sign of the differences between all forward combinations of data pairs are then used to compute the Mann-Kendall statistic (S). Next, the Mann-Kendall S and the number of data points (n) are used for the normal approximation test. The results yield a probability value from 0 to 1.

The Sen's slope was used to provide an approximate magnitude of trends. Sen's slope is calculated by evaluating the slope between all forward combinations of data pairs. The slopes are then ranked, and the median slope value is selected. Unlike least squares regression, the Sen's slope is not greatly affected by gross outliers, which are occasionally found in groundwater chemistry data. Slopes are presented in absolute terms (µg/L per yr.) and normalized relative to the median concentration (% change per yr.).

The trend analysis was conducted for two time periods to evaluate the most recent water quality trends:

- January 2012 to June 2020 data series; and,
- January 2017 to June 2020 data series.

Trend analysis of the 2012 to 2020 data series provides a longer-term assessment of temporal changes in water quality, the shorter duration 2017 to 2020 time period allows for a more current evaluation of COPC trends.

Trend analysis data were screened according to the following three criteria to indicate potentially significant temporal trends:

1. The probability of a temporal trend - an inferred confidence level greater than 0.90 was used for the first level of screening. This corresponds with the general convention that a 90% confidence interval is often used in statistical reporting.

2. Normalized value of Sen's slope indicator (% change per year) - a normalized slope threshold of >5% per year was used to screen out relatively small trends superimposed on high parameter concentrations.
3. Absolute value of Sen's slope indicator (µg/L/yr) - calculated and used to screen out high probability trends with very low slopes, based on slope thresholds indicated in Table 5-1. The thresholds were selected based on detection limits and regulatory thresholds. Note that absolute slope criteria are only present for parameters that have sufficient data for analysis (at least eight data points exist and only where more than 50% of the data are above the detection limits).

Table 5-1 Absolute Slope Thresholds of Constituents of Potential Concern, Sen's Slope Method

COPC	Absolute Slope Criteria (µg/L/year)
1,1-DCE	± 0.5
1,4-Dioxane	± 0.1
cis-1,2-Dichloroethene	± 0.5
Nitrate and Nitrite as Nitrogen (as N)	± 200
PCE	± 0.5
TCE	± 0.5
Total Trihalomethanes	± 5

5.4.2.2 Limitations of Statistical Trend Approach

The Mann-Kendall and Sen's Slope trend calculations assume that:

- Data is monotonic (i.e., entirely increasing or entirely decreasing); and,
- In the absence of a trend, the individual data points within any given data set are independent of each other (i.e., no serial correlations where the level of a variable affects its future level).

The Mann-Kendall and Sen's Slope trend calculations were applied to the SM-3 and SM-4 production well data sets. Additionally, a visual assessment of trends was conducted to identify cases where data does not meet the assumptions of the Mann Kendall and/or Sen's slope calculations. A single data set could contain multiple trends, trend reversals, stabilization, and/or newly developing trends due to several factors including:

- Complexities in contaminant distribution(s);
- Arrival of a new contaminant plume at a well;
- Contaminant plume core(s) passing by a well; and/or,
- Concentration variations due to activation and deactivation of groundwater production at a well or nearby well(s).

The purpose of the visual trend assessment review is to provide a qualitative assessment of the current concentration trends in the context of these complexities which is incorporated into the discussion of results. The results of trend analyses are provided in Section 6.4.

5.4.3 Raw Water Quality Variability

Evaluating the variability of water quality data helps develop an understanding of how water quality has changed over time under the influence of certain factors such as pumping of production wells. In accordance with the DDW Process Memo 97-005 -R2020 (DDW 2020), an assessment of COPC concentration variability with pumping rate and time (seasonal and long-term) observed in the production wells was conducted to inform the understanding of future potential variability in concentrations that may arrive at the planned treatment plant. This section discusses the approaches adopted to evaluate raw water quality variability for this RWQC, with the results being presented later in Section 6.

5.4.3.1 COPC Concentration Variations with Pumping Rate

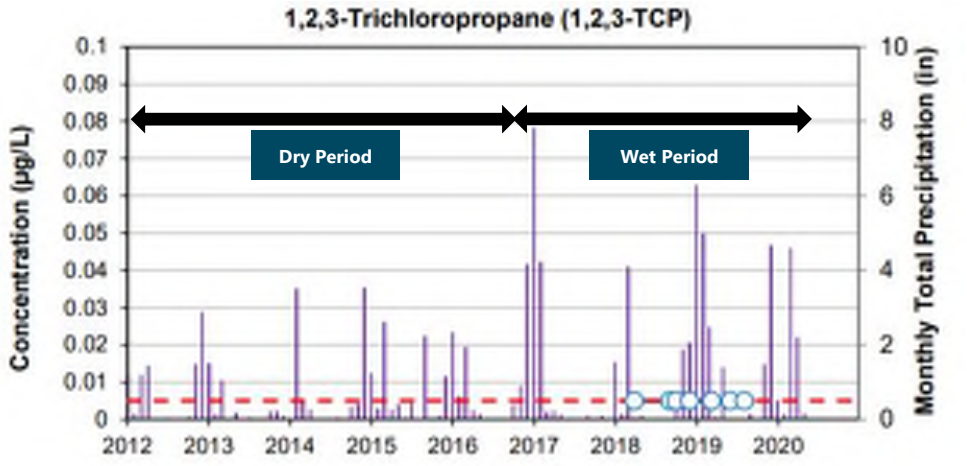
The analysis focuses on the observed relationships between production (pumping) at a single production well and the concentration of each COPC using water quality data from production wells SM-3 and SM-4. Only COPCs that contained sufficient temporal resolution during the analysis period (January 1, 2012 to June 30, 2020) are assessed. Trend charts are developed and used to assess potential concentration changes with respect to pumping rates. The data are visually assessed to determine correlations between COPC concentrations and pumping, with a positive correlation being defined as instances where the recorded concentration of a parameter increases (or decreases) as pumping rate increases (or decreases). On the other hand, a negative correlation is defined as instances where the recorded concentration of a parameter increases (or decreases) as the pumping rate decreases (or increases). The results of this analysis are provided in in Section 6.

5.4.3.2 COPC Concentration Variations with Time (Seasonal and Wet / Dry Period)

The analysis focuses on the observed relationships and patterns between different seasons and concentration of each COPC using water quality data from production wells SM-3 and SM-4. This analysis aims to determine if seasonal impacts or seasonal signals are distinguishable in the data sets.

Variability of the climate over time was also assessed with respect to changes in COPC concentrations. The objective of this evaluation was to determine whether changes in concentrations of COPCs could correlated to periods considered to be “wet” (i.e., periods of high precipitation) versus “dry” (i.e., periods of low precipitation). With reference to Figure 5-2 below, the dry period is represented by years 2012-2016, and the wet period 2017-2020. The results of this analysis are provided in in Section 6.

Figure 5-2 Example Chart: Production Well SM-3 – 1,2,3-TCP Concentration versus Precipitation (City of Santa Monica Airport)



6 Raw Water Quality Evaluation Results

This section presents the results of each step of the raw water quality evaluation using the approach and methodologies outlined previously in Section 5.

6.1 Screening

6.1.1 COPC Identification

Based on the initial screening (using criteria 1 to 4 listed in Section 5.3), 42 COPCs were identified. From the secondary screening (using criteria 5 and 6 listed in Section 5.3), 15 synthetic organic COPCs were identified, with nine from production well data and six from monitoring well data. These are summarized as follows:

- From production well data:
  - 1,1-dichloroethane (1,1-DCA)
  - 1,1-dichloroethene (1,1-DCE)
  - 1,2,3-trichloropropane (1,2,3-TCP)
  - 1,4-dioxane
  - carbon tetrachloride (CTC)
  - cis-1,2-dichloroethene (cis-1,2-DCE)
  - perfluorooctanoic acid (PFOA)
  - tetrachloroethene (PCE)
  - trichloroethene (TCE)
- Additional from monitoring well data:
  - 1,1,2-trichloroethane (1,1,2-TCA)
  - 1,2-dichloroethane (1,1-DCA)
  - benzene
  - methyl tert-butyl ether (MTBE)
  - trans-1,2-dichloroethene (trans-1,2-DCE)
  - vinyl chloride

Screening results for the 42 COPCs identified in the initial screening and the 15 COPCs identified in the secondary screening are provided in Table 6-1. Screening results for all constituents in the water quality data set are provided in Appendix B.

Table 6-1 Summary of COPC Screening

CASRN	Parameter	Units	MCL	NL	Production Wells				Monitoring Wells				Meets COPC Screening Criteria*					
													Initial				*Secondary*	
					Number of Observations	Number of Detections	Maximum Observed Value	Ratio of Maximum to MCL or NL	Number of Observations	Number of Detections	Maximum Observed Value	Ratio of Maximum to MCL or NL	1	2	3	4	5	6
79-00-5	**1,1,2-Trichloroethane**	**µg/L**	**5**	**-**	**34**	**0**	**<0.5**	**-**	**475**	**8**	**11**	**2.20**		✓	✓	✓	✓	✓
75-34-3	**1,1-Dichloroethane**	**µg/L**	**5**	**-**	**201**	**2**	**0.16**	**0.03**	**475**	**67**	**7.1**	**1.42**	✓	✓	✓	✓	✓	✓
75-35-4	**1,1-Dichloroethene**	**µg/L**	**6**	**-**	**201**	**117**	**2.9**	**0.48**	**475**	**138**	**32**	**5.33**	✓	✓	✓	✓	✓	✓
96-18-4	**1,2,3-Trichloropropane**	**µg/L**	**0.005**	**-**	**38**	**17**	**0.01**	**2.00**	**609**	**29**	**0.19**	**38.00**	✓	✓	✓	✓	✓	✓
107-06-2	**1,2-Dichloroethane**	**µg/L**	**0.5**	**-**	**201**	**0**	**<0.5**	**-**	**475**	**21**	**6.6**	**13.20**		✓	✓	✓	✓	✓
123-91-1	**1,4-Dioxane**	**µg/L**	**-**	**1**	**68**	**64**	**26**	**26.00**	**413**	**367**	**440**	**440.00**	✓	✓	✓	✓	✓	✓
7429-90-5	Aluminum	µg/L	1000	-	12	7	2400	2.40	38	38	2800	2.80	✓	✓	✓	✓	✓	
7440-36-0	Antimony	µg/L	6	-	12	6	0.2	0.03	38	37	0.39	0.07	✓	✓	✓	✓		
7440-38-2	Arsenic	µg/L	10	-	12	11	2	0.20	41	39	38	3.80	✓	✓	✓	✓	✓	
7440-39-3	Barium	µg/L	1000	-	12	12	76	0.08	38	38	100	0.10	✓	✓	✓	✓		
7440-39-3	Barium	µg/L	1000	-	12	12	76	0.08	38	38	100	0.10	✓	✓	✓	✓		
71-43-2	**Benzene**	**µg/L**	**1**	**-**	**201**	**0**	**<0.5**	**-**	**475**	**24**	**19**	**19.00**		✓	✓	✓	✓	✓
117-81-7	bis(2-ethylhexyl)phthalate	µg/L	4	-	18	0	<30	-	38	5	0.91	0.23		✓	✓	✓		
7440-42-8	Boron	µg/L	-	1000	7	7	200	0.20	43	41	590	0.59	✓	✓	✓	✓	✓	
15541-45-4	Bromate	µg/L	10	-	3	0	<25	-	19	6	160	16.00		✓	✓	✓	✓	
56-23-5	**Carbon Tetrachloride**	**µg/L**	**0.5**	**-**	**201**	**2**	**0.15**	**0.30**	**475**	**8**	**1**	**2.00**	✓	✓	✓	✓	✓	✓
7440-47-3	Chromium	µg/L	50	-	13	8	7.2	0.14	38	31	290	5.80	✓	✓	✓	✓	✓	
156-59-2	**cis-1,2-Dichloroethene**	**µg/L**	**6**	**-**	**201**	**110**	**3.4**	**0.57**	**475**	**93**	**300**	**50.00**	✓	✓	✓	✓	✓	✓
16984-48-8	Fluoride	µg/L	2000	-	9	9	390	0.20	19	19	370	0.19	✓	✓	✓	✓		
12587-46-1	Gross Alpha	pci/L	15	-	7	6	11	0.73	19	19	7.94	0.53	✓	✓	✓	✓	✓	
118-74-1	Hexachlorobenzene	µg/L	1	-	17	0	<1	-	57	3	0.09	0.09		✓	✓	✓		
7439-92-1	Lead	µg/L	15	-	12	6	4	0.27	32	14	1.2	0.08	✓	✓	✓	✓		
7439-96-5	Manganese	µg/L	-	500	13	13	67	0.13	38	38	340	0.68	✓	✓	✓	✓	✓	
1634-04-4	**Methyl tert-butyl ether**	**µg/L**	**13**	**-**	**200**	**0**	**<3**	**-**	**475**	**18**	**67**	**5.15**		✓	✓	✓	✓	✓
75-09-2	Methylene Chloride	µg/L	5	-	201	0	<0.5	-	475	6	2	0.40		✓	✓	✓		
7440-02-0	Nickel	µg/L	100	-	12	6	4.1	0.04	38	38	200	2.00	✓	✓	✓	✓	✓	
14797-55-8	Nitrate as N	µg/L	10000	-	45	45	7400	0.74	21	17	16000	1.60	✓	✓	✓	✓	✓	
14797-65-0	Nitrite as N	µg/L	1000	-	9	0	<100	-	21	10	160	0.16		✓	✓	✓		
55-18-5	n-Nitrosodiethylamine	µg/L	-	0.01	3	1	0.0015	0.15	19	1	0.0011	0.11	✓		✓	✓		
NN	Nitrate plus nitrite as N	µg/L	10000	-	7	7	5800	0.58	21	17	16000	1.60	✓	✓	✓	✓	✓	
14797-73-0	Perchlorate	µg/L	6	-	9	1	1.6	0.27	19	8	6.7	1.12	✓	✓	✓	✓	✓	
335-67-1	**PFOA**	**µg/L**	**-**	**0.0051**	**8**	**6**	**0.0029**	**0.57**	**16**	**11**	**0.0033**	**0.65**	✓	✓	✓	✓	✓	✓
1763-23-1	PFOS	µg/L	-	0.0065	8	2	0.0017	0.26	16	1	0.0042	0.65	✓		✓	✓	✓	
7782-49-2	Selenium	µg/L	50	-	12	10	4.6	0.09	38	34	9	0.18	✓	✓	✓	✓		
10098-97-2	Strontium-90	pci/L	8	-	3	3	0.255	0.03	19	19	0.461	0.06	✓	✓	✓	✓		
127-18-4	**Tetrachloroethene**	**µg/L**	**5**	**-**	**207**	**205**	**54**	**10.80**	**476**	**288**	**470**	**94.00**	✓	✓	✓	✓	✓	✓
THM	Total Trihalomethanes	µg/L	80	-	34	33	4.8	0.06	19	13	18	0.23	✓	✓	✓	✓		
156-60-5	**trans-1,2-Dichloroethene**	**µg/L**	**10**	**-**	**201**	**0**	**<0.5**	**-**	**475**	**8**	**15**	**1.50**		✓	✓	✓	✓	✓
79-01-6	**Trichloroethene**	**µg/L**	**5**	**-**	**205**	**200**	**63.2**	**12.64**	**475**	**227**	**370**	**74.00**	✓	✓	✓	✓	✓	✓
7440-61-1	Uranium Rad	pci/L	20	-	7	7	14	0.70	19	19	14	0.70	✓	✓	✓	✓	✓	
7440-62-2	Vanadium	µg/L	-	50	10	10	14	0.28	26	25	11	0.22	✓	✓	✓	✓		
75-01-4	**Vinyl Chloride**	**µg/L**	**0.5**	**-**	**34**	**0**	**<0.5**	**-**	**475**	**12**	**32**	**64.00**		✓	✓	✓	✓	✓

Notes: *Constituents meeting initial and secondary screening criteria are highlighted* ***bold*** *with blue shading; CASRN = Chemical Abstracts Service Registry Number (if applicable); µg/L = micrograms per liter; pci/L = picocuries per liter; '-' = not applicable.*
**Initial and Secondary COPC screening criteria are described in Section 5.3.*

6.1.2 Tentatively Identified Compounds

Tentatively Identified Compounds (TICs) were assessed where analyzed for both production and monitoring well samples. The Process Memo 97-005 User Guide (Coalition for Environmental Protection Restoration and Development [CEPRD], 2020) provides a description of TIC analysis:

> "A TIC analysis uses the "library" within an analytical device to look for the chemical signature of 10,000s of chemicals. The purpose of a TIC analysis is to screen for the potential presence of chemicals that had not previously been identified. A separate analytical test method can then be used, if available, to confirm chemical identification and (for chemicals with analytical standards) to quantify the concentration of the chemical. Once verified and quantified, the water quality results can then be reviewed with DDW staff to determine next steps." (p .22)

The TICs results are tabulated and provided in Appendix C. A summary of those results is provided below.

- Reported TICs for production wells:
  - 13 analyses were completed for samples collected from SM-4, SM-8 and SM-9 in 2020.
  - Six detections were observed, of these detections:
    - three were reported as "Unknown" with concentrations ranging from 2.8 to 9.7 µg/L;
    - two were identified as PCE (EPA Method 625.1) with concentrations ranging from 12 to 13 µg/L
    - The remaining detection was identified as cis-2-octene with a reported concentration of 34 µg/L and was included in the raw water quality analysis.
- Reported TICs for monitoring wells:
  - 88 analyses were completed for samples taken from 13 locations in 2020.
  - 51 detections were observed, of these detections:
    - one was identified as 2(3H)-benzothiazolone with a reported concentration of 1.4 µg/L.
    - six were identified as cis-2-octene with concentrations ranging from 26 to 250 µg/L.
    - two were identified as benzothiazole with concentrations ranging from 4.0 to 8.5 µg/L.
    - one was identified as cyclohexyl isothiocyanate with a reported concentration of 1 µg/L.
    - one was identified as 1-octene with a reported concentration of 25 µg/L.
    - five were identified as phthalic anhydride with concentrations ranging from 1.3 to 15 µg/L.
    - four were identified as PCE (EPA Method 625.1) with concentrations ranging from 12 to 120 µg/L.
    - 38 were reported as "Unknown" with concentrations ranging 1.0 to 43 µg/L.

For TICs identified and reported with a Chemical Abstracts Service Registry Number (CASRN), statistical analysis was conducted and influent concentration estimates generated using the same approach adopted for all other constituents; the results of these data analyses are discussed in Section 6.1.3.

6.1.3 Microbiological Quality

In accordance with the DDW Process Memo 97-005-R2020 the microbiological quality of the Olympic Well Field source water were evaluated and are summarized in this section. Groundwater samples collected[3] from the Olympic production and groundwater monitoring wells included the analyzes of the following microbiological parameters:

- Coliforms (total and fecal);
- Escherichia coli (E. coli); and
- Heterotrophic plate count (HPC).

The results are provided in Appendix D. The locations of the wells referenced below are shown in Figure 1-2.

Samples collected from Olympic production wells SM-4 and SM-9 were above the total coliforms' laboratory reporting limit of 1.1 MPN[4] /100ml at 6.9 and 2.2 MPN/100ml, respectively. Total coliforms were recorded at the reporting limit (1.1 MPN / 100 ml) in three groundwater monitoring wells (OB-3, OB-5 and SMB1-B#1).

All samples collected from the Olympic production wells were below the laboratory reporting limit for fecal coliforms (<1.1 MPN/100ml). However, there was one occurrence of fecal coliforms being reported above the laboratory reporting limit at 2.2 MPN /100 ml in the sample collected from groundwater monitoring well OB-15C.

HPC was reported above the laboratory reporting limit of 1 CFU[5]/ml in all samples collected with the exception of one groundwater monitoring well OB-12C. HPC was reported between 22 CFU /ml (SM-4) and 400 CFU /ml (SM-9). HPC ranged between 2 CFU /ml (OB-17B) and 400 CFU /ml (OB-11C) in samples collected from the monitoring wells (excluding OB-12C which was below the reporting limit).

E. coli was not detected in any of the samples collected.

6.2 Degradation of Chlorinated Solvents

Chlorinated VOCs such as TCE and PCE are degradable under anaerobic conditions in groundwater; however, geochemical evidence (redox potential and dissolved oxygen) from groundwater samples in the Olympic Subbasin indicates that that the anaerobic conditions required for degradation of chlorinated VOCs either do not occur in groundwater in the subbasin, or occur only in limited settings.

The primary degradation pathway for PCE, TCE and other chlorinated VOCs is called dechlorination, a process by which the chlorine atoms are stripped from the ethylene molecule under strongly reducing (i.e., anaerobic or oxygen-free) conditions in groundwater. The degradation reaction is mainly driven by naturally-occurring soil microbes, and therefore is commonly called biodegradation. The microbes responsible for carrying out the degradation are strongly attached to aquifer soil particles and are not generally characterized in drinking water studies because they are not mobile in groundwater and are not

[3]In accordance with the 97-005 Raw Water Characterization Sampling and Analysis Plan (Advisian 2020)
[4] Most Probable Number
[5]

human pathogens. Microbiological characterization of drinking water quality is typically limited to coliforms, HPC , and E.Coli, which are characterized as part of the Step 2 Raw Water Quality Characterization (see Section 6.1.3) but are not associated with in-situ biodegradation of VOCs in groundwater.

The strongly reducing conditions needed for dechlorination reactions to occur fall within a sequence of oxidizing to reducing conditions that can occur in groundwater, which is illustrated in Figure 6-4. In the presence of dissolved oxygen, oxidizing conditions dominate in groundwater, and this is the most favorable condition for microbial growth and respiration. As oxygen is depleted in groundwater, other chemicals are used in place of oxygen to support microbial respiration, for example, nitrate (denitrifying conditions), ferric iron (iron reduction), manganese (manganese reduction), sulfate (sulfate reduction), and carbon dioxide (methane production or methanogenesis), in order of increasingly reducing conditions, and less favorable conditions energetically for the soil microbe population. In general, soil microbe populations will not use a less favorable chemical for respiration until all of the more favorable chemicals have been depleted. Commonly the population of soil microbes changes under different redox conditions.

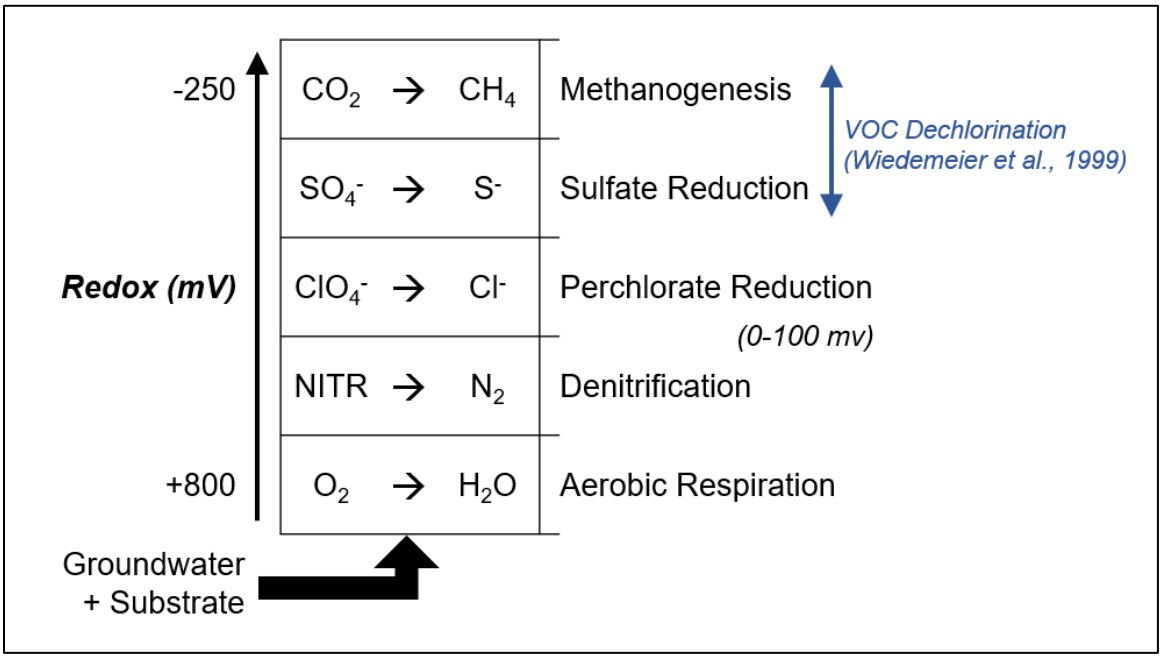
As illustrated in Figure 6-4, dechlorination of TCE and PCE in groundwater occurs within the range of sulfate reduction and methane fermentation (Wiedemeier et al., 1999). Therefore, we do not expect to see this reaction occurring in groundwater that has significant concentrations of dissolved oxygen, nitrate, ferric iron, manganese (plus four valence state) or sulfate. Consequently, if dissolved oxygen or nitrate are present in in groundwater, itis unlikely that redox conditions are sufficiently anaerobic to support reductive dechlorination of TCE and PCE. The dechlorination of VOCs in groundwater produces a sequence of daughter products; i.e.: dechlorination of PCE or TCE results in the production of cis-1,2 DCE (and to a lesser extent, trans-1,2 DCE), and then vinyl chloride (VC), and finally ethene. The presence of these daughter products in groundwater is usually an indication that degradation of VOCs may be occurring in situ in the vicinity of the well, or in groundwater upgradient of the well.

Dissolved oxygen concentrations are typically measured in monitoring well samples during purging. In the B and C zones dissolved oxygen concentrations are variable, but average approximately 1 mg/L, representing aerobic conditions. Nitrate concentrations are typically in the range of 4.5 to 7.5 mg/L (as nitrogen [N]) in production wells SM-3 and SM-4; whereas for SM-8 and SM-9 which are screened deeper, nitrate concentrations are lower, 0.63 to 3.3 mg/L (as N) as measured in 2020. Cis-1,2 DCE concentrations are generally not detected in production well samples; however, trans-1,2-DCE has occasionally been detected in SM-4 at concentrations of 2 to 3 µg/L, suggesting that some degree of dechlorination of VOCs may be occurring within the capture zone of this well. VC has not been detected in the Olympic production wells, suggesting that if dechlorination is occurring within the capture zone, it is not strong enough to produce this penultimate daughter product. Moreover, the widespread occurrence of TCE at concentrations above the MCL in Olympic production wells strongly suggests that chlorinated VOC reduction is unlikely to be widespread in Olympic Subbasin groundwater, because redox conditions are not sufficiently reducing to support reductive dechlorination of VOCs. Consequently, natural attenuation of TCE and PCE concentrations by biodegradation is unlikely to be a significant process for reducing VOC concentrations in groundwater in the Olympic Subbasin.

The implications of this result for Step 2 RWQC characterization and treatment plant design are that the concentrations of VOCs in groundwater characterized in this Step 2 report are likely to be conservative, because there is no expectation that dechlorination will reduce VOC concentrations in the future influent

to the treatment plant, and therefore the treatment plant will be designed to manage VOC concentrations without relying on the reduction of VOC concentrations by biodegradation in situ.

Figure 6-1 Sequence of redox-driven degradation processes in groundwater, from aerobic conditions (bottom of diagram) to strongly reducing conditions (top of diagram). Modified from IRTC 2002 Figure 10-4.



6.3 Estimating Future Treatment Plant Influent Concentrations

The results of the various calculation methods outlined in Section 5.4.1 used to derive estimates of future treatment plant influent concentrations are presented in the subsections below for the COPCs that meet both initial and secondary screening criteria (presented in Section 6.1). The results for all constituents within the groundwater quality data set are provided in Appendix E and Appendix F.

6.3.1 Statistical Analysis

A summary of the statistical analysis of the monitoring well groundwater quality data set is provided in Table 6-2. Statistical analysis results for all constituents within the monitoring well groundwater quality data set are provided in Appendix E.

Table 6-2 Summary of Statistical Analysis of Groundwater Monitoring Well Data for Each Capture Zone and Aquifer Zone for Key Synthetic Organic COPCs

Constituent [Units]	MCL or NL	Aquifer Zone	Concentration within Capture Zone Using UCL95 for Monitoring Well Data*			Concentration within Capture Zone Using Mean for Monitoring Well Data**		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
1,1,2-Trichloroethane (1,1,2-TCA) [µg/L]	5	B-Zone	ND	-	ND	ND	-	ND
		C-Zone	1.6	ND	ND	1.1	ND	ND
		D-Zone	ND	ND	ND	ND	ND	ND
		Sunnyside	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane (1,1-DCA) [µg/L]	5	B-Zone	0.67	-	0.15	0.52	-	0.15
		C-Zone	0.40	0.90	0.12	0.243	0.60	0.12
		D-Zone	ND	ND	ND	ND	ND	ND
		Sunnyside	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene (1,1-DCE) [µg/L]	6	B-Zone	2.2	-	2.1	1.5	-	1.7
		C-Zone	2.0	3.9	0.22	1.5	3.3	0.22
		D-Zone	0.5	0.5	0.5	0.5	0.5	0.5
		Sunnyside	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane (1,2,3-TCP) [µg/L]	0.005	B-Zone	ND	-	ND	ND	-	ND
		C-Zone	**0.0051**	**0.016**	ND	0.0048	**0.012**	ND
		D-Zone	**0.19**	**0.19**	**0.19**	**0.19**	**0.19**	**0.19**
		Sunnyside	0.0041	0.0041	0.0041	0.0041	0.0041	0.0041
1,2-Dichloroethane (1,2-DCA) [µg/L]	0.5	B-Zone	ND	-	ND	ND	-	ND
		C-Zone	0.33	**0.59**	ND	0.33	0.47	ND
		D-Zone	0.15	0.15	0.15	0.15	0.15	0.15
		Sunnyside	ND	ND	ND	ND	ND	ND
1,4-Dioxane [µg/L]	1	B-Zone	**102.1**	-	**117.4**	**56.3**	-	**106.6**
		C-Zone	**27.8**	**48.4**	**1.8**	**22.7**	**36.3**	**2.3**
		D-Zone	ND	ND	ND	ND	ND	ND
		Sunnyside	ND	ND	ND	ND	ND	ND
Benzene [µg/L]	1	B-Zone	ND	-	ND	ND	-	ND
		C-Zone	0.23	**1.6**	ND	0.23	**1.2**	ND
		D-Zone	ND	ND	ND	ND	ND	ND
		Sunnyside	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride (CTC) [µg/L]	0.5	B-Zone	**0.63**	-	ND	**0.51**	-	ND
		C-Zone	**0.68**	**0.62**	0.12	**0.57**	**0.52**	0.12
		D-Zone	0.3	0.3	0.3	0.3	0.3	0.3
		Sunnyside	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene (cis-1,2-DCE) [µg/L]	6	B-Zone	0.26	-	ND	0.26	-	ND
		C-Zone	0.85	**49.4**	0.8	0.74	**30.4**	0.61
		D-Zone	ND	ND	ND	ND	ND	ND
		Sunnyside	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE) [µg/L]	13	B-Zone	0.53	-	ND	0.53	-	ND
		C-Zone	ND	3.8	ND	ND	1.8	ND
		D-Zone	ND	ND	ND	ND	ND	ND
		Sunnyside	ND	ND	ND	ND	ND	ND
	5.1	B-Zone	3.1	-	2	1.9	-	2

Constituent [Units]	MCL or NL	Aquifer Zone	Concentration within Capture Zone Using UCL95 for Monitoring Well Data*			Concentration within Capture Zone Using Mean for Monitoring Well Data**		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
PFOA [ng/L]		C-Zone	0.97	0.89	1.4	0.67	0.66	1.4
		D-Zone	ND	ND	ND	ND	ND	ND
		Sunnyside	NA	NA	NA	NA	NA	NA
Tetrachloroethene (PCE) [µg/L]	5	B-Zone	**21.6**	-	**48.5**	**16.7**	-	**40.3**
		C-Zone	**126.8**	**17.8**	**11.5**	**65.3**	**7.9**	**7.8**
		D-Zone	ND	ND	ND	ND	ND	ND
		Sunnyside	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene (trans-1,2-DCE) [µg/L]	10	B-Zone	ND	-	ND	ND	-	ND
		C-Zone	ND	0.97	0.63	ND	0.61	0.57
		D-Zone	ND	ND	ND	ND	ND	ND
		Sunnyside	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE) [µg/L]	5	B-Zone	2.2	-	**7.5**	1.7	-	**6.6**
		C-Zone	**126.9**	**19.2**	3.8	**63.6**	**13.0**	3.1
		D-Zone	1.5	1.5	1.5	1.5	1.5	1.5
		Sunnyside	ND	ND	ND	ND	ND	ND
Vinyl Chloride [µg/L]	0.5	B-Zone	ND	-	ND	ND	-	ND
		C-Zone	ND	**1.9**	ND	ND	**1.3**	ND
		D-Zone	ND	ND	ND	ND	ND	ND
		Sunnyside	ND	ND	ND	ND	ND	ND

Notes:

*µg/L = micrograms per liter; ng/L = nanograms per liter; 'ND' = non-detect; 'NA' = not available; '-' = not applicable (production well is not screened in aquifer zone). Values above respective MCLs or NLs are highlighted **bold**.*

**UCL95 (95 percent upper confidence limit of the population mean) based on maximum suggested UCL95 statistics produced by ProUCL software (EPA 2015) calculated for censored data sets (using all detects and non-detects).*

***Mean calculated for censored data sets (using all detects and non-detects) via Kaplan Meier Method (using ProUCL software; EPA 2015).*

In the event either the mean or UCL95 statistics could not be calculated, the maximum value was adopted as a conservative approach. For non-detect (ND) results a value of 0 was assumed; where data was not available (NA) for a constituent in any given layer and/or capture zone, a value of 0 was assumed.

For the D-Zone, monitoring well SMB-1-B#1 was used for all production well capture zones; for the Sunnyside, monitoring well SMB-1 #4 was used for all production well capture zones.

6.3.2 Production Wells Concentration Estimates Results

The results of the evaluation of estimated future concentrations for all constituents within the three Olympic Well Field groundwater production wells (i.e., SM-4, SM-8 and SM-9) are provided in this section.

Table 6-3 summarizes flow-weighted calculation results which are the first component of the analysis. This includes transmissivities for production well screens, calculated by multiplying total screen length in each aquifer zone by the hydraulic conductivity for the applicable layer from the calibrated groundwater model. The transmissivities across each well screen was then used to calculate the proportion of flow to the well from each aquifer zone, i.e., the proportion of total flow in the production well coming from each screen interval.

Table 6-4 provides the flow-weighted concentration estimates for each production well applying the flow calculations in Table 6-3 to the mean and UCL95 statistics for each of the COPCs that meet both initial and secondary screening criteria (presented in Section 6.1). Production wells concentration estimates for all constituents within the groundwater quality data set are provided in Appendix E.

Table 6-3 Flow-Weighting Calculations for Production Wells

Aquifer Zone (Model Layer)	Total Pumping Rate (gpm)			Total Screen Length in Aquifer Zone (ft)			Hydraulic Conductivity in Aquifer Zone (ft/d)			Transmissivity in Aquifer Zone (ft^2/d)			Estimated Flow by Aquifer Zone (gpm)		
	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
B-Zone	700	700	600	25	0	25	16.52	26.97	1.16	413	0	29	211	0	11
C-Zone				75	55	80	3.06	1.29	1.19	230	71	95	117	30	35
D-Zone				115	30	40	2.17	3.04	2.28	250	91	91	127	39	34
Sunnyside				45	110	170	10.65	13.44	8.27	479	1,478	1,406	245	631	520

Notes: *gpm = gallons per minute; ft = feet; ft/d = feet per day; ft2/d = square feet per day.*

Table 6-4 Estimated Flow-Weighted Concentrations in Individual Production Wells for Key Synthetic Organic COPCs

Constituent [Units]	MCL or NL	Estimated Concentrations for Production Wells Using UCL95*			Estimated Concentrations for Production Wells Using Mean**			Production Well Concentrations from 2020***		
		SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
1,1,2-Trichloroethane [µg/L]	5	0.27	ND	ND	0.18	ND	ND	ND	ND	ND
1,1-Dichloroethane (1,1-DCA) [µg/L]	5	0.27	0.039	0.01	0.2	0.026	0.01	0.16	0.12	ND
1,1-Dichloroethene (1,1-DCE) [µg/L]	6	1.1	0.2	0.079	0.81	0.17	0.071	1.2	0.72	ND
1,2,3-Trichloropropane (1,2,3-TCP) [µg/L]	0.005	**0.037**	**0.015**	**0.014**	**0.037**	**0.015**	**0.014**	0.0026	ND	ND
1,2-Dichloroethane [µg/L]	0.5	0.083	0.034	0.0085	0.083	0.029	0.0085	ND	ND	ND
1,4-Dioxane [µg/L]	1	**35.4**	**2.1**	**2.2**	**20.8**	**1.6**	**2**	**20**	**5.4**	**3.3**
Benzene [µg/L]	1	0.039	0.068	ND	0.039	0.051	ND	ND	ND	ND

Constituent [Units]	MCL or NL	Estimated Concentrations for Production Wells Using UCL95*			Estimated Concentrations for Production Wells Using Mean**			Production Well Concentrations from 2020***		
		SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
Carbon Tetrachloride (CTC) [µg/L]	0.5	0.36	0.044	0.024	0.3	0.039	0.024	0.13	0.15	ND
cis-1,2-Dichloroethene (cis-1,2-DCE) [µg/L]	6	0.22	2.1	0.047	0.2	1.3	0.036	0.45	0.22	ND
Methyl tert-butyl ether (MTBE) [µg/L]	13	0.16	0.17	ND	0.16	0.077	ND	ND	ND	ND
PFOA [ng/L]	5.1	1.1	0.039	0.12	0.68	0.028	0.12	0.96	ND	2.9
Tetrachloroethene (PCE) [µg/L]	5	**27.7**	0.77	1.5	**16**	0.34	1.2	**54**	0.39	**41**
trans-1,2-Dichloroethene [µg/L]	10	ND	0.042	0.037	ND	0.026	0.033	ND	ND	ND
Trichloroethene (TCE) [µg/L]	5	**22.2**	0.92	0.44	**11.4**	0.65	0.38	**59**	**7**	0.34
Vinyl Chloride [µg/L]	0.5	ND	0.081	ND	ND	0.058	ND	ND	ND	ND

Notes:

µg/L = micrograms per liter; ng/L = nanograms per liter; 'ND' = non-detect; '-' = not applicable.

*Values above respective MCLs or NLs are highlighted **bold**.*

**UCL95 from statistical analysis of the monitoring well groundwater quality data set (described in Section 6.3.1).*

***Mean from statistical analysis of the monitoring well groundwater quality data set (described in Section 6.3.1).*

****Maximum observed values from production wells from available 2020 sampling data (provided for information only).*

In the event either the mean or UCL95 statistics could not be calculated, the maximum value was adopted as a conservative approach.

6.3.3 Treatment Plant Influent Concentration Estimates

Estimated future treatment plant influent concentrations (comprising the combined flow from the three production wells) using estimates derived from UCL95 statistics for each of the COPCs that met both initial and secondary screening criteria (presented in Section 6.1) are provided in Table 6-5. In addition, estimates with a safety factor of 1.5 (1.2 for 1,2,3-TCP) applied to constituent concentration are also provided in Table 6-5. Finally, for information, influent estimates using the maximum observed value from recent production well sampling data collected during 2020 is also provided in Table 6-5. Treatment plant influent concentration estimates for all constituents within the groundwater quality data set are provided in Appendix F.

Results indicate four COPCs are projected to be at concentrations above their respective MCL or NL in treatment plant influent, including 1,4-dioxane, PCE, TCE and 1,2,3-TCP. For comparison, influent estimates

based on recent (2020) water quality data from production wells indicate that 1,4-dioxane, PCE and TCE would be currently above their respective MCL or NL, with 1,2,3-TCP being below its MCL based on these data (as shown in Table 6-5).

Table 6-5 Estimated Concentrations in Treatment Plant Influent for Key Synthetic Organic COPCs

Constituent [Units]	MCL or NL	Using UCL95*		Using Production Well Concentrations From 2020**	
		Plant Influent Concentration Estimates	With Safety Factor Applied***	Plant Influent Concentration Estimates	With Safety Factor Applied***
1,1-Dichloroethane (1,1-DCA) [µg/L]	5	0.11	0.17	0.098	0.15
1,1,2-Trichloroethane (1,1,2-TCA) [µg/L]	5	0.094	0.14	ND	ND
1,1-Dichloroethene (1,1-DCE) [µg/L]	6	0.47	0.71	0.67	1.0
1,2,3-Trichloropropane (1,2,3-TCP) [µg/L]	**0.005**	**0.022**	**0.026**	0.00091	0.0011
1,2-Dichloroethane (1,2-DCA) [µg/L]	0.5	0.043	0.065	ND	ND
1,4-Dioxane [µg/L]	**1**	**13.8**	**20.7**	**9.9**	**14.9**
Benzene [µg/L]	1	0.037	0.056	ND	ND
Carbon Tetrachloride (CTC) [µg/L]	0.5	0.15	0.23	0.098	0.15
cis-1,2-Dichloroethene (cis-1,2-DCE) [µg/L]	6	0.84	1.26	0.23	0.35
Methyl tert-butyl ether (MTBE) [µg/L]	13	0.11	0.17	ND	ND
PFOA [ng/L]	5.1	0.44	0.66	1.2	1.8
Tetrachloroethene (PCE) [µg/L]	**5**	**10.4**	**15.6**	**31**	**46.5**
trans-1,2-Dichloroethene (trans-1,2-DCE) [µg/L]	10	0.026	0.039	ND	ND
Trichloroethene (TCE) [µg/L]	**5**	**8.2**	**12.3**	**23**	**34.5**
Vinyl Chloride [µg/L]	0.5	0.028	0.042	ND	ND

Notes: *µg/L = micrograms per liter; ng/L = nanograms per liter; 'ND' = non-detect.*

Values above respective MCLs or NLs are highlighted ***bold****.*

** From production wells concentration estimates (described in Section 6.3.2).*

***Maximum observed values from production wells from available 2020 sampling data (provided for information only).*

****A safety factor of 1.5 was applied for each constituent, except for 1,2,3-TCP which used a safety factor of 1.2.*

6.3.4 Uncertainty and Safety Factors

In accordance with the DDW Process Memo 97-005 -R2020 (DDW 2020), the degree of uncertainty associated with the estimated influent concentrations was evaluated, and safety factors commensurate with the degree of uncertainty provided. These requirements are addressed below.

Data limitations and uncertainties include, but are not limited to the following:

- Locations within projected capture zones for production wells that were not sampled may have different water quality from those areas where sampling data is available from established wells. It is noted that no monitoring network is robust enough to describe all subsurface conditions; hence, un-sampled locations may differ from those interpreted from established wells.
- The potential for unknown (i.e., yet unidentified) historical and future contamination source(s) and pathway conditions in the vicinity of the production wells.
- Uncertainties in historical and future well field operations, including changes from modeled pumping due to operational demands and/or regulatory changes.

To account for such uncertainties, comprehensive data analyses were carried out, as presented herein, including:

- Spatial and statistical analysis of monitoring well data to characterize the distribution and persistence all constituents in groundwater within the projected capture zones and to provide an indication of the quality of water is anticipated to arrive at the production wells in the future, including provision of a range of potentially likely and conservative statistics and future production well concentration estimates using mean and UCL95 statistics.
- Trend and correlation analysis of production well data to characterize constituents in historical raw water quality at the production wells.

With respect to treatment design and safety factors, the following were considered:

- Conservative influent water quality assumptions adopted for calculations (as discussed above).
  - Future concentration estimates are considered conservative as they assume there are no transport mechanisms that reduce constituent concentrations, such as attenuation, retardation or degradation.
  - Future concentration estimates assume all flow from each aquifer zone into each production well screen has concentrations equal to the adopted value from monitoring well statistics (mean or UCL95 statistics, or maximum observed value if either of these statistics were unavailable). This may result in an over-estimate for production well influent concentrations for some constituents as there are expected to be areas within each capture zone which have low or non-detect concentrations of the constituents evaluated.
  - For treatment plant influent estimates, only the production well estimates derived from UCL95 statistics were used as this is more conservative than the mean.
- A safety factor 1.5 (1.2 for 1,2,3-TCP) was adopted for this RWQC for influent concentrations which spans the range of potential concentrations developed herein and described above. Average water

quality conditions are less than the design conditions which will include a safety factor and therefore provide an additional safety measure for mitigating unexpected COPC concentrations.

6.4 Trend Analysis

This section presents the results of the Mann-Kendall and Sen's Slope trend analyses for water quality data from production wells SM-3 and SM-4 using the approach outlined in Section 5.4.2. The tabulated results of the Mann-Kendall and Sen's Slope trend analysis are provided in Appendix G, and trend charts generated for each COPC for visual trend assessment purposes are provided in Appendix H. A summary of the results is presented below.

For production well SM-3, statistically significant and visual decreasing trends were identified for 1,4-dioxane when assessing the data from 2014 to 2020[6] and PCE when assessing data from 2012 to 2020. In contrast, data from 2017 to 2020 did not contain any statistically significant trends. Visually, nitrate and nitrite as nitrogen (as N) has exhibited variability since 2016. Other COPCs with concentrations above the detection limit, including TCE, were deemed stable. 1,2,3-TCP concentrations were below the detection limit of 0.005 µg/L in samples collected since its incorporation in the quarterly Olympic Well Field monitoring analytical schedule in 2018.

For production well SM-4, statistically significant and visual increasing trends were identified for PCE when using both the 2012 to 2020 and 2017 to 2020 data sets. A statistically significant and visual decreasing trend was identified for 1,4-dioxane in the 2017 to 2020 data. Similar to production well SM-3, visual assessment indicated nitrate and nitrite (as N) has exhibited variability since 2016. Higher concentrations of TCE were recorded between 2012 and 2014, with an observable rebound to similar levels noted in late 2018 to 2020; however, no statistically significant trend was identified. Visual assessment of 1,2,3-TCP indicated a decreasing trend in 2018; however, since 2019 concentrations have been generally stable. No statistically significant trend was identified for 1,2,3-TCP. Visual assessment of other COPCs generally indicated that parameters with concentrations above detection limit have remained stable during the period from 2012 to 2020.

6.5 Raw Water Quality Variability

This section presents the results of COPC concentration variability with pumping rate and time (seasonal and long-term) observed in the production wells SM-3 and SM-4 using the approach outlined in Section 5.4.3.

6.5.1 Variation with Pumping Rate

This section addresses observed relationships between production (pumping) at a single production well and the concentration of each COPC. Concentration data and monthly pumping volumes from January 1, 2012 to June 30, 2020 are shown in the charts provided in Appendix H. The charts were used to assess potential concentration changes with respect to pumping.

[6] *1,4-dioxane testing commenced in 2014 when it was identified as an emerging contaminant of concern, hence the full 1,4-dioxane data series is 2014-2020*

It is important to note that Olympic Well Field production well SM-3 was taken out-of-service in May 2013 due to well casing failure. During the shutdown, the well was re-lined and brought back into production in August 2014. The diameter of the screen and casing reduced as a result of re-lining which in-turn resulted in reduced production rates at SM-3. These reduced production rates are shown in the charts generated for SM-3 in Appendix H. SM-4 has generally been pumping consistently since 2012, with the exception of a short-duration decrease in rate in 2013, an overall decrease in rate since late 2016, and low to no pumping in early 2020.

As noted previously in the approach outlined in Section 5.4.3, the data set was visually assessed to determine correlations between COPC concentrations and pumping, with a positive correlation being defined as instances where the recorded concentration of a parameter increases (or decreases) as pumping rate increases (or decreases). On the other hand, a negative correlation is defined as instances where the recorded concentration of a parameter increases (or decreases) as the pumping rate decreases (or increases).

Based on visual assessment, a positive correlation with pumping rate was noted for the following COPCs for SM-3:

- 1,4-dioxane concentrations were higher (approximately 4 to 8 µg/L) in 2012-2013 when pumping rates were greater. Once pumping rates decreased in 2014, 1,4-dioxane concentrations remained below 2 µg/L.
- Nitrate concentrations were higher in the 2012-2013 when production was greater.
- TCE concentrations decreased when pumping ceased in 2013 and remained lower when reduced pumping resumed in 2014. Additional decreases were noted following short periods of no pumping in 2015, 2018, and 2019. This positive correlation between SM-3 pumping and TCE concentration can be seen in the chart presented in Based on visual assessment, a negative correlation with pumping rate was noted at SM-4 for the following COPCs:
- An upward trend identified for 1,4-dioxane from 2017 to 2020 may be associated with decreasing pumping rates

With reference to Figure 6-3 below, a negative correlation between PCE concentration and pumping is observed since 2017.

No clear correlation with pumping rate was noted for TCE and 1,2,3-TCP for SM-4.

- Figure 6-2 below.
- No clear correlation with pumping rate was noted for PCE
- 1,2,3-TCP concentrations were below the detection limit in all samples collected from SM-3.

Based on visual assessment, a negative correlation with pumping rate was noted at SM-4 for the following COPCs:

- An upward trend identified for 1,4-dioxane from 2017 to 2020 may be associated with decreasing pumping rates

With reference to Figure 6-3 below, a negative correlation between PCE concentration and pumping is observed since 2017.

No clear correlation with pumping rate was noted for TCE and 1,2,3-TCP for SM-4.

Figure 6-2 Production Well SM-3 - TCE Concentration versus Pumping Chart (from Appendix H)

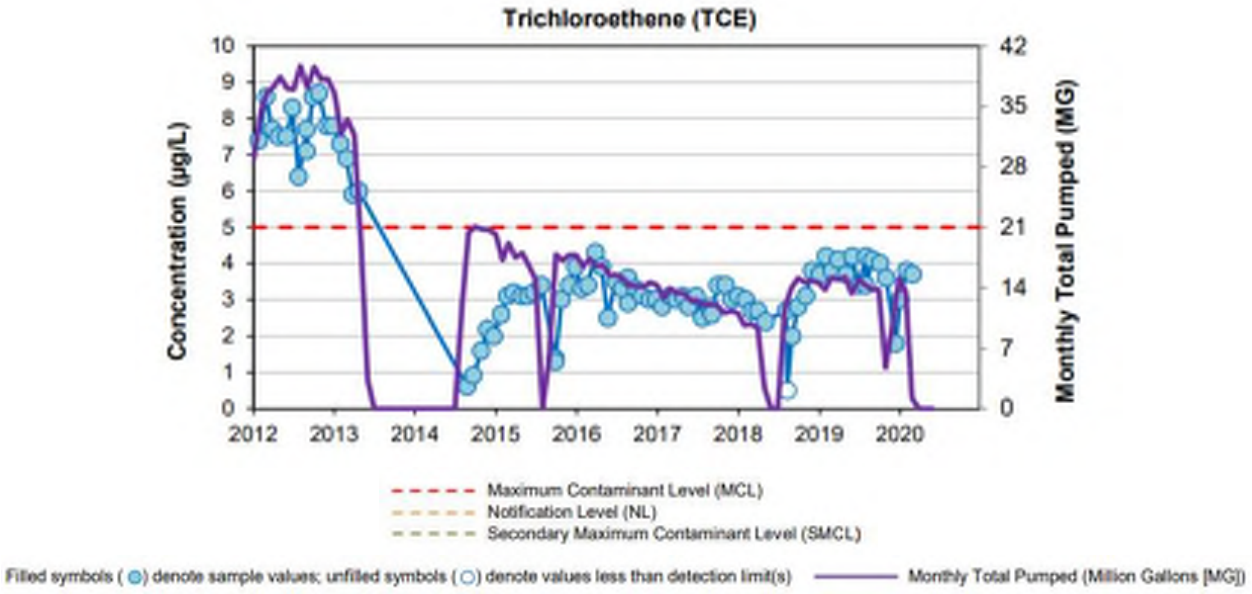
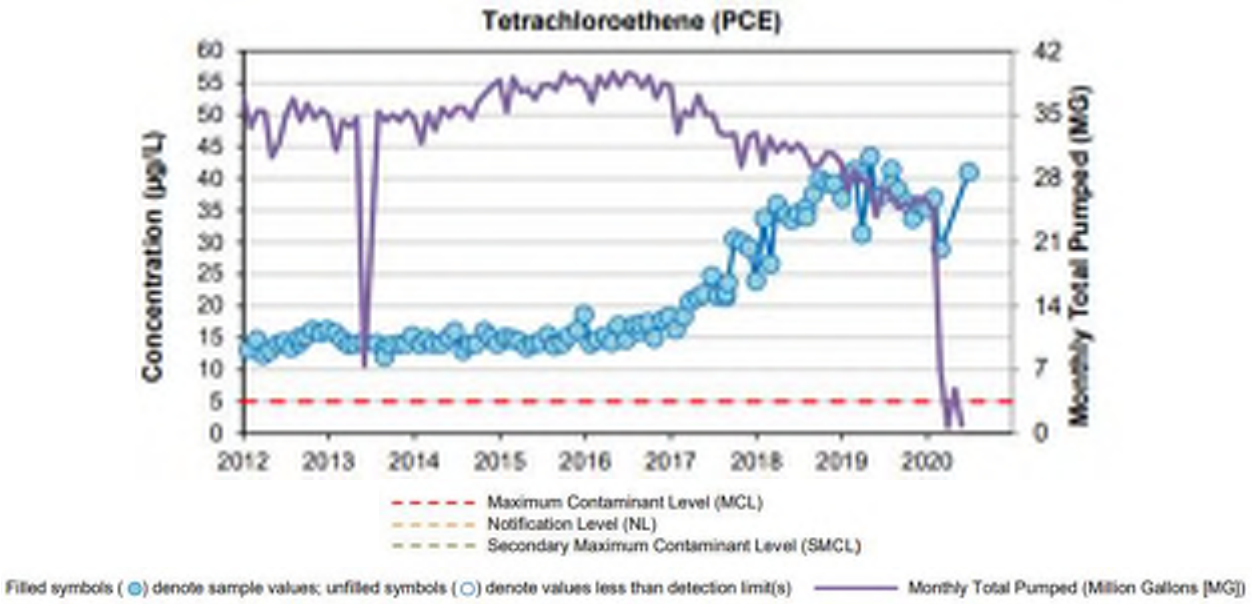


Figure 6-3 Production Well SM-4 - PCE Concentration versus Pumping Chart (from Appendix H)



With reference to the charts provided in Appendix H and SM-3, concentrations of COPCs in the Olympic Well Field, e.g., 1,4-dioxane, TCE and PCE, reduced in response to decreased production from the well since 2014. It is conjectured that reduced (~50%) pumping at SM-3 resulted in less contamination capture, with the higher pumping at well SM-4 drawing contamination in, and away from SM-3.

Also, of interest, is the observed increase in concentrations of COPCs in response to reduced production at SM-4. Since the well is located proximal to the two key contamination source sites (refer to Section 3) and therefore close to the core of the contaminant plume(s), it is possible that decreased production resulted in a reduced capture zone, which in-turn resulted in less "uncontaminated" groundwater capture by SM-4, which subsequently reduced the effects of in-well dilution.

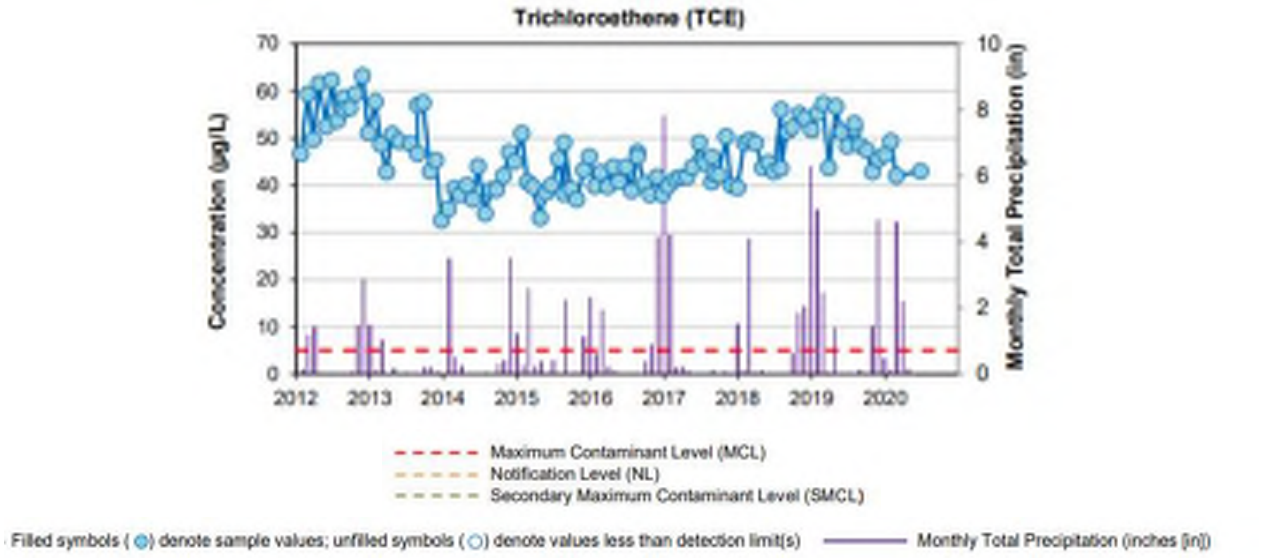
6.5.2 Variations with Time (Seasonal Changes and Wet / Dry Periods)

Seasonal impacts on COPC concentrations in the temporal production well data sets were assessed as part of this RWQC study. The objective of this evaluation was to determine whether changes in concentrations of COPCs could be correlated to seasonal variation in precipitation. Variability of the climate over time was also assessed to determine whether changes in concentrations of COPCs could be correlated to periods considered to be "wet" (i.e., periods of high precipitation) versus "dry" (i.e., periods of low precipitation), as outlined previously in Section 5.4.3.

Over the 2012 to 2020 observation period, climatic conditions became consistently wetter (see charts in Appendix I). Therefore, the greatest contrast between wet and dry periods occurred between the earliest part of the observation period to the most recent portion of the data set from 2020.

Based on a visual assessment of the data, no correlation with monthly precipitation and wet/dry periods were observed for any parameters at SM-3 and SM-4. For example, Figure 6-4 below presents temporal (2012-2020) TCE concentration and precipitation data. No discernable correlation between seasonal changes or wet/dry periods and TCE concentrations is evident.

Figure 6-4 Production Well SM-4 - TCE Concentration versus Precipitation Chart (from Appendix I)



7 Conclusions

The DDW 97-005 process consists of 10 steps for evaluating the proposed use of an extremely impaired source for direct potable use. A source is considered to be "extremely impaired" if it meets two or more of 10 DDW-developed criteria. Based on the evaluation of available water quality data, groundwater in the vicinity of the Olympic Well Field meets up to three criteria. The Olympic Well Field RWQC study (*this report*) is Step 2 of the 10-step process and satisfies the applicable requirement of the DDW Process Memo 97-005-R2020. A summary of the key outcomes of this RWQC study is provided below.

A series of data analyses were conducted to evaluate raw water quality to meet the primary objective of characterizing influent water quality that will enter the planned treatment system, so that an appropriate level of monitoring and treatment can be designed. This included screening of water quality data against specific criteria and regulatory values to identify COPCs, analyzing water quality data to estimate future treatment plant influent concentrations, trend analysis for historical water quality to understand how water quality trends have changed over time, and analysis of variability to develop an understanding of how water quality has changed under the influence of certain factors such as pumping and seasonal variation in precipitation.

An initial screening of water quality data indicated 42 COPCs based on constituents detected in production wells (or constituents with three or more detections in monitoring wells), with a ratio of maximum concentration to MCL or NL greater than 0.05 (5%). The list of COPCs was then further refined to determine which would drive treatment system design (using UV/AOP and GAC) based on constituents which are synthetic organics and had a ratio of maximum concentration to MCL or NL greater than 0.5 (50%). This yielded a list of 15 synthetic organic COPCs, as follows:

- Nine COPCs from production well data:
  - 1,1-dichloroethane (1,1-DCA)
  - 1,1-dichloroethene (1,1-DCE)
  - 1,2,3-trichloropropane (1,2,3-TCP)
  - 1,4-dioxane
  - carbon tetrachloride
  - cis-1,2-dichloroethene (cis-1,2-DCE)
  - perfluorooctanoic acid (PFOA)
  - tetrachloroethene (PCE)
  - trichloroethene (TCE)
- An additional six COPCs from monitoring well data:
  - 1,1,2-trichloroethane (1,1,2-TCA)
  - 1,2-dichloroethane (1,1-DCA)
  - benzene
  - methyl tert-butyl ether (MTBE)
  - trans-1,2-dichloroethene (trans-1,2-DCE)
  - vinyl chloride

Statistical analysis and flow-weighting calculations were then conducted to estimate future treatment plant influent concentrations using monitoring well groundwater quality data for all constituents including the identified COPCs. The results of this analysis indicated four COPCs are projected to be at concentrations above their respective MCL or NL in treatment plant influent, including 1,4-dioxane, PCE, TCE and 1,2,3-TCP, as summarized in Table 7-1. For comparison, influent estimates based on recent (2020) water quality data from production wells indicate that 1,4-dioxane, PCE and TCE would be currently above their respective MCL or NL, with 1,2,3-TCP being below its MCL based on this data, as shown in Table 7-1.

Table 7-1 Summary of Estimated Concentrations in Treatment Plant Influent for Key Synthetic Organic COPCs

Constituent [Units]	MCL or NL	Using UCL95*		Using Production Well Concentrations From 2020**	
		Plant Influent Concentration Estimates	With Safety Factor Applied***	Plant Influent Concentration Estimates	With Safety Factor Applied***
1,2,3-TCP [µg/L]	**0.005**	**0.022**	**0.026**	0.00091	0.0011
1,4-Dioxane [µg/L]	**1**	**13.8**	**20.7**	**9.9**	**14.9**
PCE [µg/L]	**5**	**10.4**	**15.6**	**31**	**46.5**
TCE [µg/L]	**5**	**8.2**	**12.3**	**23**	**34.5**

Notes: *µg/L = micrograms per liter; values above respective MCLs or NLs are highlighted* ***bold****.*

** From production wells concentration estimates.*

***Maximum observed values from production wells from available 2020 sampling data (provided for information only).*

****A safety factor of 1.5 was applied for each constituent, except for 1,2,3-TCP which used a safety factor of 1.2.*

Trend analysis was performed on available temporal production well data for COPCs to inform potential future concentration trends and design of the treatment system. Key outcomes from the trend analysis include the identification of statistically significant upward trends for PCE and 1,4-dioxane. Although no statistically significant trend was identified for TCE, visual assessment of trend charts indicates that recent (2018-2020) concentrations are rebounding to elevated levels recorded between 2012 and 2014. No statistically significant or visual trend was identified for 1,2,3-TCP. Visual assessment indicated nitrate and nitrite (as nitrogen) exhibited variability since start of analysis period (2012) with no discernible trend identified. Visual assessment of other COPC trends generally indicated that parameters with concentrations above detection limit remained stable during the analysis period (2012-2020).

An assessment of concentration variability generally indicates that concentrations of 1,4-dioxane, TCE, PCE exhibit an observable correlation to operational status (i.e., pumping or non-pumping) and pumping rate of a well or at nearby wells; however, seasonal impacts or seasonal signals are not distinguishable in the data sets.

8 References

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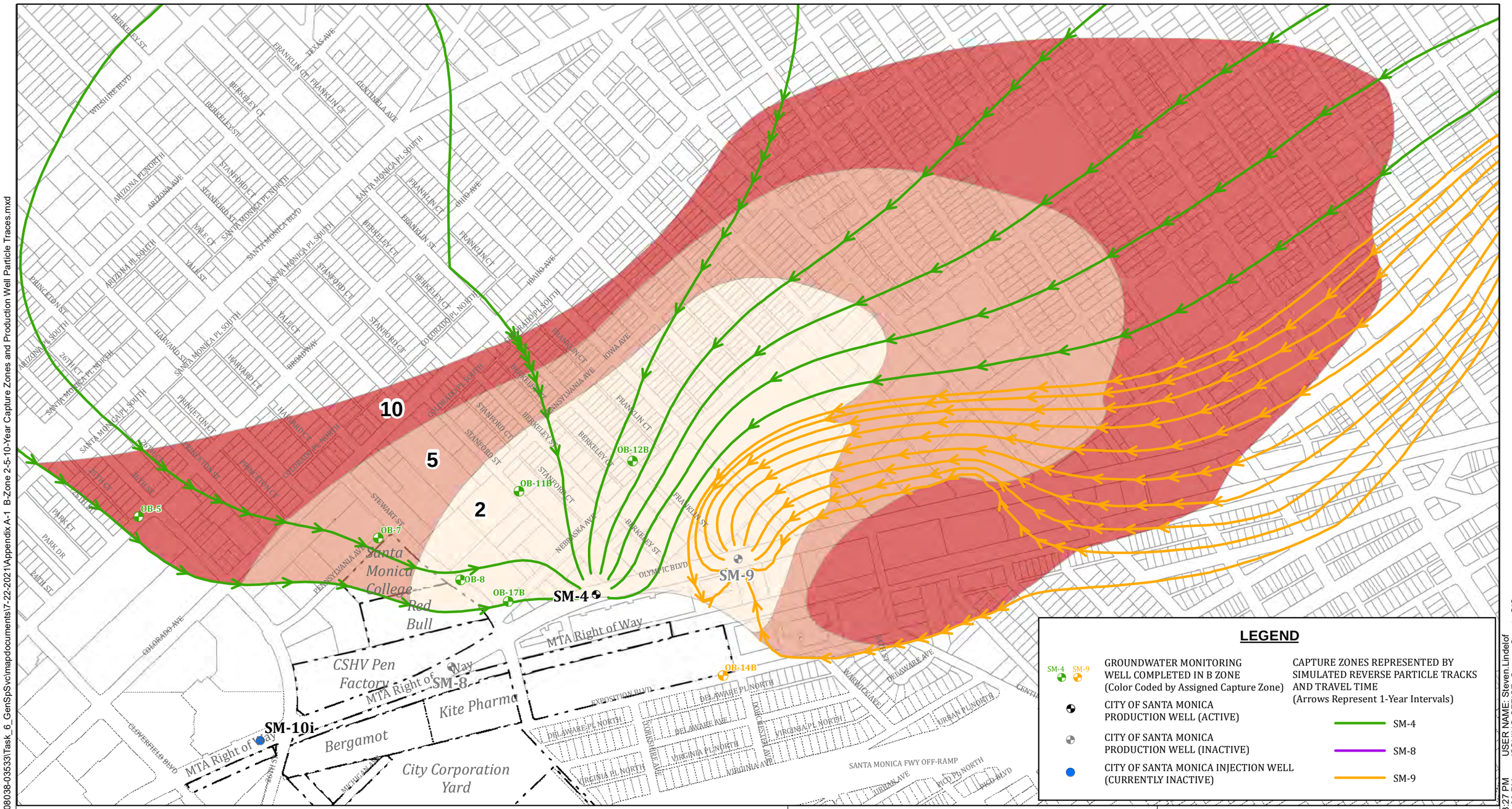
Appendix A
Modeled Capture Zones and Monitoring Well Locations



Source:
Los Angeles County GIS. City of Santa Monica GIS. All locations approximate.

N W E S

0 600
Feet

LEGEND

SM-4 SM-9 GROUNDWATER MONITORING WELL COMPLETED IN B ZONE (Color Coded by Assigned Capture Zone)

CITY OF SANTA MONICA PRODUCTION WELL (ACTIVE)

CITY OF SANTA MONICA PRODUCTION WELL (INACTIVE)

CITY OF SANTA MONICA INJECTION WELL (CURRENTLY INACTIVE)

CAPTURE ZONES REPRESENTED BY SIMULATED REVERSE PARTICLE TRACKS AND TRAVEL TIME (Arrows Represent 1-Year Intervals)

- SM-4
- SM-8
- SM-9

Olympic Well Field
Santa Monica, California

City of Santa Monica | ICF | Advisian (Worley Group)

B-ZONE - 2, 5- & 10-YEAR CAPTURE ZONES AND PRODUCTION WELL PARTICLE TRACES

SWL	SB	07/30/2021
308038-03533	APPENDIX A-1	

FILE LOCATION: E:\GIS\Projects\308038-03533\Task_6_GenSpSvc\mapdocuments\7-22-2021\Appendix A-1 B-Zone 2-5-10-Year Capture Zones and Production Well Particle Traces.mxd

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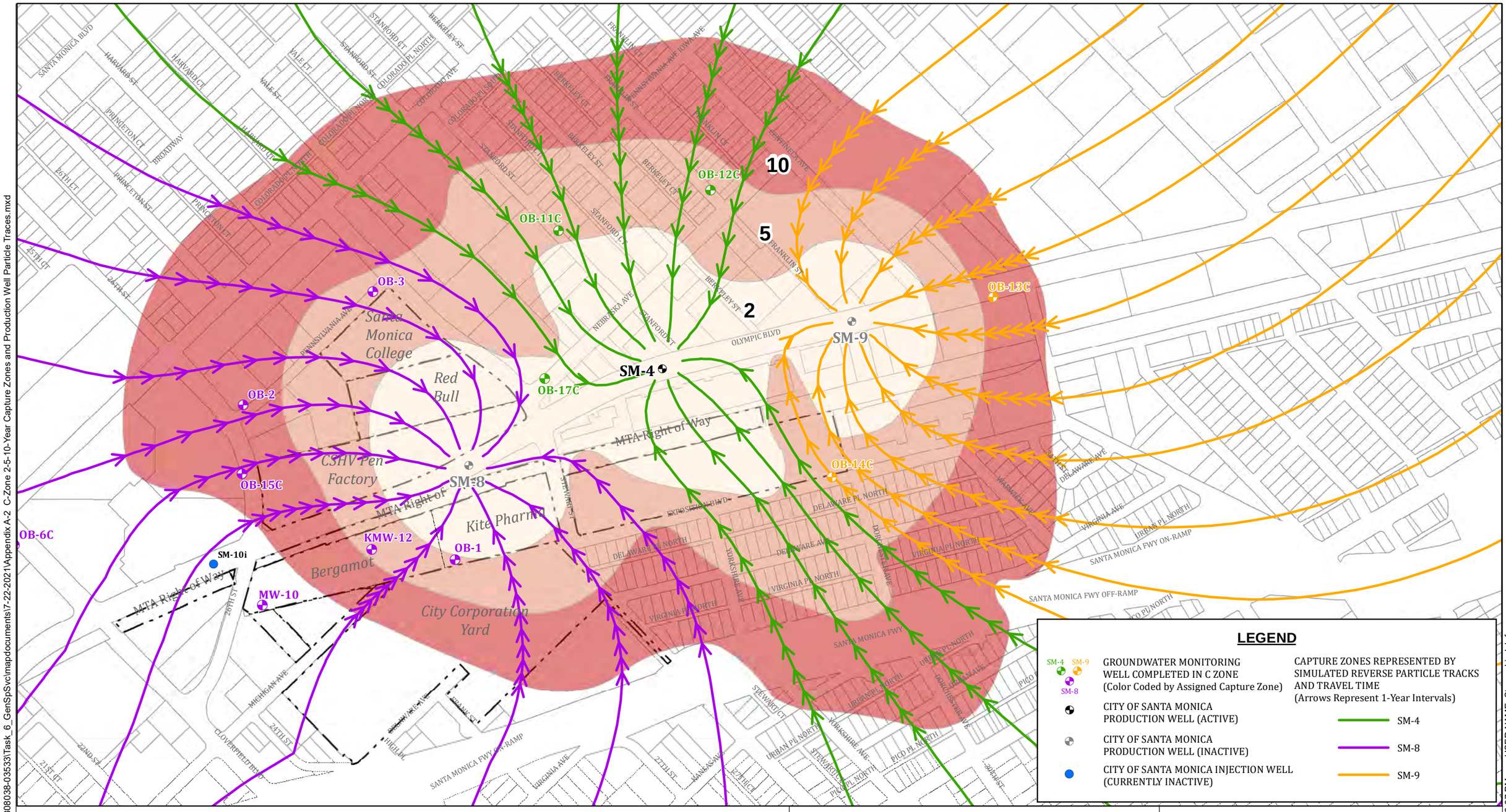

LEGEND

SM-4 SM-9 SM-8 — GROUNDWATER MONITORING WELL COMPLETED IN C ZONE (Color Coded by Assigned Capture Zone)

CITY OF SANTA MONICA PRODUCTION WELL (ACTIVE)

CITY OF SANTA MONICA PRODUCTION WELL (INACTIVE)

CITY OF SANTA MONICA INJECTION WELL (CURRENTLY INACTIVE)

CAPTURE ZONES REPRESENTED BY SIMULATED REVERSE PARTICLE TRACKS AND TRAVEL TIME (Arrows Represent 1-Year Intervals)

- SM-4
- SM-8
- SM-9

Source:
Los Angeles County GIS. City of Santa Monica GIS. All locations approximate.

N W E S

0 450
Feet

Olympic Well Field
Santa Monica, California

City of Santa Monica | ICF | Advisian Worley Group

C-ZONE - 2, 5- & 10-YEAR CAPTURE ZONES AND PRODUCTION WELL PARTICLE TRACES

SWL	SB	07/30/2021
308038-07119	APPENDIX A-2	

FILE LOCATION: E:\GIS\Projects\308038-03533\Task_6_GenSpSvc\mapdocuments\7-22-2021\Appendix A-2 C-Zone 2-5-10-Year Capture Zones and Production Well Particle Traces.mxd

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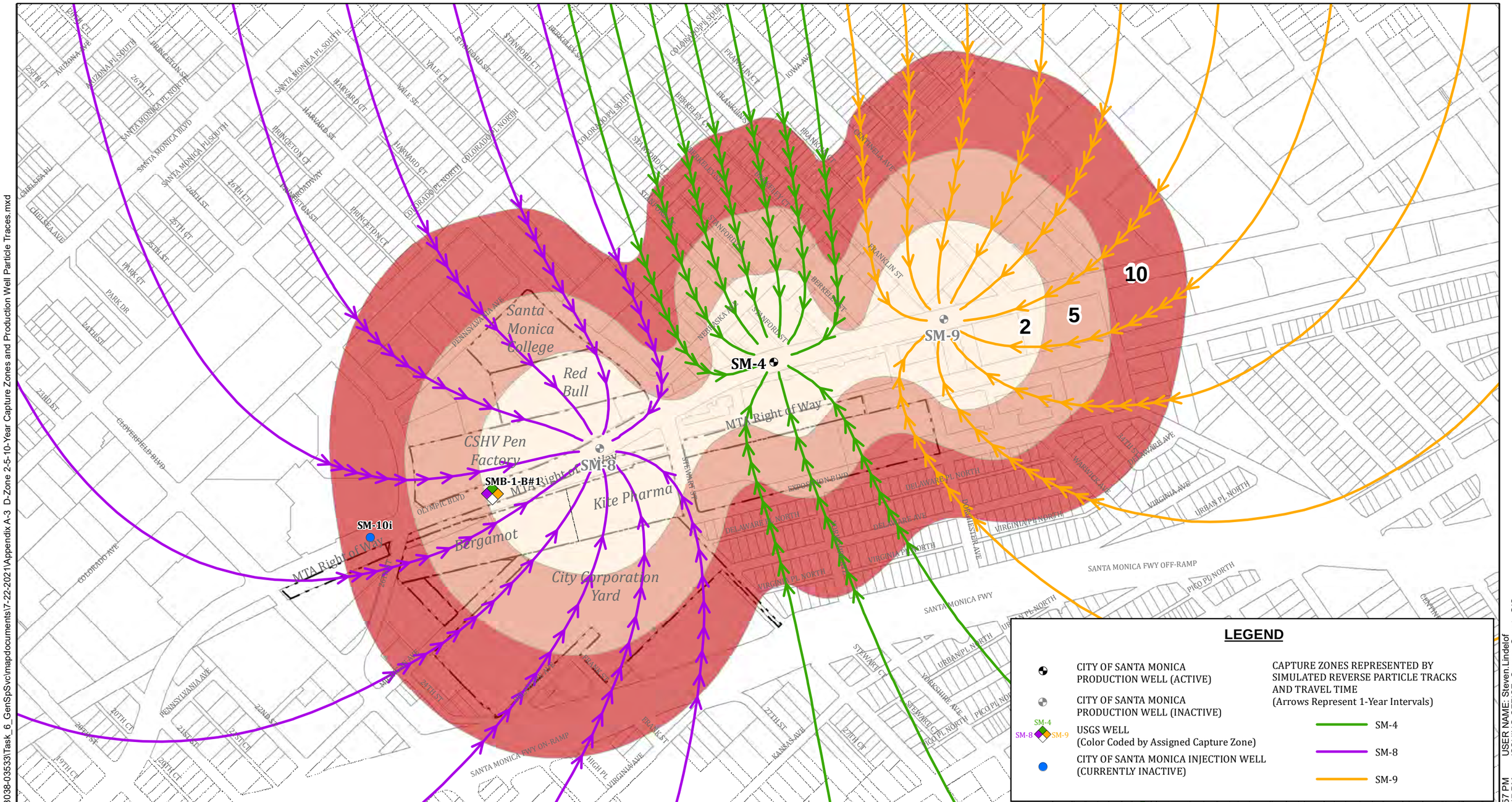

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N W E S

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Olympic Well Field
Santa Monica, California

TITLE

D-ZONE - 2, 5- & 10-YEAR CAPTURE ZONES AND PRODUCTION WELL PARTICLE TRACES

SWL	SB	07/30/2021
308038-07119	APPENDIX A-3	

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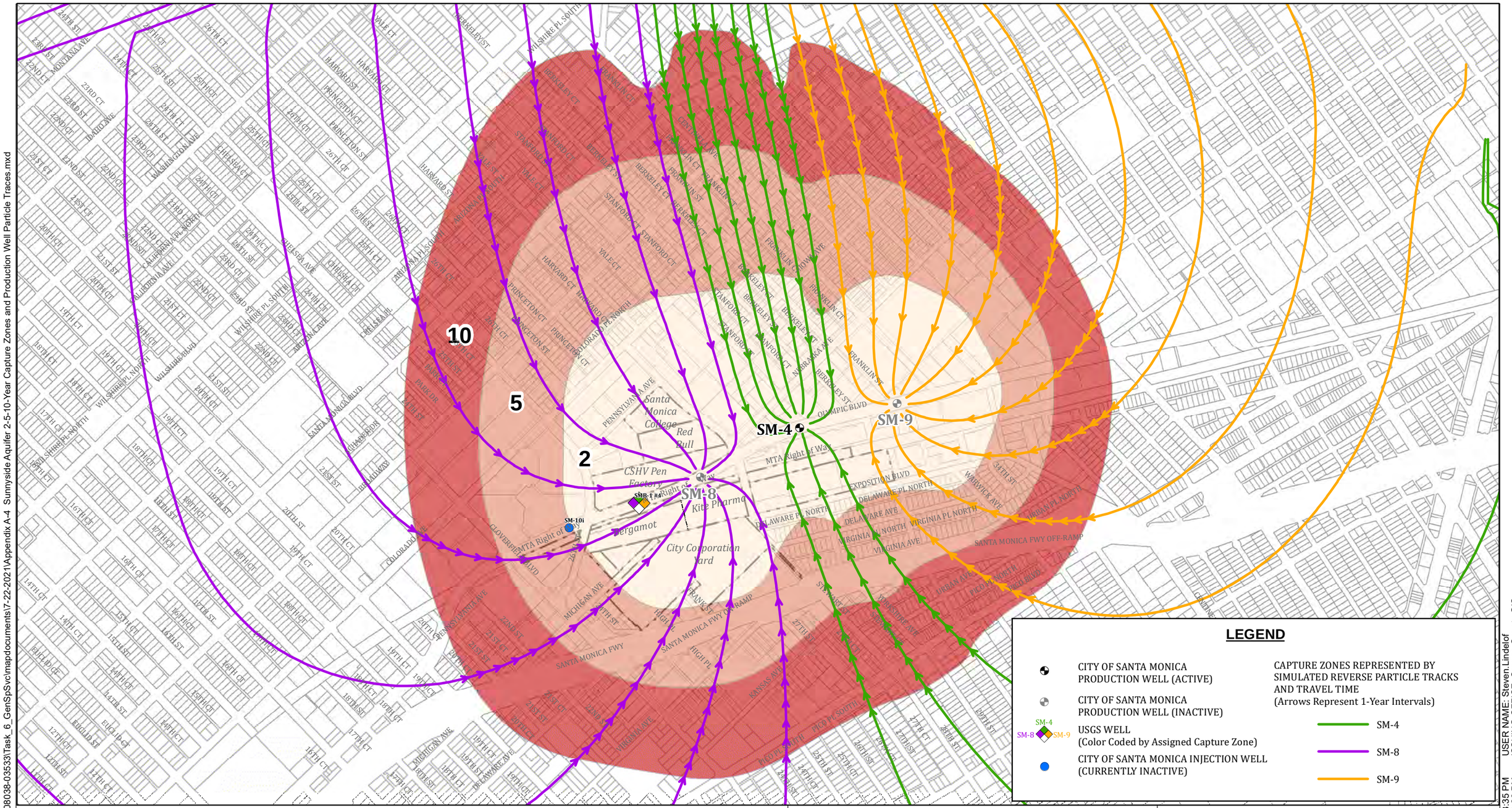

LEGEND

- CITY OF SANTA MONICA PRODUCTION WELL (ACTIVE)
- CITY OF SANTA MONICA PRODUCTION WELL (INACTIVE)
- USGS WELL (Color Coded by Assigned Capture Zone)
- CITY OF SANTA MONICA INJECTION WELL (CURRENTLY INACTIVE)

CAPTURE ZONES REPRESENTED BY SIMULATED REVERSE PARTICLE TRACKS AND TRAVEL TIME
(Arrows Represent 1-Year Intervals)

- SM-4
- SM-8
- SM-9

Source:
Los Angeles County GIS. City of Santa Monica GIS. All locations approximate.

N W E S

0 1,750
Feet

CITY OF SANTA MONICA
OLYMPIC WELL FIELD

City of Santa Monica | ICF | Advisian Worley Group

SUNNYSIDE AQUIFER - 2, 5- & 10-YEAR CAPTURE ZONES AND PRODUCTION WELL PARTICLE TRACES

SWL	SB	07/30/2021
308038-07119	APPENDIX A-4	

FILE LOCATION: E:\GIS\Projects\308038-03533\Task_6_GenSpSvc\mapdocuments\7-22-2021\Appendix A-4 Sunnyside Aquifer 2-5-10-Year Capture Zones and Production Well Particle Traces.mxd

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Appendix B
Screening Evaluation Results

CASRN	Parameter	Units	MCL	NL	Production Wells				Monitoring Wells				Meets COPC Screening Criteria*					
													Initial				*Secondary*	
					Number of Observations	Number of Detections	Maximum Observed Value	Ratio of Maximum to MCL or NL	Number of Observations	Number of Detections	Maximum Observed Value	Ratio of Maximum to MCL or NL	1	2	3	4	5	6
3567-62-2	1-(3,4-Dichlorophenyl)-3-methylurea	µg/L	-	-	3	0	<1	-	13	0	<1	-						
2327-02-8	1-(3,4-Dichlorophenyl)urea	µg/L	-	-	3	0	<1	-	13	0	<1	-						
630-20-6	1,1,1,2-Tetrachloroethane	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
71-55-6	1,1,1-Trichloroethane	µg/L	200	-	201	0	<0.5	-	475	0	<1	-			✓			
79-34-5	1,1,2,2-Tetrachloroethane	µg/L	1	-	34	0	<0.5	-	475	0	<1	-			✓			
79-00-5	1,1,2-Trichloroethane	µg/L	5	-	34	0	<0.5	-	475	8	11	2.20		✓	✓	✓	✓	✓
75-34-3	1,1-Dichloroethane	µg/L	5	-	201	2	0.16	0.03	475	67	7.1	1.42	✓	✓	✓	✓	✓	✓
75-35-4	1,1-Dichloroethene	µg/L	6	-	201	117	2.9	0.48	475	138	32	5.33	✓	✓	✓	✓	✓	✓
563-58-6	1,1-Dichloropropene	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
57-14-7	1,1-Dimethylhydrazine	µg/L	-	-	3	0	<2	-	13	0	<2	-						
87-61-6	1,2,3-Trichlorobenzene	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
96-18-4	1,2,3-Trichloropropane	µg/L	0.005	-	38	17	0.01	2.00	609	29	0.19	38.00	✓	✓	✓	✓	✓	✓
120-82-1	1,2,4-Trichlorobenzene	µg/L	5	-	37	0	<1	-	494	0	<10	-			✓			
95-63-6	1,2,4-Trimethylbenzene	µg/L	-	330	34	0	<0.5	-	475	0	<1	-			✓			
96-12-8	1,2-Dibromo-3-chloropropane	µg/L	0.2	-	16	0	<0.01	-	475	0	<5	-			✓			
106-93-4	1,2-Dibromoethane	µg/L	0.05	-	16	0	<0.02	-	475	0	<1	-			✓			
95-50-1	1,2-Dichlorobenzene	µg/L	600	-	37	0	<1	-	494	0	<10	-			✓			
107-06-2	1,2-Dichloroethane	µg/L	0.5	-	201	0	<0.5	-	475	21	6.6	13.20		✓	✓	✓	✓	✓
78-87-5	1,2-Dichloropropane	µg/L	5	-	34	0	<0.5	-	475	1	0.16	0.03			✓			
122-66-7	1,2-Diphenylhydrazine	µg/L	-	-	3	0	<1	-	19	0	<10	-						
108-67-8	1,3,5-Trimethylbenzene	µg/L	-	330	34	0	<0.5	-	475	0	<1	-			✓			
99-35-4	1,3,5-Trinitrobenzene	µg/L	-	-	6	0	<10	-	32	0	<100	-						
541-73-1	1,3-Dichlorobenzene	µg/L	-	-	37	0	<1	-	494	0	<10	-						
142-28-9	1,3-Dichloropropane	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
542-75-6	1,3-Dichloropropene	µg/L	0.5	-	34	0	<0.5	-	19	0	<0.5	-			✓			
99-65-0	1,3-Dinitrobenzene	µg/L	-	-	3	1	0.32	-	13	1	0.26	-	✓					
106-46-7	1,4-Dichlorobenzene	µg/L	5	-	37	0	<1	-	494	0	<10	-			✓			
123-91-1	1,4-Dioxane	µg/L	-	1	68	64	26	26.00	413	367	440	440.00	✓	✓	✓	✓	✓	✓
763051-92-9	11Cl-PF3OUdS	µg/L	-	-	8	2	0.0017	-	16	0	<0.002	-	✓					
57-91-0	17-a-Estradiol	µg/L	-	-	3	0	<0.001	-	13	0	<0.001	-						
57-63-6	17-a-Ethynylestradiol	µg/L	-	-	2	0	<0.001	-	13	0	<0.001	-						
50-28-2	17-b-Estradiol	µg/L	-	-	3	0	<0.001	-	13	0	<0.03	-						
124-19-6	1-Nonanal	µg/L	-	-	3	0	<2	-	14	0	<2	-						
934-34-9	2(3H)-Benzothiazolone	µg/L	-	-	0	0	-	-	1	1	1.4	-						
594-20-7	2,2-Dichloropropane	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	µg/L	-	-	3	0	<0.00005	-	19	0	<0.00005	-						
93-76-5	2,4,5-T	µg/L	-	-	5	0	<0.2	-	19	0	<0.2	-						
93-72-1	2,4,5-TP (Silvex)	µg/L	50	-	11	0	<1	-	19	0	<0.2	-			✓			
95-95-4	2,4,5-Trichlorophenol	µg/L	-	-	3	0	<1	-	19	0	<10	-						
88-06-2	2,4,6-Trichlorophenol	µg/L	-	-	3	0	<1	-	19	0	<10	-						
118-96-7	2,4,6-Trinitrotoluene	µg/L	-	1	3	0	<5	-	13	0	<5	-			✓			
94-75-7	2,4-D	µg/L	70	-	15	0	<10	-	19	0	<0.4	-			✓			
94-82-6	2,4-DB	µg/L	-	-	5	0	<2	-	19	0	<2	-						
120-83-2	2,4-Dichlorophenol	µg/L	-	-	3	0	<1	-	19	0	<10	-						
105-67-9	2,4-Dimethylphenol	µg/L	-	-	3	0	<1	-	19	0	<10	-						

CASRN	Parameter	Units	MCL	NL	Production Wells				Monitoring Wells				Meets COPC Screening Criteria*					
													Initial				*Secondary*	
					Number of Observations	Number of Detections	Maximum Observed Value	Ratio of Maximum to MCL or NL	Number of Observations	Number of Detections	Maximum Observed Value	Ratio of Maximum to MCL or NL	1	2	3	4	5	6
51-28-5	2,4-Dinitrophenol	µg/L	-	-	3	0	<10	-	19	0	<100	-						
121-14-2	2,4-Dinitrotoluene	µg/L	-	-	9	0	<20	-	51	0	<20	-						
606-20-2	2,6-Dinitrotoluene	µg/L	-	-	9	0	<20	-	51	0	<20	-						
35572-78-2	2-Amino-4,6-Dinitrotoluene	µg/L	-	-	3	0	<5	-	13	0	<5	-						
78-93-3	2-Butanone	µg/L	-	-	4	0	<5	-	19	0	<5	-						
110-75-8	2-Chloroethyl Vinyl Ether	µg/L	-	-	5	0	<1	-	19	0	<1	-						
91-58-7	2-Chloronaphthalene	µg/L	-	-	3	0	<1	-	19	0	<10	-						
95-57-8	2-Chlorophenol	µg/L	-	-	3	0	<1	-	19	0	<10	-						
95-49-8	2-Chlorotoluene	µg/L	-	140	34	0	<0.5	-	475	0	<1	-			✓			
591-78-6	2-Hexanone	µg/L	-	-	4	0	<5	-	19	0	<5	-						
91-57-6	2-Methylnaphthalene	µg/L	-	-	3	0	<1	-	19	0	<10	-						
95-48-7	2-Methylphenol	µg/L	-	-	3	0	<1	-	19	0	<10	-						
88-74-4	2-Nitroaniline	µg/L	-	-	3	0	<1	-	19	0	<10	-						
88-75-5	2-Nitrophenol	µg/L	-	-	3	0	<1	-	19	0	<10	-						
88-72-2	2-Nitrotoluene	µg/L	-	-	3	0	<5	-	13	0	<5	-						
7642-04-8	2-Octene, (Z)-	µg/L	-	-	1	1	34	-	5	5	250	-	✓	✓				
84989-04-8	3 & 4-Methylphenol	µg/L	-	-	3	0	<1	-	19	0	<10	-						
91-94-1	3,3'-Dichlorobenzidine	µg/L	-	-	3	0	<5	-	19	0	<50	-						
95-76-1	3,4-Dichloroaniline	µg/L	-	-	3	0	<1	-	13	0	<1	-						
51-36-5	3,5-Dichlorobenzoic acid	µg/L	-	-	3	0	<1	-	19	0	<1	-						
16655-82-6	3-Hydroxycarbofuran	µg/L	-	-	5	0	<10	-	19	0	<2	-						
99-09-2	3-Nitroaniline	µg/L	-	-	3	0	<1	-	19	0	<10	-						
99-08-1	3-Nitrotoluene	µg/L	-	-	3	0	<5	-	13	0	<5	-						
72-54-8	4,4´-DDD	µg/L	-	-	8	0	<1	-	38	0	<1	-						
72-55-9	4,4´-DDE	µg/L	-	-	8	0	<2	-	38	0	<2	-						
50-29-3	4,4´-DDT	µg/L	-	-	8	0	<1	-	38	0	<1	-						
534-52-1	4,6-Dinitro-2-Methyl phenol	µg/L	-	-	3	0	<5	-	19	0	<50	-						
19406-51-0	4-Amino-2,6-Dinitrotoluene	µg/L	-	-	3	0	<5	-	13	0	<5	-						
101-55-3	4-Bromophenyl Phenyl Ether	µg/L	-	-	3	0	<1	-	19	0	<10	-						
59-50-7	4-Chloro-3-Methylphenol	µg/L	-	-	3	0	<1	-	19	0	<10	-						
106-47-8	4-Chloroaniline	µg/L	-	-	3	0	<1	-	19	0	<10	-						
7005-72-3	4-Chlorophenyl Phenyl Ether	µg/L	-	-	3	0	<1	-	19	0	<10	-						
106-43-4	4-Chlorotoluene	µg/L	-	140	34	0	<0.5	-	475	0	<1	-			✓			
108-10-1	4-Methyl-2-pentanone	µg/L	-	120	34	0	<5	-	19	0	<5	-			✓			
100-01-6	4-Nitroaniline	µg/L	-	-	3	0	<1	-	19	0	<10	-						
100-02-7	4-Nitrophenol	µg/L	-	-	3	0	<5	-	19	0	<50	-						
99-99-0	4-Nitrotoluene	µg/L	-	-	3	0	<5	-	13	0	<5	-						
104-40-5	4-Nonylphenol	µg/L	-	-	3	0	<0.025	-	13	0	<0.25	-						
1806-26-4	4-Octylphenol	µg/L	-	-	3	0	<0.025	-	13	0	<0.25	-						
140-66-9	4-tert-Octylphenol	µg/L	-	-	3	0	<0.005	-	13	1	0.014	-						
2315-61-9	4-tert-Octylphenol diethoxylate	µg/L	-	-	3	0	<0.025	-	13	0	<0.25	-						
1173019-48-1	4-tert-Octylphenol monoethoxylate	µg/L	-	-	3	0	<0.025	-	13	4	0.072	-		✓				
756426-58-1	9Cl-PF3ONS	µg/L	-	-	8	2	0.0017	-	16	0	<0.002	-	✓					
83-32-9	Acenaphthene	µg/L	-	-	6	0	<5	-	38	0	<10	-						
208-96-8	Acenaphthylene	µg/L	-	-	6	0	<5	-	38	0	<10	-						

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75-07-0	Acetaldehyde	µg/L	-	-	3	0	<2	-	14	2	0.48	-						
103-90-2	Acetaminophen	µg/L	-	-	3	0	<0.18	-	13	0	<0.32	-						
34256-82-1	Acetochlor	µg/L	-	-	3	0	<1	-	19	0	<1	-						
187022-11-3	Acetochlor ESA	µg/L	-	-	3	0	<0.03	-	13	0	<0.03	-						
194992-44-4	Acetochlor OA	µg/L	-	-	3	1	0.0068	-	13	0	<0.033	-	✓					
67-64-1	Acetone	µg/L	-	-	4	2	790	-	16	10	31	-	✓	✓				
75-05-8	Acetonitrile	µg/L	-	-	4	2	7.9	-	19	7	0.62	-	✓	✓				
50594-66-6	Acifluorfen	µg/L	-	-	5	0	<0.4	-	19	0	<0.4	-						
107-02-8	Acrolein	µg/L	-	-	4	0	<5	-	20	0	<5	-						
107-13-1	Acrylonitrile	µg/L	-	-	4	0	<2	-	20	0	<2	-						
958445-44-8	ADONA	µg/L	-	-	8	2	0.0017	-	16	0	<0.002	-	✓					
15972-60-8	Alachlor	µg/L	2	-	15	0	<1	-	19	0	<1	-			✓			
142363-53-9	Alachlor ESA	µg/L	-	-	3	0	<0.042	-	13	1	0.021	-						
171262-17-2	Alachlor OA	µg/L	-	-	3	0	<0.033	-	13	0	<0.033	-						
116-06-3	Aldicarb	µg/L	-	-	5	0	<10	-	19	0	<2	-						
1646-88-4	Aldicarb Sulfone	µg/L	-	-	5	0	<10	-	19	0	<2	-						
1646-87-3	Aldicarb sulfoxide	µg/L	-	-	5	0	<10	-	19	0	<2	-						
309-00-2	Aldrin	µg/L	-	-	12	0	<1	-	38	0	<1	-						
ALK	Alkalinity (as CaCO3)	µg/L	-	-	6	6	430000	-	35	35	430000	-	✓	✓				
ALKC-1	Alkalinity, Carbonate as CaCO3	µg/L	-	-	15	6	401000	-	19	2	63000	-	✓					
ALKH-1	Alkalinity, Hydroxide as CaCO3	µg/L	-	-	9	0	<5000	-	19	0	<5000	-						
107-05-1	Allyl Chloride	µg/L	-	-	4	0	<0.5	-	20	0	<0.5	-						
319-84-6	alpha-BHC	µg/L	-	-	8	0	<1	-	38	0	<1	-						
5103-71-9	alpha-Chlordane	µg/L	-	-	3	0	<1	-	19	0	<1	-						
7429-90-5	Aluminum	µg/L	1000	-	12	7	2400	2.40	38	38	2800	2.80	✓	✓	✓	✓	✓	
7664-41-7	Ammonia	µg/L	-	-	3	1	34	-	13	4	1200	-	✓	✓				
26787-78-0	Amoxicillin	µg/L	-	-	3	1	0.0055	-	13	0	<0.01	-	✓					
62-53-3	Aniline	µg/L	-	-	3	0	<1	-	19	0	<10	-						
120-12-7	Anthracene	µg/L	-	-	6	0	<5	-	38	0	<10	-						
7440-36-0	Antimony	µg/L	6	-	12	6	0.2	0.03	38	37	0.39	0.07	✓	✓	✓	✓		
12674-11-2	Aroclor 1016	µg/L	-	-	3	0	<0.1	-	19	0	<25	-						
11104-28-2	Aroclor 1221	µg/L	-	-	3	0	<0.1	-	19	0	<25	-						
11141-16-5	Aroclor 1232	µg/L	-	-	3	0	<0.1	-	19	0	<25	-						
53469-21-9	Aroclor 1242	µg/L	-	-	3	0	<0.1	-	19	0	<25	-						
12672-29-6	Aroclor 1248	µg/L	-	-	3	0	<0.1	-	19	0	<25	-						
11097-69-1	Aroclor 1254	µg/L	-	-	3	0	<0.1	-	19	0	<25	-						
11096-82-5	Aroclor 1260	µg/L	-	-	3	0	<0.1	-	19	0	<25	-						
7440-38-2	Arsenic	µg/L	10	-	12	11	2	0.20	41	39	38	3.80	✓	✓	✓	✓	✓	
22541-54-4	Arsenic III	µg/L	-	-	6	2	0.17	-	38	14	5.4	-	✓	✓				
17428-41-0	Arsenic V	µg/L	-	-	6	6	1.4	-	38	36	1.5	-	✓	✓				
1332-21-4	Asbestos	MFL	7	-	3	0	<1.7	-	19	0	<5	-			✓			
29122-68-7	Atenolol	µg/L	-	-	3	1	0.00028	-	13	2	0.0066	-	✓					
134523-00-5	Atorvastatin	µg/L	-	-	3	1	0.0011	-	13	1	0.00076	-	✓					
1912-24-9	Atrazine	µg/L	1	-	15	0	<1	-	19	0	<1	-			✓			
83905-01-5	Azithromycin	µg/L	-	-	3	1	0.0057	-	13	2	0.015	-	✓					

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103-33-3	Azobenzene	µg/L	-	-	2	0	<1	-	15	0	<10	-						
7440-39-3	Barium	µg/L	1000	-	12	12	76	0.08	38	38	100	0.10	✓	✓	✓	✓		
25057-89-0	Bentazon	µg/L	18	-	15	0	<2	-	19	0	<2	-			✓			
100-52-7	Benzaldehyde	µg/L	-	-	3	0	<2	-	14	0	<2	-						
71-43-2	Benzene	µg/L	1	-	201	0	<0.5	-	475	24	19	19.00		✓	✓	✓	✓	✓
92-87-5	Benzidine	µg/L	-	-	3	0	<10	-	19	0	<100	-						
56-55-3	Benzo[a]anthracene	µg/L	-	-	6	0	<5	-	38	0	<10	-						
50-32-8	Benzo[a]pyrene	µg/L	0.2	-	14	0	<1	-	38	0	<10	-			✓			
205-99-2	Benzo[b]fluoranthene	µg/L	-	-	6	0	<5	-	38	0	<10	-						
191-24-2	Benzo[g,h,i]perylene	µg/L	-	-	6	0	<5	-	38	0	<20	-						
207-08-9	Benzo[k]fluoranthene	µg/L	-	-	6	0	<5	-	38	0	<10	-						
65-85-0	Benzoic Acid	µg/L	-	-	3	0	<100	-	19	2	6.7	-						
95-16-9	Benzothiazole	µg/L	-	-	0	0	-	-	2	2	8.5	-						
100-51-6	Benzyl Alcohol	µg/L	-	-	3	0	<1	-	19	0	<10	-						
85-68-7	Benzyl butyl phthalate	µg/L	-	-	6	2	3.7	-	38	10	6.3	-	✓	✓				
7440-41-7	Beryllium	µg/L	4	-	12	1	0.088	0.02	38	1	0.095	0.02	✓		✓			
319-85-7	beta-BHC	µg/L	-	-	8	0	<2	-	38	0	<2	-						
71-52-3	Bicarbonate Alkalinity as HCO3	µg/L	-	-	9	9	520000	-	19	19	520000	-	✓	✓				
BOD	Biochemical Oxygen Demand	µg/L	-	-	3	0	<2000	-	13	2	6900	-						
111-91-1	bis(2-chloroethoxy)methane	µg/L	-	-	3	0	<1	-	19	0	<10	-						
111-44-4	bis(2-chloroethyl)ether	µg/L	-	-	3	0	<1	-	19	0	<10	-						
108-60-1	bis(2-chloroisopropyl)ether	µg/L	-	-	3	0	<1	-	19	0	<10	-						
103-23-1	Bis(2-ethylhexyl)adipate	µg/L	400	-	11	0	<50	-	19	0	<50	-			✓			
117-81-7	bis(2-ethylhexyl)phthalate	µg/L	4	-	18	0	<30	-	38	5	0.91	0.23		✓	✓	✓		
80-05-7	Bisphenol A	µg/L	-	-	3	3	0.041	-	13	13	0.13	-	✓	✓				
7440-42-8	Boron	µg/L	-	1000	7	7	200	0.20	43	41	590	0.59	✓	✓	✓	✓	✓	
314-40-9	Bromacil	µg/L	-	-	5	0	<10	-	19	1	0.37	-						
15541-45-4	Bromate	µg/L	10	-	3	0	<25	-	19	6	160	16.00		✓	✓	✓	✓	
24959-67-9	Bromide	µg/L	-	-	3	3	850	-	14	14	5700	-	✓	✓				
108-86-1	Bromobenzene	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
5589-96-8	Bromochloroacetic acid	µg/L	-	-	3	0	<1	-	19	0	<1	-						
74-97-5	Bromochloromethane	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
71133-14-7	Bromodichloroacetic acid	µg/L	-	-	0	0	-	-	6	0	<1	-						
75-27-4	Bromodichloromethane	µg/L	-	-	201	3	0.5	-	475	4	1.5	-	✓	✓				
75-25-2	Bromoform	µg/L	-	-	196	2	1.5	-	475	0	<1	-	✓					
74-83-9	Bromomethane	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
23184-66-9	Butachlor	µg/L	-	-	5	0	<1	-	19	0	<1	-						
123-72-8	Butanal	µg/L	-	-	3	0	<2	-	14	2	2	-						
7440-43-9	Cadmium	µg/L	5	-	12	5	0.23	0.05	38	16	0.12	0.02	✓	✓	✓			
58-08-2	Caffeine	µg/L	-	-	6	3	0.031	-	32	15	0.13	-	✓	✓				
7440-70-2	Calcium	µg/L	-	-	12	12	183000	-	32	32	178000	-	✓	✓				
133-06-2	Captan	µg/L	-	-	5	0	<10	-	19	0	<10	-						
298-46-4	Carbamazepine	µg/L	-	-	3	1	0.00009	-	13	0	<0.001	-	✓					
63-25-2	Carbaryl	µg/L	-	-	5	0	<10	-	19	0	<2	-						
86-74-8	Carbazole	µg/L	-	-	3	0	<1	-	19	0	<10	-						

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1563-66-2	Carbofuran	µg/L	18	-	15	0	<10	-	19	0	<2	-			✓			
75-15-0	Carbon Disulfide	µg/L	-	160	32	0	<0.5	-	19	1	0.26	0.00			✓			
56-23-5	Carbon Tetrachloride	µg/L	0.5	-	201	2	0.15	0.30	475	8	1	2.00	✓	✓	✓	✓	✓	✓
133-90-4	Chloramben	µg/L	-	-	3	0	<1	-	19	0	<1	-						
7775-09-9	Chlorate	µg/L	-	-	3	2	93	-	13	12	160	-	✓	✓				
57-74-9	Chlordane	µg/L	0.1	-	15	0	<0.1	-	19	0	<5	-			✓			
16887-00-6	Chloride	µg/L	-	-	9	9	130000	-	24	24	601000	-	✓	✓				
76-13-1	Chlorinated Fluorocarbon (Freon 113)	µg/L	1200	-	34	0	<10	-	19	0	<5	-			✓			
7782-50-5RF	Chlorine Residual, Free	µg/L	-	-	3	3	35	-	13	10	80	-	✓	✓				
TOTAL-CHLORINE	Chlorine Residual, Total	µg/L	-	-	3	3	48	-	13	13	160	-	✓	✓				
14998-27-7	Chlorite	µg/L	1000	-	3	2	14	0.01	19	7	16	0.02	✓	✓	✓			
79-11-8	Chloroacetic Acid	µg/L	-	-	3	0	<2	-	19	0	<2	-						
108-90-7	Chlorobenzene	µg/L	70	-	34	0	<0.5	-	475	0	<1	-			✓			
5278-95-5	Chlorodibromoacetic acid	µg/L	-	-	0	0	-	-	6	0	<1	-						
75-00-3	Chloroethane	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
67-66-3	Chloroform	µg/L	-	-	201	188	5.4	-	475	182	37	-	✓	✓				
74-87-3	Chloromethane	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
1897-45-6	Chlorothalonil	µg/L	-	-	5	0	<5	-	19	0	<2.5	-						
101-21-3	Chlorpropham	µg/L	-	-	5	0	<1	-	19	0	<1	-						
7440-47-3	Chromium	µg/L	50	-	13	8	7.2	0.14	38	31	290	5.80	✓	✓	✓	✓	✓	
18540-29-9	Chromium, Hexavalent	µg/L	-	-	5	5	1.9	-	19	13	5.9	-	✓	✓				
218-01-9	Chrysene	µg/L	-	-	6	0	<5	-	38	0	<10	-						
85721-33-1	Ciprofloxacin	µg/L	-	-	3	2	0.11	-	13	11	0.014	-	✓	✓				
156-59-2	cis-1,2-Dichloroethene	µg/L	6	-	201	110	3.4	0.57	475	93	300	50.00	✓	✓	✓	✓	✓	✓
10061-01-5	cis-1,3-Dichloropropene	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
5103-73-1	cis-Nonachlor	µg/L	-	-	3	0	<0.1	-	18	0	<0.1	-						
7440-48-4	Cobalt	µg/L	-	-	6	6	1	-	26	25	8.3	-	✓	✓				
CLR	Color	Units	-	-	9	6	5	-	19	0	<3	-	✓					
7440-50-8	Copper	µg/L	1300	-	12	8	49	0.04	38	29	33	0.03	✓	✓	✓			
486-56-6	Cotinine	µg/L	-	-	3	1	0.0012	-	13	11	0.027	-	✓	✓				
123-73-9	Crotonaldehyde	µg/L	-	-	3	0	<2	-	14	0	<2	-						
21725-46-2	Cyanazine	µg/L	-	-	5	0	<1	-	19	0	<1	-						
57-12-5	Cyanide	µg/L	150	-	9	0	<100	-	19	0	<5	-			✓			
1122-82-3	Cyclohexane, isothiocyanato-	µg/L	-	-	0	0	-	-	1	1	1	-						
108-94-1	Cyclohexanone	µg/L	-	-	3	0	<2	-	14	0	<2	-						
75-99-0	Dalapon	µg/L	200	-	11	0	<10	-	19	0	<0.4	-			✓			
1861-32-1	DCPA	µg/L	-	-	5	0	<0.1	-	19	0	<0.1	-						
112-31-2	Decanal	µg/L	-	-	3	0	<2	-	14	0	<2	-						
134-62-3	DEET	µg/L	-	-	3	3	0.0043	-	13	13	0.0036	-	✓	✓				
319-86-8	delta-BHC	µg/L	-	-	8	0	<1	-	38	0	<1	-						
439-14-5	Diazepam	µg/L	-	-	3	0	<0.001	-	13	1	0.00021	-						
333-41-5	Diazinon	µg/L	-	1.2	5	0	<1	-	19	1	0.055	0.05			✓			
53-70-3	Dibenzo[a,h]anthracene	µg/L	-	-	6	0	<5	-	38	0	<20	-						
132-64-9	Dibenzofuran	µg/L	-	-	3	0	<1	-	19	0	<10	-						
631-64-1	Dibromoacetic acid	µg/L	-	-	3	0	<1	-	19	0	<1	-						

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124-48-1	Dibromochloromethane	µg/L	-	-	201	1	0.6	-	475	1	70	-	✓					
74-95-3	Dibromomethane	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
1918-00-9	Dicamba	µg/L	-	-	5	0	<1.5	-	19	0	<0.6	-						
3400-09-7	Dichloramine	µg/L	-	-	3	3	7	-	13	10	15	-	✓	✓				
79-43-6	Dichloroacetic Acid	µg/L	-	-	3	0	<1	-	19	0	<1	-						
75-71-8	Dichlorodifluoromethane	µg/L	-	1000	34	0	<0.5	-	475	0	<1	-			✓			
120-36-5	Dichloroprop	µg/L	-	-	5	0	<0.3	-	19	0	<0.3	-						
15307-86-5	Diclofenac	µg/L	-	-	3	0	<0.001	-	13	2	0.00073	-						
60-57-1	Dieldrin	µg/L	-	-	12	0	<2	-	38	0	<2	-						
84-66-2	Diethyl phthalate	µg/L	-	-	6	0	<20	-	38	16	0.88	-		✓				
56-53-1	Diethylstilbestrol	µg/L	-	-	3	0	<0.005	-	13	0	<0.1	-						
108-20-3	Di-isopropyl ether	µg/L	-	-	172	0	<3	-	473	13	6.4	-		✓				
60-51-5	Dimethoate	µg/L	-	-	5	0	<2	-	19	0	<2	-						
131-11-3	Dimethyl phthalate	µg/L	-	-	6	0	<20	-	38	0	<20	-						
84-74-2	Di-n-butyl-phthalate	µg/L	-	-	6	2	0.23	-	38	10	2.7	-	✓	✓				
117-84-0	Di-n-octyl phthalate	µg/L	-	-	6	0	<5	-	38	0	<10	-						
88-85-7	Dinoseb	µg/L	7	-	15	0	<2	-	19	0	<0.4	-			✓			
957-51-7	Diphenamid	µg/L	-	-	5	0	<100	-	19	0	<1	-						
85-00-7	Diquat	µg/L	20	-	15	0	<13	-	19	0	<32	-			✓			
298-04-4	Disulfoton	µg/L	-	-	5	0	<1	-	19	0	<2	-						
330-54-1	Diuron	µg/L	-	-	3	0	<1	-	13	0	<1	-						
959-98-8	Endosulfan I	µg/L	-	-	8	0	<10	-	38	0	<10	-						
33213-65-9	Endosulfan II	µg/L	-	-	8	0	<2	-	38	0	<2	-						
1031-07-8	Endosulfan sulfate	µg/L	-	-	8	0	<2	-	38	0	<2	-						
145-73-3	Endothall	µg/L	100	-	15	0	<45	-	19	0	<45	-			✓			
72-20-8	Endrin	µg/L	2	-	18	0	<2	-	38	0	<2	-			✓			
7421-93-4	Endrin Aldehyde	µg/L	-	-	8	0	<2	-	38	0	<2	-						
53494-70-5	Endrin Ketone	µg/L	-	-	3	0	<1	-	19	0	<1	-						
481-30-1	Epitestosterone	µg/L	-	-	3	0	<0.001	-	13	0	<0.001	-						
759-94-4	EPTC	µg/L	-	-	5	0	<1	-	19	0	<1	-						
50-27-1	Estriol	µg/L	-	-	3	0	<0.005	-	13	0	<0.16	-						
53-16-7	Estrone	µg/L	-	-	3	0	<0.001	-	13	3	0.00077	-		✓				
2991-50-6	EtFOSAA	µg/L	-	-	6	0	<0.002	-	16	1	0.0016	-						
64-17-5	Ethanol	µg/L	-	-	3	0	<10000	-	13	0	<10000	-						
563-12-2	Ethion	µg/L	-	-	3	0	<1	-	19	0	<1	-						
97-63-2	Ethyl Methacrylate	µg/L	-	-	4	0	<5	-	20	0	<5	-						
637-92-3	Ethyl tert-butyl ether	µg/L	-	-	201	0	<3	-	473	0	<2	-						
100-41-4	Ethylbenzene	µg/L	300	-	201	0	<0.5	-	475	0	<1	-			✓			
107-21-1	Ethylene Glycol	µg/L	-	14000	3	0	<10000	-	13	0	<10000	-			✓			
206-44-0	Fluoranthene	µg/L	-	-	6	0	<5	-	38	0	<10	-						
86-73-7	Fluorene	µg/L	-	-	6	0	<5	-	38	0	<10	-						
16984-48-8	Fluoride	µg/L	2000	-	9	9	390	0.20	19	19	370	0.19	✓	✓	✓	✓		
54910-89-3	Fluoxetine	µg/L	-	-	3	2	0.0011	-	13	8	0.0011	-	✓	✓				
944-22-9	Fonofos	µg/L	-	-	3	0	<0.015	-	13	0	<0.035	-						
50-00-0	Formaldehyde	µg/L	-	100	3	0	<2	-	14	1	0.89	0.01			✓			

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1222-05-5	Galaxolide (HHCB)	µg/L	-	-	3	3	0.16	-	13	12	0.057	-	✓	✓				
58-89-9	gamma-BHC	µg/L	0.2	-	18	0	<1	-	38	0	<1	-			✓			
5566-34-7	gamma-Chlordane	µg/L	-	-	3	0	<1	-	19	0	<1	-						
8032-32-4	Gasoline Range Organics	µg/L	-	-	3	2	160	-	13	11	860	-	✓	✓				
25812-30-0	Gemfibrozil	µg/L	-	-	3	1	0.000098	-	13	2	0.00012	-	✓					
107-22-2	Glyoxal	µg/L	-	-	3	0	<2	-	14	0	<2	-						
1071-83-6	Glyphosate	µg/L	700	-	15	0	<25	-	19	2	2.2	0.00			✓			
12587-46-1	Gross Alpha	pci/L	15	-	7	6	11	0.73	19	19	7.94	0.53	✓	✓	✓	✓	✓	
12587-47-2	Gross Beta	pci/L	-	-	3	3	8.1	-	19	19	12	-	✓	✓				
HAA5	HAA5, Total	µg/L	60	-	3	0	<1	-	19	0	<1	-			✓			
Hardt-1	Hardness, total as CaCO3	µg/L	-	-	12	12	834000	-	30	30	775000	-	✓	✓				
76-44-8	Heptachlor	µg/L	0.01	-	12	0	<1	-	38	0	<1	-			✓			
1024-57-3	Heptachlor Epoxide	µg/L	0.01	-	14	0	<1	-	38	0	<1	-			✓			
111-71-7	Heptanal	µg/L	-	-	3	0	<2	-	14	0	<2	-						
118-74-1	Hexachlorobenzene	µg/L	1	-	17	0	<1	-	57	3	0.09	0.09		✓	✓	✓		
87-68-3	Hexachlorobutadiene	µg/L	-	-	37	0	<1	-	494	0	<10	-						
77-47-4	Hexachlorocyclopentadiene	µg/L	50	-	17	0	<10	-	57	0	<50	-			✓			
67-72-1	Hexachloroethane	µg/L	-	-	3	0	<1	-	19	0	<10	-						
66-25-1	Hexanal	µg/L	-	-	3	0	<2	-	14	0	<2	-						
13252-13-6	HFPO-DA	µg/L	-	-	6	0	<0.002	-	16	0	<0.002	-						
2691-41-0	HMX	µg/L	-	350	3	0	<5	-	13	0	<5	-			✓			
302-01-2	Hydrazine	µg/L	-	-	3	0	<1	-	13	0	<1	-						
15687-27-1	Ibuprofen	µg/L	-	-	3	1	0.0013	-	13	9	0.0068	-	✓	✓				
193-39-5	Indeno[1,2,3-cd]pyrene	µg/L	-	-	6	0	<5	-	38	0	<20	-						
20461-54-5	Iodide	µg/L	-	-	3	3	34	-	13	11	76	-	✓	✓				
74-88-4	Iodomethane	µg/L	-	-	4	0	<0.5	-	20	0	<0.5	-						
73334-07-3	Iopromide	µg/L	-	-	3	0	<0.006	-	13	0	<0.08	-						
7439-89-6	Iron	µg/L	-	-	13	9	3200	-	35	26	6600	-	✓	✓				
78-59-1	Isophorone	µg/L	-	-	3	0	<1	-	19	0	<10	-						
67-63-0	Isopropyl Alcohol	µg/L	-	-	3	0	<10000	-	13	0	<10000	-						
98-82-8	Isopropylbenzene	µg/L	-	770	34	0	<0.5	-	475	0	<1	-			✓			
7439-92-1	Lead	µg/L	15	-	12	6	4	0.27	32	14	1.2	0.08	✓	✓	✓	✓		
330-55-2	Linuron	µg/L	-	-	3	0	<1	-	13	0	<1	-						
7439-93-2	Lithium	µg/L	-	-	6	0	<10	-	26	2	25	-						
179601-23-1	m,p-Xylene	µg/L	-	-	201	0	<0.5	-	19	0	<0.5	-						
7439-95-4	Magnesium	µg/L	-	-	12	12	91500	-	32	32	102000	-	✓	✓				
7439-96-5	Manganese	µg/L	-	500	13	13	67	0.13	38	38	340	0.68	✓	✓	✓	✓	✓	
2355-31-9	MeFOSAA	µg/L	-	-	6	0	<0.002	-	16	1	0.0013	-						
57-53-4	Meprobamate	µg/L	-	-	3	0	<0.001	-	13	1	0.0022	-						
7439-97-6	Mercury	µg/L	2	-	12	4	0.023	0.01	38	12	0.025	0.01	✓	✓	✓			
126-98-7	Methacrylonitrile	µg/L	-	-	4	0	<0.5	-	20	0	<0.5	-						
76-99-3	Methadone	µg/L	-	-	3	1	0.00016	-	13	5	0.00024	-	✓	✓				
67-56-1	Methanol	µg/L	-	-	3	0	<10000	-	13	0	<10000	-						
2032-65-7	Methiocarb	µg/L	-	-	5	0	<10	-	19	0	<2	-						
16752-77-5	Methomyl	µg/L	-	-	5	0	<10	-	19	0	<2	-						

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72-43-5	Methoxychlor	µg/L	30	-	18	0	<10	-	38	0	<2	-			✓			
78-98-8	Methyl Glyoxal	µg/L	-	-	3	0	<2	-	14	0	<2	-						
80-62-6	Methyl Methacrylate	µg/L	-	-	4	0	<0.5	-	20	2	0.13	-						
1634-04-4	Methyl tert-butyl ether (MTBE)	µg/L	13	-	200	0	<3	-	475	18	67	5.15		✓	✓	✓	✓	✓
MBAS	Methylene blue active substances (MBAS)	µg/L	-	-	9	5	100	-	19	12	83	-	✓	✓				
75-09-2	Methylene Chloride	µg/L	5	-	201	0	<0.5	-	475	6	2	0.40		✓	✓	✓		
51218-45-2	Metolachlor	µg/L	-	-	5	0	<1	-	19	0	<1	-						
171118-09-5	Metolachlor ESA	µg/L	-	-	3	0	<0.01	-	13	0	<0.01	-						
152019-73-3	Metolachlor OA	µg/L	-	-	3	1	0.0039	-	13	0	<0.01	-	✓					
21087-64-9	Metribuzin	µg/L	-	-	5	0	<1	-	19	1	0.079	-						
2385-85-5	Mirex	µg/L	-	-	3	0	<0.1	-	18	0	<0.1	-						
2212-67-1	Molinate	µg/L	20	-	11	0	<2	-	19	0	<1	-			✓			
7439-98-7	Molybdenum	µg/L	-	-	10	10	9.8	-	26	26	60	-	✓	✓				
79-08-3	Monobromoacetic acid	µg/L	-	-	3	0	<1	-	19	0	<1	-						
10599-90-3	Monochloramine	µg/L	-	-	3	3	6	-	13	13	100	-	✓	✓				
60-34-4	Monomethylhydrazine	µg/L	-	-	3	0	<2	-	13	0	<2	-						
57-27-2	Morphine	µg/L	-	-	3	1	0.00058	-	13	10	0.0018	-	✓	✓				
91-20-3	Naphthalene	µg/L	-	17	40	0	<5	-	513	0	<10	-			✓			
22204-53-1	Naproxen	µg/L	-	-	3	1	0.0011	-	13	2	0.0029	-	✓					
104-51-8	n-Butylbenzene	µg/L	-	260	34	0	<0.5	-	475	0	<1	-			✓			
7440-02-0	Nickel	µg/L	100	-	12	6	4.1	0.04	38	38	200	2.00	✓	✓	✓	✓	✓	
14797-55-8	Nitrate as N	µg/L	10000	-	45	45	7400	0.74	21	17	16000	1.60	✓	✓	✓	✓	✓	
NN	Nitrate plus nitrite as N	µg/L	10000	-	7	7	5800	0.58	21	17	16000	1.60	✓	✓	✓	✓	✓	
14797-65-0	Nitrite as N	µg/L	1000	-	9	0	<100	-	21	10	160	0.16		✓	✓	✓		
98-95-3	Nitrobenzene	µg/L	-	-	10	0	<10	-	52	0	<10	-						
55-18-5	n-Nitrosodiethylamine	µg/L	-	0.01	3	1	0.0015	0.15	19	1	0.0011	0.11	✓		✓	✓		
62-75-9	N-Nitrosodimethylamine	µg/L	-	0.01	6	0	<1	-	38	1	0.0018	0.18			✓			
924-16-3	n-Nitrosodi-n-butylamine	µg/L	-	-	3	0	<0.002	-	19	0	<0.002	-						
621-64-7	n-Nitrosodi-n-propylamine	µg/L	-	0.01	6	0	<1	-	38	0	<10	-			✓			
86-30-6	n-Nitrosodiphenylamine	µg/L	-	-	3	0	<1	-	19	0	<10	-						
10595-95-6	N-Nitrosomethylethylamine	µg/L	-	-	3	0	<0.002	-	19	0	<0.002	-						
59-89-2	n-Nitrosomorpholine	µg/L	-	-	3	2	0.039	-	19	11	0.035	-	✓	✓				
100-75-4	n-Nitrosopiperidine	µg/L	-	-	3	0	<0.002	-	19	0	<0.002	-						
930-55-2	n-Nitrosopyrrolidine	µg/L	-	-	3	0	<0.002	-	19	0	<0.002	-						
25154-52-3	Nonylphenol	µg/L	-	-	3	1	0.016	-	13	4	4.4	-	✓	✓				
20427-84-3	Nonylphenol diethoxylate	µg/L	-	-	3	1	0.05	-	13	3	3.2	-	✓	✓				
27986-36-3	Nonylphenol monoethoxylate	µg/L	-	-	3	1	0.011	-	13	9	2.3	-	✓	✓				
103-65-1	n-Propylbenzene	µg/L	-	260	34	0	<0.5	-	475	0	<1	-			✓			
136777-61-2	o&p-Xylene	µg/L	-	-	0	0	-	-	456	0	<1	-						
111-66-0	Octene-1	µg/L	-	-	0	0	-	-	1	1	25	-						
OILGREASE	Oil & Grease (HEM)	µg/L	-	-	3	2	3100	-	13	2	1500	-	✓					
14265-44-2	o-Phosphate as P	µg/L	-	-	3	3	150	-	13	13	150	-	✓	✓				
23135-22-0	Oxamyl	µg/L	50	-	15	0	<20	-	19	0	<2	-			✓			
131-57-7	Oxybenzone	µg/L	-	-	3	3	0.032	-	13	11	0.029	-	✓	✓				

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95-47-6	o-Xylene	µg/L	-	-	201	0	<0.5	-	475	1	0.31	-						
4685-14-7	Paraquat	µg/L	-	-	3	0	<13	-	19	0	<32	-						
189084-64-8	PBDE-100	µg/L	-	-	3	0	<0.005	-	13	0	<0.05	-						
182677-30-1	PBDE-138	µg/L	-	-	3	0	<0.005	-	13	0	<0.05	-						
68631-49-2	PBDE-153	µg/L	-	-	3	0	<0.005	-	13	0	<0.05	-						
207122-15-4	PBDE-154	µg/L	-	-	3	0	<0.005	-	13	0	<0.05	-						
147217-75-2	PBDE-17	µg/L	-	-	3	0	<0.005	-	13	0	<0.05	-						
41318-75-6	PBDE-28	µg/L	-	-	3	0	<0.005	-	13	0	<0.05	-						
5436-43-1	PBDE-47	µg/L	-	-	3	0	<0.005	-	13	0	<0.05	-						
243982-82-3	PBDE-49	µg/L	-	-	3	0	<0.005	-	13	0	<0.05	-						
182346-21-0	PBDE-85	µg/L	-	-	3	0	<0.005	-	13	0	<0.05	-						
60348-60-9	PBDE-99	µg/L	-	-	3	0	<0.005	-	13	0	<0.05	-						
76-01-7	Pentachloroethane	µg/L	-	-	4	0	<5	-	20	0	<5	-						
82-68-8	Pentachloronitrobenzene	µg/L	-	-	3	0	<1	-	19	0	<1	-						
87-86-5	Pentachlorophenol	µg/L	1	-	21	0	<10	-	57	2	0.53	0.53			✓			
110-62-3	Pentanal	µg/L	-	-	3	0	<2	-	14	0	<2	-						
14797-73-0	Perchlorate	µg/L	6	-	9	1	1.6	0.27	19	8	6.7	1.12	✓	✓	✓	✓	✓	
375-73-5	PFBS	µg/L	-	0.5	8	6	0.0051	0.01	16	11	0.0058	0.01	✓	✓	✓			
335-76-2	PFDA	µg/L	-	-	8	2	0.0017	-	16	6	0.0062	-	✓	✓				
307-55-1	PFDoA	µg/L	-	-	8	2	0.0017	-	16	5	0.0018	-	✓	✓				
375-85-9	PFHpA	µg/L	-	-	8	8	0.0027	-	16	16	0.0055	-	✓	✓				
307-24-4	PFHxA	µg/L	-	-	8	6	0.012	-	16	14	0.013	-	✓	✓				
355-46-4	PFHxS	µg/L	-	-	8	6	0.0048	-	16	11	0.0065	-	✓	✓				
375-95-1	PFNA	µg/L	-	-	8	3	0.0017	-	16	4	0.0047	-	✓	✓				
335-67-1	PFOA	µg/L	-	0.005	8	6	0.0029	0.57	16	11	0.0033	0.65	✓	✓	✓	✓	✓	✓
1763-23-1	PFOS	µg/L	-	0.007	8	2	0.0017	0.26	16	1	0.0042	0.65	✓		✓	✓	✓	
376-06-7	PFTeDA	µg/L	-	-	6	0	<0.002	-	16	0	<0.002	-						
72629-94-8	PFTrDA	µg/L	-	-	8	2	0.0017	-	16	1	0.00041	-	✓					
2058-94-8	PFUnA	µg/L	-	-	8	2	0.0017	-	16	8	0.0031	-	✓	✓				
TPHd	PHC AS DIESEL FUEL	µg/L	-	-	0	0	-	-	3	1	100	-						
85-01-8	Phenanthrene	µg/L	-	-	6	0	<5	-	38	0	<10	-						
108-95-2	Phenol	µg/L	-	-	3	0	<1	-	19	1	1.2	-						
57-41-0	Phenytoin (Dilantin)	µg/L	-	-	3	0	<0.06	-	13	0	<0.005	-						
7723-14-0	Phosphorus	µg/L	-	-	3	3	620	-	13	13	730	-	✓	✓				
85-44-9	Phthalic Anhydride	µg/L	-	-	0	0	-	-	5	5	15	-		✓				
1918-02-1	Picloram	µg/L	500	-	11	0	<1	-	19	0	<0.6	-			✓			
99-87-6	p-Isopropyltoluene	µg/L	-	-	34	28	0.5	-	475	0	<1	-	✓					
7440-09-7	Potassium	µg/L	-	-	12	12	3900	-	32	32	12000	-	✓	✓				
55268-74-1	Praziquantel	µg/L	-	-	3	0	<0.001	-	13	1	0.0066	-						
125-33-7	Primidone	µg/L	-	-	3	2	0.0034	-	13	4	0.003	-	✓	✓				
57-83-0	Progesterone	µg/L	-	-	3	0	<0.001	-	13	1	0.00033	-						
1610-18-0	Prometon	µg/L	-	-	5	0	<1	-	19	0	<1	-						
7287-19-6	Prometryn	µg/L	-	-	5	0	<2	-	19	0	<1	-						
1918-16-7	Propachlor (2-Chloro-n-(1-Methylethy)-n-phenylac	µg/L	-	90	8	0	<2	-	38	0	<2.5	-			✓			

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123-38-6	Propanal	µg/L	-	-	3	0	<2	-	14	2	1.4	-						
114-26-1	Propoxur (Baygon)	µg/L	-	-	5	0	<10	-	19	0	<2	-						
129-00-0	Pyrene	µg/L	-	-	6	0	<5	-	38	0	<10	-						
110-86-1	Pyridine	µg/L	-	-	3	0	<5	-	19	0	<50	-						
91-22-5	Quinoline	µg/L	-	-	3	0	<0.002	-	13	10	0.006	-		✓				
13982-63-3	Radium 226	pci/L	-	-	6	3	0.643	-	19	19	0.523	-	✓	✓				
15262-20-1	Radium 228	pci/L	-	-	6	3	0.683	-	19	19	0.998	-	✓	✓				
121-82-4	RDX	µg/L	-	0.3	3	0	<5	-	13	0	<5	-			✓			
69-72-7	Salicylic Acid	µg/L	-	-	3	3	1	-	13	13	0.74	-	✓	✓				
135-98-8	sec-Butylbenzene	µg/L	-	260	34	0	<0.5	-	475	0	<1	-			✓			
7782-49-2	Selenium	µg/L	50	-	12	10	4.6	0.09	38	34	9	0.18	✓	✓	✓	✓		
7631-86-9	Silica	µg/L	-	-	9	9	50000	-	26	26	44000	-	✓	✓				
7440-22-4	Silver	µg/L	-	-	12	0	<0.2	-	38	0	<0.2	-						
122-34-9	Simazine	µg/L	4	-	15	0	<1	-	19	0	<1	-			✓			
7440-23-5	Sodium	µg/L	-	-	12	12	96000	-	32	32	120000	-	✓	✓				
10098-97-2	Strontium-90	pci/L	8	-	3	3	0.255	0.03	19	19	0.461	0.06	✓	✓	✓	✓		
100-42-5	Styrene	µg/L	100	-	34	0	<0.5	-	475	0	<1	-			✓			
56038-13-2	Sucralose	µg/L	-	-	3	2	0.34	-	13	1	0.0086	-	✓					
723-46-6	Sulfamethoxazole	µg/L	-	-	3	2	0.00026	-	13	1	0.00027	-	✓					
14808-79-8	Sulfate as SO4	µg/L	-	-	9	9	346000	-	24	24	1600000	-	✓	✓				
18496-25-8	Sulfide	µg/L	-	-	3	0	<100	-	13	0	<100	-						
115-96-8	TCEP	µg/L	-	-	3	1	0.00054	-	13	3	0.002	-	✓	✓				
13674-84-5	TCPP	µg/L	-	-	3	2	0.041	-	13	11	0.008	-	✓	✓				
13674-87-8	TDCPP	µg/L	-	-	3	2	0.0034	-	13	11	0.0041	-	✓	✓				
TIC	Tentatively Identified Compounds	µg/L	-	-	9	3	9.7	-	60	35	43	-	✓	✓				
5902-51-2	Terbacil	µg/L	-	-	5	0	<20	-	19	0	<20	-						
13071-79-9	Terbufos	µg/L	-	-	3	0	<0.03	-	13	0	<0.03	-						
98-06-6	tert-Butylbenzene	µg/L	-	260	34	0	<0.5	-	475	0	<1	-			✓			
994-05-8	Tertiary-amyl methyl ether	µg/L	-	-	197	0	<3	-	454	0	<1	-						
75-65-0	Tertiary-butyl alcohol	µg/L	-	12	103	0	<2	-	467	1	8.1	0.68			✓			
58-22-0	Testosterone	µg/L	-	-	3	0	<0.001	-	13	3	0.00034	-		✓				
127-18-4	Tetrachloroethene	µg/L	5	-	207	205	54	10.80	476	288	470	94.00	✓	✓	✓	✓	✓	✓
109-99-9	Tetrahydrofuran	µg/L	-	-	4	0	<5	-	20	0	<5	-						
479-45-8	Tetryl	µg/L	-	-	3	0	<5	-	13	0	<5	-						
7440-28-0	Thallium	µg/L	2	-	12	1	0.033	0.02	38	5	0.05	0.03	✓	✓	✓			
28249-77-6	Thiobencarb	µg/L	70	-	15	0	<1	-	19	0	<1	-			✓			
7440-29-1	Thorium	µg/L	-	-	6	2	0.42	-	26	10	0.75	-	✓	✓				
ODOR	Threshold Odor Number	Units	-	-	9	3	100	-	19	19	800	-	✓	✓				
108-88-3	Toluene	µg/L	150	-	199	1	0.6	0.00	475	11	1.6	0.01	✓	✓	✓			
TDS	Total Dissolved Solids	µg/L	-	-	9	9	1232000	-	24	24	1970000	-	✓	✓				
TOC	Total Organic Carbon	µg/L	-	-	3	3	1400	-	13	13	21000	-	✓	✓				
1336-36-3	Total PCBs	µg/L	0.5	-	11	0	<0.5	-	19	0	<25	-			✓			
TSuS	Total Suspended Solids	µg/L	-	-	3	3	54000	-	13	13	150000	-	✓	✓				
THM	Total Trihalomethanes	µg/L	80	-	34	33	4.8	0.06	19	13	18	0.23	✓	✓	✓	✓		
1330-20-7	Total Xylenes	µg/L	1750	-	34	0	<0.5	-	19	0	<0.5	-			✓			

CASRN	Parameter	Units	MCL	NL	Production Wells				Monitoring Wells				Meets COPC Screening Criteria*					
													Initial				*Secondary*	
					Number of Observations	Number of Detections	Maximum Observed Value	Ratio of Maximum to MCL or NL	Number of Observations	Number of Detections	Maximum Observed Value	Ratio of Maximum to MCL or NL	1	2	3	4	5	6
8001-35-2	Toxaphene	µg/L	3	-	15	0	<1	-	19	0	<50	-			✓			
TPHg	TPHg	µg/L	-	-	0	0	-	-	45	0	<50	-						
156-60-5	trans-1,2-Dichloroethene	µg/L	10	-	201	0	<0.5	-	475	8	15	1.50		✓	✓	✓	✓	✓
10061-02-6	trans-1,3-Dichloropropene	µg/L	-	-	34	0	<0.5	-	475	0	<1	-						
110-57-6	trans-1,4-Dichloro-2-butene	µg/L	-	-	4	0	<0.5	-	20	0	<0.5	-						
24017-47-8	Triazofos	µg/L	-	-	4	0	<2	-	19	0	<2	-						
75-96-7	Tribromoacetic acid	µg/L	-	-	0	0	-	-	6	0	<2	-						
76-03-9	Trichloroacetic acid	µg/L	-	-	3	0	<1	-	19	1	0.87	-						
79-01-6	Trichloroethene	µg/L	5	-	205	200	63.2	12.64	475	227	370	74.00	✓	✓	✓	✓	✓	✓
75-69-4	Trichlorofluoromethane	µg/L	150	-	34	0	<5	-	475	4	1.6	0.01		✓	✓			
3380-34-5	Triclosan	µg/L	-	-	3	1	0.0093	-	13	0	<0.002	-	✓					
1582-09-8	Trifluralin	µg/L	-	-	8	0	<1	-	38	0	<1	-						
738-70-5	Trimethoprim	µg/L	-	-	3	2	0.00054	-	13	2	0.00048	-	✓					
786-19-6	Trithion	µg/L	-	-	3	0	<1	-	19	0	<1	-						
10028-17-8	Tritium	pci/L	20000	-	3	3	57.5	0.00	19	19	70	0.00	✓	✓	✓			
TURB	Turbidity	NTU	-	-	9	9	48	-	19	19	38	-	✓	✓				
7440-61-1	Uranium Rad	pci/L	20	-	7	7	14	0.70	19	19	14	0.70	✓	✓	✓	✓	✓	
7440-62-2	Vanadium	µg/L	-	50	10	10	14	0.28	26	25	11	0.22	✓	✓	✓	✓		
108-05-4	Vinyl Acetate	µg/L	-	-	4	0	<5	-	20	0	<5	-						
75-01-4	Vinyl Chloride	µg/L	0.5	-	34	0	<0.5	-	475	12	32	64.00		✓	✓	✓	✓	✓
7440-66-6	Zinc	µg/L	-	-	12	6	110	-	38	32	23	-	✓	✓				

Notes:

CASRN = Chemical Abstracts Service Registry Number (as applicable); µg/L = micrograms per liter; ng/L = nanograms per liter; pci/L = picocuries per liter; MFL = million fibers per liter; MPN/100mL= most probable number per 100 milliliters; NTU = nephelometric turbidity units; '-' = not applicable.

**Initial and Secondary COPC screening criteria are described in Section 5 of the report, as follows:*

Initial screening criteria:

1. *Constituents that were detected in the four production wells (SM-3, SM-4, SM-8, or SM-9);*
2. *Constituents that were non-detect in the four production wells, but had three or more detections in one or more monitoring wells;*
3. *Detected constituents with a primary maximum contaminant level (MCL) or notification level (NL); and,*
4. *Constituents meeting screening criteria 1 or 2 and screening criteria 3 with a ratio of detected concentration (maximum observed) to MCL or NL greater than 0.05 (5%).*

Secondary screening criteria:

5. *Constituents meeting initial screening criteria with a ratio of detected concentration (maximum observed) to MCL or NL greater than 0.5 (50%); and,*
6. *Constituents meeting initial screening criteria and screening criteria 5 which are synthetic organics (these constituents are most likely to drive design for the planned treatment system using ultraviolet/advanced oxidation process and granular activated carbon).*

Appendix C
Tentatively Identified Compound (TIC) Results

Well ID	Modeled Capture Zone	Sampling Date	Analytical Method	CASRN	Chemical Name	Result	Units	Comments
SM-9	SM-9	2020-05-27	E625.1	7642-04-8	2-Octene, (Z)-	34	µg/L	tic_retention_time 1.582, 2-Octene, (Z)-
SM-9	SM-9	2020-05-27	E625.1	TIC	Tentatively Identified Compounds	9.7	µg/L	Unknown #1 (possible alkane MW=140)
SM-9	SM-9	2020-05-27	E625.1	TIC	Tentatively Identified Compounds	8.8	µg/L	Unknown #2 (possible alkane MW=158)
SM-9	SM-9	2020-05-27	E525.2	TIC	Tentatively Identified Compounds	2.8	µg/L	Unknown #1 (possible ester MW=368)
SM-9	SM-9	2020-05-27	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
SM-9	SM-9	2020-05-27	E625.1	127-18-4	Tetrachloroethene	12	µg/L	Tetrachloroethene
SM-8	SM-8	2020-06-09	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
SM-8	SM-8	2020-06-09	E525.2	TIC	Tentatively Identified Compounds	0	µg/L	--
SM-8	SM-8	2020-06-09	E625.1	TIC	Tentatively Identified Compounds	0	µg/L	--
SM-4	SM-4	2020-06-30	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
SM-4	SM-4	2020-06-30	E525.2	TIC	Tentatively Identified Compounds	0	µg/L	--
SM-4	SM-4	2020-06-30	E625.1	127-18-4	Tetrachloroethene	13	µg/L	Tetrachloroethene
OB-7	SM-4	2020-06-03	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-7	SM-4	2020-06-03	E525.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-7	SM-4	2020-06-03	E625.1	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-5	SM-4	2020-06-05	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-5	SM-4	2020-06-05	E525.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-5	SM-4	2020-06-05	E625.1	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-3	SM-8	2020-06-03	E525.2	934-34-9	2(3H)-Benzothiazolone	1.4	µg/L	tic_retention_time 7.991, 2(3H)-Benzothiazolone
OB-3	SM-8	2020-06-03	E625.1	95-16-9	Benzothiazole	8.5	µg/L	tic_retention_time 7.452, Benzothiazole
OB-3	SM-8	2020-06-03	E525.2	95-16-9	Benzothiazole	4	µg/L	tic_retention_time 5.122, Benzothiazole
OB-3	SM-8	2020-06-03	E525.2	1122-82-3	Cyclohexane, isothiocyanato-	1	µg/L	tic_retention_time 5.172, Cyclohexane, isothiocyanato-
OB-3	SM-8	2020-06-03	E525.2	85-44-9	Phthalic Anhydride	15	µg/L	tic_retention_time 5.726, Phthalic Anhydride
OB-3	SM-8	2020-06-03	E525.2	TIC	Tentatively Identified Compounds	26	µg/L	Unknown #8 (possible ketone MW=250); tic_retention_time 10.336
OB-3	SM-8	2020-06-03	E525.2	TIC	Tentatively Identified Compounds	20	µg/L	Unknown #4 (possible alcohol MW=178); tic_retention_time 9.591
OB-3	SM-8	2020-06-03	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-3	SM-8	2020-06-03	E525.2	TIC	Tentatively Identified Compounds	9.8	µg/L	Unknown #6 (possible amide MW=205); tic_retention_time 9.863
OB-3	SM-8	2020-06-03	E525.2	TIC	Tentatively Identified Compounds	6.7	µg/L	Unknown #9 (possible ketone MW=262); tic_retention_time 11.293
OB-3	SM-8	2020-06-03	E525.2	TIC	Tentatively Identified Compounds	3.3	µg/L	Unknown #5 (possible aldehyde MW=234); tic_retention_time 9.722
OB-3	SM-8	2020-06-03	E525.2	TIC	Tentatively Identified Compounds	1.9	µg/L	Unknown #1 (possible nitrile MW=191); tic_retention_time 8.816
OB-3	SM-8	2020-06-03	E525.2	TIC	Tentatively Identified Compounds	1.5	µg/L	Unknown #2 (possible hydrazone MW=100); tic_retention_time 9.018
OB-3	SM-8	2020-06-03	E525.2	TIC	Tentatively Identified Compounds	1.2	µg/L	Unknown #3 (possible PAH MW=234); tic_retention_time 9.279
OB-3	SM-8	2020-06-03	E525.2	TIC	Tentatively Identified Compounds	1	µg/L	Unknown #7 (possible alcohol MW=164); tic_retention_time 10.075
OB-2	SM-8	2020-06-04	E525.2	85-44-9	Phthalic Anhydride	2.2	µg/L	tic_retention_time 5.716, Phthalic Anhydride
OB-2	SM-8	2020-06-04	E625.1	TIC	Tentatively Identified Compounds	43	µg/L	Unknown #1 (possible alcohol MW=130); tic_retention_time 5.587
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	18	µg/L	Unknown #2 (possible alcohol MW=144); tic_retention_time 6.129
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	15	µg/L	Unknown #15 (possible alkene MW=262); tic_retention_time 10.658
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	13	µg/L	Unknown #12 (possible alkane MW=248); tic_retention_time 9.863

Well ID	Modeled Capture Zone	Sampling Date	Analytical Method	CASRN	Chemical Name	Result	Units	Comments
OB-2	SM-8	2020-06-04	E625.1	TIC	Tentatively Identified Compounds	13	µg/L	Unknown #3 (possible diazine MW=205); tic_retention_time 12.42
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	11	µg/L	Unknown #6 (possible PAH MW=188); tic_retention_time 8.474
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	8.4	µg/L	Unknown #11 (possible phenol MW=178); tic_retention_time 9.581
OB-2	SM-8	2020-06-04	E625.1	TIC	Tentatively Identified Compounds	8.1	µg/L	Unknown #2 (possible alkane MW=126); tic_retention_time 11.444
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	6.3	µg/L	Unknown #13 (possible amine MW=212); tic_retention_time 10.175
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	5.8	µg/L	Unknown #8 (possible amine MW=129); tic_retention_time 9.007
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	5.2	µg/L	Unknown #7 (possible ether MW=148); tic_retention_time 8.967
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	4.8	µg/L	Unknown #1 (possible carboxylic acid MW=242); tic_retention_time 5.676
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	4.1	µg/L	Unknown #4 (possible carboxylic acid MW=284); tic_retention_time 7.719
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	4	µg/L	Unknown #16 (possible ketone MW=260); tic_retention_time 11.222
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	2.9	µg/L	Unknown #14 (possible pyridine MW=180); tic_retention_time 10.568
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	2	µg/L	Unknown #9 (possible carboxylic acid MW=234); tic_retention_time 9.209
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	1.8	µg/L	Unknown #10 (possible phenol MW=164); tic_retention_time 9.279
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	1.8	µg/L	Unknown #5 (possible amide MW=175); tic_retention_time 8.293
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	1.8	µg/L	Unknown #17 (possible azole MW=178); tic_retention_time 11.363
OB-2	SM-8	2020-06-04	E525.2	TIC	Tentatively Identified Compounds	1.7	µg/L	Unknown #3 (possible carboxylic acid MW=268); tic_retention_time 6.35
OB-2	SM-8	2020-06-04	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-17C	SM-4	2020-05-27	E525.2	TIC	Tentatively Identified Compounds	4.6	µg/L	Unknown #2 (possible ketone MW=140); tic_retention_time 10.668
OB-17C	SM-4	2020-05-27	E525.2	TIC	Tentatively Identified Compounds	1.5	µg/L	Unknown #1 (possible alkyne MW=160); tic_retention_time 8.816
OB-17C	SM-4	2020-05-27	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-17C	SM-4	2020-05-27	E625.1	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-17B	SM-4	2020-05-27	E625.1	7642-04-8	2-Octene, (Z)-	30	µg/L	tic_retention_time 1.588, 2-Octene, (Z)-
OB-17B	SM-4	2020-05-27	E525.2	85-44-9	Phthalic Anhydride	1.3	µg/L	tic_retention_time 5.766, Phthalic Anhydride
OB-17B	SM-4	2020-05-27	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-14C	SM-9	2020-06-02	E625.1	7642-04-8	2-Octene, (Z)-	27	µg/L	tic_retention_time 1.582. 2-Octene, (Z)-
OB-14C	SM-9	2020-06-02	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-14C	SM-9	2020-06-02	E525.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-14B	SM-9	2020-06-02	E625.1	7642-04-8	2-Octene, (Z)-	250	µg/L	tic_retention_time 1.582. 2-Octene, (Z)-
OB-14B	SM-9	2020-06-02	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-14B	SM-9	2020-06-02	E525.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-13C	SM-9	2020-05-29	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-13C	SM-9	2020-05-29	E525.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-13C	SM-9	2020-05-29	E625.1	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-12C	SM-4	2020-05-26	E525.2	85-44-9	Phthalic Anhydride	4.6	µg/L	00:05:46, Phthalic Anhydride
OB-12C	SM-4	2020-05-26	E525.2	TIC	Tentatively Identified Compounds	6.7	µg/L	00:10:41
OB-12C	SM-4	2020-05-26	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-12C	SM-4	2020-05-26	E625.1	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-12B	SM-4	2020-05-26	E625.1	7642-04-8	2-Octene, (Z)-	26	µg/L	00:01:35, 2-Octene, (Z)-

Well ID	Modeled Capture Zone	Sampling Date	Analytical Method	CASRN	Chemical Name	Result	Units	Comments
OB-12B	SM-4	2020-05-26	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-12B	SM-4	2020-05-26	E525.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-11C	SM-4	2020-05-28	E625.1	111-66-0	Octene-1	25	µg/L	tic_retention time 1.575, Octene-1
OB-11C	SM-4	2020-05-28	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-11C	SM-4	2020-05-28	E525.2	TIC	Tentatively Identified Compounds	0	µg/L	--
OB-11C	SM-4	2020-05-28	E625.1	127-18-4	Tetrachloroethene	55	µg/L	tic_retention time 1.699, Tetrachloroethene
OB-11B	SM-4	2020-05-28	E625.1	7642-04-8	2-Octene, (Z)-	30	µg/L	tic_retention time 1.576, 2-Octene, (Z)-
OB-11B	SM-4	2020-05-28	E525.2	85-44-9	Phthalic Anhydride	8.3	µg/L	tic_retention time 5.776, Phthalic Anhydride
OB-11B	SM-4	2020-05-28	E525.2	TIC	Tentatively Identified Compounds	2.4	µg/L	possible ester MW=274; tic_retention time 7.84
OB-11B	SM-4	2020-05-28	E525.2	TIC	Tentatively Identified Compounds	1.4	µg/L	possible nitrile MW=191; tic_retention time 8.857
OB-11B	SM-4	2020-05-28	E525.2	TIC	Tentatively Identified Compounds	1.4	µg/L	possible diazine MW=205; tic_retention time 9.893
OB-11B	SM-4	2020-05-28	E524.2	TIC	Tentatively Identified Compounds	0	µg/L	--

Notes:

CASRN = Chemical Abstracts Service Registry Number (as applicable); µg/L = micrograms per liter; '--' = not applicable.

Appendix D
Microbiological Quality Data

Well ID	Modeled Capture Zone	Sampling Date	Method	Chemical Name	Result	Units	RL
SM-4	SM-4	2020-06-30	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
SM-8	SM-8	2020-06-09	A9221E	E.Coli	< 1.1	mpn/100ml	1.1
SM-9	SM-9	2020-05-27	A9215B	E.Coli	< 1.1	mpn/100ml	1.1
OB-11B	SM-4	2020-05-28	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-11C	SM-4	2020-05-28	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-12B	SM-4	2020-05-26	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-12C	SM-4	2020-05-26	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-13C	SM-9	2020-05-29	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-14B	SM-9	2020-06-02	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-14C	SM-9	2020-06-02	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-17B	SM-4	2020-05-27	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-17C	SM-4	2020-05-27	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-2	SM-8	2020-06-04	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-3	SM-8	2020-06-03	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-5	SM-4	2020-06-05	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
OB-7	SM-4	2020-06-03	A9221F	E.Coli	< 1.1	mpn/100ml	1.1
SM-4	SM-4	2020-06-30	A9221B	Fecal coliform	< 1.1	mpn/100ml	1.1
SM-8	SM-8	2020-06-09	A9221F	Fecal coliform	< 1.1	mpn/100ml	1.1
SM-9	SM-9	2020-05-27	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-11B	SM-4	2020-05-28	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-11C	SM-4	2020-05-28	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-12B	SM-4	2020-05-26	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-12C	SM-4	2020-05-26	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-13C	SM-9	2020-05-29	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-14B	SM-9	2020-06-02	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-14C	SM-9	2020-06-02	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-15C	SM-9	2020-06-09	A9221E	Fecal coliform	2.2	mpn/100ml	1.1
OB-17B	SM-4	2020-05-27	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-17C	SM-4	2020-05-27	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-2	SM-8	2020-06-04	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-3	SM-8	2020-06-03	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-5	SM-4	2020-06-05	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-6D	SM-4	2020-06-10	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-6D	SM-4	2020-06-10	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
OB-7	SM-4	2020-06-03	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
SMB1-#4	SM-9	2020-06-11	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
SMB1-#4	SM-9	2020-09-03	A9222D	Fecal coliform	< 2.0	cfu/100ml	2.0
SMB1-B#1	SM-9	2020-06-11	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
SMB1-B#1	SM-9	2020-06-11	A9221E	Fecal coliform	< 1.1	mpn/100ml	1.1
SMB1-B#1	SM-9	2020-09-03	A9222D	Fecal coliform	8.0	cfu/100ml	2.0
SM-4	SM-4	2020-06-30	A9215B	Heterotrophic Plate Count	22	cfu/ml	1.0
SM-8	SM-8	2020-06-09	A9221B	Heterotrophic Plate Count	360	cfu/ml	1.0
SM-9	SM-9	2020-05-27	A9221F	Heterotrophic Plate Count	400	cfu/ml	1.0

Well ID	Modeled Capture Zone	Sampling Date	Method	Chemical Name	Result	Units	RL
OB-11B	SM-4	2020-05-28	A9215B	Heterotrophic Plate Count	230	cfu/ml	1.0
OB-11C	SM-4	2020-05-28	A9215B	Heterotrophic Plate Count	400	cfu/ml	1.0
OB-12B	SM-4	2020-05-26	A9215B	Heterotrophic Plate Count	40	cfu/ml	1.0
OB-12C	SM-4	2020-05-26	A9215B	Heterotrophic Plate Count	< 1.0	cfu/ml	1.0
OB-13C	SM-9	2020-05-29	A9215B	Heterotrophic Plate Count	140	cfu/ml	1.0
OB-14B	SM-9	2020-06-02	A9215B	Heterotrophic Plate Count	220	cfu/ml	1.0
OB-14C	SM-9	2020-06-02	A9215B	Heterotrophic Plate Count	160	cfu/ml	1.0
OB-17B	SM-4	2020-05-27	A9215B	Heterotrophic Plate Count	2.0	cfu/ml	1.0
OB-17C	SM-4	2020-05-27	A9215B	Heterotrophic Plate Count	120	cfu/ml	1.0
OB-2	SM-8	2020-06-04	A9215B	Heterotrophic Plate Count	44	cfu/ml	1.0
OB-3	SM-8	2020-06-03	A9215B	Heterotrophic Plate Count	40	cfu/ml	1.0
OB-5	SM-4	2020-06-05	A9215B	Heterotrophic Plate Count	41	cfu/ml	1.0
OB-7	SM-4	2020-06-03	A9215B	Heterotrophic Plate Count	6.0	cfu/ml	1.0
SM-4	SM-4	2020-06-30	A9221E	Total coliform	6.9	mpn/100ml	1.1
SM-8	SM-8	2020-06-09	A9215B	Total coliform	< 1.1	mpn/100ml	1.1
SM-9	SM-9	2020-05-27	A9221B	Total coliform	2.2	mpn/100ml	1.1
OB-11B	SM-4	2020-05-28	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-11C	SM-4	2020-05-28	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-12B	SM-4	2020-05-26	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-12C	SM-4	2020-05-26	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-13C	SM-9	2020-05-29	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-14B	SM-9	2020-06-02	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-14C	SM-9	2020-06-02	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-15C	SM-9	2020-06-09	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-17B	SM-4	2020-05-27	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-17C	SM-4	2020-05-27	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-2	SM-8	2020-06-04	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-3	SM-8	2020-06-03	A9221B	Total coliform	1.1	mpn/100ml	1.1
OB-5	SM-4	2020-06-05	A9221B	Total coliform	1.1	mpn/100ml	1.1
OB-6D	SM-4	2020-06-10	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-6D	SM-4	2020-06-10	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
OB-7	SM-4	2020-06-03	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
SMB1-#4	SM-9	2020-06-11	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
SMB1-#4	SM-9	2020-09-03	A9222B	Total coliform	30	cfu/100ml	2.0
SMB1-B#1	SM-9	2020-06-11	A9221B	Total coliform	1.1	mpn/100ml	1.1
SMB1-B#1	SM-9	2020-06-11	A9221B	Total coliform	< 1.1	mpn/100ml	1.1
SMB1-B#1	SM-9	2020-09-03	A9222B	Total coliform	110	cfu/100ml	2.0

Notes:

cfu = colony forming units; mpn = most probable number; ml = milliliter; RL = Reporting limit

Appendix E
Statistical Analysis Results and Production Well Concentrations Estimate

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
3567-62-2	1-(3,4-Dichlorophenyl)-3-methylurea [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
2327-02-8	1-(3,4-Dichlorophenyl)urea [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
630-20-6	1,1,1,2-Tetrachloroethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
71-55-6	1,1,1-Trichloroethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
79-34-5	1,1,2,2-Tetrachloroethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
79-00-5	1,1,2-Trichloroethane [µg/L]	B-Zone	ND	-	ND	0.27	ND	ND	ND	-	ND	0.18	ND	ND
		C-Zone	1.6	ND	ND				1.1	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-34-3	1,1-Dichloroethane (1,1-DCA) [µg/L]	B-Zone	0.671	-	0.15	0.27	0.039	0.01	0.517	-	0.15	0.2	0.026	0.01
		C-Zone	0.395	0.897	0.12				0.243	0.603	0.12			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-35-4	1,1-Dichloroethene (1,1-DCE) [µg/L]	B-Zone	2.186	-	2.111	1.1	0.2	0.079	1.545	-	1.691	0.81	0.17	0.071
		C-Zone	1.991	3.943	0.22				1.517	3.303	0.22			
		D-Zone	0.5	0.5	0.5				0.5	0.5	0.5			
		Sunnyside	ND	ND	ND				ND	ND	ND			
563-58-6	1,1-Dichloropropene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
57-14-7	1,1-Dimethylhydrazine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
87-61-6	1,2,3-Trichlorobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
96-18-4	1,2,3-Trichloropropane (1,2,3-TCP) [µg/L]	B-Zone	ND	-	ND	0.037	0.015	0.014	ND	-	ND	0.037	0.015	0.014
		C-Zone	0.0051	0.0156	ND				0.0048	0.012	ND			
		D-Zone	0.19	0.19	0.19				0.19	0.19	0.19			
		Sunnyside	0.0041	0.0041	0.0041				0.0041	0.0041	0.0041			
120-82-1	1,2,4-Trichlorobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
95-63-6	1,2,4-Trimethylbenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
96-12-8	1,2-Dibromo-3-chloropropane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
106-93-4	1,2-Dibromoethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
95-50-1	1,2-Dichlorobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
107-06-2	1,2-Dichloroethane [µg/L]	B-Zone	ND	-	ND	0.083	0.034	0.0085	ND	-	ND	0.083	0.029	0.0085
		C-Zone	0.33	0.59	ND				0.33	0.47	ND			
		D-Zone	0.15	0.15	0.15				0.15	0.15	0.15			
		Sunnyside	ND	ND	ND				ND	ND	ND			
78-87-5	1,2-Dichloropropane [µg/L]	B-Zone	0.16	-	ND	0.048	ND	ND	0.16	-	ND	0.048	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
122-66-7	1,2-Diphenylhydrazine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
108-67-8	1,3,5-Trimethylbenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
99-35-4	1,3,5-Trinitrobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
541-73-1	1,3-Dichlorobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
142-28-9	1,3-Dichloropropane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
542-75-6	1,3-Dichloropropene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
99-65-0	1,3-Dinitrobenzene [µg/L]	B-Zone	ND	-	ND	0.044	ND	ND	ND	-	ND	0.044	ND	ND
		C-Zone	0.26	ND	ND				0.26	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
106-46-7	1,4-Dichlorobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
123-91-1	1,4-Dioxane [µg/L]	B-Zone	102.1	-	117.4	35.4	2.1	2.2	56.3	-	106.6	20.8	1.6	2
		C-Zone	27.83	48.38	1.787				22.7	36.32	2.298			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
763051-92-9	11Cl-PF3OUdS [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
57-91-0	17-a-Estradiol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
57-63-6	17-a-Ethynylestradiol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
50-28-2	17-b-Estradiol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
124-19-6	1-Nonanal [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
934-34-9	2(3H)-Benzothiazolone [µg/L]	B-Zone	NA	-	NA	NA	0.061	NA	NA	-	NA	NA	0.061	NA
		C-Zone	NA	1.4	NA				NA	1.4	NA			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
594-20-7	2,2-Dichloropropane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
93-76-5	2,4,5-T [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
93-72-1	2,4,5-TP (Silvex) [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
95-95-4	2,4,5-Trichlorophenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
88-06-2	2,4,6-Trichlorophenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
118-96-7	2,4,6-Trinitrotoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
94-75-7	2,4-D [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
94-82-6	2,4-DB [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
120-83-2	2,4-Dichlorophenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
105-67-9	2,4-Dimethylphenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
51-28-5	2,4-Dinitrophenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
121-14-2	2,4-Dinitrotoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
606-20-2	2,6-Dinitrotoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
35572-78-2	2-Amino-4,6-Dinitrotoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
78-93-3	2-Butanone [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
110-75-8	2-Chloroethyl Vinyl Ether [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
91-58-7	2-Chloronaphthalene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
95-57-8	2-Chlorophenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
95-49-8	2-Chlorotoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
591-78-6	2-Hexanone [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
91-57-6	2-Methylnaphthalene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
95-48-7	2-Methylphenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
88-74-4	2-Nitroaniline [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
88-75-5	2-Nitrophenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
88-72-2	2-Nitrotoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7642-04-8	2-Octene, (Z)- [µg/L]	B-Zone	30	-	250	9	NA	6	29	-	250	8.6	NA	6
		C-Zone	NA	NA	27				NA	NA	27			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
84989-04-8	3 & 4-Methylphenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
91-94-1	3,3'-Dichlorobenzidine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
95-76-1	3,4-Dichloroaniline [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
51-36-5	3,5-Dichlorobenzoic acid [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
16655-82-6	3-Hydroxycarbofuran [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
99-09-2	3-Nitroaniline [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
99-08-1	3-Nitrotoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
72-54-8	4,4´-DDD [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
72-55-9	4,4´-DDE [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
50-29-3	4,4´-DDT [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
534-52-1	4,6-Dinitro-2-Methyl phenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
19406-51-0	4-Amino-2,6-Dinitrotoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
101-55-3	4-Bromophenyl Phenyl Ether [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
59-50-7	4-Chloro-3-Methylphenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
106-47-8	4-Chloroaniline [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7005-72-3	4-Chlorophenyl Phenyl Ether [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
106-43-4	4-Chlorotoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
108-10-1	4-Methyl-2-pentanone [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
100-01-6	4-Nitroaniline [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
100-02-7	4-Nitrophenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
99-99-0	4-Nitrotoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
104-40-5	4-Nonylphenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1806-26-4	4-Octylphenol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
140-66-9	4-tert-Octylphenol [µg/L]	B-Zone	ND	-	ND	ND	0.00061	ND	ND	-	ND	ND	0.00061	ND
		C-Zone	ND	0.014	ND				ND	0.014	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
2315-61-9	4-tert-Octylphenol diethoxylate [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1173019-48-1	4-tert-Octylphenol monoethoxylate [µg/L]	B-Zone	0.0088	-	ND	0.0027	0.0031	ND	0.0087	-	ND	0.0026	0.0023	ND
		C-Zone	ND	0.072	ND				ND	0.052	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
756426-58-1	9Cl-PF3ONS [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
83-32-9	Acenaphthene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
208-96-8	Acenaphthylene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-07-0	Acetaldehyde [µg/L]	B-Zone	0.48	-	ND	0.21	ND	ND	0.48	-	ND	0.21	ND	ND
		C-Zone	0.37	ND	ND				0.37	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
103-90-2	Acetaminophen [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
34256-82-1	Acetochlor [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
187022-11-3	Acetochlor ESA [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
194992-44-4	Acetochlor OA [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
67-64-1	Acetone [µg/L]	B-Zone	20	-	ND	15	7.3	6.8	7.6	-	ND	10	7.2	6.8
		C-Zone	31	6	ND				24	4.2	ND			
		D-Zone	6.1	6.1	6.1				6	6	6			
		Sunnyside	7.4	7.4	7.4				7.4	7.4	7.4			
75-05-8	Acetonitrile [µg/L]	B-Zone	0.62	-	ND	0.29	0.22	0.21	0.62	-	ND	0.29	0.22	0.21
		C-Zone	0.14	0.13	0.05				0.11	0.093	0.05			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	0.24	0.24	0.24				0.24	0.24	0.24			
50594-66-6	Acifluorfen [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
107-02-8	Acrolein [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
107-13-1	Acrylonitrile [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
958445-44-8	ADONA [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
15972-60-8	Alachlor [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
142363-53-9	Alachlor ESA [µg/L]	B-Zone	ND	-	ND	ND	0.00091	ND	ND	-	ND	ND	0.00091	ND
		C-Zone	ND	0.021	ND				ND	0.021	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
171262-17-2	Alachlor OA [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
116-06-3	Aldicarb [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
1646-88-4	Aldicarb Sulfone [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
1646-87-3	Aldicarb sulfoxide [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
309-00-2	Aldrin [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
ALK	Alkalinity (as CaCO3) [µg/L]	B-Zone	400000	-	430000	310000	230000	240000	370000	-	430000	290000	230000	240000
		C-Zone	380000	250000	360000				330000	230000	340000			
		D-Zone	250000	250000	250000				250000	250000	250000			
		Sunnyside	230000	230000	230000				230000	230000	230000			
ALKC-1	Alkalinity, Carbonate as CaCO3 [µg/L]	B-Zone	ND	-	ND	ND	2700	ND	ND	-	ND	ND	1100	ND
		C-Zone	ND	63000	ND				ND	25000	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
ALKH-1	Alkalinity, Hydroxide as CaCO3 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
107-05-1	Allyl Chloride [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
319-84-6	alpha-BHC [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
5103-71-9	alpha-Chlordane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7429-90-5	Aluminum, Total [µg/L]	B-Zone	17.79	-	2800	15.4	5.2	51.3	10.17	-	2800	8.8	1.5	50.9
		C-Zone	60	120	24				34.43	33.55	15.7			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7664-41-7	Ammonia [µg/L]	B-Zone	33	-	ND	35	52	ND	33	-	ND	29	29	ND
		C-Zone	150	1200	ND				120	680	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
26787-78-0	Amoxicillin [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
62-53-3	Aniline [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
120-12-7	Anthracene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7440-36-0	Antimony [µg/L]	B-Zone	0.11	-	0.13	0.15	0.21	0.21	0.094	-	0.13	0.15	0.21	0.21
		C-Zone	0.091	0.095	0.12				0.085	0.074	0.11			
		D-Zone	0.15	0.15	0.15				0.15	0.15	0.15			
		Sunnyside	0.22	0.22	0.22				0.22	0.22	0.22			
12674-11-2	Aroclor 1016 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
11104-28-2	Aroclor 1221 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
11141-16-5	Aroclor 1232 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
53469-21-9	Aroclor 1242 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
12672-29-6	Aroclor 1248 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
11097-69-1	Aroclor 1254 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
11096-82-5	Aroclor 1260 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
22541-54-4	Arsenic III [µg/L]	B-Zone	ND	-	ND	1.9	4.3	4.1	ND	-	ND	1.8	4.3	4.1
		C-Zone	0.97	0.096	ND				0.59	0.096	ND			
		D-Zone	0.39	0.39	0.39				0.23	0.23	0.23			
		Sunnyside	4.7	4.7	4.7				4.7	4.7	4.7			
17428-41-0	Arsenic V [µg/L]	B-Zone	1.078	-	0.84	0.51	0.032	0.034	0.801	-	0.84	0.39	0.02	0.034
		C-Zone	1.093	0.73	0.33				0.874	0.46	0.33			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7440-38-2	Arsenic, Total [µg/L]	B-Zone	0.978	-	2.5	0.58	1.64	0.16	0.79	-	2.5	0.47	0.33	0.13
		C-Zone	1.7	38	1.9				1.393	7.572	1.42			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1332-21-4	Asbestos [MFL]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
29122-68-7	Atenolol [µg/L]	B-Zone	0.0066	-	ND	0.002	1.4E-05	ND	0.0021	-	ND	0.0006	1.4E-05	ND
		C-Zone	ND	0.00032	ND				ND	0.00032	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
134523-00-5	Atorvastatin [µg/L]	B-Zone	ND	-	ND	0.0001	ND	ND	ND	-	ND	0.0001	ND	ND
		C-Zone	0.00076	ND	ND				0.00076	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1912-24-9	Atrazine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
83905-01-5	Azithromycin [µg/L]	B-Zone	0.0063	-	ND	0.0044	ND	ND	0.0063	-	ND	0.0039	ND	ND
		C-Zone	0.015	ND	ND				0.012	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
103-33-3	Azobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7440-39-3	Barium, Dissolved [µg/L]	B-Zone	38.98	-	35	19.8	0.82	4	33.2	-	35	16	0.57	3.2
		C-Zone	48	19	57				36	13.13	43.5			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7440-39-3	Barium, Total [µg/L]	B-Zone	37.85	-	52	20.4	1.26	4.3	34.29	-	52	18	0.73	3.6
		C-Zone	54	29	58				45.8	16.97	45.5			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
25057-89-0	Bentazon [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
100-52-7	Benzaldehyde [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
71-43-2	Benzene [µg/L]	B-Zone	ND	-	ND	0.039	0.068	ND	ND	-	ND	0.039	0.051	ND
		C-Zone	0.23	1.6	ND				0.23	1.2	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
92-87-5	Benzidine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
56-55-3	Benzo[a]anthracene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
50-32-8	Benzo[a]pyrene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
205-99-2	Benzo[b]fluoranthene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
191-24-2	Benzo[g,h,i]perylene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
207-08-9	Benzo[k]fluoranthene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
65-85-0	Benzoic Acid [µg/L]	B-Zone	ND	-	ND	ND	0.29	ND	ND	-	ND	ND	0.28	ND
		C-Zone	ND	6.7	ND				ND	6.6	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
95-16-9	Benzothiazole [µg/L]	B-Zone	NA	-	NA	NA	0.37	NA	NA	-	NA	NA	0.27	NA
		C-Zone	NA	8.5	NA				NA	6.3	NA			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
100-51-6	Benzyl Alcohol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
85-68-7	Benzyl butyl phthalate [µg/L]	B-Zone	1.1	-	6.3	0.51	0.17	0.29	0.69	-	6.3	0.36	0.17	0.29
		C-Zone	0.69	0.44	0.53				0.54	0.3	0.53			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	0.17	0.17	0.17				0.17	0.17	0.17			
7440-41-7	Beryllium [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
319-85-7	beta-BHC [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
71-52-3	Bicarbonate Alkalinity as HCO3 [µg/L]	B-Zone	510000	-	520000	390000	280000	290000	450000	-	520000	360000	280000	290000
		C-Zone	480000	280000	430000				410000	250000	410000			
		D-Zone	310000	310000	310000				310000	310000	310000			
		Sunnyside	280000	280000	280000				280000	280000	280000			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
BOD	Biochemical Oxygen Demand [µg/L]	B-Zone	ND	-	ND	ND	300	ND	ND	-	ND	ND	230	ND
		C-Zone	ND	6900	ND				ND	5300	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
111-91-1	bis(2-chloroethoxy)methane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
111-44-4	bis(2-chloroethyl)ether [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
108-60-1	bis(2-chloroisopropyl)ether [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
103-23-1	Bis(2-ethylhexyl)adipate [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
117-81-7	bis(2-ethylhexyl)phthalate [µg/L]	B-Zone	ND	-	ND	0.38	0.7	0.63	ND	-	ND	0.35	0.68	0.62
		C-Zone	ND	0.91	ND				ND	0.73	ND			
		D-Zone	0.78	0.78	0.78				0.62	0.62	0.62			
		Sunnyside	0.68	0.68	0.68				0.68	0.68	0.68			
80-05-7	Bisphenol A [µg/L]	B-Zone	0.0052	-	0.00053	0.0029	0.0056	0.0001	0.0032	-	0.00053	0.0015	0.0029	0.0001
		C-Zone	0.0082	0.13	0.0023				0.0034	0.066	0.0022			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7440-42-8	Boron, Total [µg/L]	B-Zone	143.6	-	180	63.3	26	11.4	135	-	180	59.1	12.9	10.3
		C-Zone	119.6	600	140				110	298	120			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
314-40-9	Bromacil [µg/L]	B-Zone	ND	-	ND	0.062	ND	ND	ND	-	ND	0.062	ND	ND
		C-Zone	0.37	ND	ND				0.37	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
15541-45-4	Bromate [µg/L]	B-Zone	28	-	ND	10	7.1	0.76	13	-	ND	5.7	2.4	0.76
		C-Zone	7.7	160	10				7.7	52	10			
		D-Zone	3	3	3				3	3	3			
		Sunnyside	ND	ND	ND				ND	ND	ND			
24959-67-9	Bromide [µg/L]	B-Zone	790	-	440	330	250	31	670	-	440	270	97	28
		C-Zone	560	5700	400				400	2200	350			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

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			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
108-86-1	Bromobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
5589-96-8	Bromochloroacetic acid [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
74-97-5	Bromochloromethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
71133-14-7	Bromodichloroacetic acid [µg/L]	B-Zone	NA	-	NA	ND	ND	ND	NA	-	NA	ND	ND	ND
		C-Zone	NA	ND	NA				NA	ND	NA			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-27-4	Bromodichloromethane [µg/L]	B-Zone	0.26	-	ND	0.077	ND	ND	0.24	-	ND	0.072	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-25-2	Bromoform [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
74-83-9	Bromomethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
23184-66-9	Butachlor [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
123-72-8	Butanal [µg/L]	B-Zone	1.6	-	ND	0.82	ND	ND	1.6	-	ND	0.82	ND	ND
		C-Zone	2	ND	ND				2	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7440-43-9	Cadmium [µg/L]	B-Zone	0.094	-	ND	0.054	0.004	0.0041	0.058	-	ND	0.041	0.0035	0.0035
		C-Zone	0.073	ND	ND				0.073	ND	ND			
		D-Zone	0.072	0.072	0.072				0.063	0.063	0.063			
		Sunnyside	ND	ND	ND				ND	ND	ND			
58-08-2	Caffeine [µg/L]	B-Zone	0.031	-	0.0013	0.011	0.0026	0.0003	0.016	-	0.0013	0.0056	0.00084	0.0002
		C-Zone	0.0096	0.06	0.0038				0.0039	0.02	0.0027			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
7440-70-2	Calcium [µg/L]	B-Zone	180000	-	140000	120000	73000	76000	150000	-	140000	110000	71000	76000
		C-Zone	150000	100000	130000				120000	63000	130000			
		D-Zone	95000	95000	95000				94000	94000	94000			
		Sunnyside	70000	70000	70000				70000	70000	70000			
133-06-2	Captan [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
298-46-4	Carbamazepine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
63-25-2	Carbaryl [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
86-74-8	Carbazole [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
1563-66-2	Carbofuran [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-15-0	Carbon Disulfide [µg/L]	B-Zone	ND	-	ND	ND	0.011	ND	ND	-	ND	ND	0.011	ND
		C-Zone	ND	0.26	ND				ND	0.26	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
56-23-5	Carbon Tetrachloride [µg/L]	B-Zone	0.63	-	ND	0.36	0.044	0.024	0.512	-	ND	0.3	0.039	0.024
		C-Zone	0.675	0.62	0.12				0.571	0.517	0.12			
		D-Zone	0.3	0.3	0.3				0.3	0.3	0.3			
		Sunnyside	ND	ND	ND				ND	ND	ND			
133-90-4	Chloramben [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
2146053	Chlorate [µg/L]	B-Zone	131.8	-	160	54.3	1.4	11.1	98.67	-	160	44.1	1	8.3
		C-Zone	86.96	33	140				86	23.5	92.5			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
57-74-9	Chlordane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
16887-00-6	Chloride [µg/L]	B-Zone	130000	-	86000	93000	86000	65000	120000	-	86000	86000	72000	64000
		C-Zone	110000	600000	93000				100000	280000	82000			
		D-Zone	74000	74000	74000				70000	70000	70000			
		Sunnyside	62000	62000	62000				62000	62000	62000			
76-13-1	Chlorinated Fluorocarbon (Freon 113) [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7782-50-5RF	Chlorine Residual, Free [µg/L]	B-Zone	6	-	56	4.3	0.56	5.7	4.3	-	56	3.7	0.48	3.8
		C-Zone	15	13	80				15	11	48			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
TOTAL-CHLORINE	Chlorine Residual, Total [µg/L]	B-Zone	20	-	160	11	0.95	8.7	14	-	160	8.3	0.87	6.4
		C-Zone	29	22	100				24	20	61			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
14998-27-7	Chlorite [µg/L]	B-Zone	ND	-	ND	1.6	3.5	2.7	ND	-	ND	1.6	3.4	2.7
		C-Zone	ND	16	ND				ND	14	ND			
		D-Zone	3.3	3.3	3.3				3.1	3.1	3.1			
		Sunnyside	2.9	2.9	2.9				2.9	2.9	2.9			
79-11-8	Chloroacetic Acid [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
108-90-7	Chlorobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
5278-95-5	Chlorodibromoacetic acid [µg/L]	B-Zone	NA	-	NA	ND	ND	ND	NA	-	NA	ND	ND	ND
		C-Zone	NA	ND	NA				NA	ND	NA			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-00-3	Chloroethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
67-66-3	Chloroform [µg/L]	B-Zone	1.4	-	19	1.1	0.18	0.47	1.3	-	15	0.95	0.15	0.37
		C-Zone	2.7	2.5	1.1				2.2	2.1	0.86			
		D-Zone	1.3	1.3	1.3				1	1	1			
		Sunnyside	ND	ND	ND				ND	ND	ND			
74-87-3	Chloromethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
1897-45-6	Chlorothalonil [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
101-21-3	Chlorpropham [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
18540-29-9	Chromium, Hexavalent [µg/L]	B-Zone	0.68	-	5.9	0.46	0.017	0.39	0.26	-	5.9	0.23	0.017	0.29
		C-Zone	1.5	0.016	4.5				0.84	0.014	2.9			
		D-Zone	0.0092	0.0092	0.0092				0.0092	0.0092	0.0092			
		Sunnyside	0.018	0.018	0.018				0.018	0.018	0.018			
7440-47-3	Chromium, Total [µg/L]	B-Zone	9.905	-	17	51.5	0.056	14.4	2.318	-	17	25.1	0.038	7.8
		C-Zone	290	1.3	240				145.9	0.873	127.5			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
218-01-9	Chrysene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
85721-33-1	Ciprofloxacin [µg/L]	B-Zone	0.0062	-	0.0045	0.0042	0.00012	0.0008	0.0042	-	0.0045	0.0022	0.00012	0.0005
		C-Zone	0.014	0.0027	0.013				0.0057	0.0027	0.0076			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
156-59-2	cis-1,2-Dichloroethene (cis-1,2-DCE) [µg/L]	B-Zone	0.26	-	ND	0.22	2.1	0.047	0.26	-	ND	0.2	1.3	0.036
		C-Zone	0.852	49.37	0.8				0.736	30.44	0.613			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
10061-01-5	cis-1,3-Dichloropropene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
5103-73-1	cis-Nonachlor [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7440-48-4	Cobalt [µg/L]	B-Zone	7.6	-	0.014	2.7	0.004	0.077	1.8	-	0.014	0.76	0.004	0.057
		C-Zone	2.6	0.093	1.3				1.3	0.093	0.98			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
CLR	Color [Units]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
CLR	Color [Units]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7440-50-8	Copper [µg/L]	B-Zone	0.96	-	0.49	0.84	0.22	0.3	0.47	-	0.49	0.46	0.21	0.27
		C-Zone	2.4	0.23	1.6				1	0.23	1.1			
		D-Zone	0.45	0.45	0.45				0.42	0.42	0.42			
		Sunnyside	0.2	0.2	0.2				0.2	0.2	0.2			
486-56-6	Cotinine [µg/L]	B-Zone	0.0028	-	0.00065	0.0015	0.0012	0.0002	0.0013	-	0.00065	0.0009	0.00063	0.0001
		C-Zone	0.004	0.027	0.0026				0.0029	0.015	0.0018			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
123-73-9	Crotonaldehyde [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
21725-46-2	Cyanazine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
57-12-5	Cyanide [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
1122-82-3	Cyclohexane, isothiocyanato- [µg/L]	B-Zone	NA	-	NA	NA	0.043	NA	NA	-	NA	NA	0.043	NA
		C-Zone	NA	1	NA				NA	1	NA			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
108-94-1	Cyclohexanone [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
75-99-0	Dalapon [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
1861-32-1	DCPA [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
112-31-2	Decanal [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
134-62-3	DEET [µg/L]	B-Zone	0.0031	-	0.0016	0.0011	0.00016	0.0002	0.002	-	0.0016	0.0007	0.00014	0.0002
		C-Zone	0.0011	0.0036	0.0027				0.0006	0.0033	0.0024			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
319-86-8	delta-BHC [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
439-14-5	Diazepam [µg/L]	B-Zone	0.00021	-	ND	6E-05	ND	ND	0.00021	-	ND	6E-05	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
333-41-5	Diazinon [µg/L]	B-Zone	ND	-	ND	ND	0.0024	ND	ND	-	ND	ND	0.0024	ND
		C-Zone	ND	0.055	ND				ND	0.055	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
53-70-3	Dibenzo[a,h]anthracene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
132-64-9	Dibenzofuran [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
631-64-1	Dibromoacetic acid [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
124-48-1	Dibromochloromethane [µg/L]	B-Zone	ND	-	ND	ND	3	ND	ND	-	ND	ND	0.037	ND
		C-Zone	ND	70	ND				ND	0.86	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
74-95-3	Dibromomethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
1918-00-9	Dicamba [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
3400-09-7	Dichloramine [µg/L]	B-Zone	4.5	-	ND	2.4	0.17	0.88	3	-	ND	1.7	0.17	0.5
		C-Zone	6	4	15				5	4	8.5			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
79-43-6	Dichloroacetic Acid [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-71-8	Dichlorodifluoromethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
120-36-5	Dichloroprop [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
15307-86-5	Diclofenac [µg/L]	B-Zone	0.00043	-	ND	0.0003	ND	ND	0.00043	-	ND	0.0003	ND	ND
		C-Zone	0.00073	ND	ND				0.00073	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
60-57-1	Dieldrin [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
84-66-2	Diethyl phthalate [µg/L]	B-Zone	0.093	-	ND	0.14	0.19	0.16	0.093	-	ND	0.12	0.16	0.15
		C-Zone	0.1	0.63	0.084				0.1	0.31	0.084			
		D-Zone	0.17	0.17	0.17				0.13	0.13	0.13			
		Sunnyside	0.17	0.17	0.17				0.16	0.16	0.16			
56-53-1	Diethylstilbestrol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
108-20-3	Di-isopropyl ether [µg/L]	B-Zone	ND	-	ND	ND	0.053	ND	ND	-	ND	ND	0.05	ND
		C-Zone	ND	1.2	ND				ND	1.1	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
60-51-5	Dimethoate [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
131-11-3	Dimethyl phthalate [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
84-74-2	Di-n-butyl-phthalate [µg/L]	B-Zone	0.28	-	2.7	0.26	0.25	0.29	0.28	-	2.7	0.25	0.25	0.29
		C-Zone	0.25	0.26	0.23				0.23	0.26	0.21			
		D-Zone	0.26	0.26	0.26				0.24	0.24	0.24			
		Sunnyside	0.25	0.25	0.25				0.25	0.25	0.25			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
117-84-0	Di-n-octyl phthalate [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
88-85-7	Dinoseb [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
957-51-7	Diphenamid [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
85-00-7	Diquat [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
298-04-4	Disulfoton [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
330-54-1	Diuron [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
959-98-8	Endosulfan I [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
33213-65-9	Endosulfan II [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
1031-07-8	Endosulfan sulfate [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
145-73-3	Endothall [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
72-20-8	Endrin [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
7421-93-4	Endrin Aldehyde [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
53494-70-5	Endrin Ketone [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
481-30-1	Epitestosterone [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
759-94-4	EPTC [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
50-27-1	Estriol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
53-16-7	Estrone [µg/L]	B-Zone	ND	-	ND	8E-05	ND	5E-05	ND	-	ND	6E-05	ND	5E-05
		C-Zone	0.0005	ND	0.00077				0.00036	ND	0.00077			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
2991-50-6	EtFOSAA [µg/L]	B-Zone	ND	-	ND	0.0003	ND	ND	ND	-	ND	0.0003	ND	ND
		C-Zone	0.0016	ND	ND				0.0016	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
64-17-5	Ethanol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
563-12-2	Ethion [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
97-63-2	Ethyl Methacrylate [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
637-92-3	Ethyl tert-butyl ether [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
100-41-4	Ethylbenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
107-21-1	Ethylene Glycol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
206-44-0	Fluoranthene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
86-73-7	Fluorene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
16984-48-8	Fluoride, Total [mg/L]	B-Zone	0.307	-	0.34	0.15	0.01	0.024	0.268	-	0.34	0.12	0.0082	0.024
		C-Zone	0.32	0.23	0.31				0.224	0.19	0.3			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
54910-89-3	Fluoxetine [µg/L]	B-Zone	0.00095	-	ND	0.0004	ND	1E-05	0.00061	-	ND	0.0003	ND	1E-05
		C-Zone	0.00094	ND	0.0002				0.00039	ND	0.0002			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
944-22-9	Fonofos [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
50-00-0	Formaldehyde [µg/L]	B-Zone	ND	-	ND	ND	0.039	ND	ND	-	ND	ND	0.039	ND
		C-Zone	ND	0.89	ND				ND	0.89	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1222-05-5	Galaxolide (HHCB) [µg/L]	B-Zone	0.046	-	0.012	0.021	0.001	0.0013	0.029	-	0.012	0.013	0.00074	0.0012
		C-Zone	0.042	0.024	0.019				0.025	0.017	0.017			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
58-89-9	gamma-BHC [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
5566-34-7	gamma-Chlordane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
8032-32-4	Gasoline Range Organics [µg/L]	B-Zone	120	-	100	180	4.3	8.8	94	-	100	84	4.3	7.9
		C-Zone	860	100	120				330	100	110			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
25812-30-0	Gemfibrozil [µg/L]	B-Zone	0.00011	-	ND	3E-05	5.2E-06	ND	0.00011	-	ND	3E-05	5.2E-06	ND
		C-Zone	ND	0.00012	ND				ND	0.00012	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
107-22-2	Glyoxal [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1071-83-6	Glyphosate [µg/L]	B-Zone	ND	-	ND	0.38	0.21	0.12	ND	-	ND	0.38	0.21	0.12
		C-Zone	ND	2.2	ND				ND	2.2	ND			
		D-Zone	2.1	2.1	2.1				2.1	2.1	2.1			
		Sunnyside	ND	ND	ND				ND	ND	ND			
12587-46-1	Gross Alpha [pci/L]	B-Zone	6.663	-	5.33	3.2	0.09	0.56	5.463	-	5.33	2.3	0.07	0.38
		C-Zone	7.159	2.09	7.94				4.108	1.611	4.86			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
12587-47-2	Gross Beta [pci/L]	B-Zone	4.227	-	7.3	2.6	0.36	0.83	2.73	-	7.3	1.4	0.26	0.78
		C-Zone	8.1	8.3	12				3.65	6.067	11			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
HAA5	HAA5, Total [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
Hardt-1	Hardness, total as CaCO3 [µg/L]	B-Zone	750000	-	620000	510000	290000	300000	690000	-	620000	470000	280000	300000
		C-Zone	700000	440000	550000				540000	300000	540000			
		D-Zone	410000	410000	410000				410000	410000	410000			
		Sunnyside	270000	270000	270000				270000	270000	270000			
76-44-8	Heptachlor [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
1024-57-3	Heptachlor Epoxide [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
111-71-7	Heptanal [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

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			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
118-74-1	Hexachlorobenzene [µg/L]	B-Zone	ND	-	0.014	0.0002	0.0039	0.0003	ND	-	0.014	0.0002	0.003	0.0003
		C-Zone	0.0014	0.09	ND				0.0014	0.07	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
87-68-3	Hexachlorobutadiene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
77-47-4	Hexachlorocyclopentadiene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
67-72-1	Hexachloroethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
66-25-1	Hexanal [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
13252-13-6	HFPO-DA [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
2691-41-0	HMX [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
302-01-2	Hydrazine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
15687-27-1	Ibuprofen [µg/L]	B-Zone	0.0048	-	ND	0.0018	0.00021	4E-05	0.0022	-	ND	0.0008	0.00013	4E-05
		C-Zone	0.0023	0.0048	0.00066				0.0012	0.0029	0.00066			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
193-39-5	Indeno[1,2,3-cd]pyrene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
20461-54-5	Iodide [µg/L]	B-Zone	19	-	0.48	7.7	3.3	0.49	10	-	0.48	4.2	2.1	0.28
		C-Zone	12	76	8.2				7	49	4.6			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
74-88-4	Iodomethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
73334-07-3	Iopromide [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7439-89-6	Iron [µg/L]	B-Zone	10	-	ND	7.2	120	8.7	4.4	-	ND	5.5	50	8.7
		C-Zone	3	2600	ND				3	950	ND			
		D-Zone	1.1	1.1	1.1				1.1	1.1	1.1			
		Sunnyside	10	10	10				10	10	10			
78-59-1	Isophorone [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
67-63-0	Isopropyl Alcohol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
98-82-8	Isopropylbenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7439-92-1	Lead, Total [µg/L]	B-Zone	0.1	-	1.2	0.043	0.016	0.03	0.0843	-	1.2	0.038	0.0071	0.03
		C-Zone	0.074	0.38	0.14				0.0727	0.165	0.14			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
330-55-2	Linuron [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7439-93-2	Lithium [µg/L]	B-Zone	ND	-	ND	ND	1.1	ND	ND	-	ND	ND	0.76	ND
		C-Zone	ND	25	ND				ND	18	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
179601-23-1	m,p-Xylene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7439-95-4	Magnesium [µg/L]	B-Zone	96000	-	62000	58000	26000	27000	80000	-	62000	50000	25000	27000
		C-Zone	78000	51000	56000				61000	36000	55000			
		D-Zone	42000	42000	42000				42000	42000	42000			
		Sunnyside	24000	24000	24000				24000	24000	24000			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
7439-96-5	Manganese, Total [µg/L]	B-Zone	289.1	-	57	107.2	4.8	6	165	-	57	62.9	2.1	4.3
		C-Zone	120	110	85				78.75	47.67	55.5			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
2355-31-9	MeFOSAA [µg/L]	B-Zone	ND	-	ND	0.0002	ND	ND	ND	-	ND	0.0002	ND	ND
		C-Zone	0.0013	ND	ND				0.0013	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
57-53-4	Meprobamate [µg/L]	B-Zone	ND	-	ND	0.0004	ND	ND	ND	-	ND	0.0002	ND	ND
		C-Zone	0.0022	ND	ND				0.0014	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7439-97-6	Mercury [µg/L]	B-Zone	0.022	-	ND	0.017	0.019	0.018	0.022	-	ND	0.017	0.019	0.018
		C-Zone	ND	0.025	ND				ND	0.025	ND			
		D-Zone	0.023	0.023	0.023				0.021	0.021	0.021			
		Sunnyside	0.019	0.019	0.019				0.019	0.019	0.019			
126-98-7	Methacrylonitrile [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
76-99-3	Methadone [µg/L]	B-Zone	0.00024	-	ND	0.0001	2.7E-06	ND	0.00015	-	ND	7E-05	2.7E-06	ND
		C-Zone	0.00022	0.000063	ND				0.00013	0.000063	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
67-56-1	Methanol [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
2032-65-7	Methiocarb [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
16752-77-5	Methomyl [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
72-43-5	Methoxychlor [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
78-98-8	Methyl Glyoxal [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
80-62-6	Methyl Methacrylate [µg/L]	B-Zone	0.13	-	0.083	0.039	ND	0.0015	0.13	-	0.083	0.039	ND	0.0015
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
1634-04-4	Methyl tert-butyl ether (MTBE) [µg/L]	B-Zone	0.53	-	ND	0.16	0.17	ND	0.53	-	ND	0.16	0.077	ND
		C-Zone	ND	3.8	ND				ND	1.8	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
MBAS	Methylene blue active substances (MBAS) [µg/L]	B-Zone	34	-	ND	52	79	76	26	-	ND	47	78	75
		C-Zone	19	38	20				19	27	20			
		D-Zone	52	52	52				42	42	42			
		Sunnyside	83	83	83				83	83	83			
75-09-2	Methylene Chloride [µg/L]	B-Zone	ND	-	ND	0.4	0.72	0.66	ND	-	ND	0.37	0.71	0.65
		C-Zone	ND	0.81	ND				ND	0.64	ND			
		D-Zone	0.85	0.85	0.85				0.68	0.68	0.68			
		Sunnyside	0.71	0.71	0.71				0.71	0.71	0.71			
51218-45-2	Metolachlor [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
171118-09-5	Metolachlor ESA [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
152019-73-3	Metolachlor OA [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
21087-64-9	Metribuzin [µg/L]	B-Zone	ND	-	ND	ND	0.0034	ND	ND	-	ND	ND	0.0034	ND
		C-Zone	ND	0.079	ND				ND	0.079	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
2385-85-5	Mirex [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
2212-67-1	Molinate [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7439-98-7	Molybdenum [µg/L]	B-Zone	14	-	12	14	2	1.2	11	-	12	7.7	1.4	0.94
		C-Zone	60	46	16				27	32	12			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

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			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
79-08-3	Monobromoacetic acid [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
10599-90-3	Monochloramine [µg/L]	B-Zone	7.7	-	100	3.8	0.35	2.4	6	-	100	2.6	0.28	2.2
		C-Zone	9	8	10				4.7	6.5	7			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
60-34-4	Monomethylhydrazine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
57-27-2	Morphine [µg/L]	B-Zone	0.0011	-	0.00096	0.0006	7.8E-05	7E-05	0.00084	-	0.00096	0.0005	6.7E-05	7E-05
		C-Zone	0.0018	0.0018	0.00094				0.0017	0.0016	0.00094			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
91-20-3	Naphthalene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
22204-53-1	Naproxen [µg/L]	B-Zone	0.0029	-	ND	0.0009	ND	ND	0.00095	-	ND	0.0003	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
104-51-8	n-Butylbenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7440-02-0	Nickel, Total [µg/L]	B-Zone	200	-	7.2	74.3	0.16	11.3	71.15	-	7.2	29	0.089	8.2
		C-Zone	84	3.6	190				45.28	2.05	138			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
14797-55-8	Nitrate as N [mg/L]	B-Zone	12.74	-	10	5.6	0.23	0.6	6.85	-	10	3.2	0.1	0.49
		C-Zone	9.7	4.2	6.4				6.033	1.185	4.5			
		D-Zone	0.83	0.83	0.83				0.83	0.83	0.83			
		Sunnyside	ND	ND	ND				ND	ND	ND			
14797-65-0	Nitrite as N [µg/L]	B-Zone	99.23	-	ND	51.7	2.8	6.2	65.83	-	ND	41.3	2.8	6.2
		C-Zone	76	ND	58				74	ND	58			
		D-Zone	50	50	50				50	50	50			
		Sunnyside	ND	ND	ND				ND	ND	ND			
98-95-3	Nitrobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

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			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
55-18-5	N-Nitrosodiethylamine (NDEA) [ng/L]	B-Zone	ND	-	ND	0.2	0.061	0.062	ND	-	ND	0.2	0.061	0.062
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	1.1	1.1	1.1				1.1	1.1	1.1			
		Sunnyside	ND	ND	ND				ND	ND	ND			
62-75-9	N-Nitrosodimethylamine [µg/L]	B-Zone	ND	-	ND	0.0003	ND	ND	ND	-	ND	0.0003	ND	ND
		C-Zone	0.0018	ND	ND				0.0018	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
924-16-3	n-Nitrosodi-n-butylamine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
621-64-7	n-Nitrosodi-n-propylamine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
86-30-6	n-Nitrosodiphenylamine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
10595-95-6	N-Nitrosomethylethylamine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
59-89-2	n-Nitrosomorpholine [µg/L]	B-Zone	0.031	-	0.0017	0.012	0.00014	0.0001	0.016	-	0.0017	0.0062	6.2E-05	0.0001
		C-Zone	0.013	0.0032	0.0015				0.0078	0.0014	0.0012			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
100-75-4	n-Nitrosopiperidine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
930-55-2	n-Nitrosopyrrolidine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
NN	NO2+NO3 as N [mg/L]	B-Zone	16	-	10	6.9	1	1.4	6.74	-	10	3.6	0.95	1.3
		C-Zone	9.536	2.526	6.4				6.025	1.225	4.5			
		D-Zone	1.15	1.15	1.15				1.15	1.15	1.15			
		Sunnyside	0.92	0.92	0.92				0.92	0.92	0.92			
25154-52-3	Nonylphenol [µg/L]	B-Zone	0.41	-	ND	0.12	0.19	ND	0.095	-	ND	0.029	0.15	ND
		C-Zone	ND	4.4	ND				ND	3.5	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

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			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
20427-84-3	Nonylphenol diethoxylate [µg/L]	B-Zone	0.048	-	ND	0.014	0.14	ND	0.048	-	ND	0.014	0.1	ND
		C-Zone	ND	3.2	ND				ND	2.3	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
27986-36-3	Nonylphenol monoethoxylate [µg/L]	B-Zone	0.049	-	ND	0.022	0.1	0.0008	0.026	-	ND	0.013	0.078	0.0008
		C-Zone	0.045	2.3	0.013				0.032	1.8	0.013			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
103-65-1	n-Propylbenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
136777-61-2	o&p-Xylene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
111-66-0	Octene-1 [µg/L]	B-Zone	NA	-	NA	4.2	NA	NA	NA	-	NA	4.2	NA	NA
		C-Zone	25	NA	NA				25	NA	NA			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
OILGREASE	Oil & Grease (HEM) [µg/L]	B-Zone	1500	-	ND	450	ND	ND	1400	-	ND	420	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
14265-44-2	o-Phosphate as P [µg/L]	B-Zone	78	-	150	37	4.1	6.7	61	-	150	29	3.5	6.5
		C-Zone	83	95	68				63	82	65			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
23135-22-0	Oxamyl [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
131-57-7	Oxybenzone [µg/L]	B-Zone	0.012	-	0.006	0.0042	0.0013	0.0007	0.0065	-	0.006	0.0023	0.00087	0.0006
		C-Zone	0.0032	0.029	0.0094				0.0017	0.02	0.0088			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
95-47-6	o-Xylene [µg/L]	B-Zone	ND	-	ND	ND	0.013	ND	ND	-	ND	ND	0.013	ND
		C-Zone	ND	0.31	ND				ND	0.31	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
4685-14-7	Paraquat [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
189084-64-8	PBDE-100 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
182677-30-1	PBDE-138 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
68631-49-2	PBDE-153 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
207122-15-4	PBDE-154 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
147217-75-2	PBDE-17 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
41318-75-6	PBDE-28 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
5436-43-1	PBDE-47 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
243982-82-3	PBDE-49 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
182346-21-0	PBDE-85 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
60348-60-9	PBDE-99 [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
76-01-7	Pentachloroethane [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
82-68-8	Pentachloronitrobenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
87-86-5	Pentachlorophenol [µg/L]	B-Zone	ND	-	ND	ND	0.019	ND	ND	-	ND	ND	0.013	ND
		C-Zone	ND	0.43	ND				ND	0.29	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
110-62-3	Pentanal [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
14797-73-0	Perchlorate [µg/L]	B-Zone	6.7	-	3.3	2.6	0.087	0.18	1.817	-	3.3	0.94	0.087	0.16
		C-Zone	3.3	2	2				2.367	2	1.8			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
375-73-5	PFBS [µg/L]	B-Zone	0.0056	-	0.0036	0.0022	6.1E-05	0.0002	0.0041	-	0.0036	0.0016	6.1E-05	0.0002
		C-Zone	0.0031	0.0014	0.0018				0.0021	0.0014	0.0018			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
335-76-2	PFDA [µg/L]	B-Zone	0.0028	-	ND	0.0019	ND	0.0001	0.0015	-	ND	0.0012	ND	0.0001
		C-Zone	0.0062	ND	0.0021				0.0045	ND	0.0019			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
307-55-1	PFDoA [µg/L]	B-Zone	0.00073	-	ND	0.0003	7.8E-05	3E-05	0.00061	-	ND	0.0003	7.5E-05	3E-05
		C-Zone	0.00049	0.0018	0.00056				0.00049	0.0017	0.00056			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
375-85-9	PFHpA [µg/L]	B-Zone	0.0032	-	0.0016	0.0022	0.00039	0.0004	0.0022	-	0.0016	0.0015	0.00027	0.0003
		C-Zone	0.0015	0.002	0.00098				0.0012	0.0014	0.00085			
		D-Zone	0.0055	0.0055	0.0055				0.0037	0.0037	0.0037			
		Sunnyside	NA	NA	NA				NA	NA	NA			
307-24-4	PFHxA [µg/L]	B-Zone	0.012	-	0.0053	0.0047	0.00015	0.0003	0.0078	-	0.0053	0.003	0.00011	0.0002
		C-Zone	0.0054	0.0025	0.0021				0.0031	0.0016	0.0015			
		D-Zone	0.0007	0.0007	0.0007				0.0007	0.0007	0.0007			
		Sunnyside	NA	NA	NA				NA	NA	NA			
355-46-4	PFHxS [µg/L]	B-Zone	0.0063	-	0.0035	0.0024	5.6E-05	0.0002	0.0042	-	0.0035	0.0017	5.4E-05	0.0002
		C-Zone	0.0032	0.0013	0.0025				0.0024	0.0013	0.0021			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
375-95-1	PFNA [µg/L]	B-Zone	0.0016	-	ND	0.0013	ND	ND	0.0014	-	ND	0.0009	ND	ND
		C-Zone	0.0047	ND	ND				0.0026	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
335-67-1	PFOA [ng/L]	B-Zone	3.135	-	2	1.1	0.039	0.12	1.902	-	2	0.68	0.028	0.12
		C-Zone	0.971	0.89	1.4				0.668	0.655	1.4			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1763-23-1	PFOS [ng/L]	B-Zone	ND	-	4.2	ND	ND	0.075	ND	-	4.2	ND	ND	0.075
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
376-06-7	PFTeDA [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
72629-94-8	PFTrDA [µg/L]	B-Zone	ND	-	ND	ND	1.8E-05	ND	ND	-	ND	ND	1.8E-05	ND
		C-Zone	ND	0.00041	ND				ND	0.00041	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
2058-94-8	PFUnA [µg/L]	B-Zone	0.0028	-	ND	0.0013	3.4E-05	0.0002	0.0022	-	ND	0.001	3.4E-05	0.0001
		C-Zone	0.0024	0.00078	0.0031				0.002	0.00078	0.0024			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	NA	NA	NA				NA	NA	NA			
TPHd	PHC AS DIESEL FUEL [µg/L]	B-Zone	NA	-	NA	NA	4.3	NA	NA	-	NA	NA	2.9	NA
		C-Zone	NA	100	NA				NA	67	NA			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
85-01-8	Phenanthrene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
108-95-2	Phenol [µg/L]	B-Zone	ND	-	ND	ND	0.052	ND	ND	-	ND	ND	0.045	ND
		C-Zone	ND	1.2	ND				ND	1	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
57-41-0	Phenytoin (Dilantin) [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7723-14-0	Phosphorus [µg/L]	B-Zone	250	-	680	200	13	55	200	-	680	120	7.7	49
		C-Zone	720	300	730				380	180	630			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
85-44-9	Phthalic Anhydride [µg/L]	B-Zone	8.3	-	NA	3.3	0.65	NA	4.8	-	NA	2.2	0.37	NA
		C-Zone	4.6	15	NA				4.6	8.6	NA			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
1918-02-1	Picloram [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
99-87-6	p-Isopropyltoluene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7440-09-7	Potassium [µg/L]	B-Zone	4200	-	3300	4600	5200	4900	3500	-	3300	4200	5000	4800
		C-Zone	5600	10000	3100				4300	5900	2900			
		D-Zone	3600	3600	3600				3500	3500	3500			
		Sunnyside	5100	5100	5100				5100	5100	5100			
55268-74-1	Praziquantel [µg/L]	B-Zone	ND	-	ND	ND	0.00029	ND	ND	-	ND	ND	0.00016	ND
		C-Zone	ND	0.0066	ND				ND	0.0038	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
125-33-7	Primidone [µg/L]	B-Zone	0.0029	-	0.0018	0.0009	ND	3E-05	0.0018	-	0.0018	0.0005	ND	3E-05
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
57-83-0	Progesterone [µg/L]	B-Zone	ND	-	ND	ND	1.4E-05	ND	ND	-	ND	ND	1.4E-05	ND
		C-Zone	ND	0.00033	ND				ND	0.00033	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1610-18-0	Prometon [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7287-19-6	Prometryn [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
1918-16-7	Propachlor (2-Chloro-n-(1-Methylethy)-n-phenylac [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
123-38-6	Propanal [µg/L]	B-Zone	1.2	-	ND	0.6	ND	ND	1.2	-	ND	0.6	ND	ND
		C-Zone	1.4	ND	ND				1.4	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
114-26-1	Propoxur (Baygon) [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

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			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
129-00-0	Pyrene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
110-86-1	Pyridine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
91-22-5	Quinoline [µg/L]	B-Zone	0.003	-	ND	0.0012	0.00026	9E-05	0.002	-	ND	0.0009	0.00026	7E-05
		C-Zone	0.0019	0.006	0.0015				0.0017	0.006	0.0013			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
13982-63-3	Radium 226 [pci/L]	B-Zone	0.205	-	0.12	0.15	0.02	0.014	0.041	-	0.12	0.048	0.0088	0.01
		C-Zone	0.523	0.461	0.194				0.214	0.204	0.127			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
15262-20-1	Radium 228 [pci/L]	B-Zone	0.563	-	0.0865	0.33	0.043	0.021	0.317	-	0.0865	0.17	0.019	0.014
		C-Zone	0.98	0.998	0.325				0.457	0.433	0.218			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
121-82-4	RDX [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
69-72-7	Salicylic Acid [µg/L]	B-Zone	0.58	-	0.45	0.27	0.032	0.029	0.39	-	0.45	0.17	0.018	0.028
		C-Zone	0.59	0.74	0.36				0.29	0.41	0.34			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
135-98-8	sec-Butylbenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7782-49-2	Selenium, Total [µg/L]	B-Zone	5.247	-	3.2	2.1	0.031	0.28	3.795	-	3.2	1.6	0.015	0.22
		C-Zone	3.4	0.72	3.8				2.725	0.347	2.85			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7631-86-9	Silica [µg/L]	B-Zone	34000	-	29000	16000	1400	2600	32000	-	29000	15000	700	2500
		C-Zone	35000	32000	35000				34000	16000	34000			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7440-22-4	Silver [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
122-34-9	Simazine [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7440-23-5	Sodium [µg/L]	B-Zone	100000	-	110000	78000	52000	53000	84000	-	110000	68000	51000	52000
		C-Zone	110000	120000	90000				88000	89000	77000			
		D-Zone	58000	58000	58000				58000	58000	58000			
		Sunnyside	49000	49000	49000				49000	49000	49000			
10098-97-2	Strontium-90 [pci/L]	B-Zone	0.231	-	ND	0.25	0.27	0.25	0.0602	-	ND	0.15	0.26	0.25
		C-Zone	0.461	0.428	0.045				0.207	0.143	0.0225			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	0.282	0.282	0.282				0.282	0.282	0.282			
100-42-5	Styrene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
56038-13-2	Sucralose [µg/L]	B-Zone	ND	-	ND	0.0014	ND	ND	ND	-	ND	0.001	ND	ND
		C-Zone	0.0086	ND	ND				0.0062	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
723-46-6	Sulfamethoxazole [µg/L]	B-Zone	0.00027	-	ND	8E-05	ND	ND	0.00027	-	ND	8E-05	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
14808-79-8	Sulfate as SO4 [µg/L]	B-Zone	300000	-	220000	420000	100000	110000	270000	-	220000	260000	88000	96000
		C-Zone	1600000	170000	220000				680000	140000	210000			
		D-Zone	180000	180000	180000				180000	180000	180000			
		Sunnyside	96000	96000	96000				80000	80000	80000			
18496-25-8	Sulfide [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
115-96-8	TCEP [µg/L]	B-Zone	0.00055	-	ND	0.0005	2.6E-05	ND	0.00055	-	ND	0.0004	2.6E-05	ND
		C-Zone	0.002	0.0006	ND				0.0015	0.0006	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
13674-84-5	TCPP [µg/L]	B-Zone	0.0043	-	0.0013	0.0026	0.0003	0.0003	0.0028	-	0.0013	0.0014	0.00023	0.0002
		C-Zone	0.008	0.0069	0.0047				0.003	0.0053	0.0028			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
13674-87-8	TDCPP [µg/L]	B-Zone	0.0034	-	0.0026	0.0017	ND	0.0001	0.0021	-	0.0026	0.001	ND	0.0001
		C-Zone	0.0039	ND	0.0016				0.0025	ND	0.0014			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
TIC	Tentatively Identified Compounds [µg/L]	B-Zone	2.4	-	NA	1.8	0.51	NA	1.7	-	NA	1.2	0.36	NA
		C-Zone	6.7	12	NA				4.3	8.4	NA			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
5902-51-2	Terbacil [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
13071-79-9	Terbufos [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
98-06-6	tert-Butylbenzene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
994-05-8	Tertiary-amyl methyl ether [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-65-0	Tertiary-butyl alcohol [µg/L]	B-Zone	ND	-	ND	ND	0.35	ND	ND	-	ND	ND	0.088	ND
		C-Zone	ND	8.1	ND				ND	2	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
58-22-0	Testosterone [µg/L]	B-Zone	0.00025	-	ND	8E-05	1.5E-05	ND	0.00022	-	ND	7E-05	1.5E-05	ND
		C-Zone	ND	0.00034	ND				ND	0.00034	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
127-18-4	Tetrachloroethene (PCE) [µg/L]	B-Zone	21.57	-	48.52	27.7	0.77	1.5	16.73	-	40.28	16	0.34	1.2
		C-Zone	126.8	17.82	11.48				65.31	7.861	7.782			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
109-99-9	Tetrahydrofuran [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
479-45-8	Tetryl [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
7440-28-0	Thallium [µg/L]	B-Zone	0.019	-	ND	0.0057	0.00087	0.0009	0.017	-	ND	0.005	0.00087	0.0009
		C-Zone	ND	0.02	0.015				ND	0.02	0.015			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
28249-77-6	Thiobencarb [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
THM	THMs, Total [µg/L]	B-Zone	1.4	-	18	1.2	0.55	0.59	1.2	-	18	0.99	0.17	0.49
		C-Zone	3.5	11	3.3				2.6	2.6	1.9			
		D-Zone	1.3	1.3	1.3				1.1	1.1	1.1			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7440-29-1	Thorium [µg/L]	B-Zone	0.064	-	0.055	0.019	0.0048	0.0086	0.061	-	0.055	0.018	0.0048	0.0067
		C-Zone	ND	0.11	0.13				ND	0.11	0.098			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
ODOR	Threshold Odor Number [Units]	B-Zone	800	-	1	250	8.7	7.5	160	-	1	54	8.2	7.5
		C-Zone	8	24	1				3.7	12	1			
		D-Zone	8	8	8				8	8	8			
		Sunnyside	8	8	8				8	8	8			
108-88-3	Toluene [µg/L]	B-Zone	1.2	-	ND	0.58	0.015	ND	0.51	-	ND	0.24	0.012	ND
		C-Zone	1.3	0.34	ND				0.51	0.27	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
TDS	Total Dissolved Solids [µg/L]	B-Zone	1100000	-	990000	790000	510000	500000	1100000	-	990000	730000	490000	490000
		C-Zone	1000000	1600000	890000				850000	1100000	860000			
		D-Zone	680000	680000	680000				650000	650000	650000			
		Sunnyside	450000	450000	450000				450000	450000	450000			
TOC	Total Organic Carbon [µg/L]	B-Zone	1200	-	580	550	910	39	890	-	580	400	490	35
		C-Zone	1200	21000	490				810	11000	420			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1336-36-3	Total PCBs [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
TSuS	Total Suspended Solids [µg/L]	B-Zone	2400	-	91000	4100	130	10000	1300	-	91000	2400	110	6000
		C-Zone	20000	3000	150000				12000	2500	75000			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1330-20-7	Total Xylenes [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
8001-35-2	Toxaphene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
TPHg	TPHg [µg/L]	B-Zone	ND	-	NA	ND	ND	NA	ND	-	NA	ND	ND	NA
		C-Zone	NA	ND	NA				NA	ND	NA			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
156-60-5	trans-1,2-Dichloroethene [µg/L]	B-Zone	ND	-	ND	ND	0.042	0.037	ND	-	ND	ND	0.026	0.033
		C-Zone	ND	0.97	0.63				ND	0.61	0.57			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
10061-02-6	trans-1,3-Dichloropropene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
110-57-6	trans-1,4-Dichloro-2-butene [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
24017-47-8	Triazofos [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-96-7	Tribromoacetic acid [µg/L]	B-Zone	NA	-	NA	ND	ND	ND	NA	-	NA	ND	ND	ND
		C-Zone	NA	ND	NA				NA	ND	NA			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
76-03-9	Trichloroacetic acid [µg/L]	B-Zone	ND	-	ND	ND	0.038	ND	ND	-	ND	ND	0.038	ND
		C-Zone	ND	0.87	ND				ND	0.87	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
79-01-6	Trichloroethene (TCE) [µg/L]	B-Zone	2.196	-	7.497	22.2	0.92	0.44	1.736	-	6.587	11.4	0.65	0.38
		C-Zone	126.9	19.24	3.838				63.6	13.01	3.104			
		D-Zone	1.5	1.5	1.5				1.5	1.5	1.5			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-69-4	Trichlorofluoromethane [µg/L]	B-Zone	0.48	-	ND	0.22	0.027	ND	0.48	-	ND	0.22	0.023	ND
		C-Zone	0.48	0.62	ND				0.48	0.52	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
3380-34-5	Triclosan [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
1582-09-8	Trifluralin [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			

CASRN	Constituent [Units]	Layer	Using UCL95 for Monitoring Well Data*						Using Mean for Monitoring Well Data**					
			Concentration within Capture Zone			Estimated Concentrations for Production Wells			Concentration within Capture Zone			Estimated Concentrations for Production Wells		
			SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9	SM-4	SM-8	SM-9
738-70-5	Trimethoprim [µg/L]	B-Zone	0.00029	-	ND	9E-05	2.1E-05	ND	0.00029	-	ND	9E-05	2.1E-05	ND
		C-Zone	ND	0.00048	ND				ND	0.00048	ND			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
786-19-6	Trithion [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
10028-17-8	Tritium [pci/L]	B-Zone	70	-	13	51	58	58	70	-	13	51	58	58
		C-Zone	50	40	58				50	39	58			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	63	63	63				63	63	63			
TURB	Turbidity [NTU]	B-Zone	3.1	-	38	6.9	1.4	3.7	1.5	-	38	3.8	1.2	3
		C-Zone	31	7.9	33				16	2.1	21			
		D-Zone	1.9	1.9	1.9				1.8	1.8	1.8			
		Sunnyside	1.1	1.1	1.1				1.1	1.1	1.1			
7440-61-1	Uranium Rad [pci/L]	B-Zone	10.36	-	8.8	5.3	1.3	2.1	8.333	-	8.8	4	1.2	1.8
		C-Zone	9.4	3.9	14				5.733	1.574	8.9			
		D-Zone	0.81	0.81	0.81				0.81	0.81	0.81			
		Sunnyside	1.2	1.2	1.2				1.2	1.2	1.2			
7440-62-2	Vanadium, Total [µg/L]	B-Zone	3.185	-	11	2.4	0.13	0.58	2.233	-	11	1.6	0.071	0.51
		C-Zone	8.4	3.1	6.6				5.308	1.635	5.35			
		D-Zone	NA	NA	NA				NA	NA	NA			
		Sunnyside	NA	NA	NA				NA	NA	NA			
108-05-4	Vinyl Acetate [µg/L]	B-Zone	ND	-	ND	ND	ND	ND	ND	-	ND	ND	ND	ND
		C-Zone	ND	ND	ND				ND	ND	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
75-01-4	Vinyl Chloride [µg/L]	B-Zone	ND	-	ND	ND	0.081	ND	ND	-	ND	ND	0.058	ND
		C-Zone	ND	1.9	ND				ND	1.3	ND			
		D-Zone	ND	ND	ND				ND	ND	ND			
		Sunnyside	ND	ND	ND				ND	ND	ND			
7440-66-6	Zinc [µg/L]	B-Zone	6.3	-	1	5.1	2.6	2.6	3.5	-	1	3.9	2.5	2.5
		C-Zone	1.8	1.1	2				1.4	1	1.5			
		D-Zone	12	12	12				10	10	10			
		Sunnyside	2.1	2.1	2.1				2.1	2.1	2.1			

Notes:

CASRN = Chemical Abstracts Service Registry Number (as applicable); µg/L = micrograms per liter; ng/L = nanograms per liter; pci/L = picocuries per liter; MFL = million fibers per liter; MPN/100mL= most probable number per 100 millilitres; NTU = nephelometric turbidity units; 'ND' = non-detect; 'NA' = not available; '-' = not applicable.

**UCL95 (95 percent upper confidence limit of the population mean) based on maximum suggested UCL95 statistics produced by ProUCL software (EPA 2015) calculated for censored data sets (using all detects and non-detects).*

***Mean calculated for censored data sets (using all detects and non-detects) via Kaplan Meier Method (using ProUCL software; EPA 2015).*

In the event either the mean or UCL95 statistics could not be calculated, the maximum value was adopted as a conservative approach.

For non-detect (ND) results a value of 0 was assumed; where data was not available (NA) for a constituent in any given layer and/or capture zone, a value of 0 was assumed.

For the D-Zone, monitoring well SMB-1-B#1 was used for all production well capture zones; for the Sunnyside, monitoring well SMB-1 #4 was used for all production well capture zones.

For constituents (metals) where both total and dissolved fractions were reported for the same sample, values for the dissolved fraction were used.

Appendix F
Treatment Plant Influent Concentration Estimates

CASRN	Constituent [Units]	Using UCL95 for Monitoring Well Data*				Using Maximum Value for 2020 Production Well Data**			
		Estimated Concentrations for Production Wells			Plant Influent Concentration Estimates	Observed Concentrations For Production Well			Plant Influent Concentration Estimates
		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
3567-62-2	1-(3,4-Dichlorophenyl)-3-methylurea [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
2327-02-8	1-(3,4-Dichlorophenyl)urea [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
630-20-6	1,1,1,2-Tetrachloroethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
71-55-6	1,1,1-Trichloroethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
79-34-5	1,1,2,2-Tetrachloroethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
79-00-5	1,1,2-Trichloroethane [µg/L]	0.27	ND	ND	0.094	ND	ND	ND	ND
75-34-3	1,1-Dichloroethane (1,1-DCA) [µg/L]	0.27	0.039	0.01	0.11	0.16	0.12	ND	0.098
75-35-4	1,1-Dichloroethene (1,1-DCE) [µg/L]	1.1	0.2	0.079	0.47	1.2	0.72	ND	0.67
563-58-6	1,1-Dichloropropene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
57-14-7	1,1-Dimethylhydrazine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
87-61-6	1,2,3-Trichlorobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
96-18-4	1,2,3-Trichloropropane (1,2,3-TCP) [µg/L]	0.037	0.015	0.014	0.022	0.0026	ND	ND	0.00091
120-82-1	1,2,4-Trichlorobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
95-63-6	1,2,4-Trimethylbenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
96-12-8	1,2-Dibromo-3-chloropropane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
106-93-4	1,2-Dibromoethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
95-50-1	1,2-Dichlorobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
107-06-2	1,2-Dichloroethane [µg/L]	0.083	0.034	0.0085	0.043	ND	ND	ND	ND
78-87-5	1,2-Dichloropropane [µg/L]	0.048	ND	ND	0.017	ND	ND	ND	ND
122-66-7	1,2-Diphenylhydrazine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
108-67-8	1,3,5-Trimethylbenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
99-35-4	1,3,5-Trinitrobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
541-73-1	1,3-Dichlorobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
142-28-9	1,3-Dichloropropane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
542-75-6	1,3-Dichloropropene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
99-65-0	1,3-Dinitrobenzene [µg/L]	0.044	ND	ND	0.015	ND	ND	0.32	0.096
106-46-7	1,4-Dichlorobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
123-91-1	1,4-Dioxane [µg/L]	35.4	2.1	2.2	13.8	20	5.4	3.3	9.9
763051-92-9	11Cl-PF3OUdS [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
57-91-0	17-a-Estradiol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
57-63-6	17-a-Ethynylestradiol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
50-28-2	17-b-Estradiol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
124-19-6	1-Nonanal [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
934-34-9	2(3H)-Benzothiazolone [µg/L]	NA	0.061	NA	0.021	ND	ND	ND	NA
594-20-7	2,2-Dichloropropane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
93-76-5	2,4,5-T [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
93-72-1	2,4,5-TP (Silvex) [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
95-95-4	2,4,5-Trichlorophenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
88-06-2	2,4,6-Trichlorophenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
118-96-7	2,4,6-Trinitrotoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
94-75-7	2,4-D [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
94-82-6	2,4-DB [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
120-83-2	2,4-Dichlorophenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
105-67-9	2,4-Dimethylphenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND

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		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
51-28-5	2,4-Dinitrophenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
121-14-2	2,4-Dinitrotoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
606-20-2	2,6-Dinitrotoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
35572-78-2	2-Amino-4,6-Dinitrotoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
78-93-3	2-Butanone [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
110-75-8	2-Chloroethyl Vinyl Ether [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
91-58-7	2-Chloronaphthalene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
95-57-8	2-Chlorophenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
95-49-8	2-Chlorotoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
591-78-6	2-Hexanone [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
91-57-6	2-Methylnaphthalene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
95-48-7	2-Methylphenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
88-74-4	2-Nitroaniline [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
88-75-5	2-Nitrophenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
88-72-2	2-Nitrotoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7642-04-8	2-Octene, (Z)- [µg/L]	9	NA	6	5	ND	ND	34	10
84989-04-8	3 & 4-Methylphenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
91-94-1	3,3'-Dichlorobenzidine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
95-76-1	3,4-Dichloroaniline [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
51-36-5	3,5-Dichlorobenzoic acid [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
16655-82-6	3-Hydroxycarbofuran [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
99-09-2	3-Nitroaniline [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
99-08-1	3-Nitrotoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
72-54-8	4,4´-DDD [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
72-55-9	4,4´-DDE [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
50-29-3	4,4´-DDT [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
534-52-1	4,6-Dinitro-2-Methyl phenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
19406-51-0	4-Amino-2,6-Dinitrotoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
101-55-3	4-Bromophenyl Phenyl Ether [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
59-50-7	4-Chloro-3-Methylphenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
106-47-8	4-Chloroaniline [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7005-72-3	4-Chlorophenyl Phenyl Ether [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
106-43-4	4-Chlorotoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
108-10-1	4-Methyl-2-pentanone [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
100-01-6	4-Nitroaniline [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
100-02-7	4-Nitrophenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
99-99-0	4-Nitrotoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
104-40-5	4-Nonylphenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1806-26-4	4-Octylphenol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
140-66-9	4-tert-Octylphenol [µg/L]	ND	0.00061	ND	0.00021	ND	ND	ND	ND
2315-61-9	4-tert-Octylphenol diethoxylate [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1173019-48-1	4-tert-Octylphenol monoethoxylate [µg/L]	0.0027	0.0031	ND	0.002	ND	ND	ND	ND
756426-58-1	9Cl-PF3ONS [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
83-32-9	Acenaphthene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
208-96-8	Acenaphthylene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND

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		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
75-07-0	Acetaldehyde [µg/L]	0.21	ND	ND	0.072	ND	ND	ND	ND
103-90-2	Acetaminophen [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
34256-82-1	Acetochlor [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
187022-11-3	Acetochlor ESA [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
194992-44-4	Acetochlor OA [µg/L]	ND	ND	ND	ND	0.0068	ND	ND	0.0024
67-64-1	Acetone [µg/L]	15	7.3	6.8	9.8	790	ND	22	280
75-05-8	Acetonitrile [µg/L]	0.29	0.22	0.21	0.24	7.9	ND	ND	2.8
50594-66-6	Acifluorfen [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
107-02-8	Acrolein [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
107-13-1	Acrylonitrile [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
958445-44-8	ADONA [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
15972-60-8	Alachlor [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
142363-53-9	Alachlor ESA [µg/L]	ND	0.00091	ND	0.00032	ND	ND	ND	ND
171262-17-2	Alachlor OA [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
116-06-3	Aldicarb [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1646-88-4	Aldicarb Sulfone [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1646-87-3	Aldicarb sulfoxide [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
309-00-2	Aldrin [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
ALK	Alkalinity (as CaCO3) [µg/L]	310000	230000	240000	260000	360000	250000	430000	340000
ALKC-1	Alkalinity, Carbonate as CaCO3 [µg/L]	ND	2700	ND	950	ND	ND	ND	ND
ALKH-1	Alkalinity, Hydroxide as CaCO3 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
107-05-1	Allyl Chloride [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
319-84-6	alpha-BHC [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
5103-71-9	alpha-Chlordane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7429-90-5	Aluminum, Total [µg/L]	15.4	5.2	51.3	22.6	3.4	1.9	2.5	2.6
7664-41-7	Ammonia [µg/L]	35	52	ND	30	ND	34	ND	12
26787-78-0	Amoxicillin [µg/L]	ND	ND	ND	ND	ND	0.0055	ND	0.0019
62-53-3	Aniline [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
120-12-7	Anthracene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7440-36-0	Antimony [µg/L]	0.15	0.21	0.21	0.19	0.072	0.093	0.15	0.1
12674-11-2	Aroclor 1016 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
11104-28-2	Aroclor 1221 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
11141-16-5	Aroclor 1232 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
53469-21-9	Aroclor 1242 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
12672-29-6	Aroclor 1248 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
11097-69-1	Aroclor 1254 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
11096-82-5	Aroclor 1260 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
22541-54-4	Arsenic III [µg/L]	1.9	4.3	4.1	3.4	ND	0.17	ND	0.06
17428-41-0	Arsenic V [µg/L]	0.51	0.032	0.034	0.2	0.99	0.49	0.98	0.81
7440-38-2	Arsenic, Total [µg/L]	0.58	1.64	0.16	0.83	0.71	0.69	0.74	0.71
1332-21-4	Asbestos [MFL]	ND	ND	ND	ND	ND	ND	ND	ND
29122-68-7	Atenolol [µg/L]	0.002	0.000014	ND	0.0007	ND	0.00028	ND	0.000098
134523-00-5	Atorvastatin [µg/L]	0.00013	ND	ND	0.000045	0.0011	ND	ND	0.00039
1912-24-9	Atrazine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
83905-01-5	Azithromycin [µg/L]	0.0044	ND	ND	0.0015	0.0057	ND	ND	0.002

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		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
103-33-3	Azobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7440-39-3	Barium, Dissolved [µg/L]	19.8	0.82	4	8.4	45	60	34	47
7440-39-3	Barium, Total [µg/L]	20.4	1.26	4.3	8.9	60	58	34	52
25057-89-0	Bentazon [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
100-52-7	Benzaldehyde [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
71-43-2	Benzene [µg/L]	0.039	0.068	ND	0.037	ND	ND	ND	ND
92-87-5	Benzidine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
56-55-3	Benzo[a]anthracene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
50-32-8	Benzo[a]pyrene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
205-99-2	Benzo[b]fluoranthene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
191-24-2	Benzo[g,h,i]perylene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
207-08-9	Benzo[k]fluoranthene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
65-85-0	Benzoic Acid [µg/L]	ND	0.29	ND	0.1	ND	ND	ND	ND
95-16-9	Benzothiazole [µg/L]	NA	0.37	NA	0.13	ND	ND	ND	NA
100-51-6	Benzyl Alcohol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
85-68-7	Benzyl butyl phthalate [µg/L]	0.51	0.17	0.29	0.32	3.7	ND	ND	1.3
7440-41-7	Beryllium [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
319-85-7	beta-BHC [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
71-52-3	Bicarbonate Alkalinity as HCO3 [µg/L]	390000	280000	290000	320000	440000	300000	520000	420000
BOD	Biochemical Oxygen Demand [µg/L]	ND	300	ND	100	ND	ND	ND	ND
111-91-1	bis(2-chloroethoxy)methane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
111-44-4	bis(2-chloroethyl)ether [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
108-60-1	bis(2-chloroisopropyl)ether [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
103-23-1	Bis(2-ethylhexyl)adipate [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
117-81-7	bis(2-ethylhexyl)phthalate [µg/L]	0.38	0.7	0.63	0.57	ND	ND	ND	ND
80-05-7	Bisphenol A [µg/L]	0.0029	0.0056	0.00014	0.003	0.041	0.0027	0.0014	0.016
7440-42-8	Boron, Total [µg/L]	63.3	26	11.4	34.7	130	140	130	130
314-40-9	Bromacil [µg/L]	0.062	ND	ND	0.022	ND	ND	ND	ND
15541-45-4	Bromate [µg/L]	10	7.1	0.76	6.3	ND	ND	ND	ND
24959-67-9	Bromide [µg/L]	330	250	31	210	540	230	850	520
108-86-1	Bromobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
5589-96-8	Bromochloroacetic acid [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
74-97-5	Bromochloromethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
71133-14-7	Bromodichloroacetic acid [µg/L]	ND	ND	ND	ND	ND	ND	ND	NA
75-27-4	Bromodichloromethane [µg/L]	0.077	ND	ND	0.027	0.095	ND	0.1	0.063
75-25-2	Bromoform [µg/L]	ND	ND	ND	ND	1.5	ND	ND	0.53
74-83-9	Bromomethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
23184-66-9	Butachlor [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
123-72-8	Butanal [µg/L]	0.82	ND	ND	0.29	ND	ND	ND	ND
7440-43-9	Cadmium [µg/L]	0.054	0.004	0.0041	0.021	0.083	ND	0.12	0.065
58-08-2	Caffeine [µg/L]	0.011	0.0026	0.00025	0.0048	0.001	0.00091	0.031	0.01
7440-70-2	Calcium [µg/L]	120000	73000	76000	90000	140000	91000	180000	140000
133-06-2	Captan [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
298-46-4	Carbamazepine [µg/L]	ND	ND	ND	ND	ND	ND	0.00009	0.000027
63-25-2	Carbaryl [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND

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		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
86-74-8	Carbazole [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1563-66-2	Carbofuran [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
75-15-0	Carbon Disulfide [µg/L]	ND	0.011	ND	0.0039	ND	ND	ND	ND
56-23-5	Carbon Tetrachloride [µg/L]	0.36	0.044	0.024	0.15	0.13	0.15	ND	0.098
133-90-4	Chloramben [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7775-09-9	Chlorate [µg/L]	54.3	1.4	11.1	22.8	91	ND	93	60
57-74-9	Chlordane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
16887-00-6	Chloride [µg/L]	93000	86000	65000	82000	120000	110000	130000	120000
76-13-1	Chlorinated Fluorocarbon (Freon 113) [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7782-50-5RF	Chlorine Residual, Free [µg/L]	4.3	0.56	5.7	3.4	35	9	2	16
TOTAL-CHLORINE	Chlorine Residual, Total [µg/L]	11	0.95	8.7	6.8	ND	ND	ND	NA
14998-27-7	Chlorite [µg/L]	1.6	3.5	2.7	2.6	13	14	ND	9.5
79-11-8	Chloroacetic Acid [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
108-90-7	Chlorobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
5278-95-5	Chlorodibromoacetic acid [µg/L]	ND	ND	ND	ND	ND	ND	ND	NA
75-00-3	Chloroethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
67-66-3	Chloroform [µg/L]	1.1	0.18	0.47	0.59	2.2	0.66	0.9	1.3
74-87-3	Chloromethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1897-45-6	Chlorothalonil [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
101-21-3	Chlorpropham [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
18540-29-9	Chromium, Hexavalent [µg/L]	0.46	0.017	0.39	0.28	1.1	0.81	0.25	0.74
7440-47-3	Chromium, Total [µg/L]	51.5	0.056	14.4	22.4	0.93	0.051	0.24	0.42
218-01-9	Chrysene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
85721-33-1	Ciprofloxacin [µg/L]	0.0042	0.00012	0.00084	0.0018	0.11	ND	0.0065	0.04
156-59-2	cis-1,2-Dichloroethene (cis-1,2-DCE) [µg/L]	0.22	2.1	0.047	0.84	0.45	0.22	ND	0.23
10061-01-5	cis-1,3-Dichloropropene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
5103-73-1	cis-Nonachlor [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7440-48-4	Cobalt [µg/L]	2.7	0.004	0.077	0.98	0.09	0.16	0.071	0.11
CLR	Color [Units]	ND	ND	ND	ND	ND	ND	ND	ND
CLR	Color [Units]	ND	ND	ND	ND	ND	ND	ND	ND
7440-50-8	Copper [µg/L]	0.84	0.22	0.3	0.46	3.3	0.14	2.3	1.9
486-56-6	Cotinine [µg/L]	0.0015	0.0012	0.00016	0.00099	ND	ND	0.0012	0.00036
123-73-9	Crotonaldehyde [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
21725-46-2	Cyanazine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
57-12-5	Cyanide [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1122-82-3	Cyclohexane, isothiocyanato- [µg/L]	NA	0.043	NA	0.015	ND	ND	ND	NA
108-94-1	Cyclohexanone [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
75-99-0	Dalapon [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1861-32-1	DCPA [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
112-31-2	Decanal [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
134-62-3	DEET [µg/L]	0.0011	0.00016	0.00019	0.0005	0.0043	0.001	0.0008	0.0021
319-86-8	delta-BHC [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
439-14-5	Diazepam [µg/L]	0.000063	ND	ND	0.000022	ND	ND	ND	ND
333-41-5	Diazinon [µg/L]	ND	0.0024	ND	0.00083	ND	ND	ND	ND
53-70-3	Dibenzo[a,h]anthracene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND

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		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
132-64-9	Dibenzofuran [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
631-64-1	Dibromoacetic acid [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
124-48-1	Dibromochloromethane [µg/L]	ND	3	ND	1.1	ND	ND	ND	ND
74-95-3	Dibromomethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1918-00-9	Dicamba [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
3400-09-7	Dichloramine [µg/L]	2.4	0.17	0.88	1.2	7	4	2	4.5
79-43-6	Dichloroacetic Acid [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
75-71-8	Dichlorodifluoromethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
120-36-5	Dichloroprop [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
15307-86-5	Diclofenac [µg/L]	0.00025	ND	ND	0.000088	ND	ND	ND	ND
60-57-1	Dieldrin [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
84-66-2	Diethyl phthalate [µg/L]	0.14	0.19	0.16	0.16	ND	ND	ND	ND
56-53-1	Diethylstilbestrol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
108-20-3	Di-isopropyl ether [µg/L]	ND	0.053	ND	0.019	ND	ND	ND	ND
60-51-5	Dimethoate [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
131-11-3	Dimethyl phthalate [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
84-74-2	Di-n-butyl-phthalate [µg/L]	0.26	0.25	0.29	0.27	0.23	ND	0.19	0.14
117-84-0	Di-n-octyl phthalate [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
88-85-7	Dinoseb [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
957-51-7	Diphenamid [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
85-00-7	Diquat [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
298-04-4	Disulfoton [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
330-54-1	Diuron [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
959-98-8	Endosulfan I [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
33213-65-9	Endosulfan II [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1031-07-8	Endosulfan sulfate [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
145-73-3	Endothall [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
72-20-8	Endrin [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7421-93-4	Endrin Aldehyde [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
53494-70-5	Endrin Ketone [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
481-30-1	Epitestosterone [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
759-94-4	EPTC [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
50-27-1	Estriol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
53-16-7	Estrone [µg/L]	0.000084	ND	0.000045	0.000043	ND	ND	ND	ND
2991-50-6	EtFOSAA [µg/L]	0.00027	ND	ND	0.000094	ND	ND	ND	ND
64-17-5	Ethanol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
563-12-2	Ethion [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
97-63-2	Ethyl Methacrylate [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
637-92-3	Ethyl tert-butyl ether [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
100-41-4	Ethylbenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
107-21-1	Ethylene Glycol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
206-44-0	Fluoranthene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
86-73-7	Fluorene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
16984-48-8	Fluoride, Total [mg/L]	0.15	0.01	0.024	0.06	0.29	0.24	0.33	0.28
54910-89-3	Fluoxetine [µg/L]	0.00044	ND	0.000012	0.00016	0.00094	ND	0.0011	0.00066

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		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
944-22-9	Fonofos [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
50-00-0	Formaldehyde [µg/L]	ND	0.039	ND	0.013	ND	ND	ND	ND
1222-05-5	Galaxolide (HHCB) [µg/L]	0.021	0.001	0.0013	0.0081	0.16	0.0048	0.14	0.1
58-89-9	gamma-BHC [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
5566-34-7	gamma-Chlordane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
8032-32-4	Gasoline Range Organics [µg/L]	180	4.3	8.8	67	160	ND	140	98
25812-30-0	Gemfibrozil [µg/L]	0.000033	0.0000052	ND	0.000013	ND	0.000098	ND	0.000034
107-22-2	Glyoxal [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1071-83-6	Glyphosate [µg/L]	0.38	0.21	0.12	0.24	ND	ND	ND	ND
12587-46-1	Gross Alpha [pci/L]	3.2	0.09	0.56	1.3	3.5	4.4	9.6	5.6
12587-47-2	Gross Beta [pci/L]	2.6	0.36	0.83	1.3	8.1	4.4	6.7	6.4
HAA5	HAA5, Total [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
Hardt-1	Hardness, total as CaCO3 [µg/L]	510000	290000	300000	370000	640000	390000	830000	610000
76-44-8	Heptachlor [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1024-57-3	Heptachlor Epoxide [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
111-71-7	Heptanal [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
118-74-1	Hexachlorobenzene [µg/L]	0.00023	0.0039	0.00025	0.0015	ND	ND	ND	ND
87-68-3	Hexachlorobutadiene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
77-47-4	Hexachlorocyclopentadiene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
67-72-1	Hexachloroethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
66-25-1	Hexanal [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
13252-13-6	HFPO-DA [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
2691-41-0	HMX [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
302-01-2	Hydrazine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
15687-27-1	Ibuprofen [µg/L]	0.0018	0.00021	0.000039	0.00072	ND	ND	0.0013	0.00039
193-39-5	Indeno[1,2,3-cd]pyrene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
20461-54-5	Iodide [µg/L]	7.7	3.3	0.49	4	6.9	34	1.4	15
74-88-4	Iodomethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
73334-07-3	Iopromide [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7439-89-6	Iron [µg/L]	7.2	120	8.7	48	1.4	ND	ND	0.49
78-59-1	Isophorone [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
67-63-0	Isopropyl Alcohol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
98-82-8	Isopropylbenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7439-92-1	Lead, Total [µg/L]	0.043	0.016	0.03	0.03	0.22	0.13	0.2	0.18
330-55-2	Linuron [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7439-93-2	Lithium [µg/L]	ND	1.1	ND	0.38	ND	ND	ND	ND
179601-23-1	m,p-Xylene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7439-95-4	Magnesium [µg/L]	58000	26000	27000	38000	67000	42000	91000	65000
7439-96-5	Manganese, Total [µg/L]	107.2	4.8	6	41	33	46	3.5	29
2355-31-9	MeFOSAA [µg/L]	0.00022	ND	ND	0.000076	ND	ND	ND	ND
57-53-4	Meprobamate [µg/L]	0.00037	ND	ND	0.00013	ND	ND	ND	ND
7439-97-6	Mercury [µg/L]	0.017	0.019	0.018	0.018	ND	0.023	ND	0.0081
126-98-7	Methacrylonitrile [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
76-99-3	Methadone [µg/L]	0.00011	0.0000027	ND	0.000039	0.00016	ND	ND	0.000056
67-56-1	Methanol [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND

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		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
2032-65-7	Methiocarb [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
16752-77-5	Methomyl [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
72-43-5	Methoxychlor [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
78-98-8	Methyl Glyoxal [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
80-62-6	Methyl Methacrylate [µg/L]	0.039	ND	0.0015	0.014	ND	ND	ND	ND
1634-04-4	Methyl tert-butyl ether (MTBE) [µg/L]	0.16	0.17	ND	0.11	ND	ND	ND	ND
MBAS	Methylene blue active substances (MBAS) [µg/L]	52	79	76	69	ND	49	ND	17
75-09-2	Methylene Chloride [µg/L]	0.4	0.72	0.66	0.59	ND	ND	ND	ND
51218-45-2	Metolachlor [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
171118-09-5	Metolachlor ESA [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
152019-73-3	Metolachlor OA [µg/L]	ND	ND	ND	ND	0.0039	ND	ND	0.0014
21087-64-9	Metribuzin [µg/L]	ND	0.0034	ND	0.0012	ND	ND	ND	ND
2385-85-5	Mirex [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
2212-67-1	Molinate [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7439-98-7	Molybdenum [µg/L]	14	2	1.2	6	7.4	5.5	8.3	7
79-08-3	Monobromoacetic acid [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
10599-90-3	Monochloramine [µg/L]	3.8	0.35	2.4	2.2	6	6	4	5.4
60-34-4	Monomethylhydrazine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
57-27-2	Morphine [µg/L]	0.00063	0.000078	0.000072	0.00027	ND	ND	0.00058	0.00017
91-20-3	Naphthalene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
22204-53-1	Naproxen [µg/L]	0.00087	ND	ND	0.00031	ND	ND	0.0011	0.00033
104-51-8	n-Butylbenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7440-02-0	Nickel, Total [µg/L]	74.3	0.16	11.3	29.4	0.54	1.7	0.9	1.1
14797-55-8	Nitrate as N [mg/L]	5.6	0.23	0.6	2.2	5.8	0.62	3.3	3.2
14797-65-0	Nitrite as N [µg/L]	51.7	2.8	6.2	20.9	ND	ND	ND	ND
98-95-3	Nitrobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
55-18-5	N-Nitrosodiethylamine (NDEA)	0.2	0.061	0.062	0.11	0.0015	ND	ND	0.00053
62-75-9	N-Nitrosodimethylamine [µg/L]	0.0003	ND	ND	0.00011	ND	ND	ND	ND
924-16-3	n-Nitrosodi-n-butylamine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
621-64-7	n-Nitrosodi-n-propylamine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
86-30-6	n-Nitrosodiphenylamine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
10595-95-6	N-Nitrosomethylethylamine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
59-89-2	n-Nitrosomorpholine [µg/L]	0.012	0.00014	0.00012	0.0041	0.012	ND	0.039	0.016
100-75-4	n-Nitrosopiperidine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
930-55-2	n-Nitrosopyrrolidine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
NN	NO2+NO3 as N [mg/L]	6.9	1	1.4	3.2	5.8	0.62	3.3	3.2
25154-52-3	Nonylphenol [µg/L]	0.12	0.19	ND	0.11	0.016	ND	ND	0.0056
20427-84-3	Nonylphenol diethoxylate [µg/L]	0.014	0.14	ND	0.054	0.05	ND	ND	0.018
27986-36-3	Nonylphenol monoethoxylate [µg/L]	0.022	0.1	0.00076	0.043	0.011	ND	ND	0.0039
103-65-1	n-Propylbenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
136777-61-2	o&p-Xylene [µg/L]	ND	ND	ND	ND	ND	ND	ND	NA
111-66-0	Octene-1 [µg/L]	4.2	NA	NA	1.5	ND	ND	ND	NA
OILGREASE	Oil & Grease (HEM) [µg/L]	450	ND	ND	160	3100	2200	ND	1900
14265-44-2	o-Phosphate as P [µg/L]	37	4.1	6.7	17	80	150	98	110
23135-22-0	Oxamyl [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND

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		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
131-57-7	Oxybenzone [µg/L]	0.0042	0.0013	0.00066	0.0021	0.032	0.0039	0.0041	0.014
95-47-6	o-Xylene [µg/L]	ND	0.013	ND	0.0047	ND	ND	ND	ND
4685-14-7	Paraquat [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
189084-64-8	PBDE-100 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
182677-30-1	PBDE-138 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
68631-49-2	PBDE-153 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
207122-15-4	PBDE-154 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
147217-75-2	PBDE-17 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
41318-75-6	PBDE-28 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
5436-43-1	PBDE-47 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
243982-82-3	PBDE-49 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
182346-21-0	PBDE-85 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
60348-60-9	PBDE-99 [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
76-01-7	Pentachloroethane [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
82-68-8	Pentachloronitrobenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
87-86-5	Pentachlorophenol [µg/L]	ND	0.019	ND	0.0065	ND	ND	ND	ND
110-62-3	Pentanal [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
14797-73-0	Perchlorate [µg/L]	2.6	0.087	0.18	0.98	1.6	ND	ND	0.56
375-73-5	PFBS [µg/L]	0.0022	0.000061	0.00017	0.00085	0.0028	ND	0.0051	0.0025
335-76-2	PFDA [µg/L]	0.0019	ND	0.00012	0.00069	ND	ND	ND	ND
307-55-1	PFDoA [µg/L]	0.0003	0.000078	0.000033	0.00014	ND	ND	ND	ND
375-85-9	PFHpA [µg/L]	0.0022	0.00039	0.0004	0.001	0.0018	0.0018	0.0027	0.0021
307-24-4	PFHxA [µg/L]	0.0047	0.00015	0.00026	0.0018	0.0049	ND	0.012	0.0053
355-46-4	PFHxS [µg/L]	0.0024	0.000056	0.00021	0.00093	0.003	ND	0.0048	0.0025
375-95-1	PFNA [µg/L]	0.0013	ND	ND	0.00044	ND	ND	0.00062	0.00019
335-67-1	PFOA [ng/L]	1.1	0.039	0.12	0.44	0.96	ND	2.9	1.2
1763-23-1	PFOS [ng/L]	ND	ND	0.075	0.022	ND	ND	ND	ND
376-06-7	PFTeDA [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
72629-94-8	PFTrDA [µg/L]	ND	0.000018	ND	0.0000062	ND	ND	ND	ND
2058-94-8	PFUnA [µg/L]	0.0013	0.000034	0.00018	0.00051	ND	ND	ND	ND
TPHd	PHC AS DIESEL FUEL [µg/L]	NA	4.3	NA	1.5	ND	ND	ND	NA
85-01-8	Phenanthrene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
108-95-2	Phenol [µg/L]	ND	0.052	ND	0.018	ND	ND	ND	ND
57-41-0	Phenytoin (Dilantin) [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7723-14-0	Phosphorus [µg/L]	200	13	55	90	620	460	260	460
85-44-9	Phthalic Anhydride [µg/L]	3.3	0.65	NA	1.4	ND	ND	ND	NA
1918-02-1	Picloram [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
99-87-6	p-Isopropyltoluene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7440-09-7	Potassium [µg/L]	4600	5200	4900	4900	3100	2500	3000	2900
55268-74-1	Praziquantel [µg/L]	ND	0.00029	ND	0.0001	ND	ND	ND	ND
125-33-7	Primidone [µg/L]	0.00087	ND	0.000032	0.00031	0.0012	ND	0.0034	0.0014
57-83-0	Progesterone [µg/L]	ND	0.000014	ND	0.000005	ND	ND	ND	ND
1610-18-0	Prometon [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7287-19-6	Prometryn [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
1918-16-7	Propachlor (2-Chloro-n-(1-Methylethy)-n-phenylac [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND

CASRN	Constituent [Units]	Using UCL95 for Monitoring Well Data*				Using Maximum Value for 2020 Production Well Data**			
		Estimated Concentrations for Production Wells			Plant Influent Concentration Estimates	Observed Concentrations For Production Well			Plant Influent Concentration Estimates
		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
123-38-6	Propanal [µg/L]	0.6	ND	ND	0.21	ND	ND	ND	ND
114-26-1	Propoxur (Baygon) [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
129-00-0	Pyrene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
110-86-1	Pyridine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
91-22-5	Quinoline [µg/L]	0.0012	0.00026	0.000088	0.00054	ND	ND	ND	ND
13982-63-3	Radium 226 [pci/L]	0.15	0.02	0.014	0.063	0.64	0.06	ND	0.25
15262-20-1	Radium 228 [pci/L]	0.33	0.043	0.021	0.14	0.24	0.45	0.68	0.45
121-82-4	RDX [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
69-72-7	Salicylic Acid [µg/L]	0.27	0.032	0.029	0.12	0.013	1	0.85	0.61
135-98-8	sec-Butylbenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7782-49-2	Selenium, Total [µg/L]	2.1	0.031	0.28	0.85	4.6	0.51	4.4	3.1
7631-86-9	Silica [µg/L]	16000	1400	2600	6900	36000	46000	32000	38000
7440-22-4	Silver [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
122-34-9	Simazine [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7440-23-5	Sodium [µg/L]	78000	52000	53000	61000	82000	72000	74000	76000
10098-97-2	Strontium-90 [pci/L]	0.25	0.27	0.25	0.255	0.61	0.84	0.26	0.58
100-42-5	Styrene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
56038-13-2	Sucralose [µg/L]	0.0014	ND	ND	0.0005	0.34	ND	0.0093	0.12
723-46-6	Sulfamethoxazole [µg/L]	0.000081	ND	ND	0.000028	ND	0.00026	0.00026	0.00017
14808-79-8	Sulfate as SO4 [µg/L]	420000	100000	110000	220000	280000	140000	320000	240000
18496-25-8	Sulfide [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
115-96-8	TCEP [µg/L]	0.0005	0.000026	ND	0.00018	ND	0.00054	ND	0.00019
13674-84-5	TCPP [µg/L]	0.0026	0.0003	0.0003	0.0011	0.041	0.0018	ND	0.015
13674-87-8	TDCPP [µg/L]	0.0017	ND	0.00014	0.00063	ND	0.0015	0.0034	0.0015
TIC	Tentatively Identified Compounds [µg/L]	1.8	0.51	NA	0.82	ND	ND	9.7	2.9
5902-51-2	Terbacil [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
13071-79-9	Terbufos [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
98-06-6	tert-Butylbenzene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
994-05-8	Tertiary-amyl methyl ether [µg/L]	ND	ND	ND	ND	ND	ND	ND	NA
75-65-0	Tertiary-butyl alcohol [µg/L]	ND	0.35	ND	0.12	ND	ND	ND	ND
58-22-0	Testosterone [µg/L]	0.000075	0.000015	ND	0.000032	ND	ND	ND	ND
127-18-4	Tetrachloroethene (PCE) [µg/L]	27.7	0.77	1.5	10.4	54	0.39	41	31
109-99-9	Tetrahydrofuran [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
479-45-8	Tetryl [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
7440-28-0	Thallium [µg/L]	0.0057	0.00087	0.00088	0.0026	ND	ND	ND	ND
28249-77-6	Thiobencarb [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
THM	THMs, Total [µg/L]	1.2	0.55	0.59	0.81	3.7	0.66	0.9	1.8
7440-29-1	Thorium [µg/L]	0.019	0.0048	0.0086	0.011	ND	0.064	ND	0.022
ODOR	Threshold Odor Number [Units]	250	8.7	7.5	92	4	100	2	37
108-88-3	Toluene [µg/L]	0.58	0.015	ND	0.21	ND	ND	ND	ND
TDS	Total Dissolved Solids [µg/L]	790000	510000	500000	610000	990000	650000	1200000	930000
TOC	Total Organic Carbon [µg/L]	550	910	39	520	1300	1400	510	1100
1336-36-3	Total PCBs [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
TSuS	Total Suspended Solids [µg/L]	4100	130	10000	4600	54000	2000	200	20000
1330-20-7	Total Xylenes [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND

CASRN	Constituent [Units]	Using UCL95 for Monitoring Well Data*				Using Maximum Value for 2020 Production Well Data**			
		Estimated Concentrations for Production Wells			Plant Influent Concentration Estimates	Observed Concentrations For Production Well			Plant Influent Concentration Estimates
		SM-4	SM-8	SM-9		SM-4	SM-8	SM-9	
8001-35-2	Toxaphene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
TPHg	TPHg [µg/L]	ND	ND	NA	ND	ND	ND	ND	NA
156-60-5	trans-1,2-Dichloroethene [µg/L]	ND	0.042	0.037	0.026	ND	ND	ND	ND
10061-02-6	trans-1,3-Dichloropropene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
110-57-6	trans-1,4-Dichloro-2-butene [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
24017-47-8	Triazofos [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
75-96-7	Tribromoacetic acid [µg/L]	ND	ND	ND	ND	ND	ND	ND	NA
76-03-9	Trichloroacetic acid [µg/L]	ND	0.038	ND	0.013	ND	ND	ND	ND
79-01-6	Trichloroethene (TCE) [µg/L]	22.2	0.92	0.44	8.2	59	7	0.34	23
75-69-4	Trichlorofluoromethane [µg/L]	0.22	0.027	ND	0.088	ND	ND	ND	ND
3380-34-5	Triclosan [µg/L]	ND	ND	ND	ND	0.0093	ND	ND	0.0033
1582-09-8	Trifluralin [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
738-70-5	Trimethoprim [µg/L]	0.000087	0.000021	ND	0.000038	0.00054	0.00028	ND	0.00029
786-19-6	Trithion [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
10028-17-8	Tritium [pci/L]	51	58	58	56	230	38	58	110
TURB	Turbidity [ntu]	6.9	1.4	3.7	4	48	1.3	0.05	17
7440-61-1	Uranium Rad [pci/L]	5.3	1.3	2.1	2.9	7.1	5.1	14	8.5
7440-62-2	Vanadium, Total [µg/L]	2.4	0.13	0.58	1	4.2	6.1	3.5	4.7
108-05-4	Vinyl Acetate [µg/L]	ND	ND	ND	ND	ND	ND	ND	ND
75-01-4	Vinyl Chloride [µg/L]	ND	0.081	ND	0.028	ND	ND	ND	ND
7440-66-6	Zinc [µg/L]	5.1	2.6	2.6	3.5	9.1	54	84	47

Notes:

CASRN = Chemical Abstracts Service Registry Number (as applicable); µg/L = micrograms per liter; ng/L = nanograms per liter; pci/L = picocuries per liter; MFL = million fibers per liter; MPN/100mL= most probable number per 100 millilitres; NTU = nephelometric turbidity units; 'ND' = non-detect; 'NA' = not available; '-' = not applicable.

**UCL95 from statistical analysis of the monitoring well groundwater quality data set. In the event the UCL95 statistics could not be calculated, the maximum value was adopted as a conservative approach. For non-detect (ND) results a value of 0 was assumed*

***Maximum observed values from production wells from available 2020 sampling data (provided for information only).*

Appendix G
Mann-Kendall and Sen's Slope Trend Analysis Results

Analyses performed on sample data from January 2012 to June 2020 (inclusive)

Parameter	Basic Analysis							Mann-Kendall Trend Analysis					
	Count	Min	Median	Max	Average	Standard Deviation	Units	P Value of Two Tailed Test	Inferred Confidence Level (of Trend Present in Data Set)	Slope	Normalized Slope	Meets Trend Assumptions?	Statistically Significant Mann-Kendall Trend
		(units)	(units)	(units)	(units)	(units)	(-)	(-)	(%)	(units/yr)	(%/yr)		
SM-3													
1,1-Dichloroethene (1,1-DCE)	87	< 0.5	0.25	0.8	0.30	0.13	µg/L	---	---	---	---	N (Ins. >RDL data)	---
1,2,3-Trichloropropane (1,2,3-TCP)	7	< 0.005	0.0025	< 0.005	0.0025	0.0	µg/L	---	---	---	---	N (Ins. trend data)	---
1,4-Dioxane	29	< 1.0	1.40	7.9	2.22	2.13	µg/L	**0.00**	**100.0%**	**-0.30**	**-21.42**	**Y**	**Down**
Aluminum	3	< 50	25.00	< 50	25.00	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Arsenic	3	0.5	0.70	< 2	0.73	0.25	µg/L	---	---	---	---	N (Ins. trend data)	---
Barium	3	49.2	51.60	59.5	53.43	5.39	µg/L	---	---	---	---	N (Ins. trend data)	---
Boron	0	---	---	---	---	---	µg/L	---	---	---	---	N (Ins. trend data)	---
Carbon Tetrachloride (CTC)	87	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Chromium	4	2.20	4.05	< 10	3.83	1.41	µg/L	---	---	---	---	N (Ins. trend data)	---
cis-1,2-Dichloroethene (cis-1,2-DCE)	87	< 0.5	0.25	0.6	0.26	0.064	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Fluoride	3	330.00	370.00	390.00	363.33	30.55	µg/L	---	---	---	---	N (Ins. trend data)	---
Gross Alpha	2	3.80	7.40	11.00	7.40	5.09	pci/L	---	---	---	---	N (Ins. trend data)	---
Lead	3	< 5	2.50	< 5	2.50	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Manganese	3	4.60	5.50	6.70	5.60	1.05	µg/L	---	---	---	---	N (Ins. trend data)	---
Nitrate (as N)	32	3800	4951	7341	5220	889	µg/L	0.07	93.1%	-136	-2.75	Y	---
Nitrate + Nitrite (as N)	2	440	2370	4300	2370	2729	µg/L	---	---	---	---	N (Ins. trend data)	---
n-Nitrosodiethylamine (NDEA)	0	---	---	---	---	---	µg/L	---	---	---	---	N (Ins. trend data)	---
Perchlorate	3	< 4	2.0	< 4	2.0	0.0	µg/L	---	---	---	---	N (Ins. trend data)	---
Perfluorooctanoic Acid (PFOA)	1	0.0017	0.0017	0.0017	0.0017	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Perfluorooctanesulfonic Acid (PFOS)	1	0.0017	0.0017	0.0017	0.0017	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Selenium	3	2.7	2.7	< 5	2.8	0.3	µg/L	---	---	---	---	N (Ins. trend data)	---
Tetrachloroethene (PCE)	87	5.2	8.40	26.6	10.43	4.12	µg/L	**0.00**	**100.0%**	**-1.20**	**-14.32**	**Y**	**Down**
Total Trihalomethanes (TTHMs)	12	0.55	1.05	2.8	1.25	0.69	µg/L	1.00	0.0%	0.00	0.00	Y	---
Trichloroethene (TCE)	87	< 0.5	3.30	8.7	3.88	1.97	µg/L	0.01	98.6%	-0.24	-7.36	Y	---
Uranium Rad	2	8	8.20	8.4	8.20	0.28	pci/L	---	---	---	---	N (Ins. trend data)	---
Vanadium	2	4.4	4.70	5	4.70	0.42	µg/L	---	---	---	---	N (Ins. trend data)	---
1,1,2-Trichloroethane (1,1,2-TCA)	12	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
1,1-Dichloroethane (1,1-DCA)	87	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
1,2-Dichloroethane (1,2-DCA)	87	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Antimony	3	< 6	3.00	< 6	3.00	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Benzene	87	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Bis(2-ethylhexyl)phthalate	6	< 3	1.50	< 3	1.50	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Bromate	0	---	---	---	---	---	µg/L	---	---	---	---	N (Ins. trend data)	---
Hexachlorobenzene (HCB)	4	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Methyl Tert-butyl Ether (MTBE)	87	< 3	1.50	< 3	1.50	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Methylene Chloride (also Dichloromethane [DCM])	87	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Nickel	3	< 10	5.00	< 10	5.00	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Nitrite (as N)	3	< 400	200	< 400	200	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Strontium-90	0	---	---	---	---	---	pci/L	---	---	---	---	N (Ins. trend data)	---
trans-1,2-Dichloroethene (trans-1,2-DCE)	87	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Vinyl Chloride	12	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---

Analyses performed on sample data from January 2012 to June 2020 (inclusive)

Parameter	Basic Analysis							Mann-Kendall Trend Analysis					
	Count	Min	Median	Max	Average	Standard Deviation	Units	P Value of Two Tailed Test	Inferred Confidence Level (of Trend Present in Data Set)	Slope	Normalized Slope	Meets Trend Assumptions?	Statistically Significant Mann-Kendall Trend
		(units)	(units)	(units)	(units)	(units)	(-)	(-)	(%)	(units/yr)	(%/yr)		
SM-4													
1,1-Dichloroethene (1,1-DCE)	106	1.1	1.80	2.9	1.86	0.39	µg/L	0.00	100.0%	0.11	6.05	Y	---
1,2,3-Trichloropropane (1,2,3-TCP)	26	0.0026	0.0054	0.0100	0.0049	0.0023	µg/L	---	---	---	---	N (Ins. >RDL data)	---
1,4-Dioxane	32	11.0	19.0	26.0	18.3	2.94	µg/L	0.00	100.0%	0.87	4.58	Y	---
Aluminum	4	3.4	16.2	< 50	15.2	11.4	µg/L	---	---	---	---	N (Ins. trend data)	---
Arsenic	4	0.50	0.65	0.71	0.63	0.10	µg/L	---	---	---	---	N (Ins. trend data)	---
Barium	4	56.5	61.8	76.0	64.0	8.5	µg/L	---	---	---	---	N (Ins. trend data)	---
Boron	3	130	130	200	153	40.4	µg/L	---	---	---	---	N (Ins. trend data)	---
Carbon Tetrachloride (CTC)	106	< 0.5	0.3	< 0.5	0.3	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Chromium	4	7.2	5.0	< 10	5.6	1.10	µg/L	---	---	---	---	N (Ins. trend data)	---
cis-1,2-Dichloroethene (cis-1,2-DCE)	106	0.45	2.20	3.4	2.28	0.44	µg/L	0.00	100.0%	-0.10	-4.72	Y	---
Fluoride	4	290	335	350	328	26.3	µg/L	---	---	---	---	N (Ins. trend data)	---
Gross Alpha	3	< 3	3.50	3.86	2.95	1.27	pci/L	---	---	---	---	N (Ins. trend data)	---
Lead	4	4	2.50	< 5	2.88	0.75	µg/L	---	---	---	---	N (Ins. trend data)	---
Manganese	5	4.17	25.10	33	22.67	10.90	µg/L	---	---	---	---	N (Ins. trend data)	---
Nitrate (as N)	38	4653	6133	7400.0	6179	511	µg/L	0.90	10.0%	0.00	0.00	Y	---
Nitrate + Nitrite (as N)	3	570	5700	5800	4023	2991	µg/L	---	---	---	---	N (Ins. trend data)	---
n-Nitrosodiethylamine (NDEA)	1	0.0015	0.0015	0.0015	0.0015	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Perchlorate	4	1.60	2.00	< 4	1.90	0.20	µg/L	---	---	---	---	N (Ins. trend data)	---
Perfluorooctanoic Acid (PFOA)	2	0.0010	0.0013	0.0017	0.0013	0.0005	µg/L	---	---	---	---	N (Ins. trend data)	---
Perfluorooctanesulfonic Acid (PFOS)	2	0.0017	0.0014	< 0.002	0.0014	0.0005	µg/L	---	---	---	---	N (Ins. trend data)	---
Selenium	4	2.8	3.0	< 5	3.3	0.93	µg/L	---	---	---	---	N (Ins. trend data)	---
Tetrachloroethene (PCE)	106	12.0	16.1	43.4	21.8	9.81	µg/L	**0.00**	**100.0%**	**3.24**	**20.10**	**Y**	**Up**
Total Trihalomethanes (TTHMs)	19	3.6	4.10	4.8	4.14	0.35	µg/L	0.65	35.4%	-0.025	-0.61	Y	---
Trichloroethene (TCE)	106	32.6	45.2	63.2	46.2	6.90	µg/L	0.98	1.5%	0.00	0.00	Y	---
Uranium Rad	3	5.9	6.0	7.1	6.3	0.67	pci/L	---	---	---	---	N (Ins. trend data)	---
Vanadium	3	4.0	4.2	4.5	4.2	0.25	µg/L	---	---	---	---	N (Ins. trend data)	---
1,1,2-Trichloroethane (1,1,2-TCA)	20	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
1,1-Dichloroethane (1,1-DCA)	106	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
1,2-Dichloroethane (1,2-DCA)	106	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Antimony	4	0.2	3.0	< 6	2.3	1.40	µg/L	---	---	---	---	N (Ins. trend data)	---
Benzene	106	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Bis(2-ethylhexyl)phthalate	7	< 3	1.5	< 5	1.6	0.38	µg/L	---	---	---	---	N (Ins. trend data)	---
Bromate	1	< 25	12.5	< 25	12.5	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Hexachlorobenzene (HCB)	5	< 0.5	0.25	< 1	0.30	0.11	µg/L	---	---	---	---	N (Ins. trend data)	---
Methyl Tert-butyl Ether (MTBE)	105	< 2	1.5	< 3	1.5	0.05	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Methylene Chloride (also Dichloromethane [DCM])	106	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Nickel	4	4.1	5.0	< 10	4.8	0.45	µg/L	---	---	---	---	N (Ins. trend data)	---
Nitrite (as N)	4	< 100	200	< 400	163	75.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Strontium-90	1	< 0	0.0	< 0	0.0	0.00	pci/L	---	---	---	---	N (Ins. trend data)	---
trans-1,2-Dichloroethene (trans-1,2-DCE)	106	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Vinyl Chloride	19	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---

Analyses performed on sample data from January 2017 to June 2020 (inclusive)

Parameter	Basic Analysis							Mann-Kendall Trend Analysis					
	Count	Min	Median	Max	Average	Standard Deviation	Units	P Value of Two Tailed Test	Inferred Confidence Level (of Trend Present in Data Set)	Slope	Normalized Slope	Meets Trend Assumptions?	Statistically Significant Mann-Kendall Trend
		(units)	(units)	(units)	(units)	(units)	(-)	(-)	(%)	(units/yr)	(%/yr)		
SM-3													
1,1-Dichloroethene (1,1-DCE)	87	< 0.5	0.25	0.8	0.30	0.13	µg/L	---	---	---	---	N (Ins. >RDL data)	---
1,2,3-Trichloropropane (1,2,3-TCP)	7	< 0.005	0.0025	< 0.005	0.0025	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
1,4-Dioxane	29	< 1.0	1.40	7.9	2.22	2.13	µg/L	0.16	83.6%	0.17	15.53	Y	---
Aluminum	1	< 50	25	< 50	25	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Arsenic	1	< 2	1.00	< 2	1.00	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Barium	1	59.5	59.5	59.5	59.5	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Boron	0	---	---	---	---	---	µg/L	---	---	---	---	N (Ins. trend data)	---
Carbon Tetrachloride (CTC)	40	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Chromium	1	< 10	5.00	< 10	5.00	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
cis-1,2-Dichloroethene (cis-1,2-DCE)	87	< 0.5	0.25	0.6	0.26	0.064	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Fluoride	1	390	390	390	390	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Gross Alpha	1	3.8	3.8	3.8	3.8	0.00	pci/L	---	---	---	---	N (Ins. trend data)	---
Lead	1	< 5	2.50	< 5	2.50	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Manganese	1	6.7	6.7	6.7	6.7	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Nitrate (as N)	32	3800.0	4951	7341	5220	889	µg/L	0.66	34.1%	113	2.41	Y	---
Nitrate + Nitrite (as N)	1	4300	4300	4300	4300	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
n-Nitrosodiethylamine (NDEA)	0	---	---	---	---	---	µg/L	---	---	---	---	N (Ins. trend data)	---
Perchlorate	1	< 4	2.0	< 4	2.0	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Perfluorooctanoic Acid (PFOA)	1	0.0017	0.0017	0.0017	0.0017	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Perfluorooctanesulfonic Acid (PFOS)	1	0.0017	0.0017	0.0017	0.0017	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Selenium	1	2.7	2.7	2.7	2.7	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Tetrachloroethene (PCE)	87	5.2	8.4	26.6	10.4	4.12	µg/L	0.16	84.2%	0.25	3.51	Y	---
Total Trihalomethanes (TTHMs)	12	0.55	1.05	2.8	1.25	0.69	µg/L	1.00	0.0%	0.21	20.65	N (Ins. trend data)	---
Trichloroethene (TCE)	87	< 0.5	3.30	8.7	3.88	1.97	µg/L	0.01	99.3%	0.33	10.51	Y	---
Uranium Rad	1	8.40	8.40	8.40	8.40	0.00	pci/L	---	---	---	---	N (Ins. trend data)	---
Vanadium	0	---	---	---	---	---	µg/L	---	---	---	---	N (Ins. trend data)	---
1,1,2-Trichloroethane (1,1,2-TCA)	3	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
1,1-Dichloroethane (1,1-DCA)	40	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
1,2-Dichloroethane (1,2-DCA)	40	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Antimony	1	< 6	3.00	< 6	3.00	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Benzene	40	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Bis(2-ethylhexyl)phthalate	2	< 3	1.50	< 3	1.50	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Bromate	0	---	---	---	---	---	µg/L	---	---	---	---	N (Ins. trend data)	---
Hexachlorobenzene (HCB)	1	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Methyl Tert-butyl Ether (MTBE)	40	< 3	1.50	< 3	1.50	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Methylene Chloride (also Dichloromethane [DCM])	40	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Nickel	1	< 10	5.00	< 10	5.00	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Nitrite (as N)	1	< 400	200	< 400	200	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Strontium-90	0	---	---	---	---	---	pci/L	---	---	---	---	N (Ins. trend data)	---
trans-1,2-Dichloroethene (trans-1,2-DCE)	40	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Vinyl Chloride	3	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---

Analyses performed on sample data from January 2017 to June 2020 (inclusive)

Parameter	Basic Analysis							Mann-Kendall Trend Analysis					
	Count	Min	Median	Max	Average	Standard Deviation	Units	P Value of Two Tailed Test	Inferred Confidence Level (of Trend Present in Data Set)	Slope	Normalized Slope	Meets Trend Assumptions?	Statistically Significant Mann-Kendall Trend
		(units)	(units)	(units)	(units)	(units)	(-)	(-)	(%)	(units/yr)	(%/yr)		
SM-4													
1,1-Dichloroethene (1,1-DCE)	106	1.1	1.80	2.9	1.86	0.39	µg/L	0.00	100.0%	0.22	10.22	Y	---
1,2,3-Trichloropropane (1,2,3-TCP)	26	0.0026	0.0054	0.0100	0.0049	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
1,4-Dioxane	32	11.0	19.0	26.0	18.3	2.94	µg/L	**0.01**	**99.4%**	**1.34**	**6.70**	**Y**	**Up**
Aluminum	2	3.4	14.2	< 50	14.2	15.27	µg/L	---	---	---	---	N (Ins. trend data)	---
Arsenic	2	0.6	0.7	0.71	0.7	0.08	µg/L	---	---	---	---	N (Ins. trend data)	---
Barium	2	60.0	68.0	76.0	68.0	11.31	µg/L	---	---	---	---	N (Ins. trend data)	---
Boron	2	130.0	130.0	130.0	130.0	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Carbon Tetrachloride (CTC)	43	< 0.5	0.3	< 0.5	0.3	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Chromium	2	7.2	6.1	< 10	6.1	1.56	µg/L	---	---	---	---	N (Ins. trend data)	---
cis-1,2-Dichloroethene (cis-1,2-DCE)	106	0.45	2.20	3.4	2.28	0.44	µg/L	0.01	99.2%	-0.079	-3.95	Y	---
Fluoride	2	290.0	315.0	340.0	315.0	35.36	µg/L	---	---	---	---	N (Ins. trend data)	---
Gross Alpha	2	< 3	2.50	3.5	2.50	1.41	pci/L	---	---	---	---	N (Ins. trend data)	---
Lead	2	4	3.25	< 5	3.25	1.06	µg/L	---	---	---	---	N (Ins. trend data)	---
Manganese	2	25.1	29.1	33.0	29.1	5.59	µg/L	---	---	---	---	N (Ins. trend data)	---
Nitrate (as N)	38	4653	6133	7400.0	6179	511	µg/L	0.96	4.0%	0.00	0.00	Y	---
Nitrate + Nitrite (as N)	2	5700	5750	5800	5750	71	µg/L	---	---	---	---	N (Ins. trend data)	---
n-Nitrosodiethylamine (NDEA)	1	0.0015	0.0015	0.0015	0.0015	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Perchlorate	2	1.6	2	< 4	1.8	0.28	µg/L	---	---	---	---	N (Ins. trend data)	---
Perfluorooctanoic Acid (PFOA)	2	0.00096	0	0.0017	0.0	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Perfluorooctanesulfonic Acid (PFOS)	2	0.0017	0	< 0.002	0.0	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Selenium	2	3.1	4	4.6	3.9	1.06	µg/L	---	---	---	---	N (Ins. trend data)	---
Tetrachloroethene (PCE)	106	12.0	16.1	43.4	21.8	9.81	µg/L	**0.00**	**100.0%**	**6.39**	**18.62**	**Y**	**Up**
Total Trihalomethanes (TTHMs)	19	3.6	4.10	4.8	4.14	0.35	µg/L	0.73	26.6%	-0.20	-5.12	N (Ins. trend data)	---
Trichloroethene (TCE)	106	32.6	45.2	63.2	46.2	6.90	µg/L	0.01	98.8%	2.02	4.34	Y	---
Uranium Rad	2	5.9	6.5	7.1	6.5	0.85	pci/L	---	---	---	---	N (Ins. trend data)	---
Vanadium	1	4.2	4.2	4.2	4.2	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
1,1,2-Trichloroethane (1,1,2-TCA)	5	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
1,1-Dichloroethane (1,1-DCA)	43	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
1,2-Dichloroethane (1,2-DCA)	43	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Antimony	2	0.2	1.6	< 6	1.6	1.98	µg/L	---	---	---	---	N (Ins. trend data)	---
Benzene	43	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Bis(2-ethylhexyl)phthalate	3	< 3	1.5	< 5	1.8	0.58	µg/L	---	---	---	---	N (Ins. trend data)	---
Bromate	1	< 25	12.5	< 25	12.5	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---
Hexachlorobenzene (HCB)	2	< 0.5	0.38	< 1	0.38	0.18	µg/L	---	---	---	---	N (Ins. trend data)	---
Methyl Tert-butyl Ether (MTBE)	43	< 2	1.5	< 3	1.5	0.08	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Methylene Chloride (also Dichloromethane [DCM])	43	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Nickel	2	4.1	4.6	< 10	4.6	0.64	µg/L	---	---	---	---	N (Ins. trend data)	---
Nitrite (as N)	2	< 100	125.0	< 400	125.0	106.07	µg/L	---	---	---	---	N (Ins. trend data)	---
Strontium-90	1	< 0	0.0	< 0	0.0	0.00	pci/L	---	---	---	---	N (Ins. trend data)	---
trans-1,2-Dichloroethene (trans-1,2-DCE)	43	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. >RDL data)	---
Vinyl Chloride	4	< 0.5	0.25	< 0.5	0.25	0.00	µg/L	---	---	---	---	N (Ins. trend data)	---

Notes:

1. Non-detect multiplier of 0.5 applied to <DL sample data

*2. **Bold** text in the 'Parameter' column indicates one or more analyses returned notable results*

3. Basic analysis performed with the following conditions:

- Calculation of median and average used multiplier of 0.5 for <DL sample data

4. Mann-Kendall trend analysis:

*- **Bold** text/values in the 'Mann-Kendall Trend Analysis' columns indicates a Mann-Kendall trend has been detected*

- Statistically significant trend defined as:

-- P-value of two-tailed test less than or equal to 0.10

-- Absolute value of Sen's normalized slope is greater than 5.0%

-- Absolute slope criteria met for individual parameters:

- 1,1-Dichloroethene: 0.5 µg/L/yr

- 1,4-Dioxane: 0.1 µg/L/yr

- cis-1,2-Dichloroethene: 0.5 µg/L/yr

- Nitrate as N: 200.0 µg/L/yr

- Tetrachloroethene: 0.5 µg/L/yr

- Total Trihalomethanes: 5.0 µg/L/yr

- Trichloroethene: 0.5 µg/L/yr

- Up: Denotes statistically significant upward trend

- Down: Denotes statistically significant downward trend

- "---": Denotes no trend

- Non-detect multiplier of 0.5 applied to <DL sample data

5. Legend for trend assumptions:

- Y: All conditions are met

- N: Not all conditions are met, specified as follows:

-- No new data: No sample data present for years reported

-- Ins. >DL data: Less than 50% of data was above detection limit

-- Non-Monotonic: Trend is non-monotonic (i.e., trend reversal or termination is present)

-- Damaged: The well is damaged

-- Ins. trend data: Found fewer than 8 data points in the data set used to calculate Mann-Kendall results

Appendix H
Trend Charts

Appendix H - Production Well SM-03

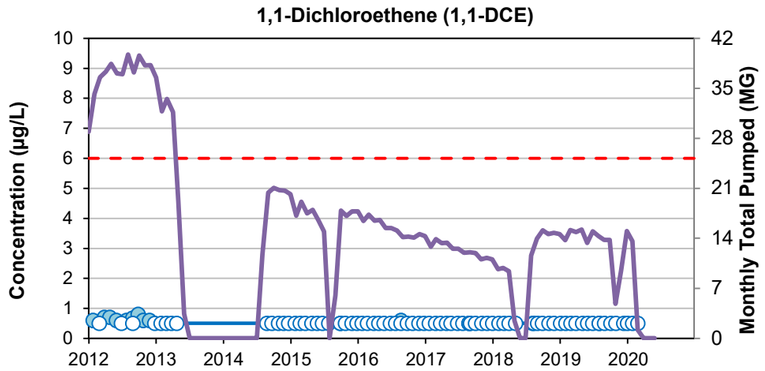
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

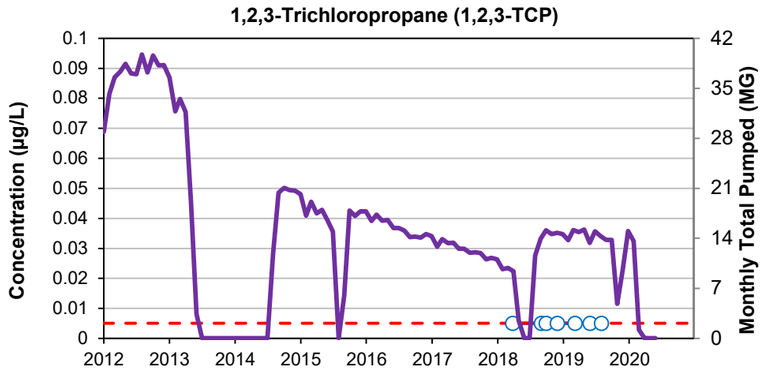
Monthly Total Pumped (Million Gallons [MG])

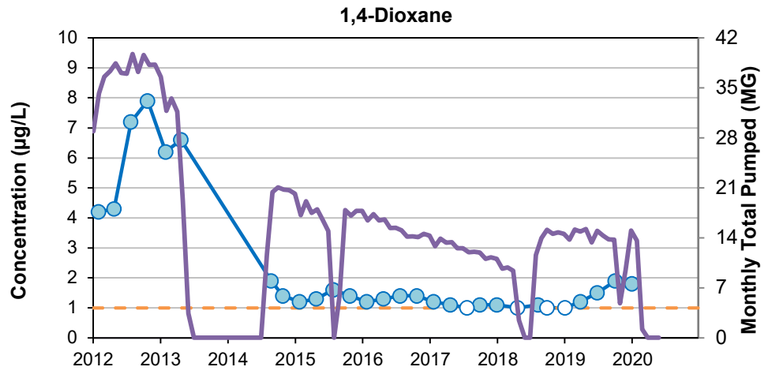
Maximum Contaminant Level (MCL)

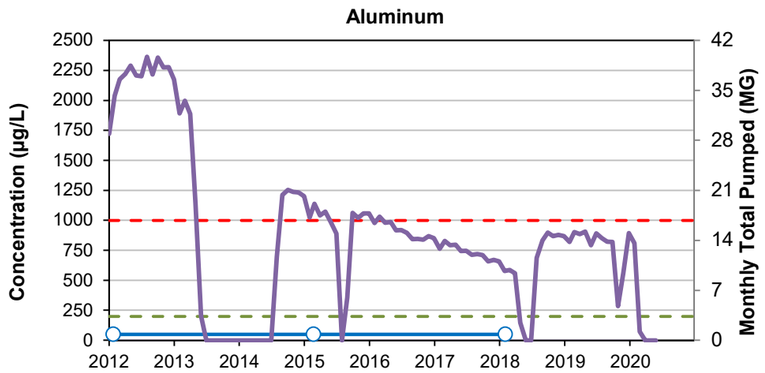
Notification Level (NL)

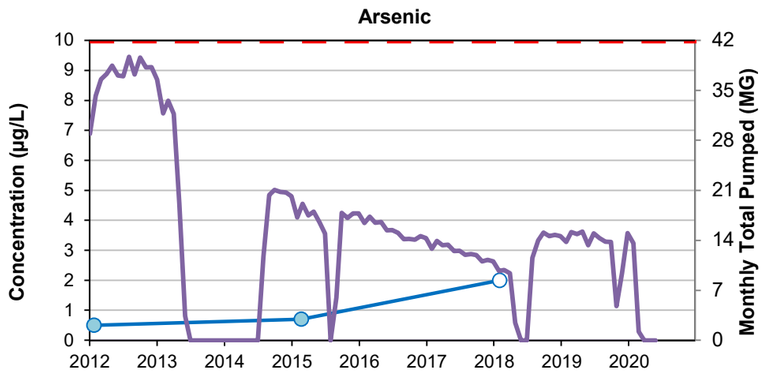
Secondary Maximum Contaminant Level (SMCL)

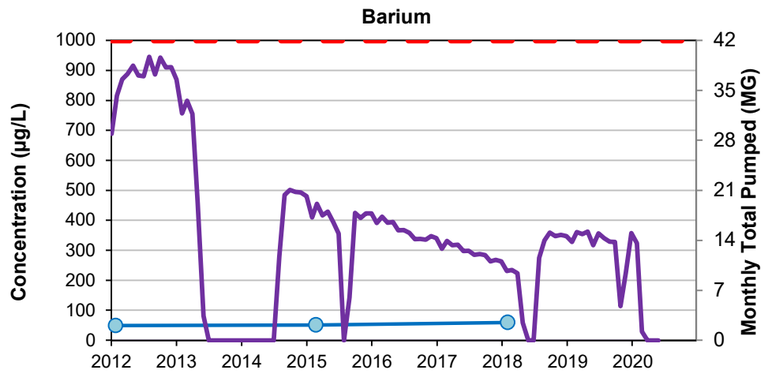


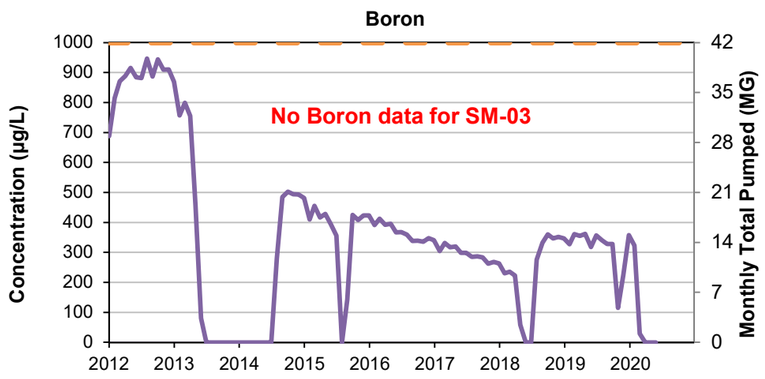


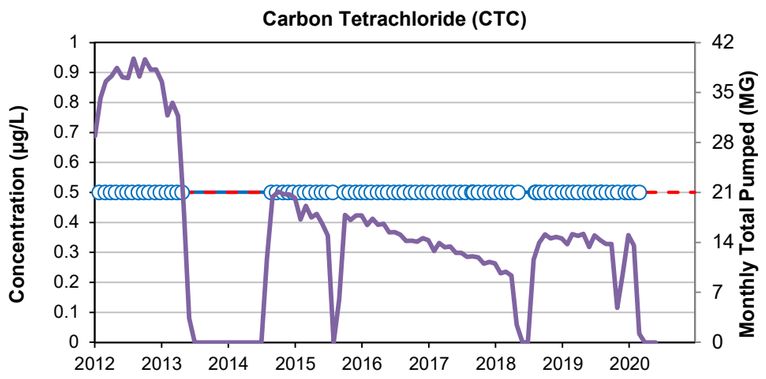


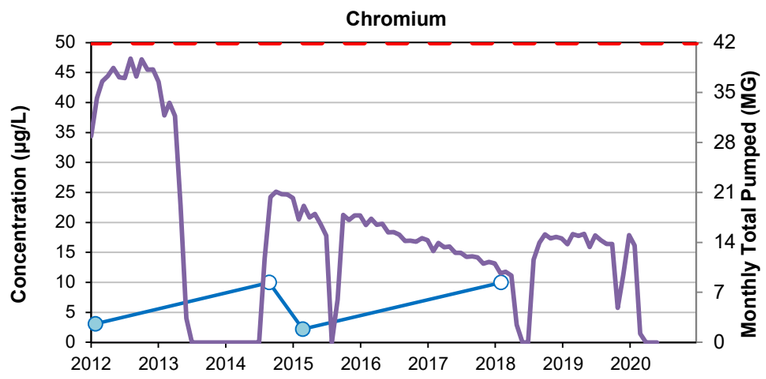










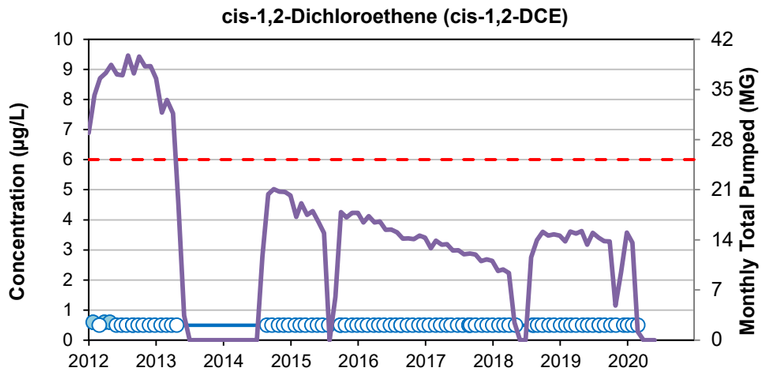


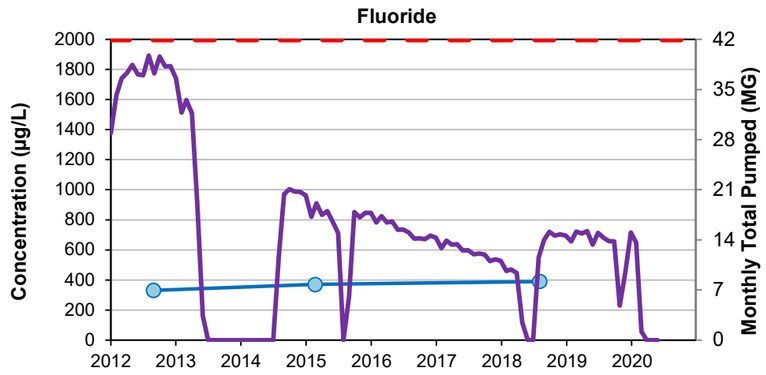
Appendix H - Production Well SM-03

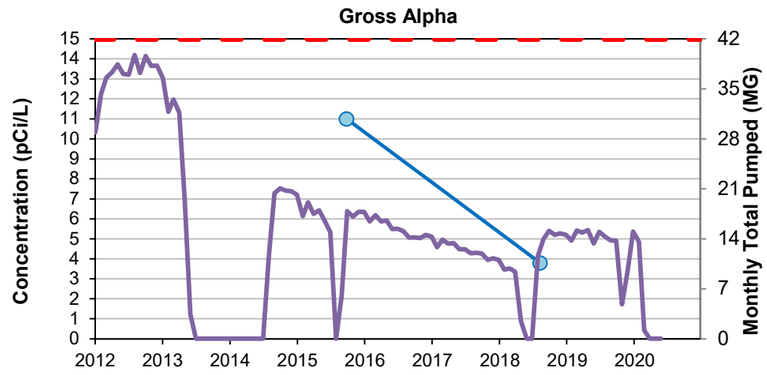
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)
- Triangle symbols (△) indicate that values were converted from Nitrate (as NO3) to Nitrate (as N)

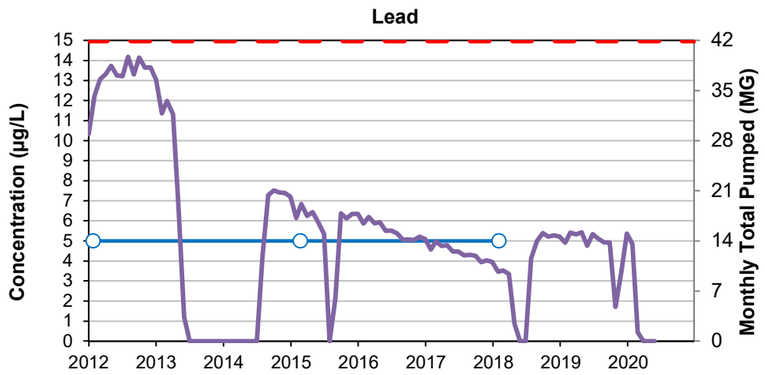
Monthly Total Pumped (Million Gallons [MG])

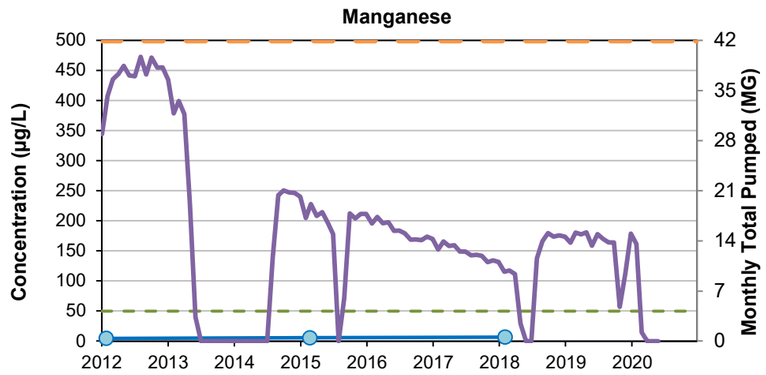
Maximum Contaminant Level (MCL)
Notification Level (NL)
Secondary Maximum Contaminant Level (SMCL)

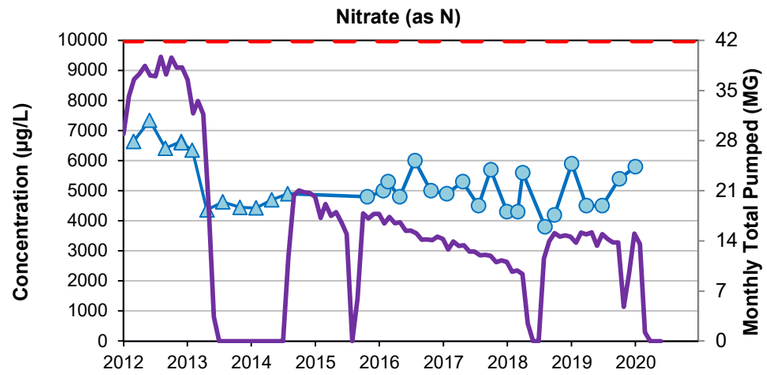


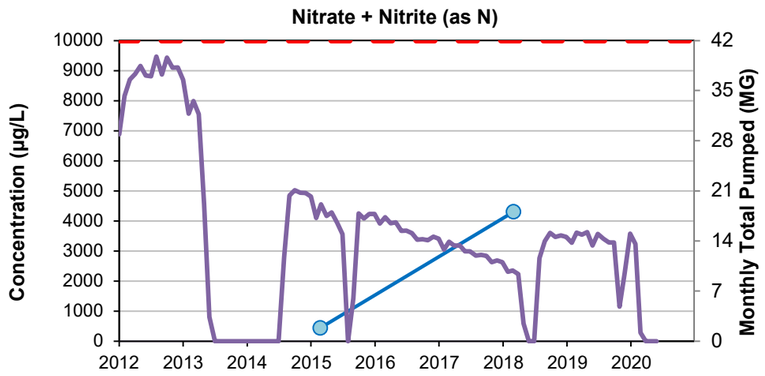


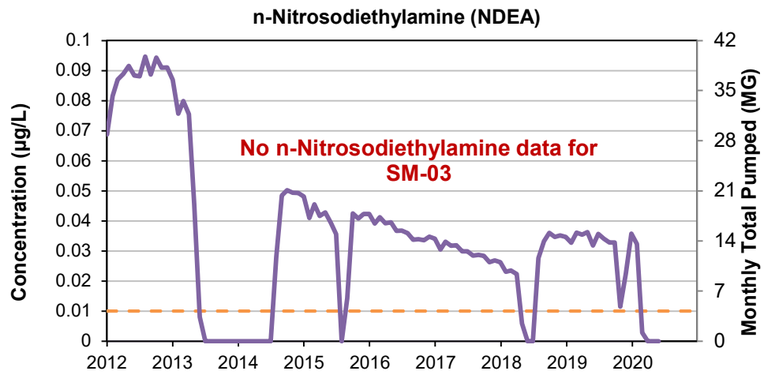


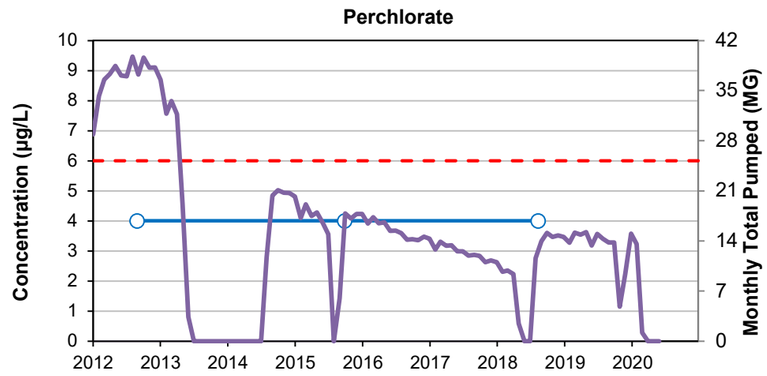












Appendix H - Production Well SM-03

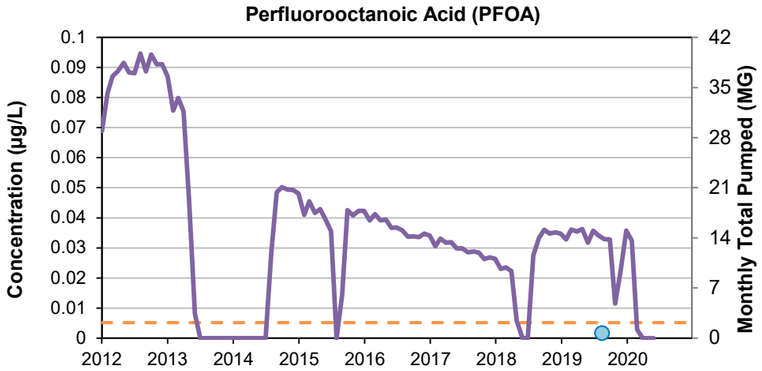
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

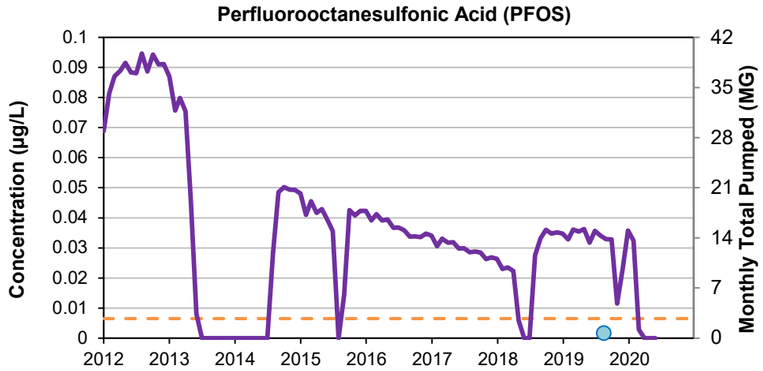
Monthly Total Pumped (Million Gallons [MG])

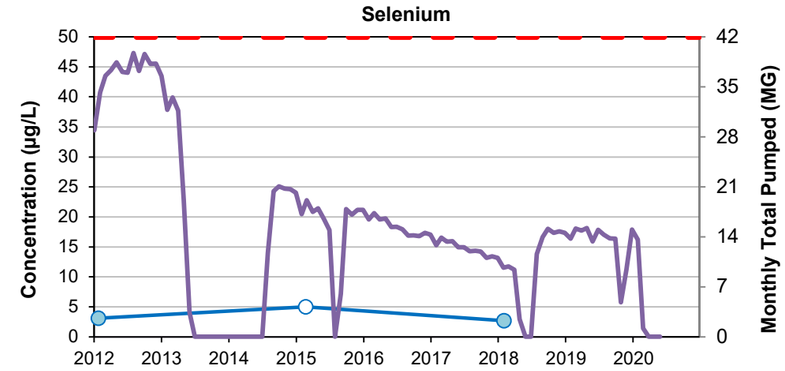
Maximum Contaminant Level (MCL)

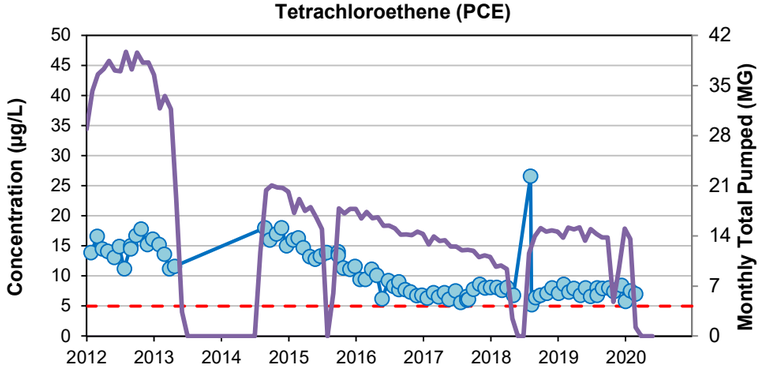
Notification Level (NL)

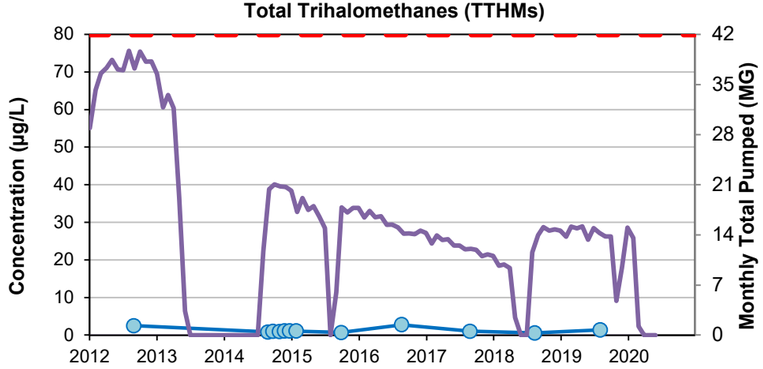
Secondary Maximum Contaminant Level (SMCL)

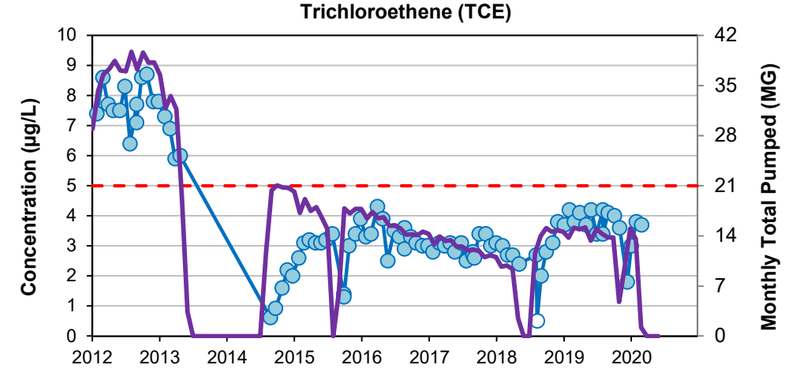


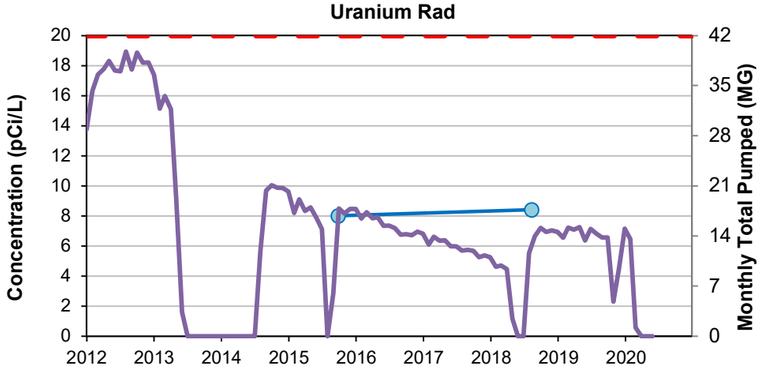


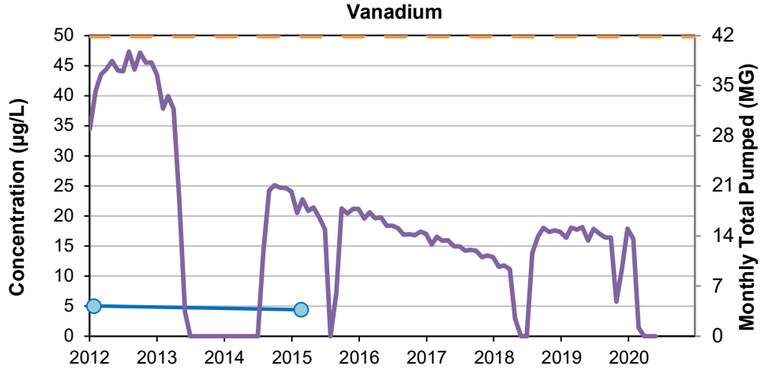


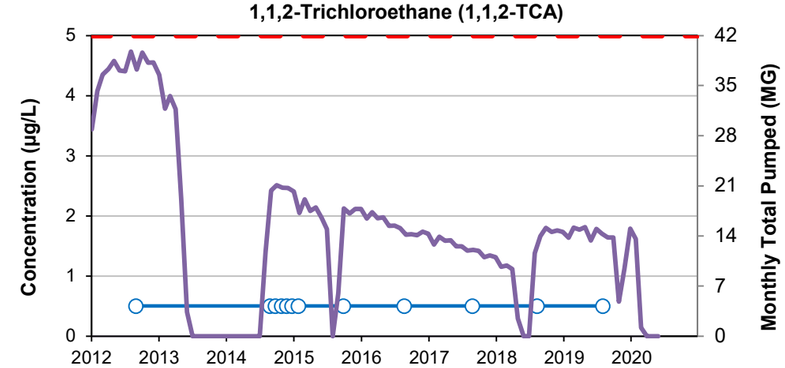












Appendix H - Production Well SM-03

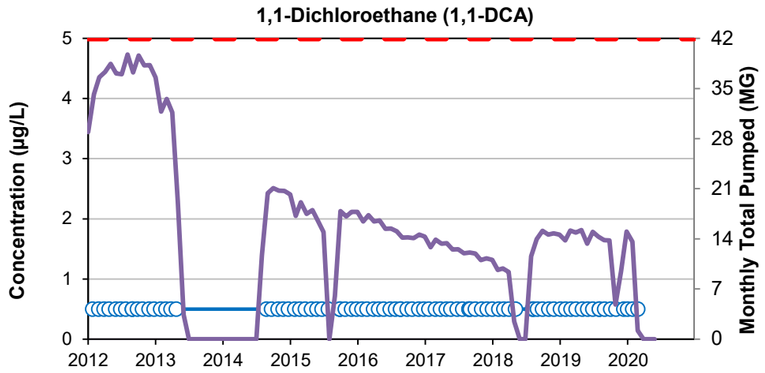
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

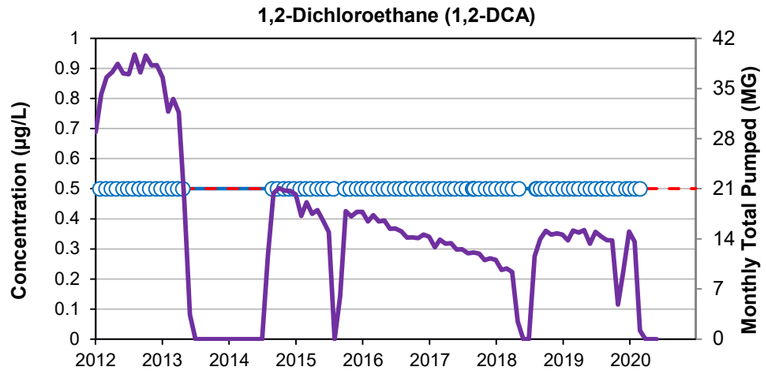
Monthly Total Pumped (Million Gallons [MG])

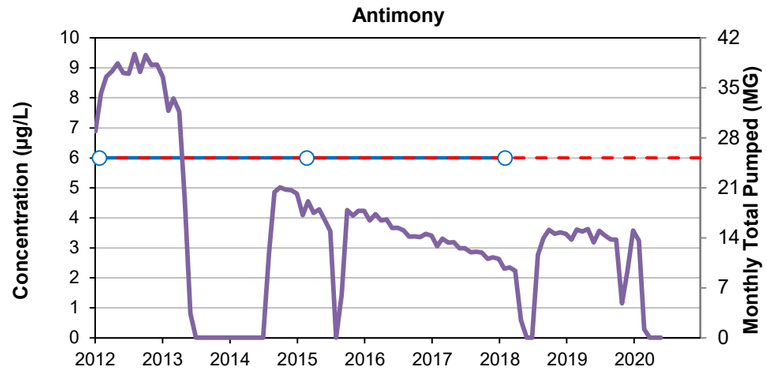
Maximum Contaminant Level (MCL)

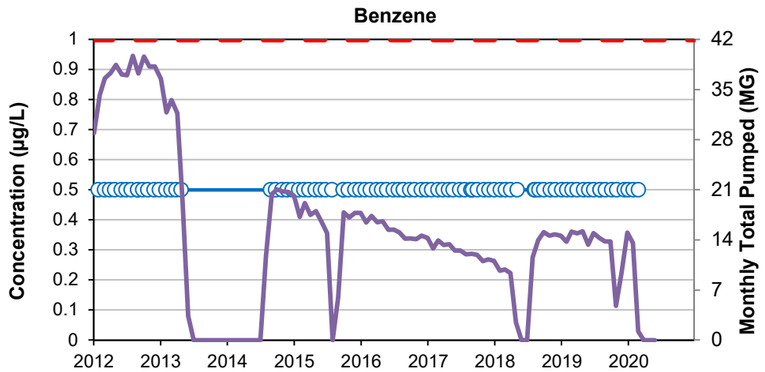
Notification Level (NL)

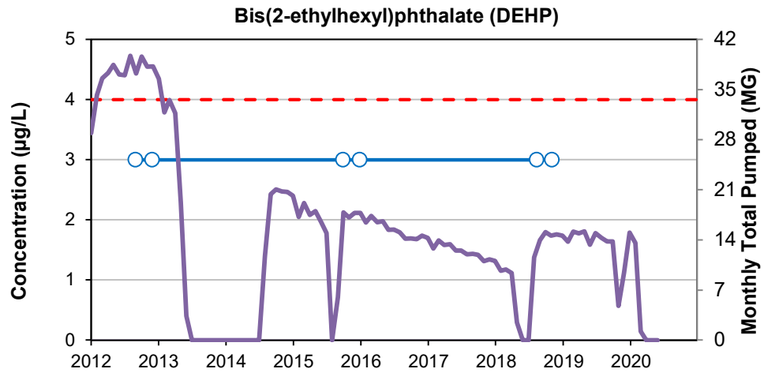
Secondary Maximum Contaminant Level (SMCL)

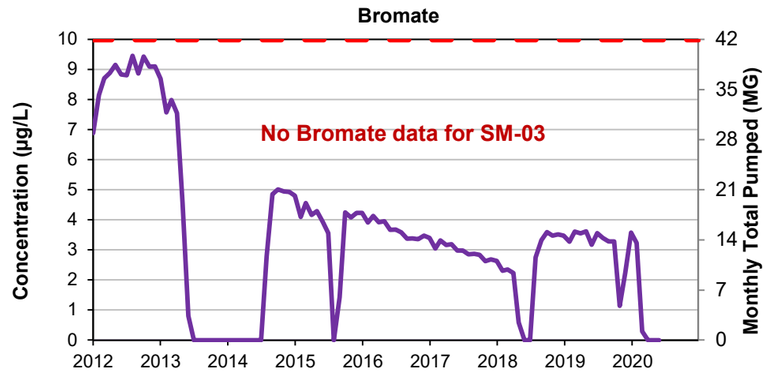


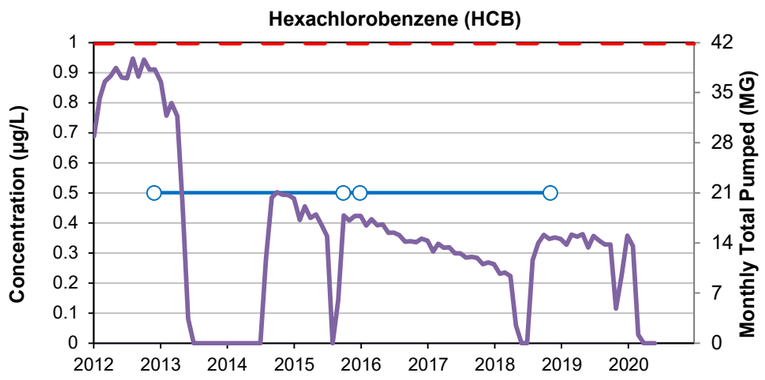


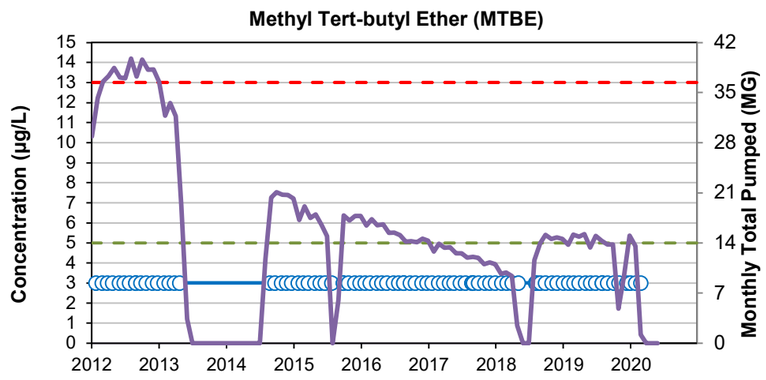


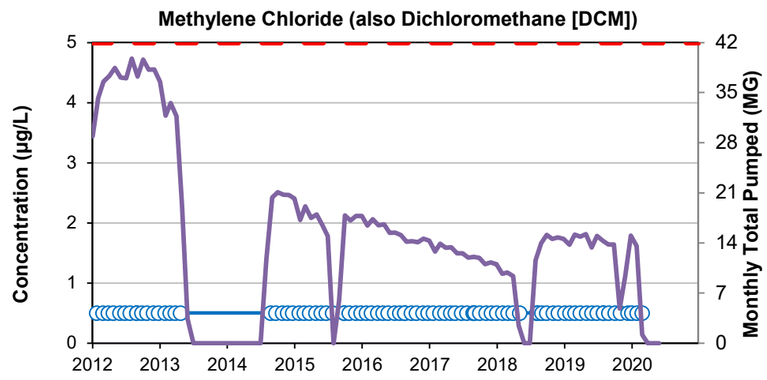










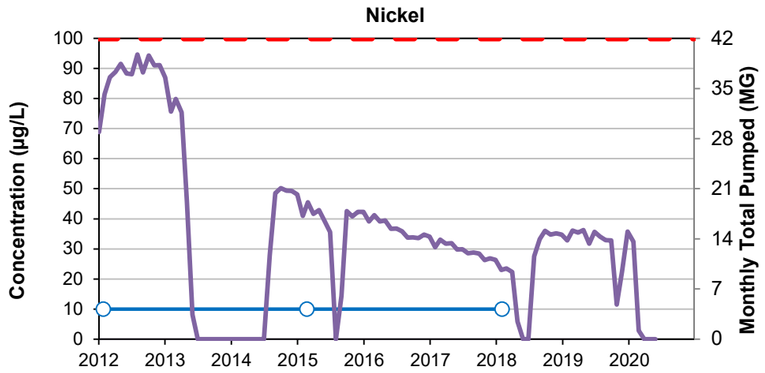


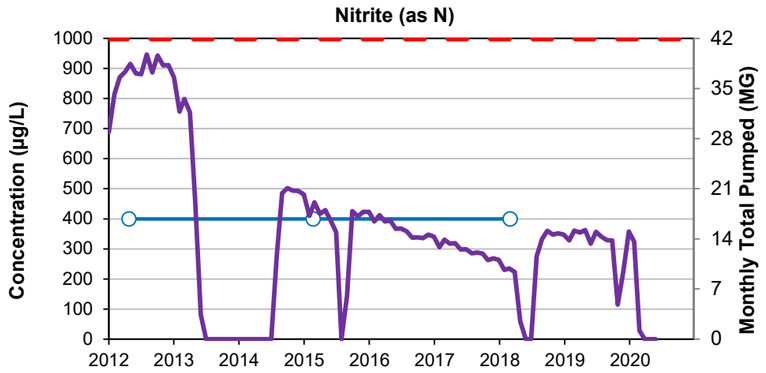
Appendix H - Production Well SM-03

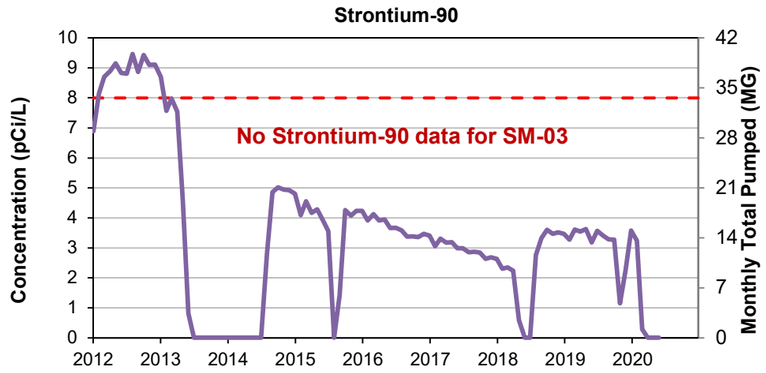
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

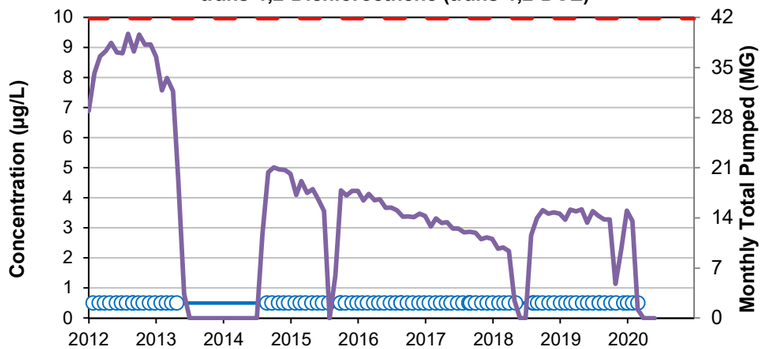
Monthly Total Pumped (Million Gallons [MG])

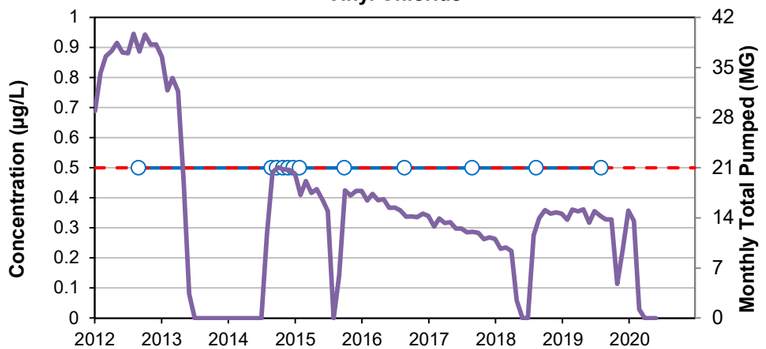
Maximum Contaminant Level (MCL)
Notification Level (NL)
Secondary Maximum Contaminant Level (SMCL)











Appendix H - Production Well SM-04

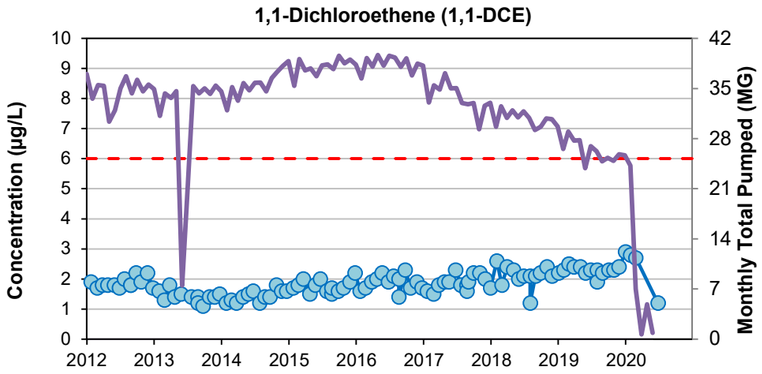
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

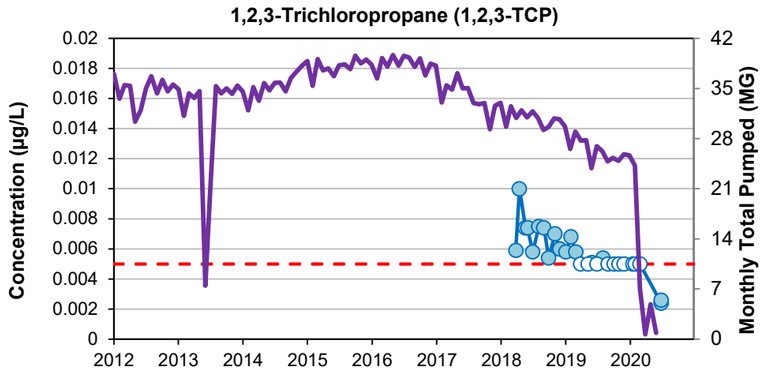
Monthly Total Pumped (Million Gallons [MG])

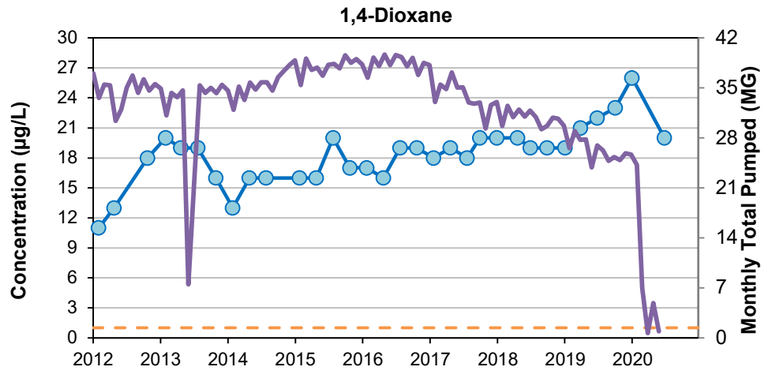
Maximum Contaminant Level (MCL)

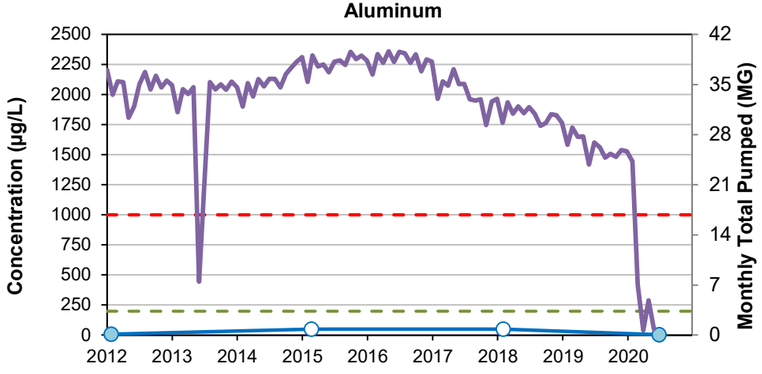
Notification Level (NL)

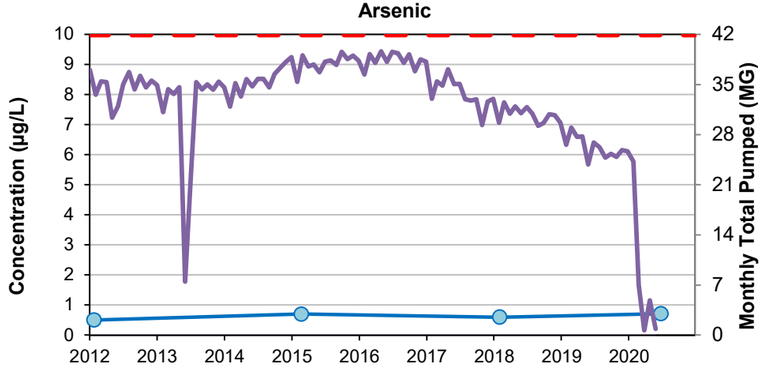
Secondary Maximum Contaminant Level (SMCL)

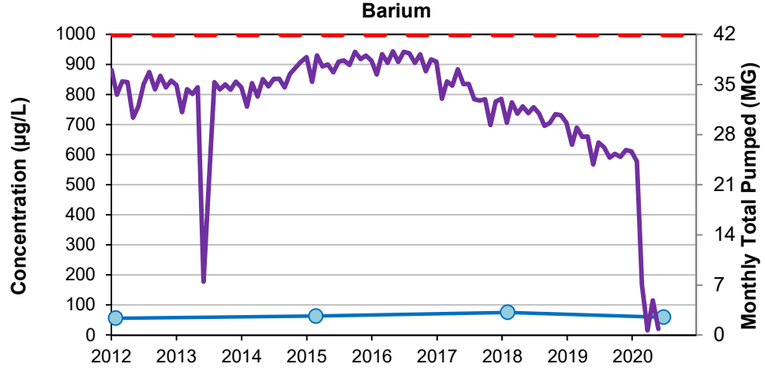


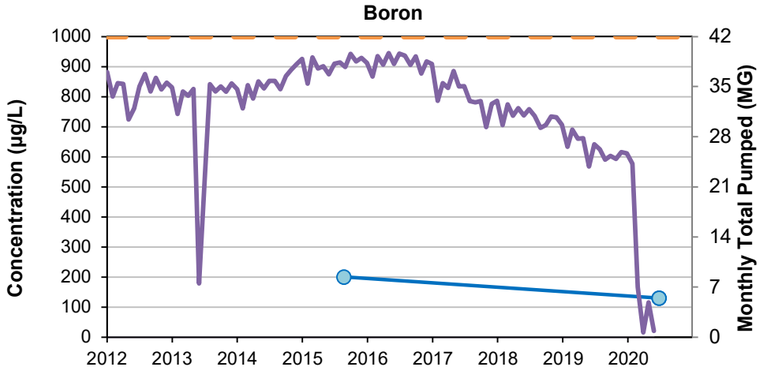


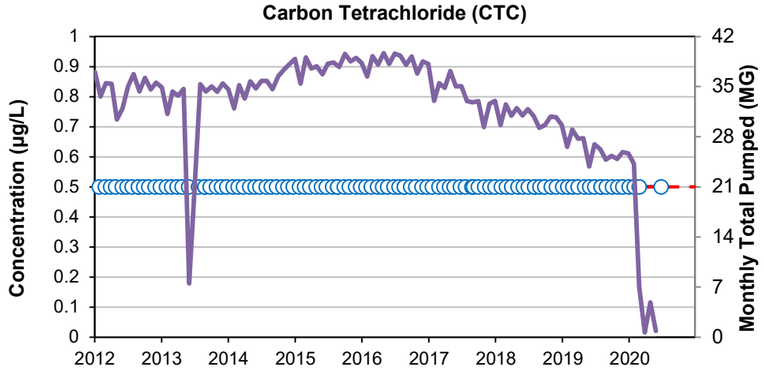


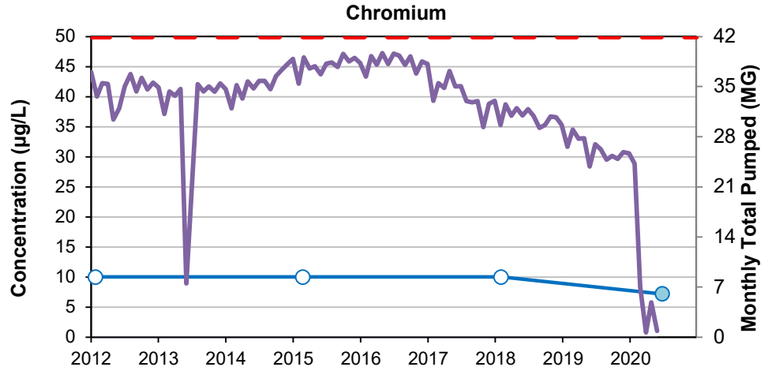










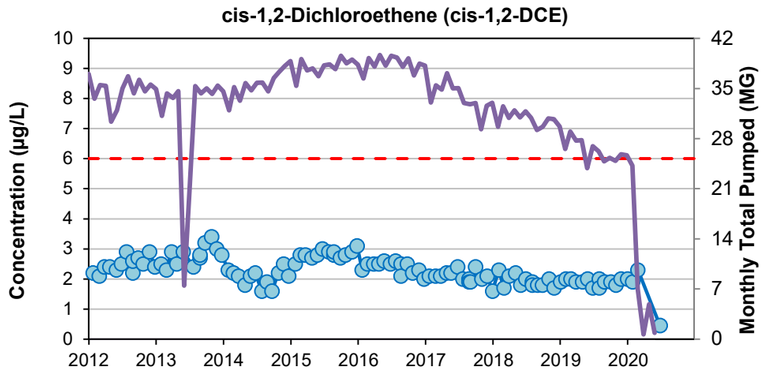


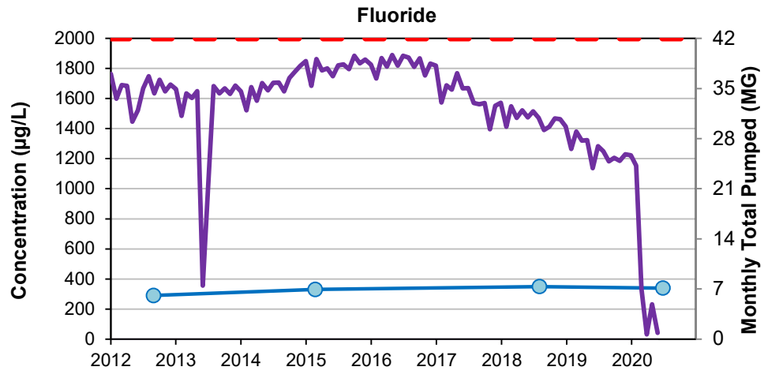
Appendix H - Production Well SM-04

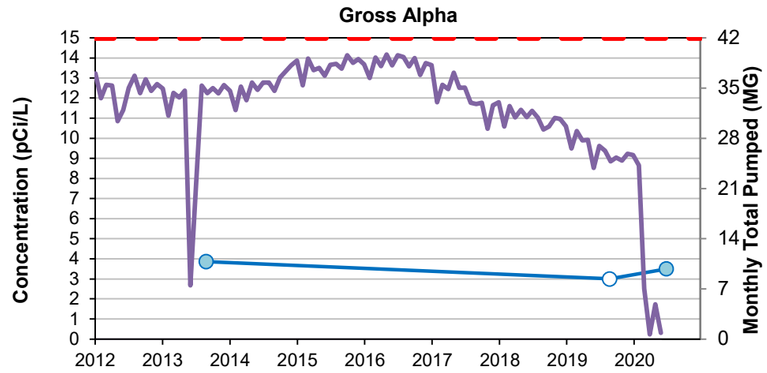
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)
- Triangle symbols (▲) indicate that values were converted from Nitrate (as NO3) to Nitrate (as N)

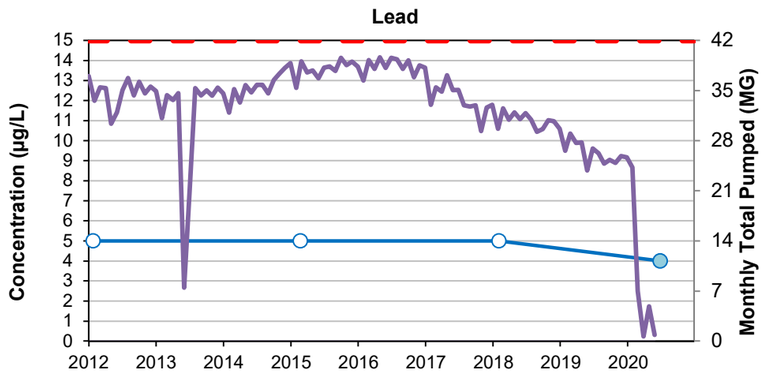
Monthly Total Pumped (Million Gallons [MG])

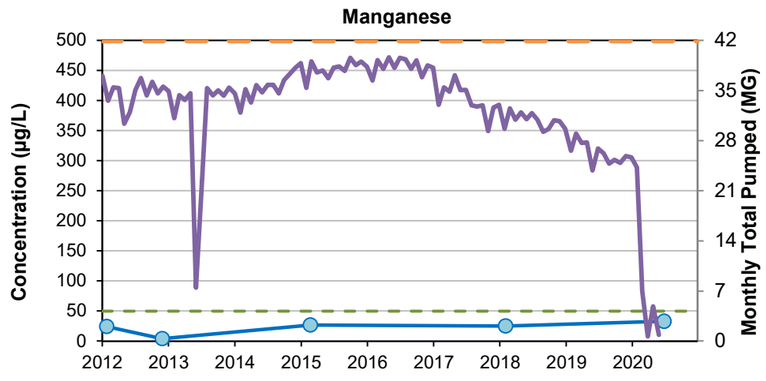
Maximum Contaminant Level (MCL)
Notification Level (NL)
Secondary Maximum Contaminant Level (SMCL)

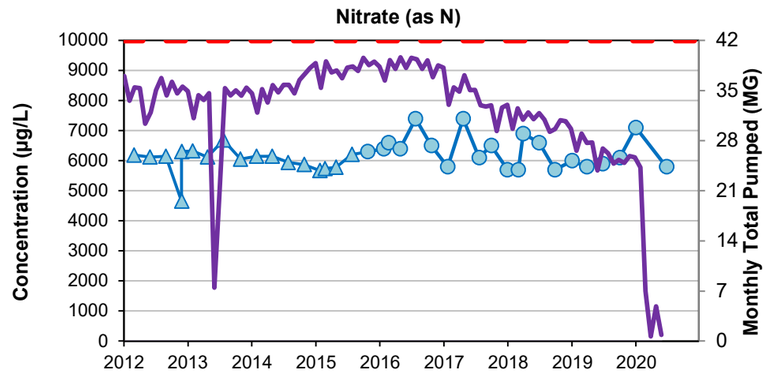


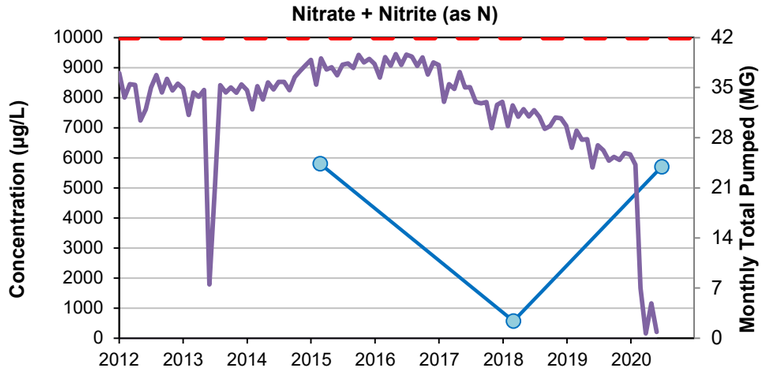


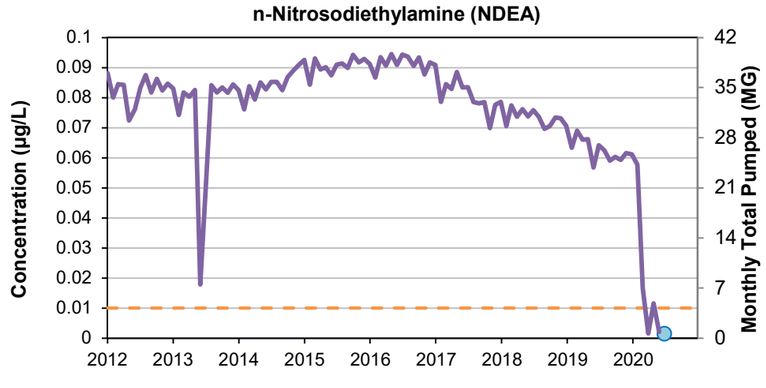


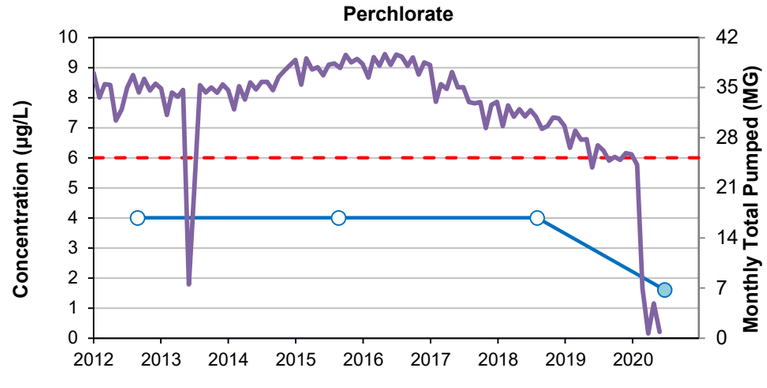












Appendix H - Production Well SM-04

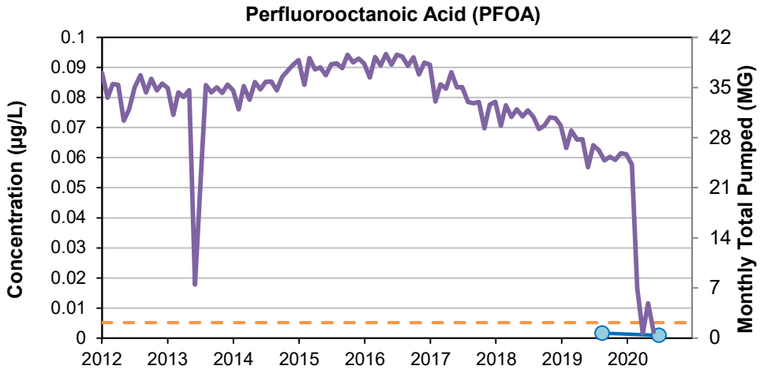
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

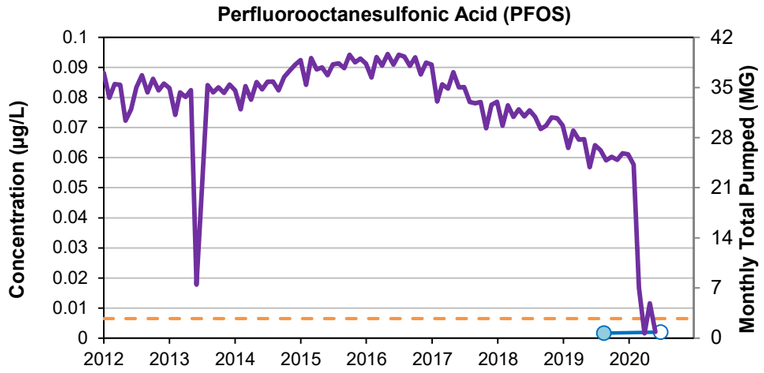
Monthly Total Pumped (Million Gallons [MG])

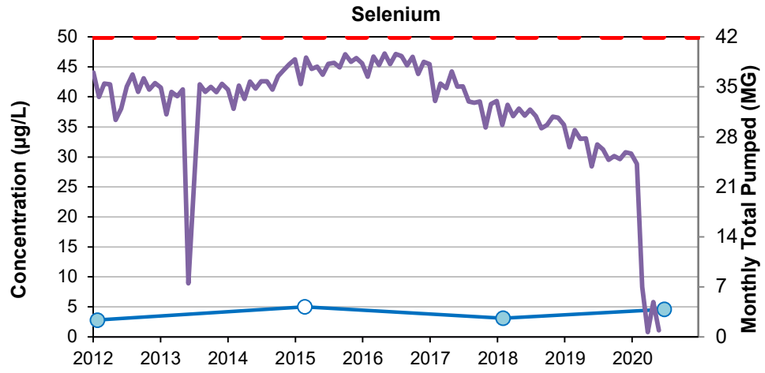
Maximum Contaminant Level (MCL)

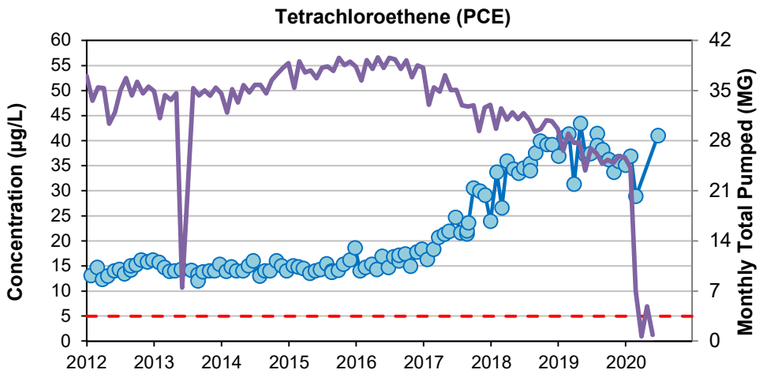
Notification Level (NL)

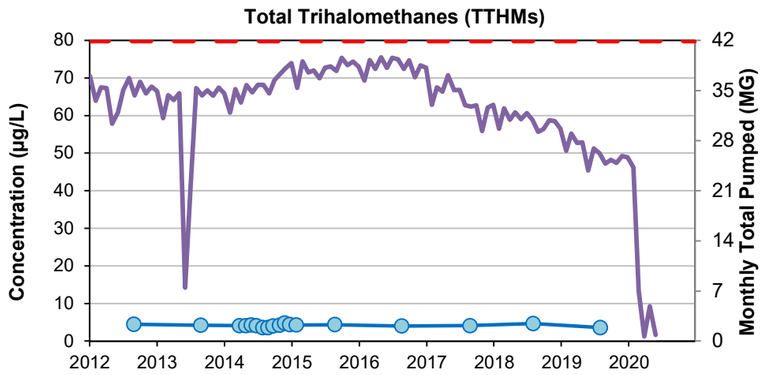
Secondary Maximum Contaminant Level (SMCL)

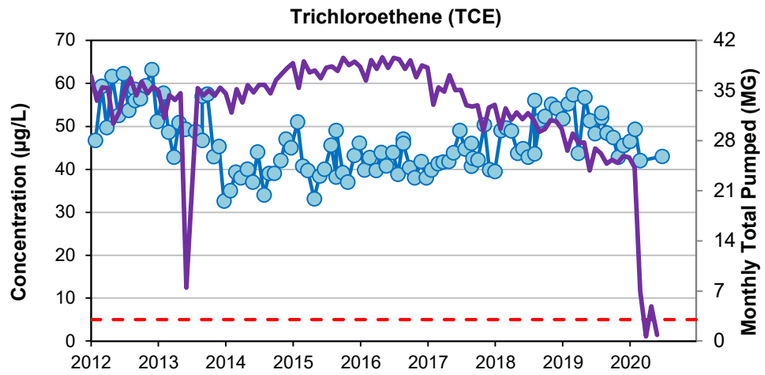


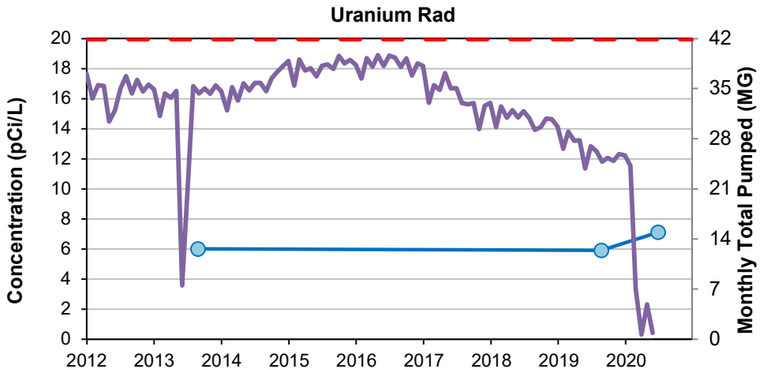


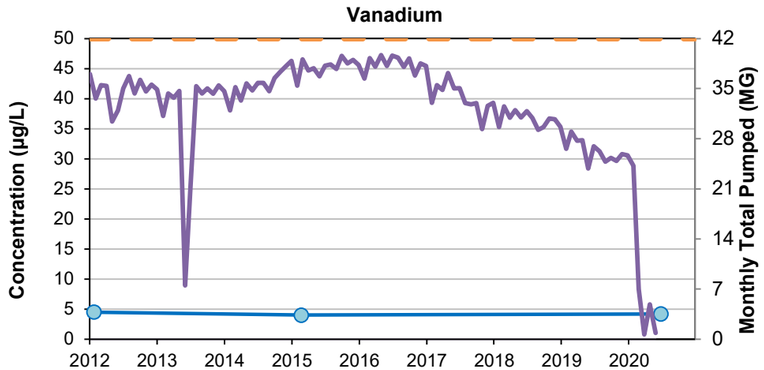


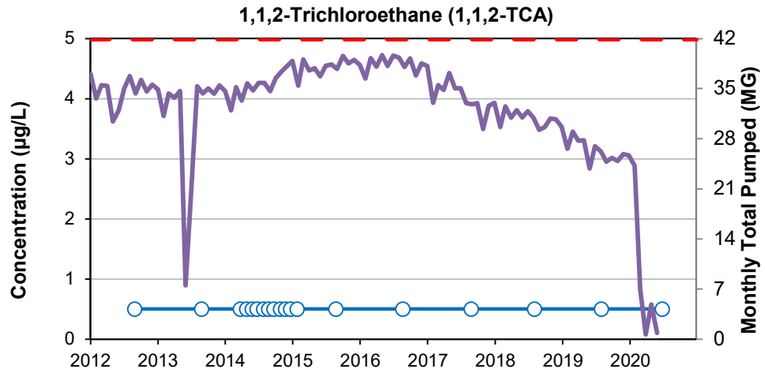










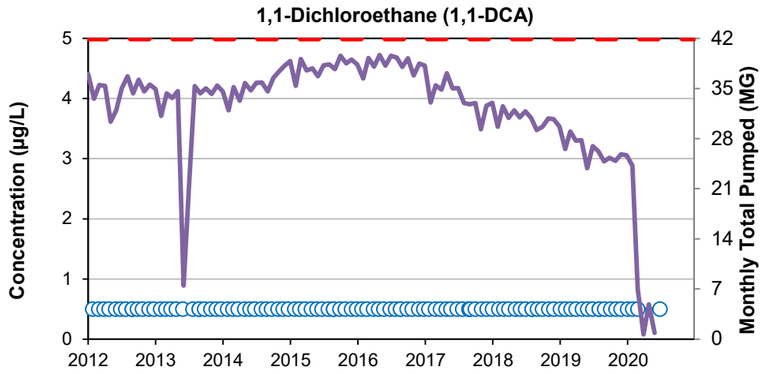


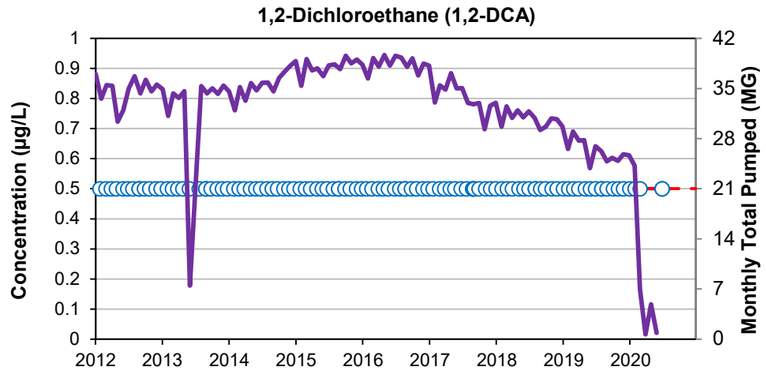
Appendix H - Production Well SM-04

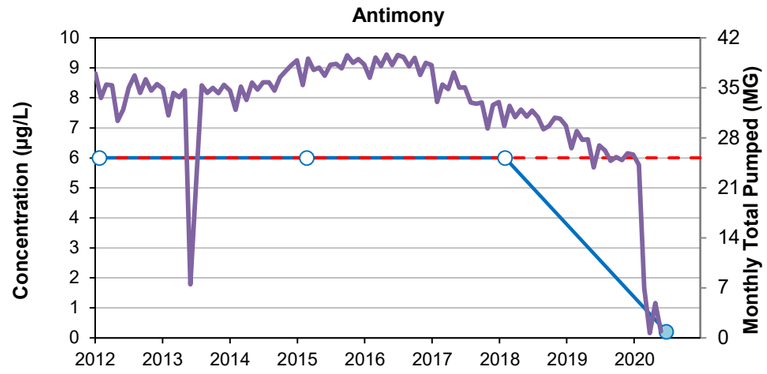
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

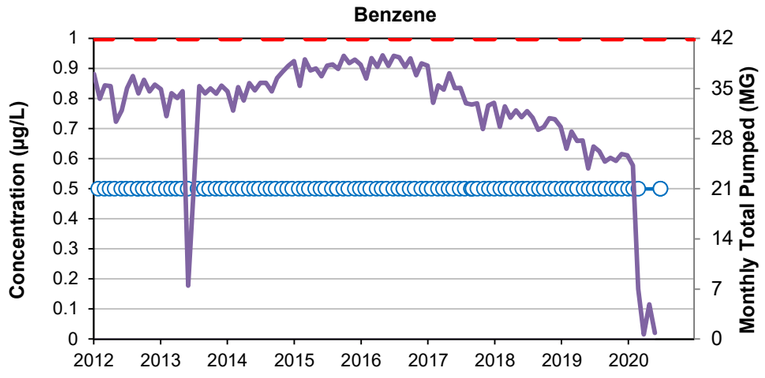
Monthly Total Pumped (Million Gallons [MG])

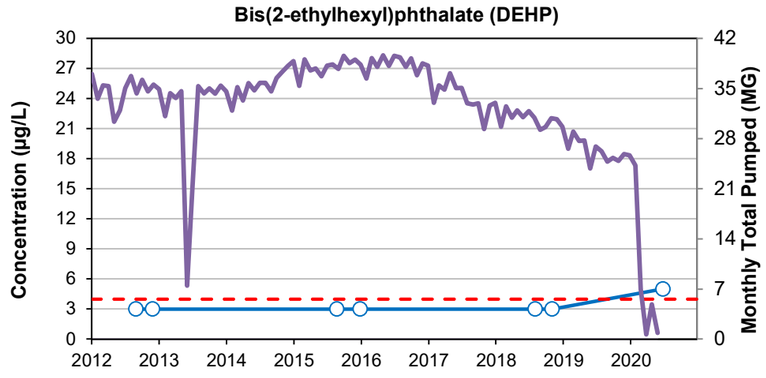
Maximum Contaminant Level (MCL)
Notification Level (NL)
Secondary Maximum Contaminant Level (SMCL)

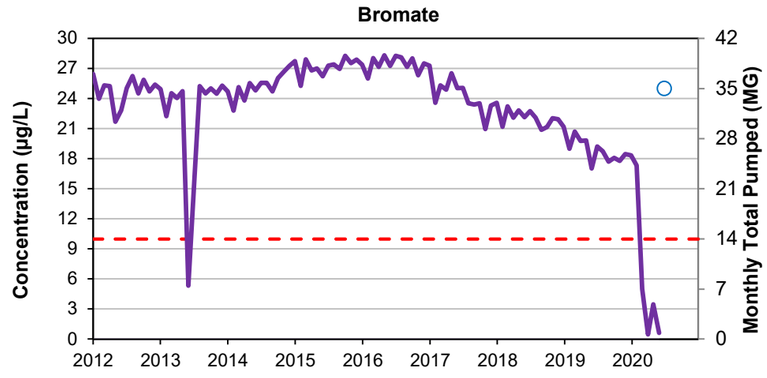


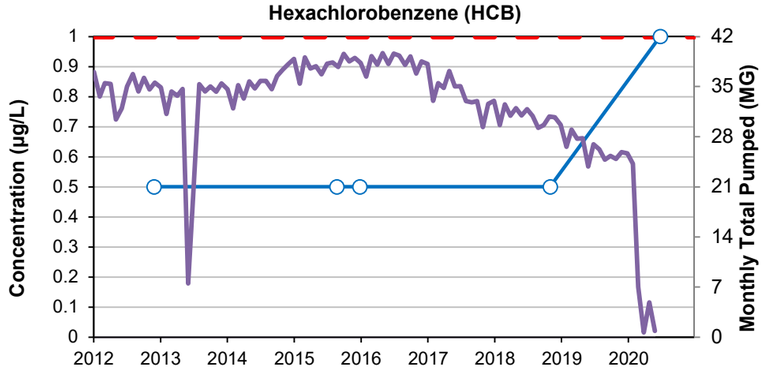


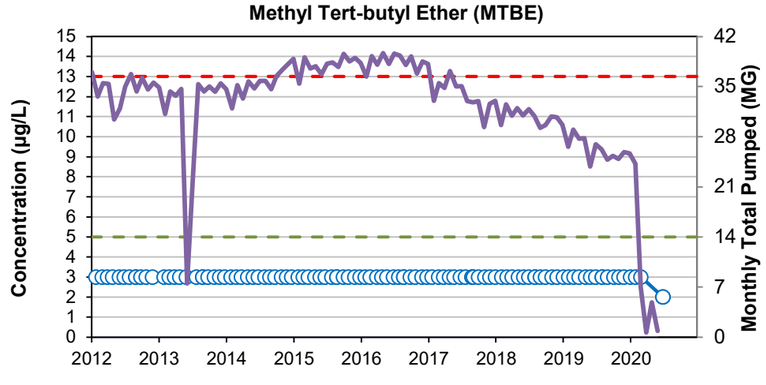


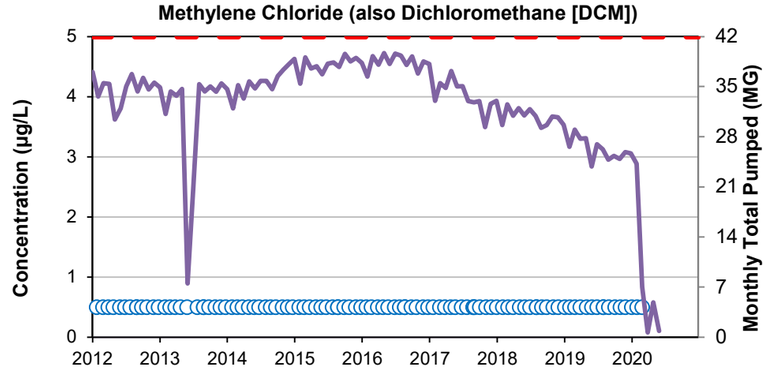










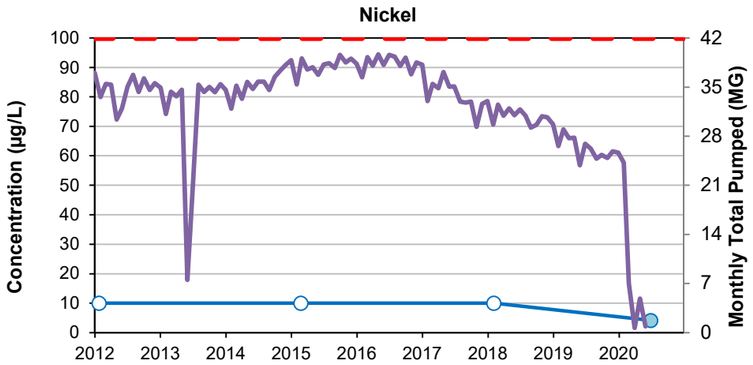


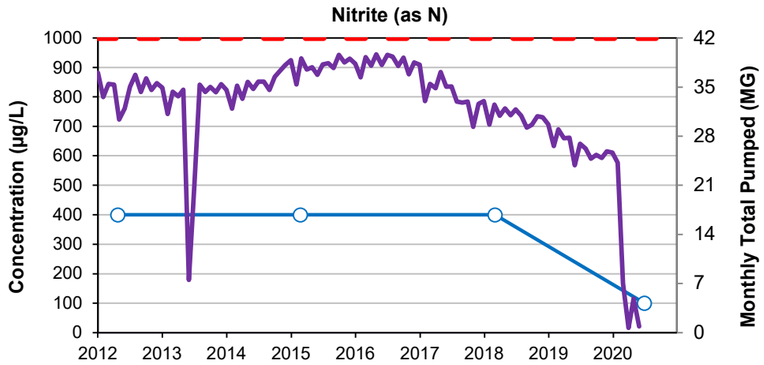
Appendix H - Production Well SM-04

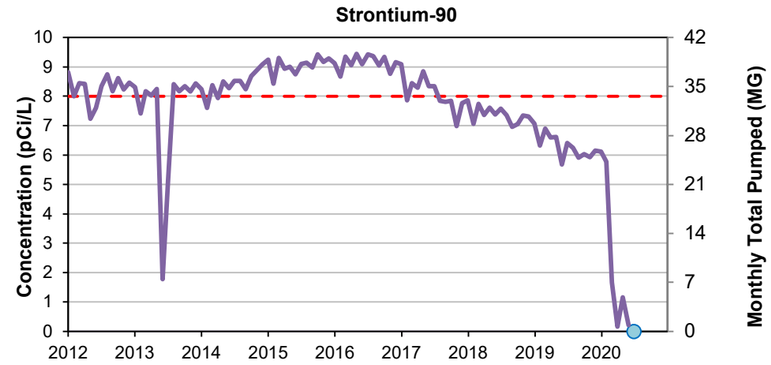
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

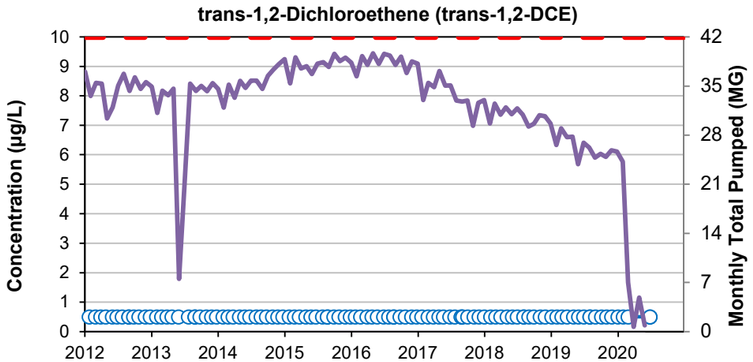
Monthly Total Pumped (Million Gallons [MG])

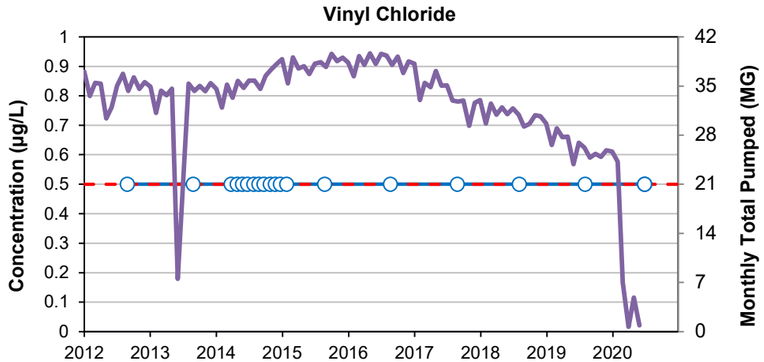
Maximum Contaminant Level (MCL)
Notification Level (NL)
Secondary Maximum Contaminant Level (SMCL)











Appendix I
COPC Concentration v. Precipitation Charts

Appendix I - Production Well SM-03 COPC Concentration v. Precipitation Charts

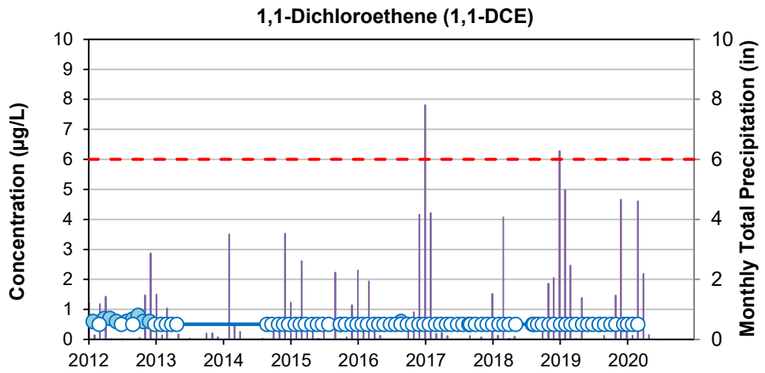
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

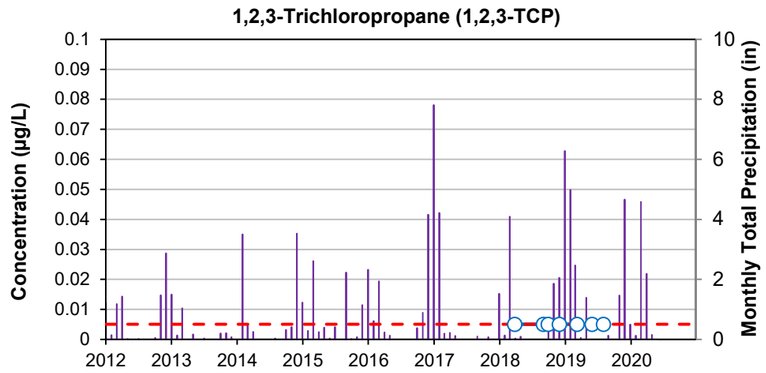
Monthly Total Precipitation (inches [in])

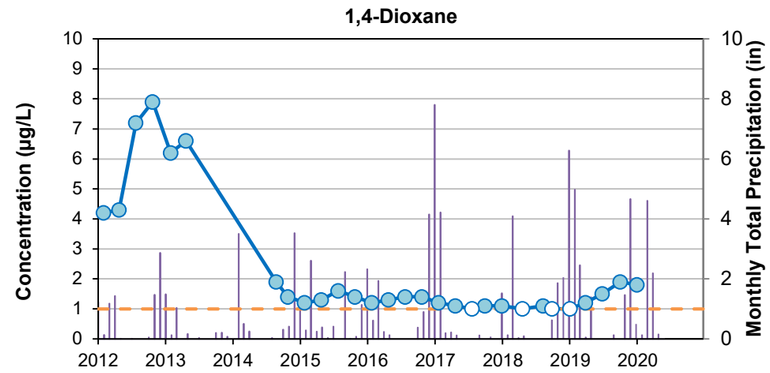
Maximum Contaminant Level (MCL)

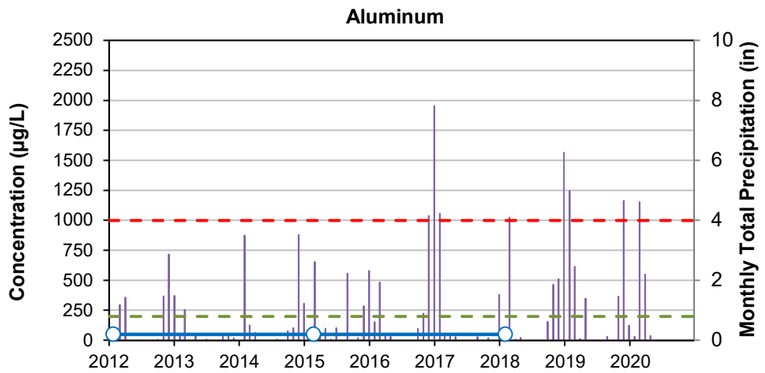
Notification Level (NL)

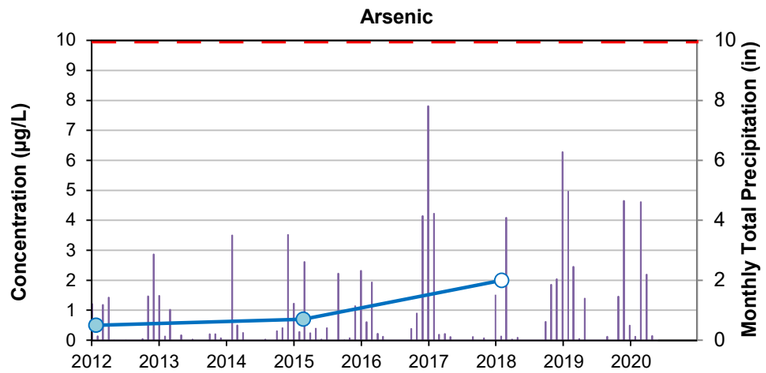
Secondary Maximum Contaminant Level (SMCL)

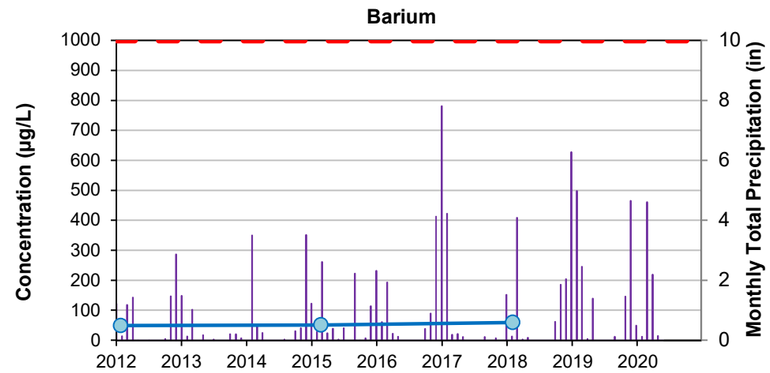


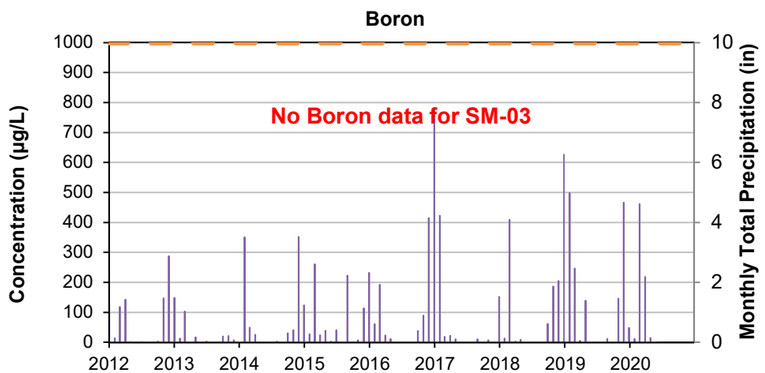


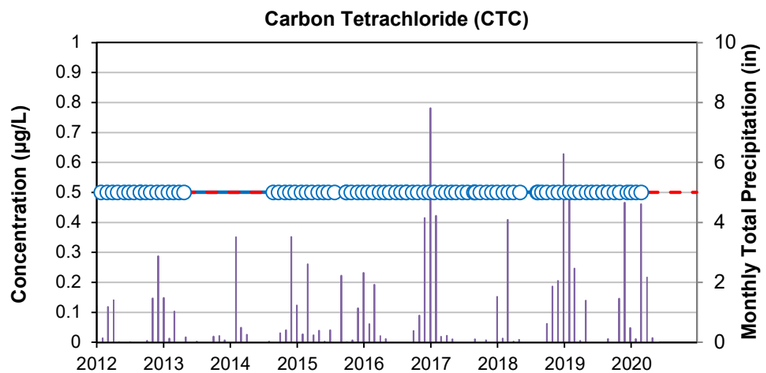


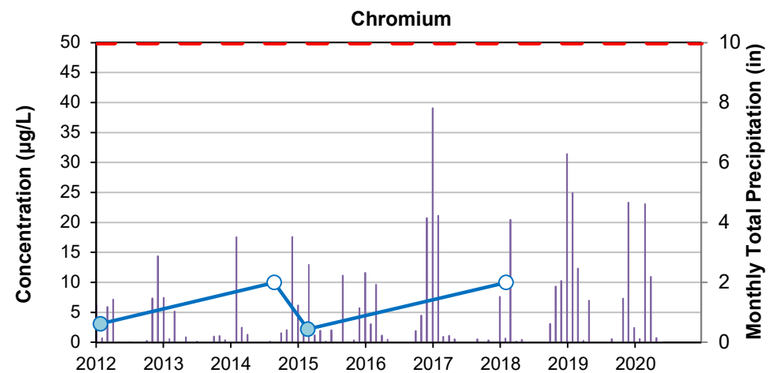










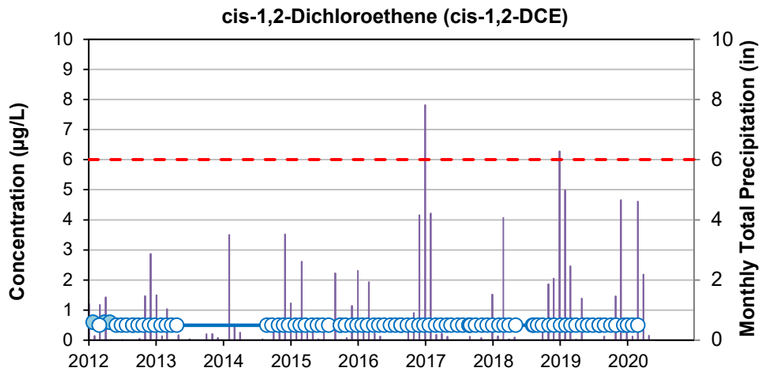


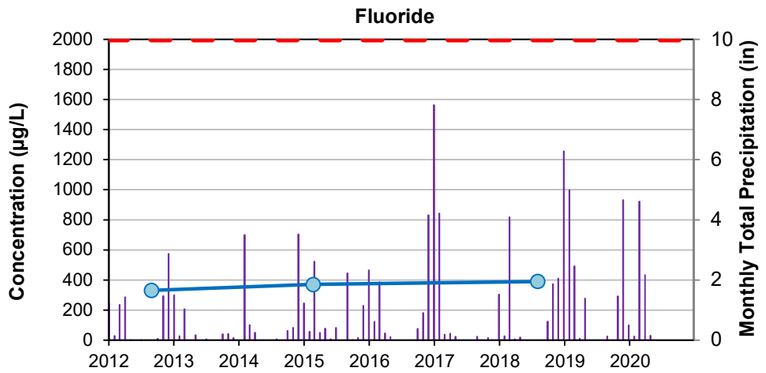
Appendix I - Production Well SM-03 COPC Concentration v. Precipitation Charts

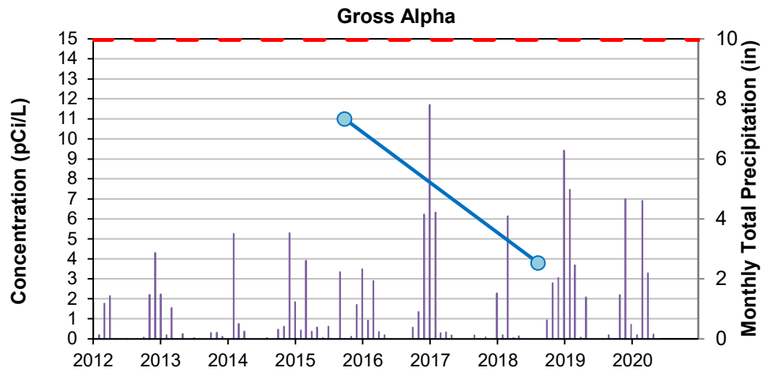
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)
- Triangle symbols (△) indicate that values were converted from Nitrate (as NO3) to Nitrate (as N)

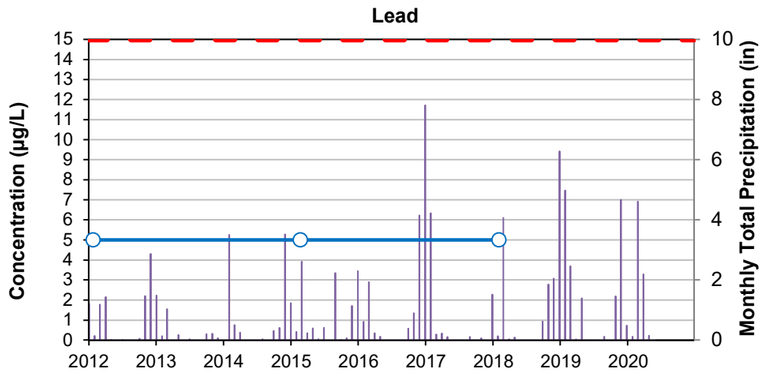
Monthly Total Precipitation (inches [in])

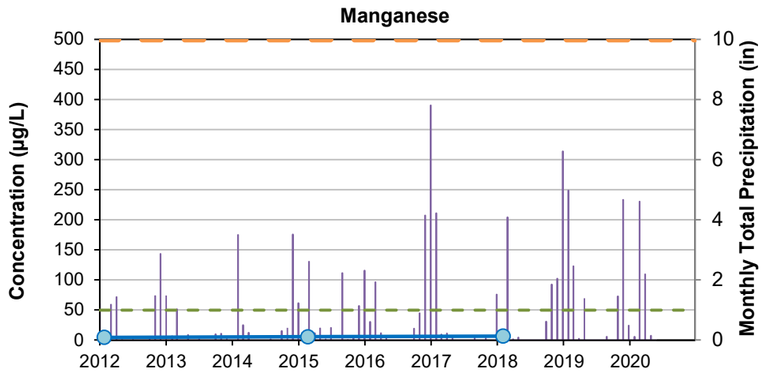
Maximum Contaminant Level (MCL)
Notification Level (NL)
Secondary Maximum Contaminant Level (SMCL)

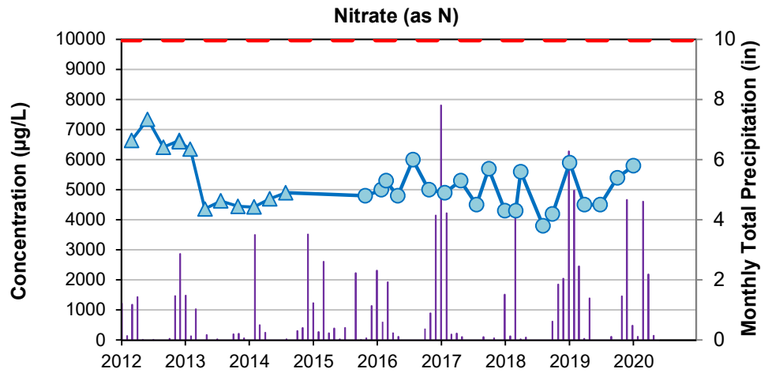


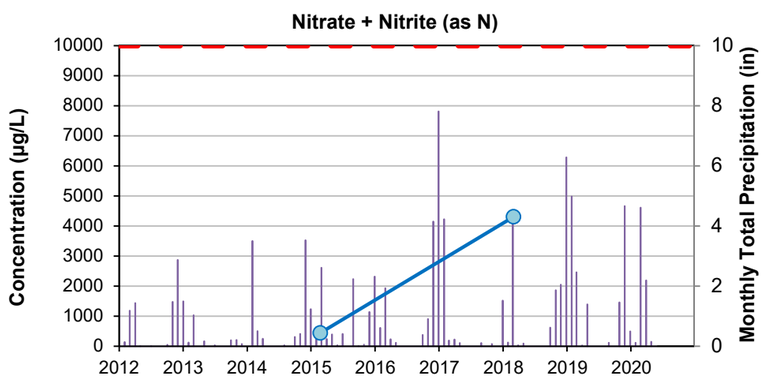


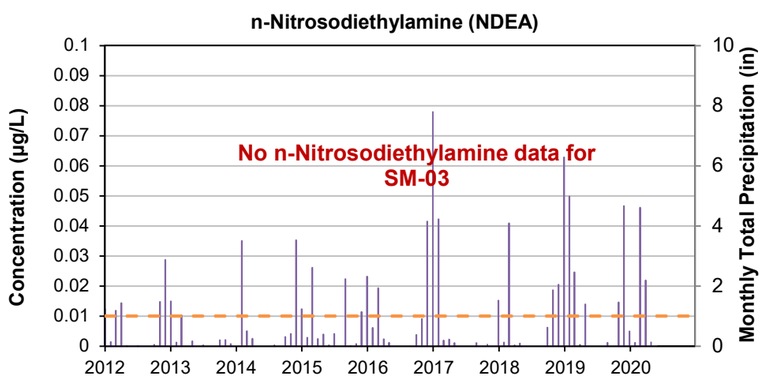


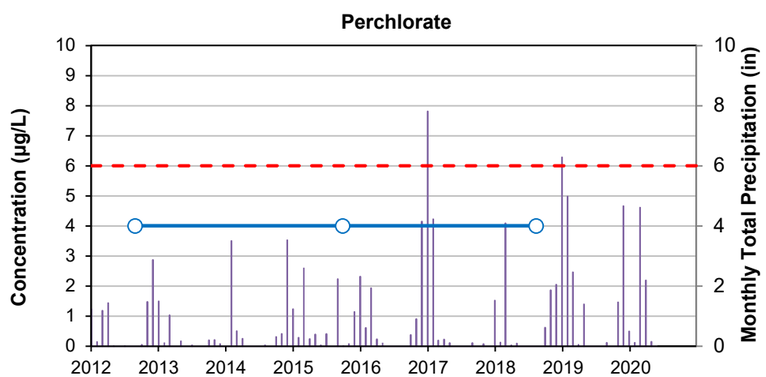












Appendix I - Production Well SM-03 COPC Concentration v. Precipitation Charts

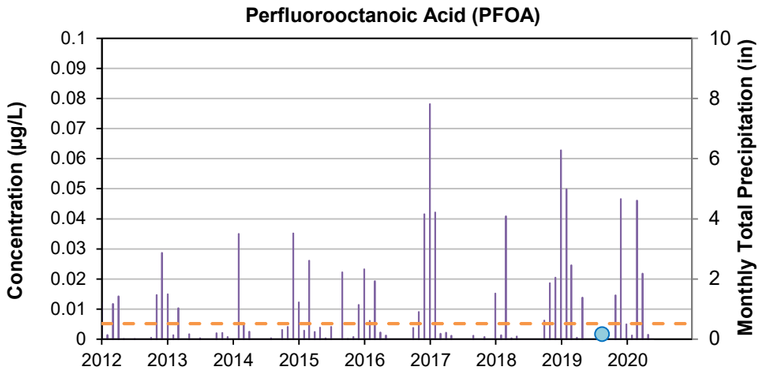
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

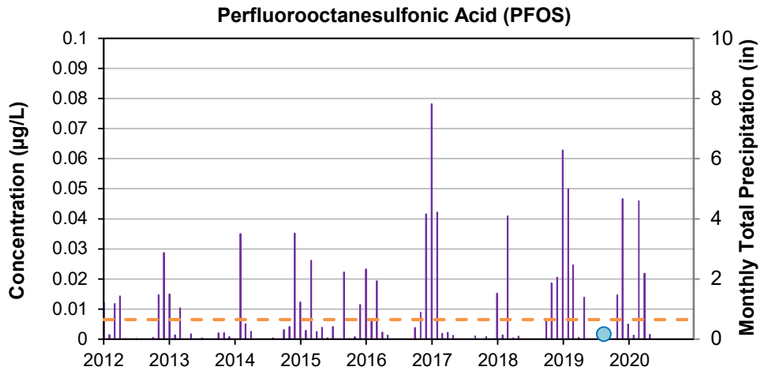
Monthly Total Precipitation (inches [in])

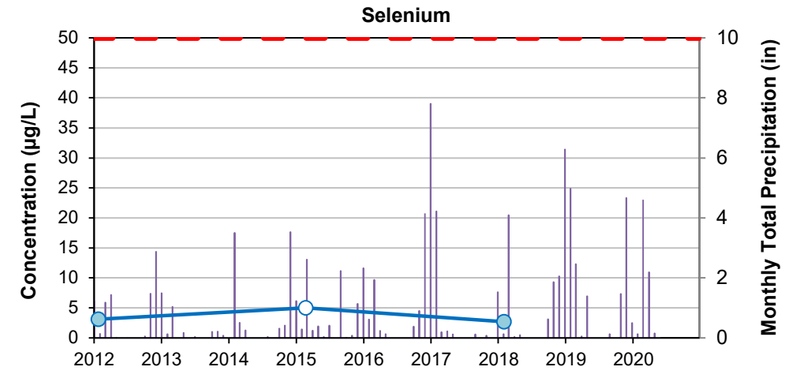
Maximum Contaminant Level (MCL)

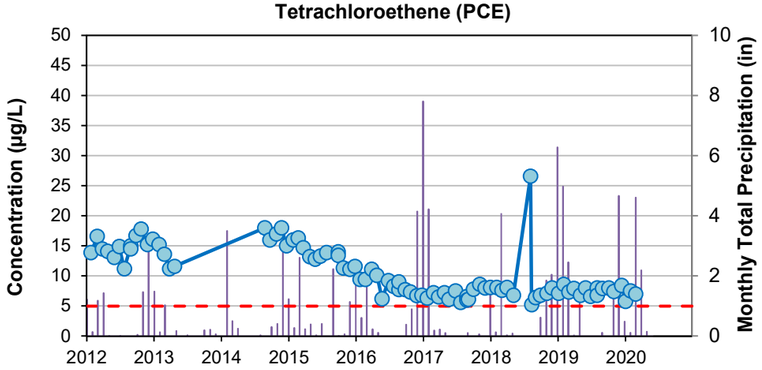
Notification Level (NL)

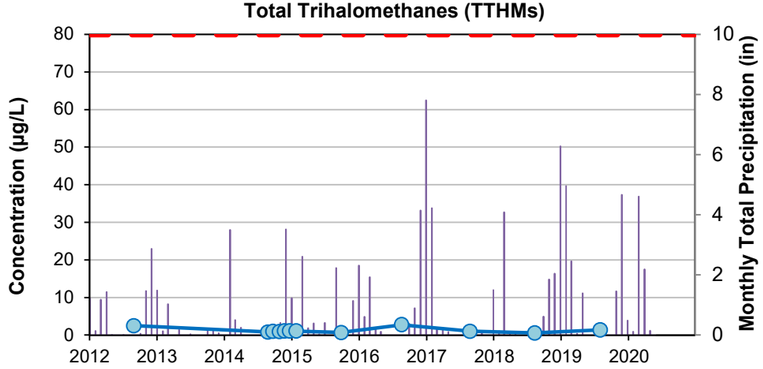
Secondary Maximum Contaminant Level (SMCL)

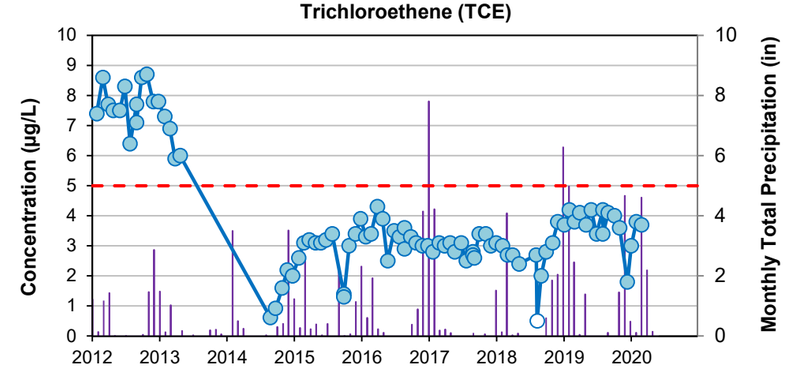


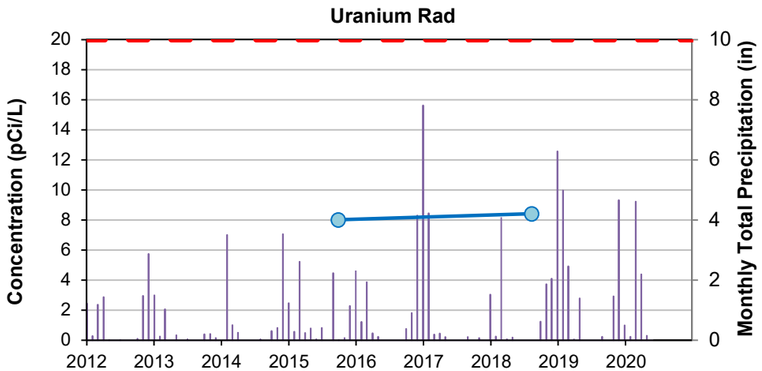


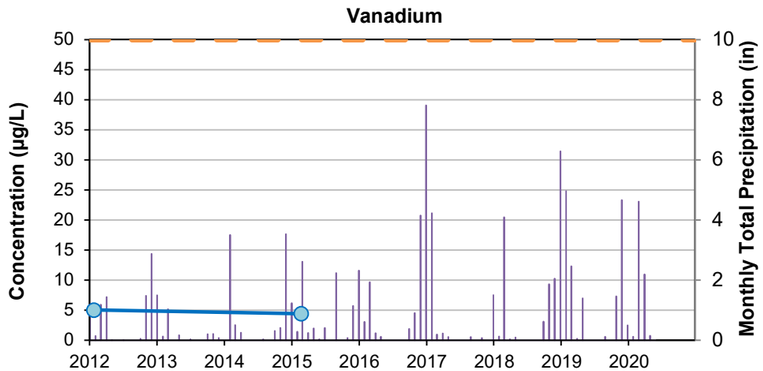


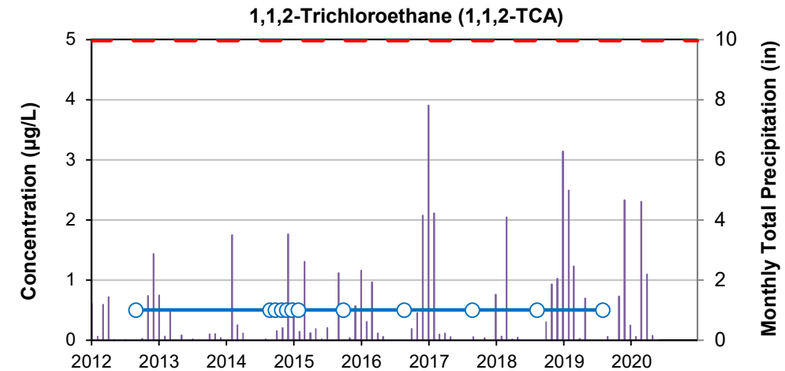












Appendix I - Production Well SM-03 COPC Concentration v. Precipitation Charts

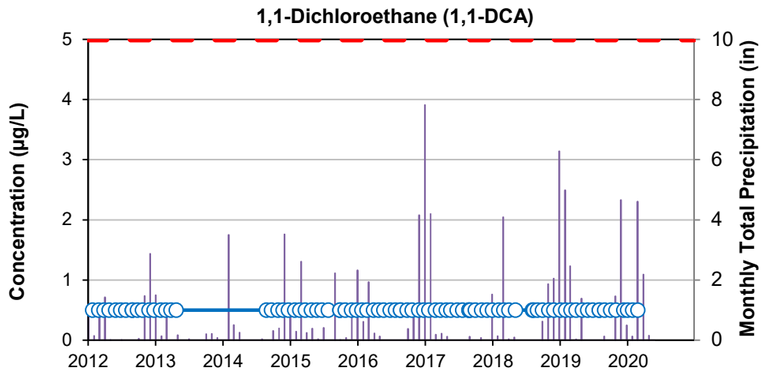
- Filled symbols ( ) denote sample values; unfilled symbols ( ) denote values less than detection limit(s)

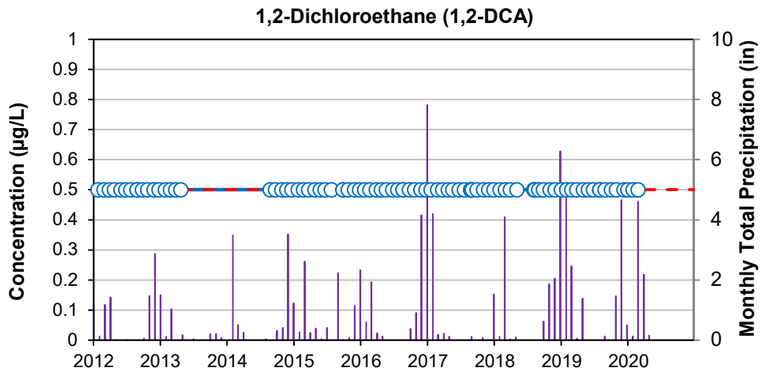
Monthly Total Precipitation (inches [in])

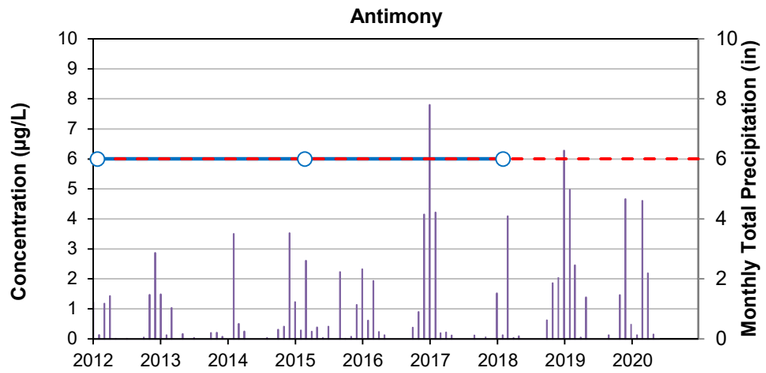
Maximum Contaminant Level (MCL)

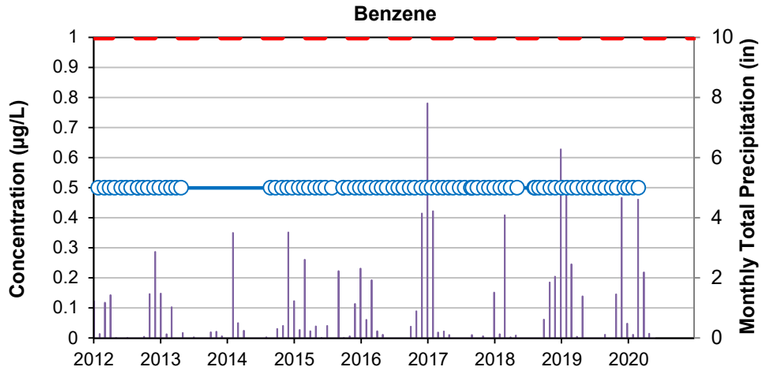
Notification Level (NL)

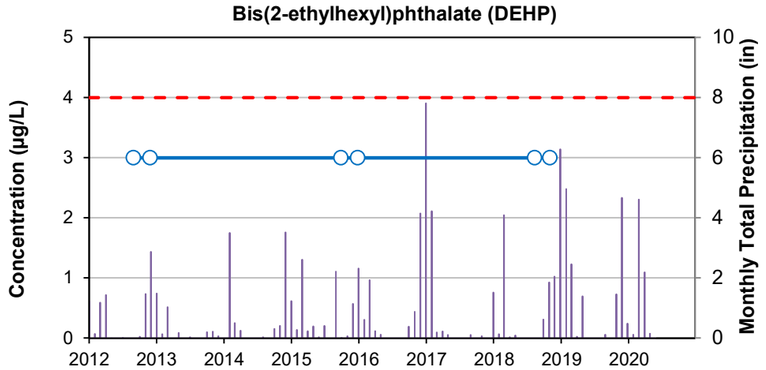
Secondary Maximum Contaminant Level (SMCL)

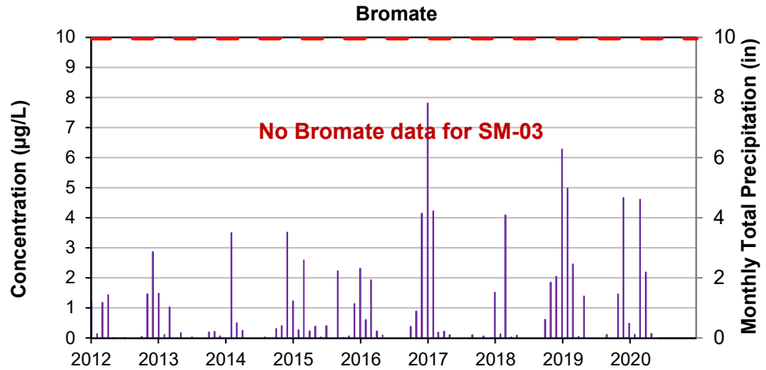


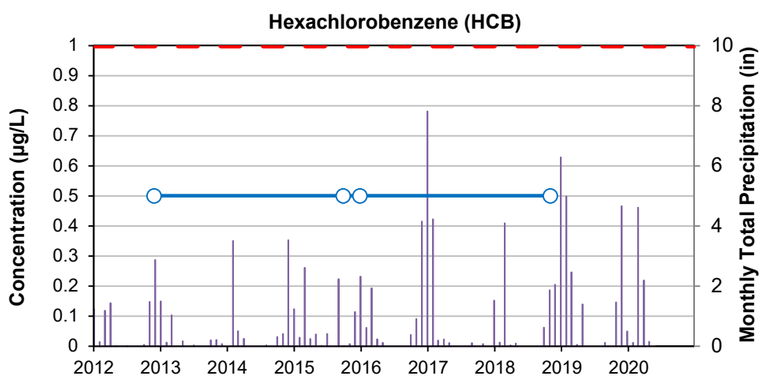


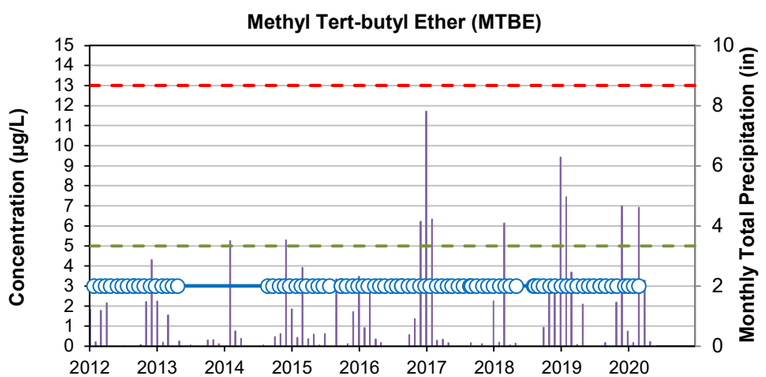


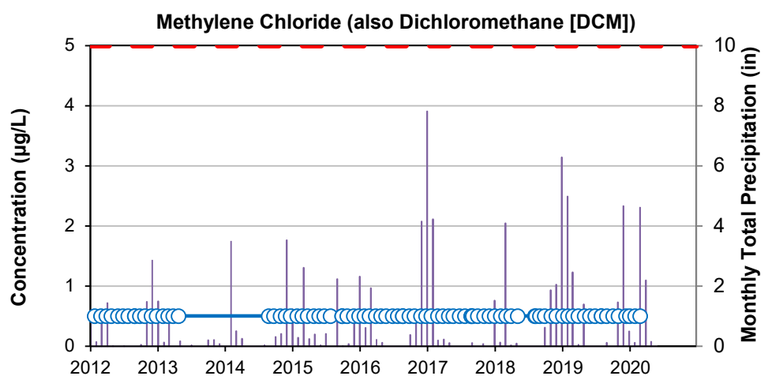










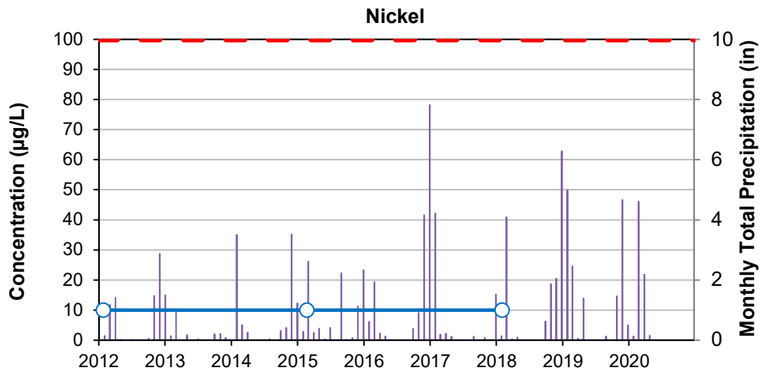


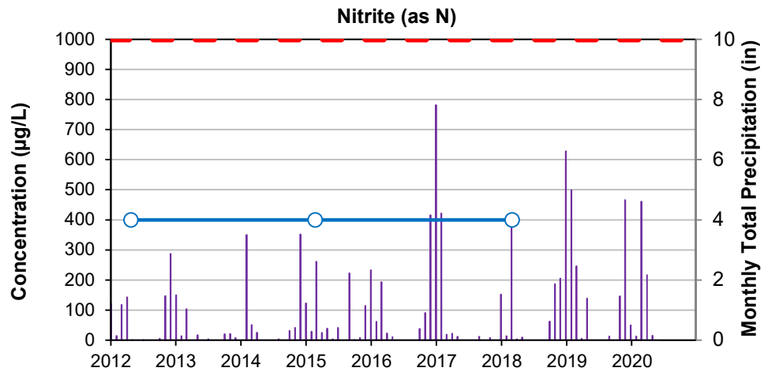
Appendix I - Production Well SM-03 COPC Concentration v. Precipitation Charts

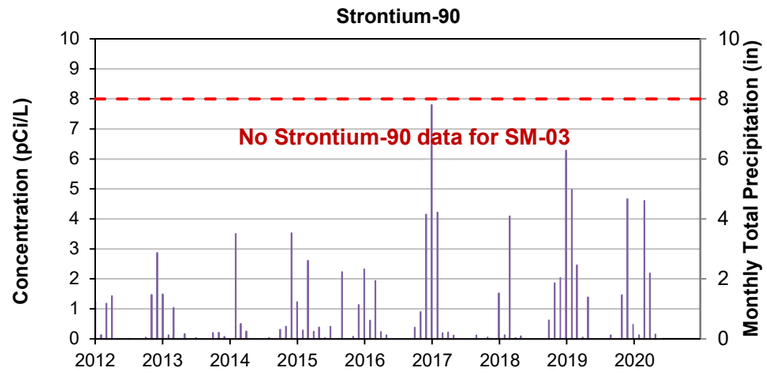
- Filled symbols ( ) denote sample values; unfilled symbols ( ) denote values less than detection limit(s)

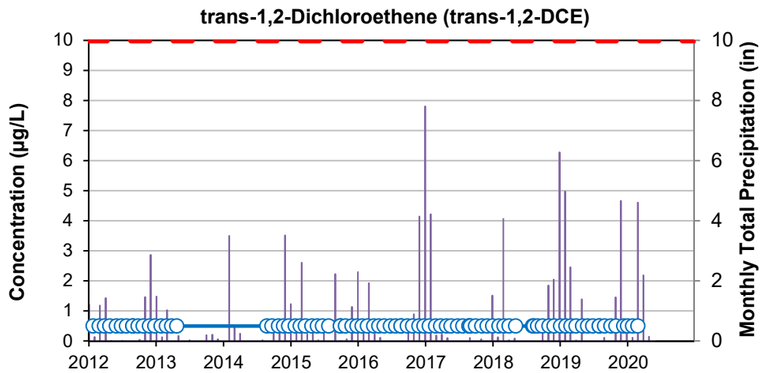
Monthly Total Precipitation (inches [in])

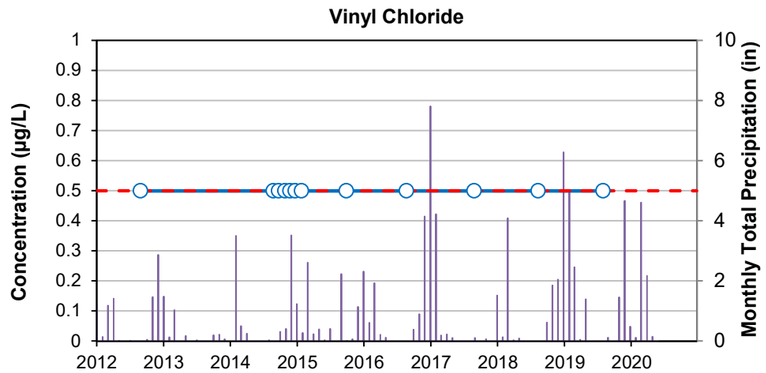
Maximum Contaminant Level (MCL)
Notification Level (NL)
Secondary Maximum Contaminant Level (SMCL)











Appendix I - Production Well SM-04 COPC Concentration v. Precipitation Charts

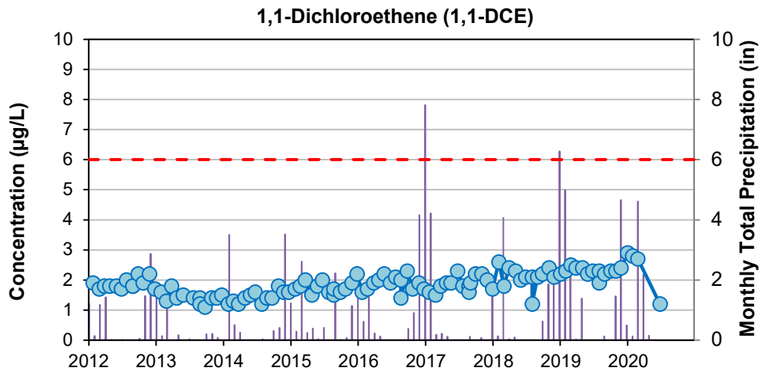
- Filled symbols ( ) denote sample values; unfilled symbols ( ) denote values less than detection limit(s)

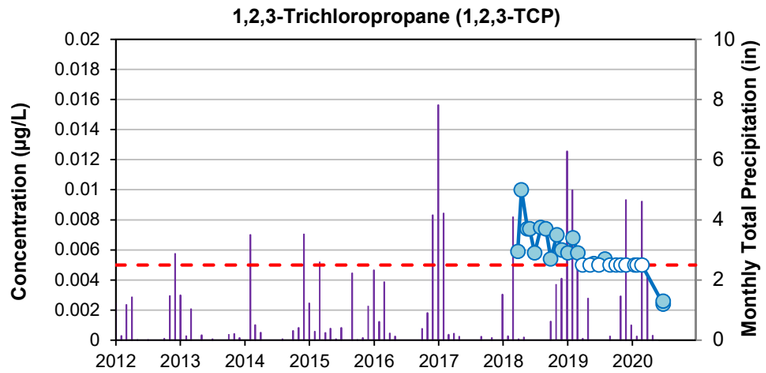
Monthly Total Precipitation (inches [in])

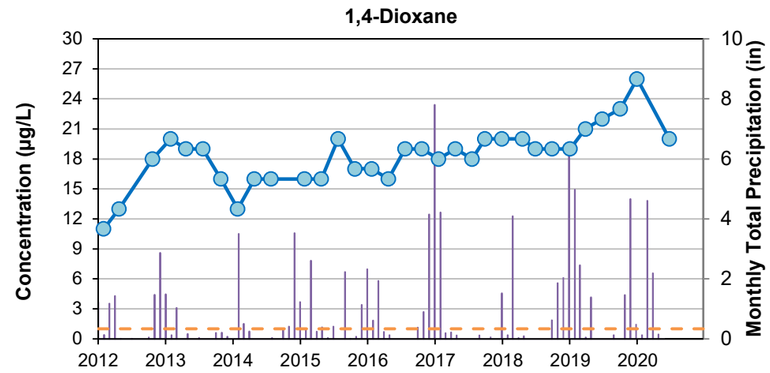
Maximum Contaminant Level (MCL)

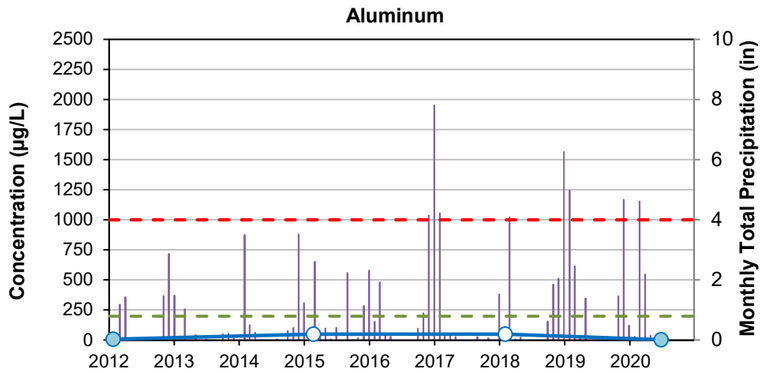
Notification Level (NL)

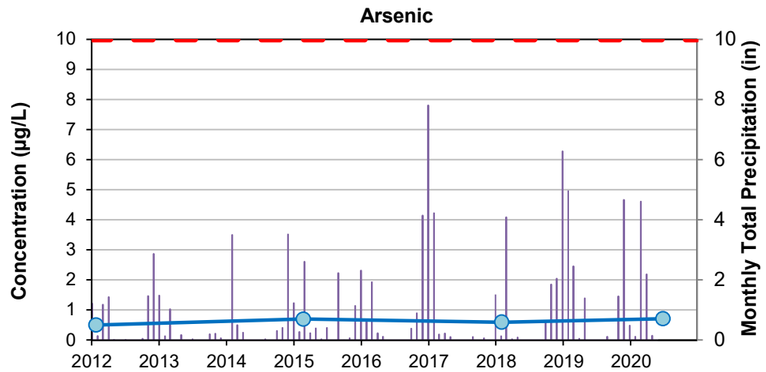
Secondary Maximum Contaminant Level (SMCL)

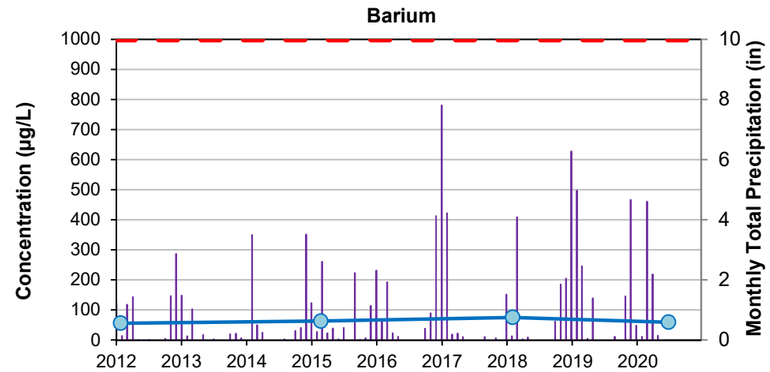


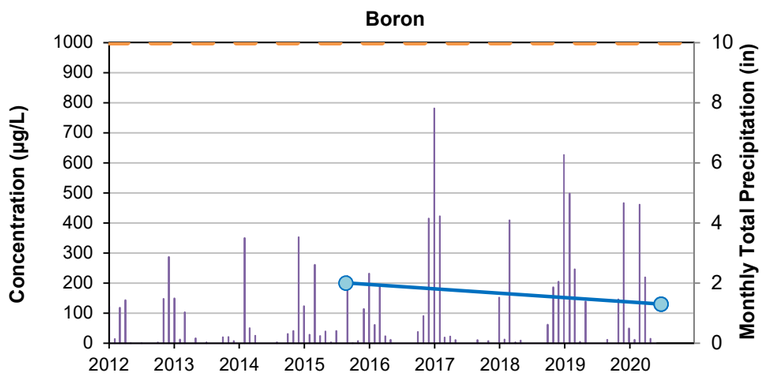


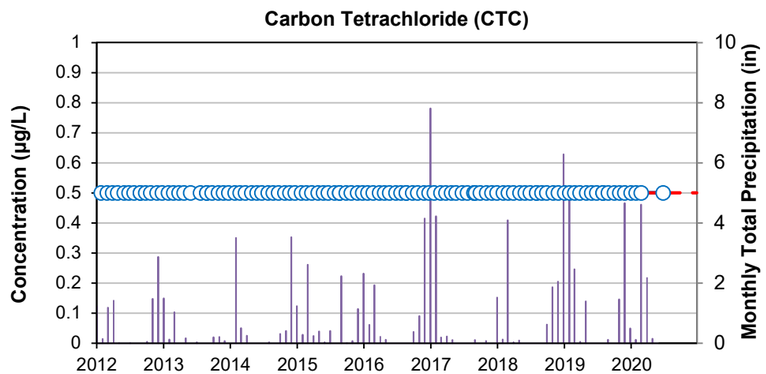


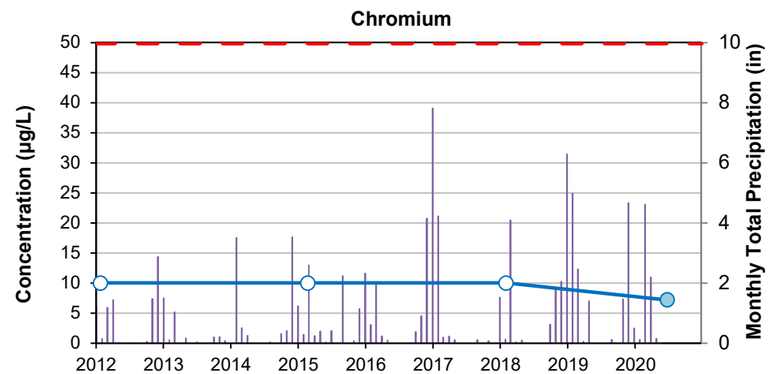










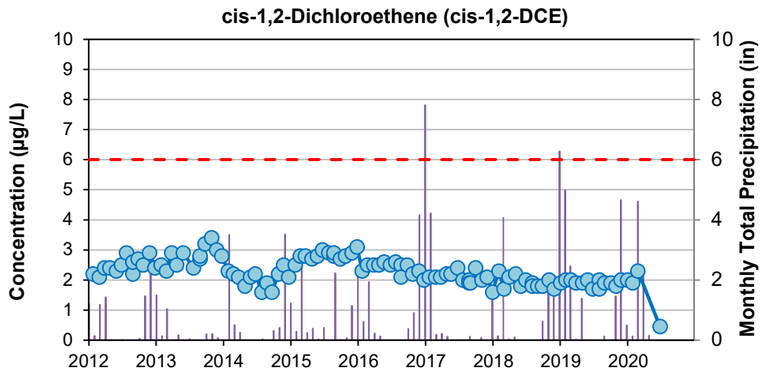


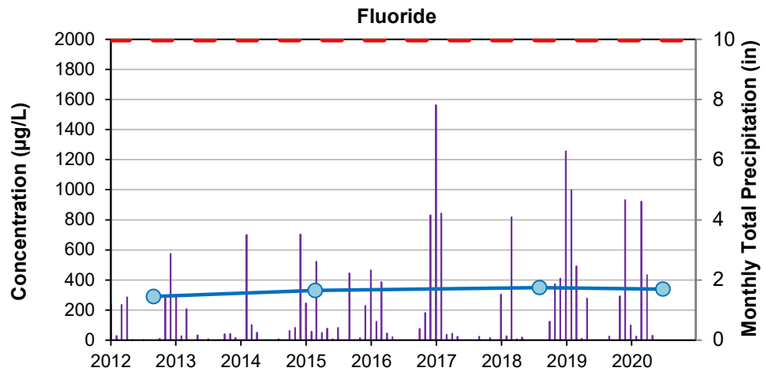
Appendix I - Production Well SM-04 COPC Concentration v. Precipitation Charts

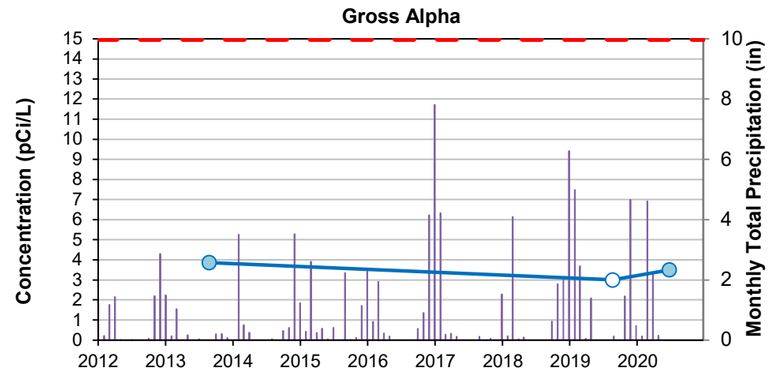
- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)
- Triangle symbols (△) indicate that values were converted from Nitrate (as NO3) to Nitrate (as N)

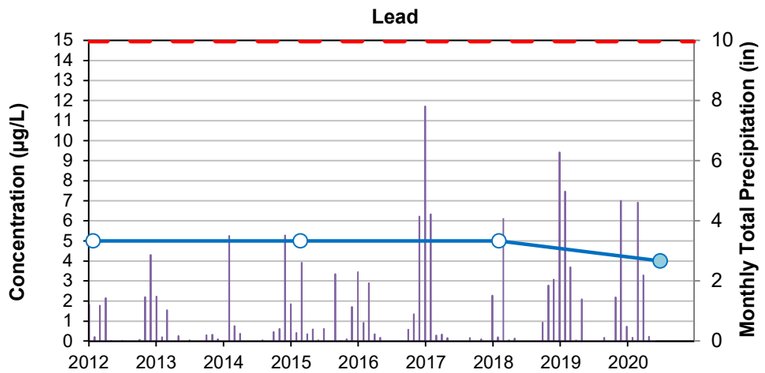
Monthly Total Precipitation (inches [in])

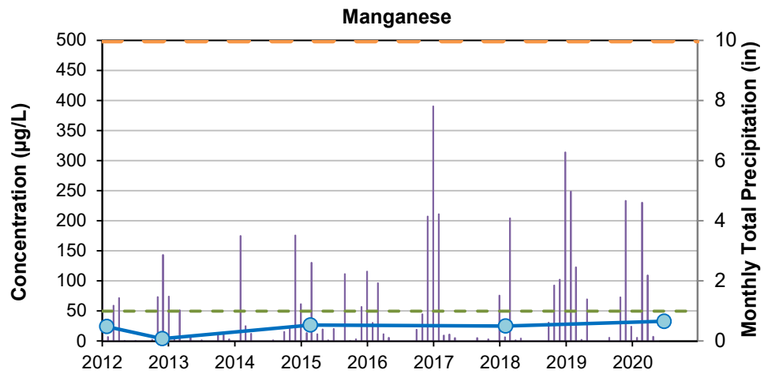
Maximum Contaminant Level (MCL)
Notification Level (NL)
Secondary Maximum Contaminant Level (SMCL)

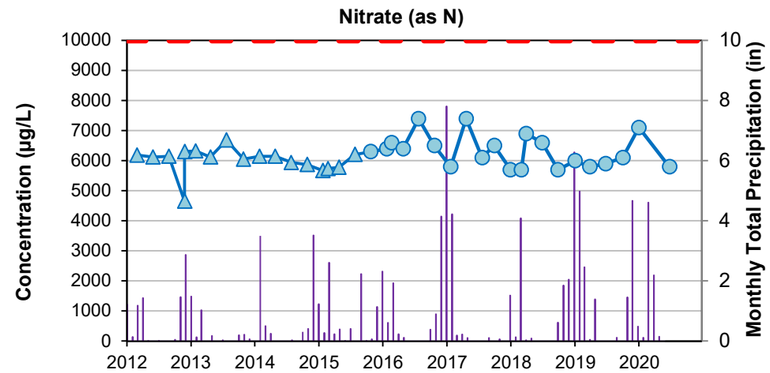


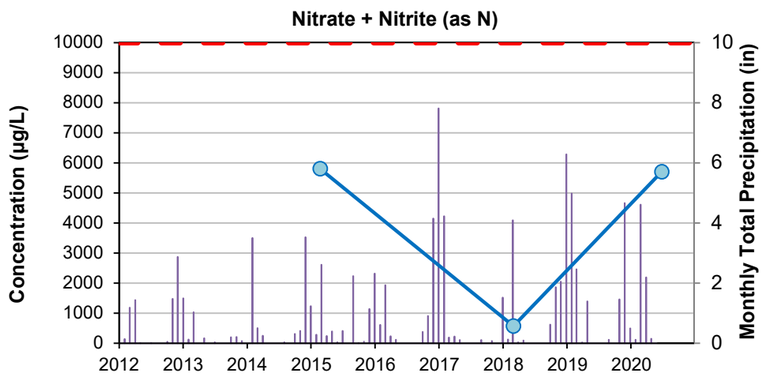


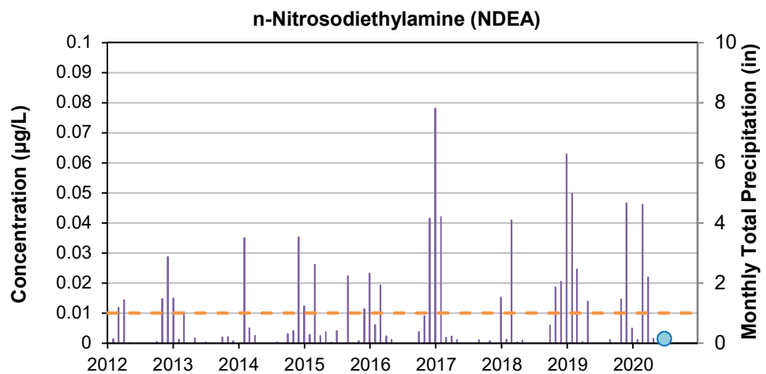


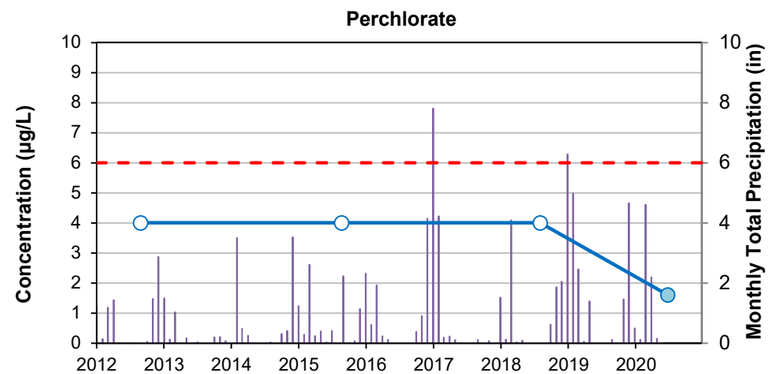












Appendix I - Production Well SM-04 COPC Concentration v. Precipitation Charts

- Filled symbols (●) denote sample values; unfilled symbols (○) denote values less than detection limit(s)

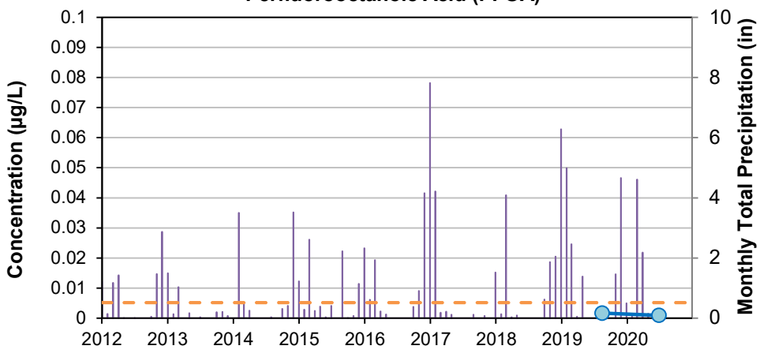
Monthly Total Precipitation (inches [in])

Maximum Contaminant Level (MCL)

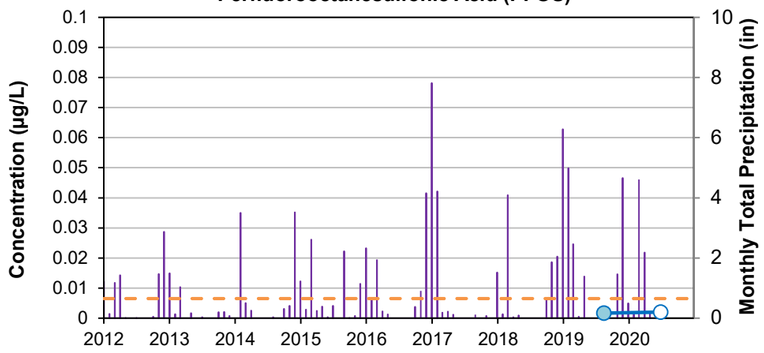
Notification Level (NL)

Secondary Maximum Contaminant Level (SMCL)

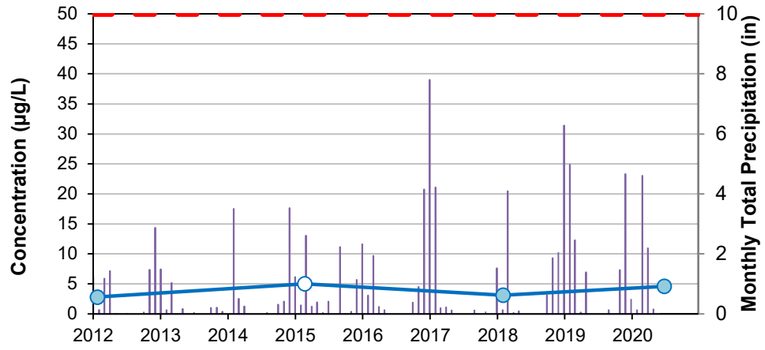
Perfluorooctanoic Acid (PFOA)



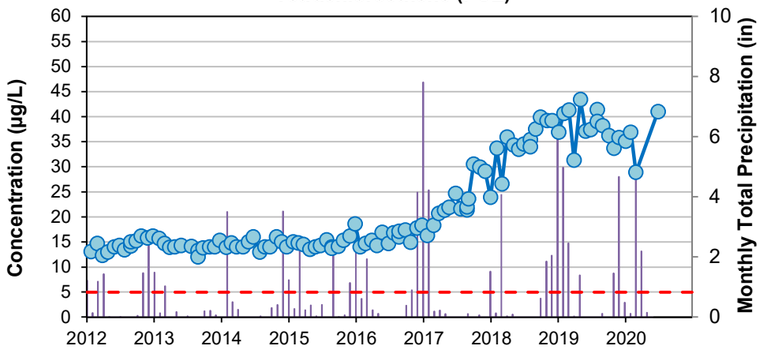
Perfluorooctanesulfonic Acid (PFOS)



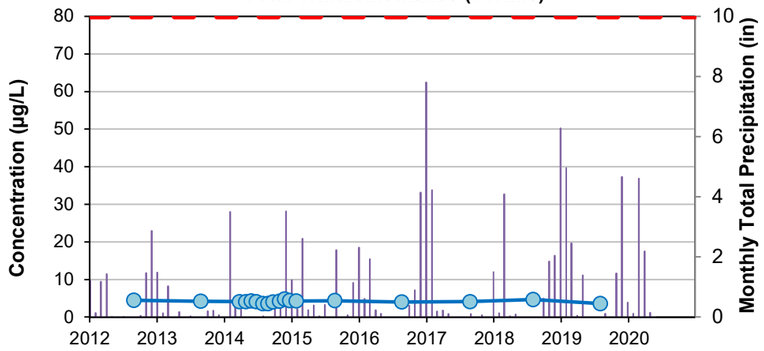
Selenium



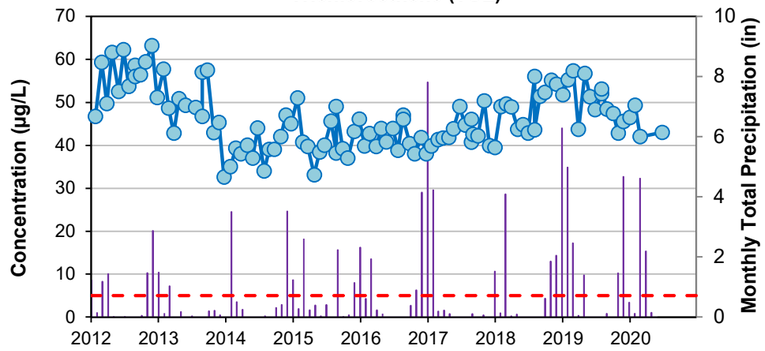
Tetrachloroethene (PCE)



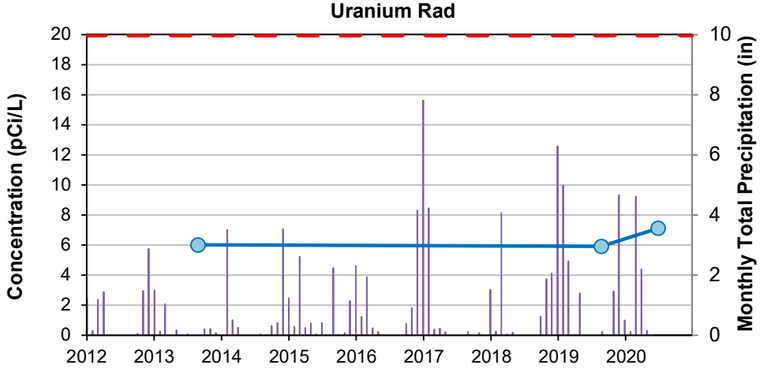
Total Trihalomethanes (TTHMs)



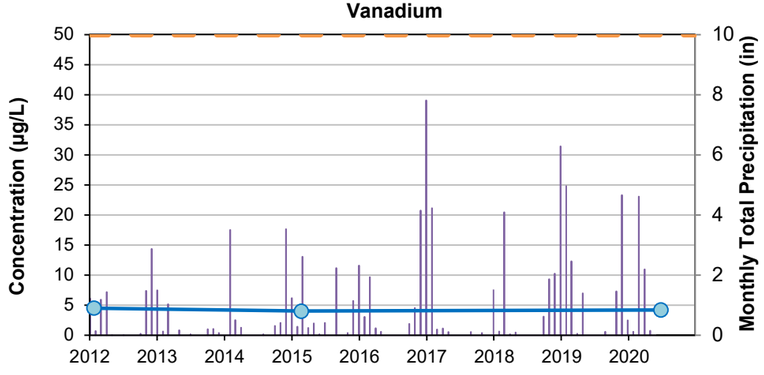
Trichloroethene (TCE)



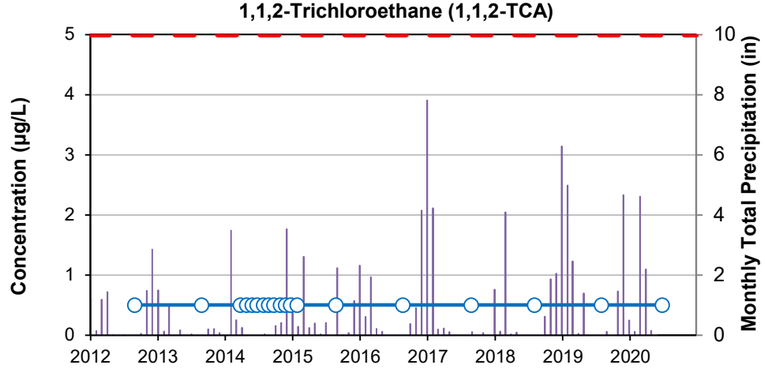
Uranium Rad



Vanadium



1,1,2-Trichloroethane (1,1,2-TCA)

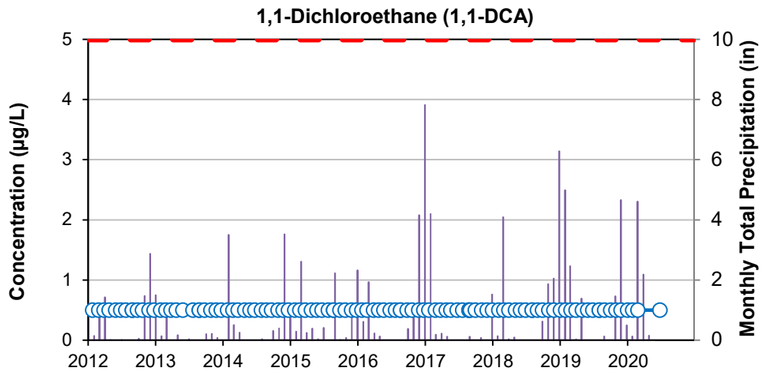


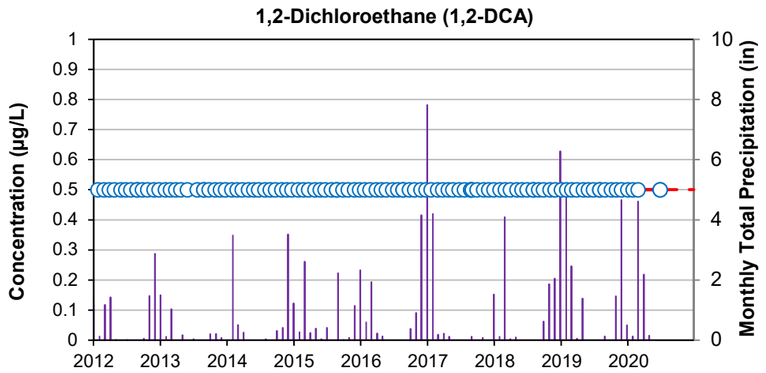
Appendix I - Production Well SM-04 COPC Concentration v. Precipitation Charts

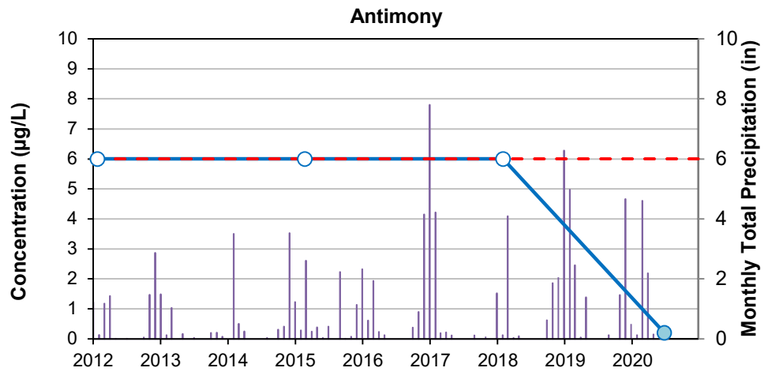
- Filled symbols ( ) denote sample values; unfilled symbols ( ) denote values less than detection limit(s)

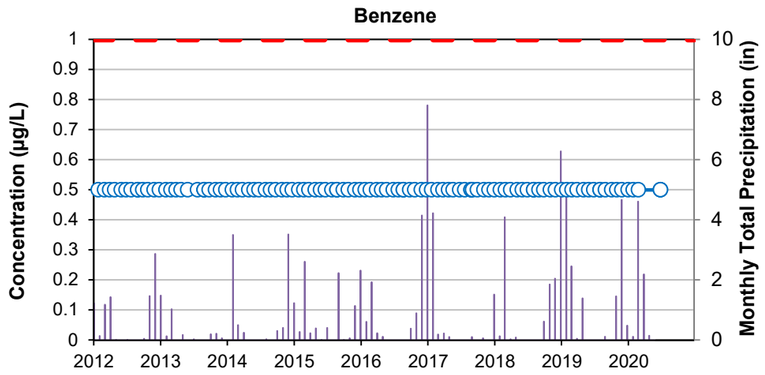
Monthly Total Precipitation (inches [in])

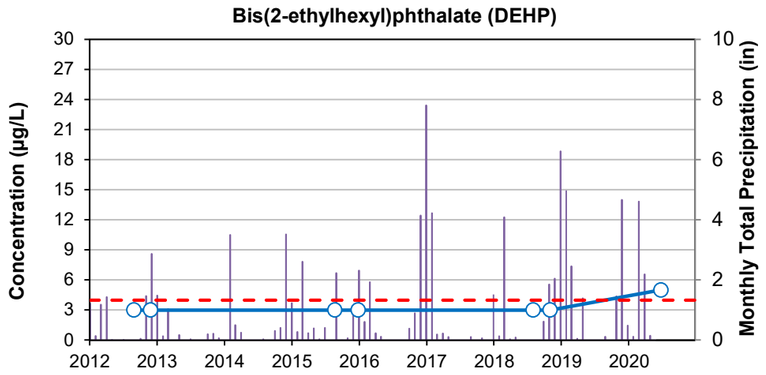
Maximum Contaminant Level (MCL)
Notification Level (NL)
Secondary Maximum Contaminant Level (SMCL)

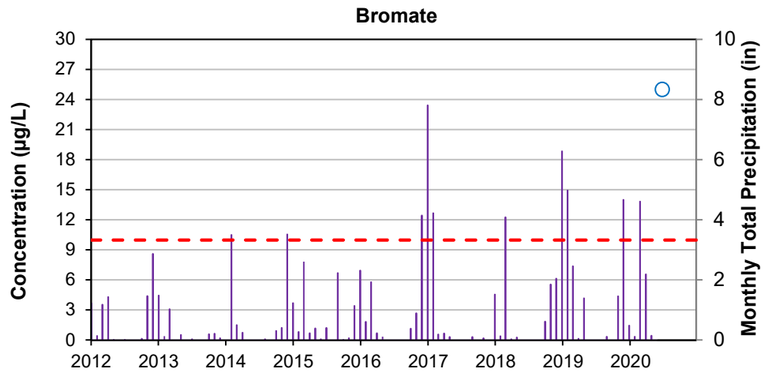


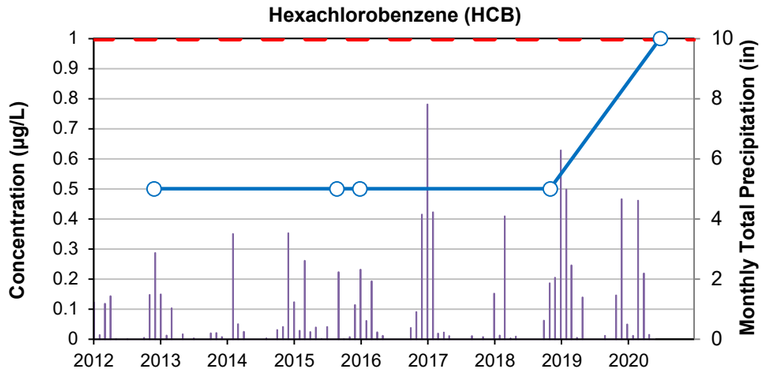


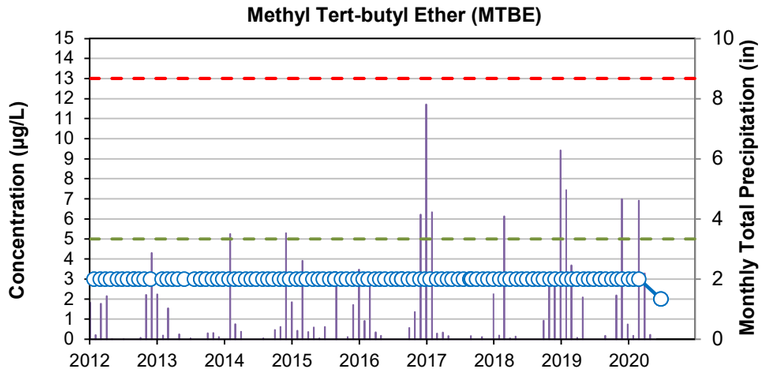


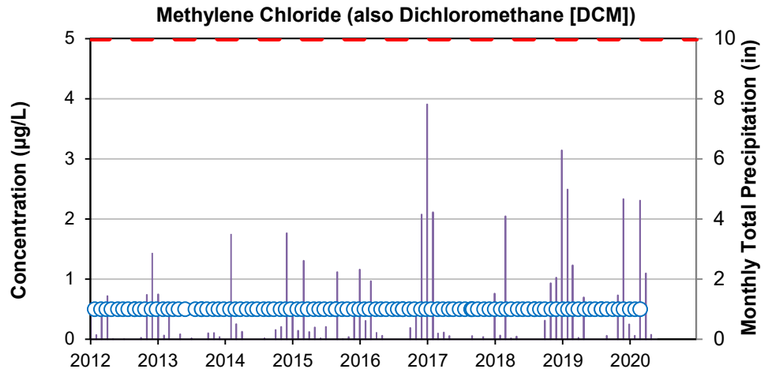












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Monthly Total Precipitation (inches [in])

Maximum Contaminant Level (MCL)

Notification Level (NL)

Secondary Maximum Contaminant Level (SMCL)